

SELF-PACED ONLINE MODULE

SET – B

STRATEGIC COST & PERFORMANCE MANAGEMENT [RELEVANT FOR MAY, 2026 EXAMINATION AND ONWARDS]

BOOKLET ON CASE SCENARIOS



BOARD OF STUDIES (ACADEMIC)
THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

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BEFORE WE BEGIN...

In today's global marketplace, marked by increasing complexity, volatility, uncertainty, and rapid change, Chartered Accountants (CAs) play a central and dynamic role in shaping and implementing organizational strategies. Beyond their traditional responsibilities, CAs are increasingly pivotal in driving value creation and influencing long-term strategic direction. Their role in strategy execution extends to securing resources for strategic initiatives and developing key performance indicators (KPIs) to monitor organizational performance against strategic objectives. Reflecting this evolution, the syllabus places greater emphasis on the strategic dimension of management accounting.

Building on the strong foundation of the first edition, this revised edition of the case scenario booklet further strengthens its focus on strategic management accounting. Developed by the Board of Studies, ICAI, as part of the Self-Paced Online Module – Set B, this edition presents an expanded, refined, and more rigorous set of multiple-choice questions (MCQs) designed to enhance students' strategic thinking, analytical depth, and decision-making competence.

The MCQs in this edition are carefully structured to replicate real-world business scenarios through innovative assessment design. Several questions include multiple correct answers, encouraging comprehensive analysis and the identification of all relevant strategic considerations, mirroring the complex decision-making environments faced by professionals. Questions framed around expressions such as "most likely" or "most appropriate" require students to prioritize alternatives and apply judgment in alignment with contextual and strategic realities.

To further strengthen critical and analytical skills, "NOT" type MCQs have been incorporated to test the ability to identify exceptions, distinguish subtle conceptual differences, and apply strategic frameworks with accuracy. This approach sharpens attention to detail while reinforcing conceptual clarity and evaluative thinking. Collectively, these features ensure that the assessment goes

beyond testing theoretical knowledge and places strong emphasis on the practical application of concepts in real-world situations.

By integrating these enhancements, the revised edition aims to deepen students' understanding of strategic models while refining their analytical, interpretational, and professional judgment skills. The booklet serves as a comprehensive learning resource, fostering an engaging and application-oriented learning experience and equipping students to excel in complex strategic and professional roles.

Happy Reading and Best Wishes!

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CASE SCENARIO 1

Readers Diary is a popular weekly magazine published for school children. Its readership for the last 30 years has been school students, who benefited from their well written articles on current affairs, general knowledge, stories imparting moral values among many other age-appropriate articles for young children. Schools facilitated the distribution of this magazine to interested students, who had to pay an annual subscription fee to receive a copy each week.

In the recent years, the access to similar information from the internet and social media resulted in a drastic fall in readership for the magazine. Mr. Jay Pal, a leading educationalist, is the founder and chief editor of this magazine. He has observed that the readers are currently only passively assimilating information from print and online sources. Due to the easy availability of information from different sources, retention of interest to any one source in the long term has become challenging. Therefore, in order to retain readership of Readers Diary, he proposed that in addition to the regular content, the magazine would contain contests and puzzles, for which cash prizes would be distributed to the winner. These puzzles and contests would be based on the topics covered in the magazine or even any of its previous issues. This makes reading the magazine 'Readers Diary' an interactive pursuit rather than a passive exercise, and can prevent the erosion of interest. Cash prizes would be substantial to retain the interest of the student. Such prizes are not new in the industry, but were until date not offered by school magazines like Readers Diary.

Moreover, instead of relying on schools alone to access the student subscribers, he plans to make Readers Diary available online. Any interested reader, not just students from selected schools can subscribe to the magazine by creating a login account on its website. The content and features like prize winning contests will be the same for both print and online versions.

Readers Diary plans to hire content creators as well as designers to develop exceptionally well-designed content for its articles, blogs, and puzzles. The content creators would be the judges who will declare the winner for puzzles

and contests. In addition, subscribers of both print and online version are encouraged to submit articles, that if found interesting will appear in the magazine. It plans to put in place the necessary IT infrastructure that can host the magazine's website that will connect it to its readers. Jay Pal opines that with increased outreach, the readership base will increase, that leads to economies of scale. To publicize the magazine, Readers Diary plans to run advertisements on popular TV channels catering to children. Mr. Jay Pal and 2 of his other partners, who jointly own the magazine plan to infuse capital to fund this expansion.

Book publishers of popular school textbooks and story books, classes that conduct summer camps and other extra-curricular activities have evinced interest in advertising in the magazine, both print and online versions. The cost of subscription for the physical magazine that would be distributed through schools would increase from the current rate of ₹5,200 per year to ₹7,800 per year. Online subscription would be free for the first 10 articles on its website every year, not including contents and puzzles content, after which the reader has to pay ₹ 6,240 per year to access the rest of the content. Jay Pal wants to build the business model such that subscription remains the primary source of revenue for both print and online versions.

Before implementing the ideas, Jay Pal wants to understand the proposition using models like Business Canvas model, Kano Model and other strategic tools to ensure seamless execution of this critical project that could determine the survival of the magazine.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is *most likely* true regarding the business model of Readers Diary?
 - (a) Readers Diary has a subscription model for its print version and a freemium model for its proposed online model.
 - (b) Readers Diary has a subscription model for both its current print version and its proposed online version.
 - (c) Readers Diary has a freemium model for both its current print version and its proposed online version.

- (d) Readers Diary has an advertising (hidden revenue) model for both its current print version and its proposed online version.
2. Which of the following should be a key performance indicator to determine if the online version of Readers Diary is successful?
- Number of readers creating their login account of the website
 - Number of readers reading first 10 articles free of cost on the website
 - Number of readers upgrading their account to access the complete magazine
 - Number of subscribers winning puzzles and contests
3. Which of the following statements is true regarding Jay Pal's strategy to reward prizes to winners of puzzles and contests featured in the Readers Diary magazines?
- Increased availability of information from online sources, has forced Readers Diary to follow a "Me-Too" product strategy to counter competition.
 - Increased availability of information from online sources, has forced Readers Diary to follow a "Evolutionary" product strategy to counter competition.
 - Increased availability of information from online sources, has forced Readers Diary to follow a "Revolutionary" product strategy to counter competition.
 - Increased availability of information from online sources, has forced Readers Diary to follow price skimming strategy to counter competition.
4. Match the following activities to the components of Osterwalder's business model canvas:

Sr. No.	Activity	Sr. No.	Business model canvas component
i	Creating engaging content, puzzles and contests to retain readership	a	Cost structure

ii	Achieving economies of scale for print and online readership by increasing subscriber base	b	Key Activity
iii	Creating online version of Readers Diary	c	Customer Relationship
iv	Encouraging subscribers to submit articles for consideration to be published in Readers Diary	d	Channel

- (a) i-b; ii-a; iii-d; iv-c
- (b) i-c; ii-b; iii-d; iv-a
- (c) i-d; ii-c; iii-a; iv-b
- (d) i-c; ii-a; iii-b; iv-d
5. Exceptionally well-designed content would be considered under which component of the Kano Model for customer satisfaction?
- (a) Delight or Excitement attribute
- (b) Indifferent quality
- (c) Performance attribute
- (d) Reverse quality

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): Readers Diary has a subscription model for its print version and a freemium model for its proposed online model.**

Reason

For the print version, readers pay an annual subscription to get a copy of the magazine throughout the year. For the online version, in order to increase interest among the readers, the first 10 articles are given free. For further reading of the magazine, the reader has to pay a subscription fee (a premium) of ₹ 6,240 per year.

2. Option (c): Number of readers upgrading their account to access the complete magazine

Reason

Readers Diary is following a Freemium business model for its magazine. Beyond the first 10 articles on its website, the reader has to pay to access the magazine. Hence an interested reader converting to a subscriber by paying a subscription fee shows determines the success of the online version.

3. Option (b): Increased availability of information from online sources, has forced Readers Diary to follow a “Evolutionary” product strategy to counter competition.

Reason

Readers Diary is already a popular magazine for school children; however, the subscriber base has eroded due to availability of similar information from online sources. Therefore, while maintaining the content to what it already publishes, Jay Pal proposes to add an additional feature of prize-winning puzzles and contests to pique the interest of the subscribers. Hence, this is an evolutionary product that emerges from an already existing product in order to capture and maintain its market share by adding an additional feature that will interest readers.

4. Option (a) i-b; ii-a; iii-d; iv-c

Reason

Creating engaging content, puzzles and contests to retain readership – is a critical activity that is ensure the success of the magazine. Therefore, it is a Key Activity.

Achieving economies of scale for print and online viewership by increasing subscriber base – achieving a larger subscriber based enables fixed costs to be spread over larger pool of people, bringing down the per unit cost of publishing the magazine. This impacts the cost structure.

Creating online version of Readers Diary – helps to create another distribution and sales channel to reach out to customers. Therefore, it creates a new Channel.

Encouraging subscribers to submit articles for consideration to be published in Readers Diary – co-creation of content helps Readers Diary to interact with its subscribers, thereby maintaining a personalized customer relationship with them.

5. Option (a): Delight or Excitement attribute

Reason

These are **unexpected features** that significantly increase customer satisfaction when present, but **do not cause dissatisfaction when absent**. Performance attributes create satisfaction **in proportion to performance** (e.g., speed, price). Exceptional creativity goes **beyond linear expectations**, moving into delight territory.

CASE SCENARIO 2

Nimbus Bike Limited (NBL) is a manufacturer of bikes in India. Demand for bikes is high on account of a growing population primarily comprising of youth in the age group of 18-30 years. NBL is the second largest bike manufacturer in India. Competition is stiff in a market where the customers are highly price sensitive.

Until now the company has been following a standard costing methodology to understand and manage costs. The management determines cost standards that need to be met and reviews them annually. However, despite the MIS reports indicating that the cost variances are under control and are not unfavorable to the company, NBL's bikes are not cost competitive in the market. Therefore, Tarun Kumar the current CEO of the company wants to explore the concept of using Kaizen costing understand and manage costs. Currently the cost of manufacturing is ₹ 60,000 per bike. On adopting the Kaizen costing methodology, the management has set of goal of achieving a 1% cost reduction in the next month that is July 2026.

While discussing on the ways to achieve the 1% cost reduction target, following are the suggestions received from different employees:

1. Raj an engineer in the design department suggests that if a particular part of the bike's engine can be redesigned, the time required to assemble the bike can reduce by 0.1% of the current time taken.
2. Stanley the procurement manager suggests switching to another supplier, which will enable NBL procure the component at the same quality but at lower price.
3. Chatur the production manager suggests revamping the entire production and assembly line that can increase the scale of production.
4. Ankur in the paint shop suggests improvements to the bike painting process that will reduce set up time while painting bikes of different colors i.e. SMED (Single-Minute Exchange of Die).

In order to make the Kaizen method more effective, NBL is going to adopt the 5S methodology of improving its operations. Following are some of the measures that are suggested:

Measure 1. Remove unnecessary items from the assembly line in order to reduce the risk of installing the wrong component.

Measure 2. Arrange tools in "shadow boards" so that workers easily access the tools and instantly know where they belong while replacing them.

Measure 3. Clean the workstation daily to remove any clutter, improve workplace safety, inspect machines and tools to ensure that they function properly.

Measure 4. Standardize processes to streamline workflow and enhance efficiency.

Measure 5. Periodic staff training, daily monitoring and fixing accountability for allocated areas in the workspace.

After implementation of the Kaizen costing methodology, the actual cost reduction was ₹500 per bike for the month of July 2026.

MULTIPLE CHOICE QUESTIONS

1. Which of the following statements is not a fundamental difference between current and proposed costing methodology to understand and manage costs?
 - (a) Standard costing is a cost control technique while Kaizen costing is a cost reduction technique.
 - (b) Frequency of setting and reviewing standards is less under Kaizen costing.
 - (c) Standard costing assumes current work conditions while Kaizen costing assumes continuous improvement to current working conditions.
 - (d) Standard costing emphasizes on meeting cost performance standards while Kaizen emphasizes on cost reduction target.
2. Which of the suggestions given by the following employees is not a principle of Kaizen costing?
 - (a) Raj

- (b) Stanley
- (c) Chatur
- (d) Ankur
3. Based on the different measures listed to improve its operations, match the measure with the corresponding phase of the 5S methodology.

Sr. No.	Measure	Sr. No.	5S
i.	Remove unnecessary items from the assembly line in order to reduce the risk of installing the wrong component.	a	Seiketsu
ii.	Arrange tools in "shadow boards" so that workers easily access the tools and instantly know where they belong while replacing them.	b	Seiri
iii.	Clean the workstation daily to remove any clutter, improve workplace safety, inspect machines and tools to ensure that they function properly.	c	Shitsuke
iv.	Standardize processes to streamline workflow and enhance efficiency.	d	Seiton
v.	Periodic staff training, daily monitoring and fixing accountability for allocated areas in the workspace.	e	Seiso

Options

- (a) i- b, ii- d, iii- e, iv- a, v- c
- (b) i- d, ii- b, iii- c, iv- a, v- e
- (c) i- a, ii- b, iii- c, iv- d, v- e
- (d) i- b, ii- d, iii- a, iv- e, v- c
4. Under Kaizen costing methodology, how will the actual cost reduction achieved in the month of July be analyzed?

- (a) Will be compared to meet standard cost performance standards. The favorable variance will be credited to the cost centers.
 - (b) Will be compared to meet standard cost performance standards. The unfavorable variance will be charged to the cost centers.
 - (c) Reason for any gap between actual cost reduction achieved and target goal will be analyzed further.
 - (d) It is ignored since it is a small amount
5. In order to make a successful adoption of Kaizen costing principles at NBL, which of the following critical cultural shift needed regarding employee management?
- (a) A shift is required from an employee self-empowered culture to a more management regulated culture.
 - (b) From a top-down management approved change model to a bottom-up feedback-based model based on inputs from self-empowered employees.
 - (c) From team-based solution providers to increased individual contribution to achieve targets
 - (d) From meeting dynamic weekly or monthly standards to meeting standards set for the year as a whole.
6. What is the likely impact of involving employees from across NBL in the standard setting process for Kaizen costing methodology?
- (a) It reduces the accuracy of the standards since not all employees are financial experts.
 - (b) Allows finance department to have more control over the factory floor
 - (c) There is better focus on creating value and eliminating waste across the organization on a continuous basis
 - (d) Employees may feel demotivated since the savings from implementing Kaizen may not be a substantial amount

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): Frequency of setting and reviewing standards is less under Kaizen costing.**

Reason

Under standard the cost standards are determined and reviewed only once or twice during the reporting/budget period. In the case of NBL is it done as annually. Kaizen costing emphasizes on small but continuous improvements. Targets are updated continuously to reflect the improvement that has already been achieved and that are yet to be achieved. Therefore, the frequency of standard setting and review will be more frequent (every monthly / quarterly) as compared to standard costing (annual).

2. **Option (c): Chatur**

Reason

The suggestion by Chatur is not a principle of Kaizen costing. Chatur is proposing to increase the scale of production by revamping the entire production and assembly line i.e. Radical Process Redesign. While there may be merits to his proposal, it is not an example of Kaizen costing. The concept of Kaizen focuses on small continuous improvements to the current process. Large scale radical changes are not part of Kaizen cost reduction methodology.

3. **Option (a): i- b, ii- d, iii- e, iv- a, v- c**

Reason

Seiri (Sort) - Remove unnecessary items from the assembly line to reduce the risk of installing the wrong component. This involves sorting items at the workplace based on whether they are required or not and eliminating all unnecessary materials.

Seiton (Set in Order) - Arrange tools in "shadow boards" so that workers can easily access them and immediately know where each tool belongs after use. This reflects the principle of "a place for everything and everything in its place," ensuring systematic organization.

Seiso (Shine) - Clean the workstation daily to remove clutter, improve workplace safety, and inspect machines and tools to ensure they function properly. This emphasizes cleanliness of the workplace and equipment.

Seiketsu (Standardize) - Standardize processes to streamline workflow and enhance efficiency by establishing Standard Operating Procedures (SOPs). This ensures consistency and uniformity in maintaining the first three S practices.

Shitsuke (Sustain) - Periodic staff training, daily monitoring, and fixing accountability for allocated workspace areas help sustain the established standards. This phase focuses on discipline, habit formation, and continuous adherence to 5S practices.

- 4. Option (c): Reason for any gap between actual cost reduction achieved and target goal will be analyzed further.**

Reason

In this case there is a gap of ₹ 100 per bike between actual cost reduction achieved and the target goal. A further cost reduction plan based on value analysis will be prepared.

- 5. Option (b): From a top-down management approved change model to a bottom-up feedback-based model based on inputs from self-empowered employees.**

Reason

The correct answer is (b) the critical cultural shift needed is for employee management to move from a top-down management approved change model to a bottom-up feedback-based model based on inputs from self-empowered employees.

Kaizen principles aim to involve workers from multiple functions/ levels in the organization to work together to address a problem or improve a particular process. Under Kaizen employee group will be assigned with power to make continuous changes rather than just executing the changes approved from management.

6. Option (c): There is better focus on creating value and eliminating waste across the organization on a continuous basis.

Reason

By involving employees across NBL in the standard setting process for Kaizen costing methodology, there is better focus on creating value and eliminating waste across the organization on a continuous basis. Initial value engineering process may not uncover all possible cost savings. Thus, kaizen costing is really designed to repeat many of the value engineering steps for as long as the product is produced, constantly refining the process and thereby stripping extra costs. This Zero waste can be best achieved only by involving people who actually execute the work process – namely the shop floor. Empowering them to take decisions can motivate them to unlock value in the workflow and eliminate waste across the organization.

Meeting non-financial standards can also result in cost savings – for example reducing idle time of machines and labor results in better efficiency thereby improving productivity that leads to improved revenue/reduced costs.

Kaizen allows for a change in work culture where employees are looked at as solution providers instead of problem creators or being just cost centers. This motivational outlook empowers to take ownership of the assigned process and not merely look at the cost savings.

CASE SCENARIO 3

Royal Tea Limited manufactures and distributes finest quality black tea to hotels, restaurants and retailers. The company has wide presence in tea market. It has become one of the largest premium brands. The customers are very happy with the finest quality of tea.

Royal Tea Limited never compromises with the quality of the tea. The aim of the company is to deliver finest black tea to keep the customers happy. Instead of sourcing from the open market, RTL has tied up with big tea estates for procurement of finest tea leaves directly from the estate for processing in its own plants. The tea leaves go through various processes like plucking, withering, brushing, oxidizing, grading, drying, sorting and shaping etc. Then these are packed in jars for distribution to the hotels, restaurants and retailers.

A growing market for beverages like tea has increased the number of tea manufacturers, thereby increasing competition in the industry. Although their tea is not of the same superior quality as RTL's, many manufacturers offer their tea at low prices to gain market share. Buckling to peer pressure tactics, RTL's management has also decided to reduce the price per kilogram of tea to match average market prices. The aim of this price reduction is to increase the volume of sales by making their product appealing to the mass market in particular the retail and street shops. Higher volumes would contribute to growth of profits. RTL has purchased prime TV time slots in order to reach out to the mass market and advertise its products.

Prices of tea leaves has been fluctuating in the past few months. The rest of the parameters like standard hours required for production of 1 kilogram tea, standard labour rates are expected to be stable, other than increased advertising expenses, which can be predicted accurately, other fixed overhead costs are expected to be stable. In April 2026, newer budget standards were finalized based on the recent management decisions and expected fluctuations in market prices.

The following variances were compiled in May 2026, pertain to last month's operations that arose as a consequence of implementation of above decisions and revised budget standards:

Sales Price Variance	2,40,500 (A)
Sales Volume Variance	2,00,600 (F)
Material Price Variance	1,50,500 (A)
Labour Efficiency Variance	1,40,300 (A)
Fixed Cost Expenditure Variance	1,10,100 (A)

On receiving the above information in the MIS report, the management has decided to revise its product pricing strategy yet again. Keeping in mind the nature of its tea, it decided to do a sensitivity analysis to understand customer behavior.

MULTIPLE CHOICE QUESTIONS

- Which of the following is the primary Critical Success Factor for Royal Tea Limited?
 - Extensive distribution network
 - Raw material sourcing
 - Pricing
 - Product quality
- Which of the following management decisions contradicts the strategy that RTL is currently following in order to gain a competitive edge?
 - Direct sourcing of raw materials from big tea estates instead of purchasing them from the open market auctions.
 - Investing in packaging of an already high-quality tea in attractive jars for distribution to hotels, restaurants and retailers.
 - Reducing the sales price to match the average market price in order to increase the volume of sales and match the price offered by its competitors.
 - Ensuring that internal processes are geared towards manufacturing premium tea.
- What inferences can you draw from the sales price and sales volume variances?
 - The market is price sensitive
 - The market is price insensitive

- (iii) RTL strategy of matching its pricing with average market price levels has worked favorably for the company. Therefore, it can continue to follow this strategy.
- (iv) RTL strategy of matching its pricing with average market price levels has worked unfavorably for the company. Therefore, it cannot continue this strategy.

Options

- (a) (i) and (iii)
 - (b) (ii) and (iii)
 - (c) (i) and (iv)
 - (d) (ii) and (iv)
4. Compared to expectations reflected in the revised budgets in April 2026, what inferences can you draw from purchase price variance, labour efficiency variance and fixed cost expenditure variance?
- (a) Procurement of tea leaves has been made at higher prices; it is taking longer time to produce 1 kg of tea and costs are showing inflationary trends.
 - (b) Procurement of tea leaves has been made at lower prices; it is taking longer time to produce 1 kg of tea and costs are showing inflationary trends.
 - (c) Procurement of tea leaves has been made at lower prices; no conclusion can be made on the time required to produce 1 kg of tea and costs are showing deflationary trends.
 - (d) Procurement of tea leaves has been made at higher prices; it is taking shorter time to produce 1 kg of tea and costs are showing deflationary trends.
5. Which of the following factors will influence the management to increase the price of its products while doing the sensitivity analysis:
- (a) Sunk investment effect
 - (b) Total expenditure effect
 - (c) Unique value effect
 - (d) Inventory effect

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Product quality.**Reason**

RTL produces the finest tea without ever compromising on quality. This is the primary source of customer satisfaction that has contributed to RTL's success and brand image as a manufacturer of premium quality tea.

2. Option (c): Reducing the sales price to match the average market price in order to increase the volume of sales and match the price offered by its competitors.**Reason**

Customers typically perceive a premium product with a higher price. Therefore, when RTL's premium tea is being offered at lower price, the company runs the risk of a change in customers' perception about the product's quality. By lowering the price, customers can perceive that the company is offering a lower quality product as a compromise to maintain profitability. This goes against the product differentiation strategy that the company is currently following and can negatively impact its brand image.

3. Option (c): (i) and (iv)**Reason**

An adverse sales price variance indicates that the actual selling price is lower than the budget price.

A favorable sales volume variance indicates that the actual volume is higher than the budget volume.

Therefore, this indicates that the market is price sensitive as a reduction in price resulted in increase in sales volume. Statement (i) is correct.

RTL strategy of matching its pricing with average market price levels has worked unfavorably for the company. An adverse sales price variance indicates that the company had to reduce prices more than it had intended in order to achieve increase in sales volume. This has a negative

impact on profitability. Therefore, RTL's strategy has worked unfavorably of reducing its pricing to increase sales volume for the company. The company cannot make profits just by reducing prices to match its competitors.

4. Option (a): Procurement of tea leaves has been made at higher prices; it is taking longer time to produce 1 kg of tea and costs are showing inflationary trends.

Reason

Compared to expectations reflected in the revised budgets, Procurement of tea leaves has been made at higher prices, it is taking longer time to produce 1 kg of tea and costs are showing inflationary trends.

Adverse purchase price variance indicates that procurement of tea leaves has been made at higher prices.

Adverse labor efficiency variance indicates that it is taking longer time to produce 1 kg of tea

Adverse fixed cost variance indicates that more was spent on fixed overheads than expected, indicating cost inflationary trends. While advertising costs did increase, this could be predicted and factored into the budgets accurately. Therefore, it can be concluded that other fixed overheads increased more than expected.

5. Option (c): unique value effect

Reason

The company's products are of premium quality, a fine quality that provides immense customer satisfaction. This feature can be used by the company to its advantage to charge premium price for its products, since they are unique.

CASE SCENARIO 4

Cellwell Technologies Ltd is a manufacturer of mobile phones. It has been an established player in the market having launched various cell phone models in the last 10 years. With the preference for usage of cell phones increasing, the company has grown rapidly since inception. During the last two years, sales have been increasing but said growth rate slows down, because competition has increased. Cellwell Technologies has funded its operations with long term loans and working capital loans. These are general purpose borrowings that are not taken specifically for any project or development of specific phone model. Yet, with interest costs being high the company is looking at ways to manage costs in order to generate sufficient returns for its shareholders.

Cellwell Technologies plans to introduce a new smart phone model called XXX21. The company's research and development team has come up an additional update feature for this cell phone model. This update feature will periodically inform the customer using the cell phone regarding any software update available and required for the model. By installing these updates many existing bugs in the software model and security issues to the software can be fixed. This process can be executed remotely with the help of the new technology that the research and development team has developed. This improves the cell phone performance and keeps it running smoothly. It improves compatibility of the software with that used in other applications and devices. It also enhances customer experience as the software update will bring out new software features (like newest emotions / updated dictionary) that can be used by the customer. Consequently, the general utility of the cell phone life will improve by almost a year. There will be less complaints due to performance/compatibility related issues.

The business development team has come up with a proposal for sales promotion. As per this proposal, customers can trade in older model of their cell phone in order to buy the latest XXX21 model. Due to the trade, customers can buy the latest model XXX21 at a substantial discount.

After discussion with the research and development team, they conclude that this would have an additional advantage. Cellwell Technologies can refurbish

(repair and renovate) these older model's set and resell them in the market at a substantially lower price. Typically, students or customers in the lower income groups who look for cheaper cellular sets may consider these refurbished sets. This creates a new market space for the company to target.

Those older cell phones traded in, that cannot be refurbished or are beyond repair / use can be recycled. Various parts of these phones can be recycled and fitted into the new cell phone models that are being made. Any cell phone model contains various precious metals like gold, copper, platinum as also rare earth elements like neodymium, terbium to name a few. These are difficult to obtain and need to be mined out of the earth causing huge damage to the environment. With the demand for cell phone slated to increase, the need for these materials is going to increase as well. Therefore, if these materials can be extracted from old cell phones that would otherwise have been disposed-off into a landfill, it would benefit the environment while providing an alternate source of material procurement. Since billions of cell phones are used globally, every small measure makes an impact. With increasing awareness about environment hazards, such a proposal is likely to find support among customers. It is also helpful to improve the company's brand image.

Both proposals to introduce software upgrade feature in the cell phone as well as the trade in sales promotional offer are unique as no other competitor has such features in their products or have made such offers yet. Yet, competition is very high in this price sensitive market. Therefore, the company wants to calculate the target cost for Model XXX 21.

Cellwell plans to offer Model XXX 21 at ₹ 30,000 per unit and wishes to earn a profit of 25% on the selling price. The cost of components is ₹15,000 per unit; Labor time is 0.6 hours at ₹ 5,000 per hour and product specific overheads amount to ₹ 2,500 per unit. In addition, each phone requires 0.45 kgs of other materials, which are supplied at a cost of ₹ 5,000 per kg with a normal 10% substandard quantity, which is not usable in the manufacture.

MULTIPLE CHOICE QUESTIONS

1. Cellwell Technologies wishes to calculate the lifecycle cost of Model XXX21. Which is the cost that will not be included in the lifecycle cost of the product?

-
- (a) Research and development for the remote software upgrade feature
 - (b) Marketing and sales promotion of the trade-in of older cell phone model in exchange for Model XXX21
 - (c) Estimate costs of future recycling and material extraction
 - (d) Finance costs incurred in the form of interest on loans taken for the business as a whole
2. Cellwell's strategy to refurbish older phones for a secondary market (students/lower income groups) primarily serves to:
- (a) Shorten the product life cycle of the older model
 - (b) Extend the product life cycle of the older model
 - (c) Does not have any impact on the product life cycle of the older model as they are only being resold
 - (d) Eliminates the need for after sale service for the older models
3. Which of the following best describes the impact of the decision to extract gold, copper and platinum from non-repairable phone in accordance with the Triple Bottom Line framework?
- (a) Profit increases due to lower material procurement cost, Planet improves by reducing mining and landfill waste, People improve brand image as customer perception is positively influenced due to environmentally friendly business practices.
 - (b) Profit decreases due to lower material procurement cost, Planet no impact since the phones are useless and beyond repair, People increase employment at the mines
 - (c) Profit increases by selling old parts as scrap, Planet negative impact due to chemical leaching process, People no impact on customer perception
 - (d) Profit no significant impact, Planet useful only if phones are biodegradable, People decrease customer satisfaction due to use of recycled parts

4. What is the Target cost for Model XXX 21?
- (a) ₹ 24,000 per unit
 - (b) ₹ 22,500 per unit
 - (c) ₹ 23,000 per unit
 - d) ₹ 22,900 per unit
5. What is the "cost gap" that Cellwell needs to close to achieve the target cost?
- (a) ₹ 500 per unit
 - (b) ₹ 400 per unit
 - (c) ₹ 1,500 per unit
 - (d) Nil

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (d): Finance costs incurred in the form of interest on loans taken for the business as a whole.**

Reason

Finance costs (interest on general-purpose loans) are Period costs and Not traceable to a specific product. The loans are general purpose loans that are not taken for any specific project or cell phone model. Only costs specific to Model XXX21 can be considered as part of its life cycle costing. Therefore, finance costs like interest on loans taken for the business are ignored.

2. **Option (b): Extend the product life cycle of the older model**

Reason

Extends the product life cycle of older model by finding new market segments. Refurbishing and reselling older models, apart from finding new customer segments, also pushes the product back into a renewed maturity/extension phase

3. **Option (a): Profit increases due to lower material procurement cost, Planet improves by reducing mining and landfill waste, People improve brand image as customer perception is positively influenced due to environmentally friendly business practices.**

Reason

Extraction of precious metals from this e-waste is an alternate source of material procurement at lower cost, improving the company's bottom line. Overtime this extraction process reduces the need for primary mining and prevents hazardous metals from entering the landfill. As a responsible corporate citizen Cellwell's environment friendly business practice will positively impact customer perception and improve its brand image.

4. **Option (b): ₹ 22,500 per unit**

Reason

Model XXX21 will be sold at ₹ 30,000 per unit and the company wishes to earn a profit of 25% on the selling price. Therefore, the target cost will be $₹ 30,000 - 25\% (₹ 30,000) = ₹ 22,500$ per unit.

5. **Option (a): ₹ 500 per unit**

Reason

Actual costs will be

Cost of components is ₹ 15,000 per unit,

Labor time is 0.60 hours at ₹ 5,000 per hour = ₹ 3,000 per unit

Product specific overheads amount to ₹ 2,500 per unit.

Additional cost of materials will be $(0.45 \text{ kgs}/90\% \times ₹ 5,000 \text{ per kg})$

= ₹ 2,500 per unit

Total actual costs will be ₹23,000 per unit.

The cost gap to be closed by Cellwell = target cost of ₹ 22,500 per unit – actual cost ₹ 23,000 per unit = ₹ 500 per unit.

CASE SCENARIO 5

All Yours Limited (AYL), an apparel manufacturing company has a factory in Ahmedabad, making denim clothing for customers of all ages. It sells its clothing from its factory outlet store located within the city. Until 6 months back, the company had a business model wherein the products manufactured at its factory would be sent to its factory outlet store. Customers would visit the store and choose apparel suiting their tastes. Production was based on prediction of customer demand. This “made to stock” model has been placed for many years.

Few months back, the store manager noticed many customers exiting without making any purchases. Tracking this and after obtaining feedback from customers over sometime, it was found that many products were unacceptable to the customers’ tastes - either the shade or design of denim was not what they wanted or that the apparel was not of the correct fit for them. The management then decided to provide customers a choice of either choosing from their standard apparel range that has already been made (“made to stock” model) or to offer them a “made to order” option.

The company now displays its range of denim material at the factory outlet. Customers can go through the samples and choose the material of their choice. Company certified tailors would then take measurements based on the customers’ preferences. A detailed order customized to the customers’ needs would then be drawn up. The factory has set up a separate tailoring division that would stitch the apparel specifically for these “made to order” sales. To facilitate this, new machines and production line resources have been put in place.

Customized products are manufactured and be made available to the customer within 3 working days’ time from the date of placing the order. The customer comes to the store and picks up the apparel ordered. For delays beyond this timeline, the customer gets to pay 5% less on the order value. This is done to attract and maintain customers, who would otherwise choose to purchase apparel offered by rival competitors. Therefore, speed of delivery of the

customized product is critical for the company. This is the main selling point for the company to operate the "made to order" business model.

If further modifications are needed due to errors on part of the company (quality / finishing issues), the apparel would need to be modified / re-stitched once again. The company will bear the cost of modification or replacement of garment.

This new "made-to-order" has been in place for the past 6 months. At the stage of project proposal, the management found it a lucrative option for the company because:

- (i) Customers are willing to pay a higher price to have customized clothing as compared to the standard fitting.
- (ii) It would attract more customers to the store
- (iii) If the model works well, the dependence on the "made to stock" model can reduce. Savings in inventory stock, obsolescence and warehousing costs will benefit the company's bottom-line.

Customers have been very enthusiastic in availing this customization facility offered by the company. Sales have increased manifold in the last few months. The management is interested to understand the metrics related to their "made to order" business mode to assess its success and risks. Some of the

non-financial metrics are:

Metric	Month					
	1	2	3	4	5	6
Orders needing modification on account of errors in order taking or manufacturing process (% of sales orders made under "made to order" model)	15%	12%	10%	8%	5%	4%
Orders delivered beyond the 3 working days timeline (% of sales orders made under "made to order" model)	5%	4%	3%	6%	7%	5%
Production downtime (hours)	44	88	22	141	132	123

Labour idle time due to unavailability of material (hours)	25	22	27	13	24	22
Ratio of "made to order" to total sales from the factory outlet (Ratio of sales value)	16%	22%	25%	32%	34%	38%
Repeat orders by customers availing this facility (% of customers giving repeat order / total customers availing "made to order" facility)	4%	21%	33%	54%	60%	63%

MULTIPLE CHOICE QUESTIONS

- AYL introduced the "made to order" model specifically to address the high rate of customers leaving the store without purchasing from the store. From a strategic management perspective, how does this model differentiate the company's products with its "made to stock" rivals?
 - Price leadership since customization allows them to compete with the rivals in terms of price
 - Economies of scale since variety allows AYL to produce higher volume of products
 - Value co-creation since customers are involved in the design creation increasing the personalized utility of the product
 - Inventory loading
- Between Month 3 to Month 5, the ratio of "made to order" to total sales from factory outlet increased from 25% to 34%. During the same time, the delay in delivery of orders increased from 3% to 7%. Based on the information given, what is the most likely internal cause for this decline in delivery performance?
 - Errors in the order taking process
 - Production downtime
 - Popularity of ready-made "made to stock" sales from factory outlet
 - Labour idle time due to unavailability of material

-
3. AYL provides 5% discount on orders delivered beyond 3 working days. Under the cost of quality framework, this revenue loss would be an example of:
 - (a) Appraisal cost since it reflects the efficiency of the production line
 - (b) Prevention cost since it encourages the staff to work faster
 - (c) Internal failure costs since the cost is borne by the company
 - (d) External failure costs since it is a penalty for not meeting the promised service level delivered to the customer
 4. The management is concerned about reducing the labour idle time due to unavailability of material. Which of the following will directly help address this problem?
 - (a) Improve learning curve of the employees
 - (b) Implement just-in-time model of inventory management for raw material procurement
 - (c) Hire more manpower
 - (d) Increase the margin of safety inventory levels for raw materials
 5. In the "Made-to-order" model, providing the correct fit as per the specific measurements taken by the tailor would be classified under the Kano Model as:
 - (a) Threshold attribute
 - (b) Reverse attribute
 - (c) Delight attribute
 - (d) Indifferent qualities

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Value co-creation since customers are involved in the design creation increasing the personalized utility of the product.**

Reason

Value co-creation is the differentiator between AYL's made to order model as compared to the rival's made to stock mode. Since customers

are involved in the design process (choosing material and fit), AYL is able to offer them the unique value proposition of increasing the personalization of the product whereas its rivals can only offer standardized products under the “made to stock” model.

2. Option (b): Production downtime

Reason

Production downtime increased from 22 hours to 132 hours between the months 3 and 5. Non-utilization of these hours in manufacturing is the most likely internal cause for delays in order delivery beyond 3 days.

3. Option (d): External failure costs since it is a penalty for not meeting the promised service level delivered to the customer.

Reason

When the promised service level is not delivered, it is a failure to meet agreed upon standards. Therefore, this is an external failure cost.

4. Option (d): Increase the margin of safety inventory levels for raw materials

Reason

Increasing the margin of safety inventory levels increases the buffer stock levels, reducing the risk of stock-outs of raw materials whenever they are required.

5. Option (a) Threshold attribute

Reason

The made-to-order model works on the premise that the finished apparel will be exactly as per the requirements of the customer. Hence, the correct fit as per the specific measurements taken by the tailor would be very least that the customer would expect to receive. A correct fit is taken for granted, but if the fit is not correct, it causes dissatisfaction. Therefore, this would be a threshold attribute.

CASE SCENARIO 6

DIC is one of several insurance companies operating in the general insurance segment, offering policies such as car, home, accident, theft, and health insurance. Over the past three years, DIC has experienced a steady increase in business volumes; however, profits have remained largely static due to declining margins. Given the high level of competition in the industry, cost efficiency has become a critical factor for success.

Some of the key business processes at DIC are described below:

Customer consultation involves sales staff visiting potential customers at their homes to promote and sell insurance policies. During these interactions, customers seek information regarding premiums, policy features, and benefits. The sales staff currently calculate premium quotations manually. The company has observed frequent errors in this process, with the final premium charged at the time of policy issuance differing by up to 5% from the premium originally quoted to the customer.

Policy issuance refers to the preparation and delivery of the finalized insurance policy. Employees are required to ensure that all policies comply with applicable legal and regulatory requirements. A dedicated internal audit officer conducts a final compliance check before the policy is dispatched. Any errors identified during this review require rework, resulting in a delay of approximately one hour for each affected policy.

Claim settlement involves the processing and payment of claims following the occurrence of an insured loss. It has been observed that, at the time of claim processing, essential documents—such as the insured's tax identification number or address proof—are sometimes missing from the file. Claims cannot be settled until all required documentation is submitted, leading to delays of up to one week in claim settlement.

These processes are handled by separate departments, each of which independently records customer information in its own systems. There is no centralized customer database, resulting in duplication of data entry and operational inefficiencies.

To address these errors and inefficiencies, DIC has initiated the implementation of a standardized digital operating model using various information technology tools. In addition, several Six Sigma methodologies are being adopted to enhance process accuracy, reduce errors, and improve processing speed.

The general insurance industry is highly regulated and requires insurers to obtain and maintain appropriate licenses. Many insurance products, particularly car and home insurance, are largely standardized, offering limited scope for differentiation. Furthermore, actuaries and fintech professionals are scarce in the labour market. The increasing use of digital platforms has enabled customers to easily compare offerings across insurers, while low switching costs have further intensified competition. It has also been observed that investors increasingly view mutual funds, real estate, and gold as alternative risk management strategies.

In response to these challenges, DIC has decided to diversify into niche insurance segments, such as coverage for high-value collectibles and artifacts, including fine art paintings, jewelry, watches, and other unique items. Although a significant number of high-net-worth individuals own such assets, this market segment remains underserved by existing insurance providers. To support this diversification, DIC is reskilling its existing workforce to manage these specialized products. This new line of business requires advanced underwriting expertise and the use of blockchain technology to track and authenticate insured assets.

MULTIPLE CHOICE QUESTIONS

1. Which of the following non-value adding activities that the company cannot eliminate entirely?
 - (a) Error in calculation of the quote for premium during sales visits.
 - (b) Delay in issuance of policy to ensure legal compliance of insurance policies issued.
 - (c) Delay in claim settlement due to non-availability of documents.
 - (d) Entry of customer data multiple times across departments due to lack of central database.

-
2. Under the cost of quality framework, the cost of implementation and maintenance of the standard digital operating model, six sigma methodologies etc. are examples of:
 - (a) Prevention cost
 - (b) Appraisal cost
 - (c) Internal failure cost
 - (d) External failure cost
 3. In which of the following can it be difficult to implement six sigma methodologies?
 - (a) Reduce errors during policy issuance by standardizing work flow process
 - (b) Improve claim processing cycle times by standardizing know-your-customer procedures
 - (c) Improve customer satisfaction by reducing response time for complaints
 - (d) Improve valuation of high value collectibles and artifacts like fine art painting, jewelry and watches among other unique items.
 4. Applying the Porter Five Forces model to DIC's business model, which of the following is not true?
 - (a) Standardized product offerings reduce industry rivalry allowing industry players to compete on factors other than price
 - (b) Scarcity of actuaries and fintech talent increases the bargaining power of suppliers
 - (c) Alternate investment strategies for risk management have increased the threat of substitutes
 - (d) Digital transparency has increased the bargaining power of buyers

5. DIC's strategy of reskilling its existing workforce to handle its new insurance product. Which of the following is not true when it is analyzed using Porter's Five Forces model?
- (a) DIC has created a knowledge and technology barrier to entry
 - (b) The bargaining power of buyers of this new insurance product is high
 - (c) The threat from substitutes like alternate investment strategies for risk management is lower
 - (d) DIC has addressed the problem of static profits due to declining margins under its current general insurance business model.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): Delay in issuance of policy to ensure legal compliance of insurance policies issued.**

Reason

While checking a policy for legal compliance does not directly add value to the customer, it cannot be eliminated since it has to be done for regulatory purposes. The other activities can be improved, automated and standardized and therefore can be eliminated entirely.

2. **Option (a): Prevention cost.**

Reason

The standard digital operating model and use of six sigma methodologies will prevent errors and inefficiencies in the workflow. Therefore, the costs of implementation and maintenance of this model are prevention cost of quality.

3. **Option (d): Improve valuation of high value collectibles and artifacts like fine art painting, jewelry and watches among other unique items.**

Reason

Insurance valuation for such items is subject to judgment of experts. Such valuation cannot be standardized using six sigma techniques.

-
4. **Option (a): Standardized product offerings reduce industry rivalry allowing industry players to compete on factors other than price.**

Reason

When products are standardized, there is lack of differentiation, industry players must compete on price, which intensifies rivalry and lowers industry profitability.

5. **Option (b): The bargaining power of buyers of this new insurance product is high.**

Reason

Although there are many high net-worth individuals who own such assets, currently this market segment is under served by insurance incumbents. Currently DIC is the only provider of such insurance service, therefore the bargaining power of buyers of this insurance product is lower.

CASE SCENARIO 7

Hydrogen fuel cells represent a cutting-edge technological development that is widely expected to replace conventional petrol and diesel engines in heavy motor vehicles such as buses and trucks. With the urgent need to reduce carbon emissions, green energy initiatives have become a global priority and are being actively promoted by governments through various policy measures and incentive programs. For this technology to become commercially viable, a comprehensive supporting ecosystem must be developed, including service centers, hydrogen fuel storage and distribution infrastructure, and other essential facilities.

H-Power is a large petroleum oil refining company that has diversified into the manufacturing of green hydrogen fuel cells over the past five years. Green hydrogen is considered significantly more environmentally friendly than grey hydrogen, as the latter is produced using fossil fuels such as natural gas or coal. In contrast, green hydrogen is generated using renewable energy sources such as solar and wind power, enabling a substantial reduction in carbon emissions.

Hydrogen, as a standalone gas, is scarce in nature; however, it is abundantly available as a component of water, which consists of hydrogen and oxygen. The production of green hydrogen relies on electrolysis, a process in which an electrolyzer splits water into hydrogen and oxygen using renewable electricity. Electrolysers are therefore a critical input in the green hydrogen value chain. Ecopower is a manufacturer of hydrogen electrolyzers and has been a key supplier to H-Power for its hydrogen fuel operations. Recently, H-Power has been in discussions to acquire Ecopower for a consideration of USD 1 billion. This acquisition would significantly strengthen H-Power's production capabilities, although building and scaling such capabilities is highly capital-intensive and requires investments running into billions of dollars.

The adoption of hydrogen fuel technology is heavily influenced by the cost of hydrogen production. At present, the cost of producing grey hydrogen is substantially lower than that of green hydrogen. As a result, grey hydrogen continues to be more widely adopted by both fuel producers and manufacturers of buses and trucks. In response, H-Power has begun collaborating closely with

bus and truck manufacturers to increase awareness and understanding of green hydrogen technology. It has successfully persuaded a few large manufacturers to modify engine designs on an experimental basis to accommodate green hydrogen fuel.

As noted earlier, the long-term viability of this business is dependent not only on the technology itself but also on the development of a complete supporting ecosystem, including service infrastructure, fuel storage, and distribution networks. While government support in the form of policy initiatives and subsidies has provided momentum to this transition, the complexity of shifting to green energy means that H-Power must remain prepared to face potential roadblocks arising from policy changes, regulatory uncertainty, and implementation delays.

Given that this represents a new line of business for the company, H-Power seeks to identify and understand the key building blocks required to deliver value to its customers. To achieve this, the company is using Osterwalder's Business Model Canvas as a framework for analysis.

MULTIPLE CHOICE QUESTIONS

1. On the Business Canvas Model, H-Power's decision to acquire Ecopower would represent a shift from:
 - (a) Key Resources segment to Key Partners segment
 - (b) Key Activities segment to Cost segment
 - (c) Key Partners segment to Key Resources segment
 - (d) Key Resources segment to Channels
2. If the eco-system of service and distribution centers is unable to be developed, which link on the Business Canvas Model of H-Power would most likely break?
 - (a) Link between value proposition and customer segment.
 - (b) Link between key activities and value proposition
 - (c) Link between key resources and key partners
 - (d) Link between cost structure and revenue streams

3. Using the Triple Bottom Line framework, H-power's collaboration with bus and truck manufacturers to modify their engines represents:
 - (a) A purely environmental initiative (Plant)
 - (b) A purely financial initiative (Profit)
 - (c) An integrated approach that will have a positive environmental impact (Planet) as well as ensures market viability (Profit)
 - (d) Has no impact on any of the three pillars of the TBL framework
4. In order to develop a sustainable business in the long term, on which of the following should H-Power be less dependent on?
 - (a) ensuring availability of critical resources like water, electrolyzers, skilled manpower etc.
 - (b) reduction in the cost of production of green hydrogen fuel
 - (c) early and wide-spread adoption of green hydrogen fuel technology among automobile manufacturers and end users
 - (d) government policy initiatives and subsidies to make it a viable business
5. While understanding the business canvas, given the capital-intensive nature of key resources (assets that are used to build production capabilities), what strategy should H-Power adopt to manage its revenue stream:
 - (a) Relying on spot-market prices of green hydrogen to capitalize on short-term market fluctuations
 - (b) Securing long-term contracts with automobile manufacturers and leveraging government support when available
 - (c) Focus on selling electrolyzers to recoup the investment made in this technology
 - (d) Right from the beginning, compete with the price of grey hydrogen fuel in order to penetrate and grow market share

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Key Partners segment to Key Resources segment**Reason**

H-Power decided to acquire the supplier of its electrolyzers (Key Partner); these critical assets are used to in its production activities (Key Resources). Therefore, while doing a study on the canvas the acquisition would represent a shift from Key Partner to Key Resource

2. Option (a): Link between value proposition and customer segment**Reason**

H-Power is offering environmentally friendly fuel (green hydrogen) to its customers (bus and truck manufacturers and eventually end user truck/bus operators). Without proper channels (distribution centers) and customer relationships (service centers) the value proposition (green hydrogen cells) cannot reach the customer segment regardless of how good the product is.

3. Option (c): An integrated approach that will have a positive environmental impact (Planet) as well as ensures market viability (Profit)**Reason**

In order to encourage the adoption of green technology (planet)

H-power's collaboration with bus and truck manufacturers for adoption of green hydrogen technology is important. It is only when adoption is wide-spread can its business be viable (Profit). Therefore, this is an integrated approach.

4. Option (d): government policy initiatives and subsidies to make it a viable business.**Reason**

As mentioned in the case study, due to the complex nature of this transition to green energy, the company must be prepared to face roadblocks in the form of policy changes and delays. Hence, for long term

sustainability the company should be less dependent on government policy initiatives and subsidies as they are subject to change and delays.

5. Option (b): Securing long-term contracts with automobile manufacturers and leveraging government support when available.

Reason

Long term contracts provide assurance of revenue that is necessary to recoup the heavy capital expenditure incurred to run the business. Also, to the extent it is available, leverage the favorable government policies to get subsidy and support to develop a viable eco-system that supports adoption of green energy fuel.

CASE SCENARIO 8

Durable Limited manufactures bookshelves, of which Model 101 is one of its most popular products. The bookshelf is sold through large home stores as well as independent furniture retailers. Although demand for Model 101 remains relatively stable throughout the year, it experiences a significant increase during the holiday season. To meet this seasonal surge in demand, the required raw materials are procured in bulk, and production is scheduled in advance of the holiday period.

At present, the company operates at approximately 95% of its installed capacity and manufactures 475,000 units annually. The cost structure for manufacturing one unit of Model 101 is presented below.

Particulars	Nature of cost	Amount ₹
Direct Material	Variable	9,000
Direct Labor	Variable	10,000
Overheads		
1. Design and Engineering cost	Fixed	500
2. Machining cost	Fixed	1,500
3. Inspection cost	Variable	500
Administration expenses	Fixed	3,500
Selling and Distribution expense	Fixed	2,000
Total Cost		27,000

Recently, the market has been inundated with bookshelves made of particle wood, which are significantly cheaper than metal bookshelves. These competing products are sold through the same retail channels used by Durable Limited.

To remain competitive, the Head of Marketing has proposed a 12.5% reduction in the current selling price. At present, the company earns a pre-tax profit margin of 10% of the selling price per unit, and management is keen to maintain this margin in the coming years. To achieve the required cost reduction while

preserving profitability, the Chief Engineer has recommended adopting target costing.

The Production Manager, however, expresses concern that aggressive cost reduction measures may compromise product quality. In response, the Quality Control Manager suggests increasing the number of inspection staff so that inspections can be carried out at each stage of production. Early detection of defects, according to him, would help minimise rework costs and maintain quality standards.

The Management Accountant points out that Model 101 is a mature product, and therefore a substantial portion of its production costs are already committed in nature. In his view, price reductions may be difficult to sustain and could adversely affect both the company's top line and bottom line. Countering this, the Chief Engineer proposes redesigning Model 101 to reduce costs. However, the Marketing Manager resists this suggestion, arguing that the product's existing design, appearance, and features are the key drivers of its popularity and sales in the market.

Given the resistance to product redesign, the Quality Control Manager ultimately suggests that the company consider adopting Kaizen costing to achieve continuous, incremental cost reductions without altering the product's core features.

MULTIPLE CHOICE QUESTIONS

1. The target price per unit of bookshelf after discount would be:
 - (a) ₹ 27,000
 - (b) ₹ 26,250
 - (c) ₹ 23,625
 - (d) ₹ 25,988
2. The target cost per unit of bookshelf would be:
 - (a) ₹ 24,300
 - (b) ₹ 23,625
 - (c) ₹ 21,263

- (d) ₹ 23,389
3. In the context of lifecycle costing and cost management, what is the implication of the Management Accountant's statement about price cutting being difficult for a product like Model-101:
- (a) Changes in production volume will not help reduce costs, therefore profitability cannot be changed
 - (b) Being a mature product, economies of scale can help reduce costs, therefore there is no need to reduce the selling price of Model 101
 - (c) Once the design of a product is standardized, most of the cost and their nature gets decided upon in this initial phase itself, therefore they are difficult to change at a later stage. Due to the committed nature of the costs, price cutting may have a negative impact on profitability.
 - (d) Once the design of a product is standardized, most of the costs are incurred at this stage. Due to these sunk costs, price cutting may have a negative impact on profitability.
4. The marketing manager is insistent that 'existing product appearance and features are key reasons for popularity of product in market and leads to sale'. Given this resistance to redesigning the product, which technique can be used to analyse the company's activities and to eliminate those costs by eliminating those activities that do not contribute value to these popular features?
- (a) Standard costing
 - (b) Just-in-time manufacturing
 - (c) Activity based costing
 - (d) Value chain analysis
5. How does the quality manager's suggestion of Kaizen costing differ from target costing suggested by the chief engineer?
- (a) Target costing is a reactive strategy to eliminate waste during manufacturing process of Model-101; Kaizen is a proactive strategy used during the re-design phase of Model-101

- (b) Target costing establishes the maximum allowable cost for Model-101 while Kaizen focuses on significant changes to be made to the manufacturing process
- (c) Target costing can be used only for new products that Durable Limited wants to launch in future whereas Kaizen focuses on improving existing products like Model-101
- (d) Target costing focuses on market driven prices for Model-101 to arrive at cost reductions while Kaizen focuses on small, incremental cost reductions during the production stage of the product

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): ₹ 26,250 per unit

Reason

The current cost of production per bookshelf is ₹ 27,000.

Let sale price be ₹X. Current profit margin is 10% of sale price i.e. 0.10X

Sale price per unit less profit margin per unit = cost of production per unit

$$X - 0.10X = ₹ 27,000; \quad 0.9X = ₹ 27,000 \quad X = ₹ 30,000$$

Therefore, the current selling price is ₹30,000.

The target selling price after 12.5% price reduction = ₹30,000 × (100% - 12.5%) = ₹26,250 per unit.

2. Option (b): ₹ 23,625

Reason

The target selling price is ₹ 26,250 per unit. The profit margin that the management wants to maintain is 10% of the selling price i.e. 10% of ₹ 26,250 = ₹ 2,625 per unit.

Therefore, the target cost will be ₹ 26,250 - ₹ 2,625 = ₹ 23,625 per unit.

3. **Option (c): Once the design of a product is standardized, most of the cost and their nature gets decided upon in this initial phase itself, therefore they are difficult to change at a later stage.**

Reason

While costs are incurred during production, they are actually decided upon (committed) during the design phase of a product itself. These "locked costs" which would be the design and engineering costs, machining costs, administration and selling / distribution costs are already established and cannot change by short term decisions of the management. Target costing methodology is one such short-term decision-making strategy. Therefore, for a well-established mature product, the design has to be radically redone in order to make a difference. Therefore, when the selling price is reduced by 12.5%, while costs are of fixed nature, the impact on the profit will actually be negative.

4. **Option (d): Value chain analysis**

Reason

Non-value-added activities can be identified and eliminated without changing the physical appearance and features.

5. **Option (d): Target costing focuses on market driven prices for Model-101 to arrive at cost reductions while Kaizen focuses on small, incremental cost reductions during the production stage of the product.**

Reason

Target costing uses radical value engineering approach at the re-design of Model-101 such that the product can be manufactured at a specific cost to meet a required selling price and profit margin. Kaizen costing is a continuous exercise that focuses on manufacturing processes, waste elimination, efficiency improvements and quality control to achieve ongoing, incremental cost reductions.

CASE SCENARIO 9

National Airlines Limited (NAL) is an Indian airline headquartered in Mumbai. It operates as a full-service carrier, offering a premium flying experience to its passengers. NAL has traditionally focused on tourist traffic, serving destinations such as Srinagar, Gangtok, the Lakshadweep Islands, the Andaman and Nicobar Islands, and Darjeeling. Its network is relatively limited, with most routes originating from Mumbai or Delhi.

In recent years, intensifying competition has put sustained pressure on profit margins. As a result, the management believes that adopting lean management principles could help improve operational efficiency and cost effectiveness. NAL regularly evaluates the profitability of individual routes, and routes that are consistently loss-making may be discontinued. To support such decisions, the airline maintains route-wise income statements for each flight it operates.

Presented below is the income statement for Flight 9S6313 operating on the Mumbai–Srinagar route. The aircraft has a seating capacity of 100 passengers and operates at an average occupancy rate of 75%. The ticket price per seat is ₹25,000, while the variable cost per seat is ₹15,000. In addition to these variable costs, NAL incurs several other flight-related expenses, details of which are provided in the income statement. The average income per flight on this route is expected to remain broadly within this range throughout the year.

Particulars	Amount (₹)
Ticket Revenue (100 seats × 75% occupancy × ₹25,000 per seat)	18,75,000
Less: Total Variable Expense (100 seats × 75% occupancy × ₹15,000 per seat)	11,25,000
Contribution Margin (Ticket revenue – Variable expense)	7,50,000
<i>Flight Expenses</i>	
Salaries – Flight crew	2,00,000
Salaries – Flight Assistants	1,50,000
Baggage loading and flight preparation	70,000
Overnight costs for flight crew and assistants at destination	1,00,000

Fuel for aircraft	2,50,000
Depreciation of aircraft*	75,000
Liability insurance	2,10,000
Flight promotion	50,000
Hangar parking fee at destination	50,000
Total Flight Expenses	11,55,000
Net Gain / (Loss)	(4,05,000)

* Depreciation based on obsolescence

The following additional information is available in relation to Flight 9S6313 operating on the Mumbai–Srinagar route:

1. Members of the flight crew are paid fixed annual salaries, whereas flight assistants are compensated on a per-flight basis.
2. Baggage loading and flight preparation expenses represent an allocation of ground crew salaries and depreciation of ground-handling equipment.
3. One-third of the liability insurance cost is a specific charge attributable to Flight 9S6313, as the insurance company classifies the destination as a "high-risk" area.
4. Flight promotion expenses are route-specific and, in this case, relate exclusively to Flight 9S6313.
5. Hangar parking fees are standard charges levied for aircraft parking at all airports.
6. If Flight 9S6313 is discontinued, NAL currently does not have authorization to replace it with another flight.

The management is considering discontinuing the operation of this flight. However, Ravi Sharma, NAL's management accountant, disagrees with this proposal and undertakes a net gain/loss analysis using relevant costing principles.

In subsequent discussions, the CEO, Shirish Chhabra, proposes operating both affordable low-cost flights and premium full-service flights simultaneously. Under the premium full-service model, viable routes are largely restricted to tourist destinations, with Mumbai and Delhi serving as major hubs. In contrast,

the low-cost model would allow NAL to serve a wider range of destinations. However, Priya Nair, the marketing head, expresses concern that operating both models under the same airline could confuse passengers regarding NAL's value proposition—premium service versus economy “no-frills” travel. Such confusion, she believes, could dilute the brand image and adversely affect future revenue growth.

MULTIPLE CHOICE QUESTIONS

1. While considering the flight expenses (excluding the variable expense of ₹ 15,000 per seat), how much would be the relevant costs that to be considered while analyzing the net gain/loss from operation of this flight?
 - (a) ₹ 9,05,000
 - (b) ₹ 7,60,000
 - (c) ₹ 8,10,000
 - (d) ₹ 6,20,000
2. Assuming constant seat occupancy and unchanged ticket price, what is the net gain/ loss calculated using relevant costing principles that NAL will earn if the flight continues to operate?
 - (a) Loss of ₹155,000
 - (b) Gain of ₹10,000
 - (c) Loss of ₹60,000
 - (d) Gain of ₹130,000
3. Which of the following would reflect the spirit of employees adopting lean thinking while working for the organization?
 - i. Efficient management of queue management at the check-in counter and boarding gates at the airport by allowing for online web-check in.
 - ii. Across the board reduction of staff of ground staff in order to reduce costs of operations.

- iii. Streamlining processes to allow for faster baggage drop and pick up at the departure and arrival lounge by bringing uniformity in the luggage type and size.
 - iv. Streamlining flight operations and use of smaller aircraft types to allow for minimum disruption of travel time.
 - (a) i, ii and iii
 - (b) ii, iii and iv
 - (c) i, iii, and iv
 - (d) i, ii and iv
4. Which of the following strategies can possibly support Shirish Chhabra's proposal to operate both affordable low-cost model and the premium full-service model simultaneously?
- (a) Operate affordable low-cost model and premium full-service model under different brands of NAL. Pricing of tickets can be differentiated based on which model that particular flight is offering, higher price for premium full-service tickets and lower price for affordable tickets.
 - (b) Operate affordable low-cost model and premium full-service model under a single brand of NAL. Pricing of tickets can be differentiated based on which model that particular flight is offering, higher price for premium full-service tickets and lower price for affordable tickets.
 - (c) Increase marketing and advertising spend to spread awareness of which route offers full service flying and which offers low-cost affordable flying.
 - (d) It is not possible to operate both models simultaneously.
5. NAL is using the Kano Model to assess the impact switching to low-cost airline model have on customer satisfaction. Under which attribute of Kano Model would NAL's ability to provide extensive connectivity at affordable rates fall under:
- (a) Performance attribute

- (b) Threshold attribute
- (c) Delight attribute
- (d) Questionable attribute

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): ₹ 6,20,000

Reason

₹ 6,20,000 is the relevant flight expenses that need to be considered while analyzing the net gain/loss from operation of this flight.

The relevant flight expenses incurred per flight would be salaries flight assistants, overnight costs for flight crew and assistants, fuel for aircraft, a third portion of flight insurance that is specifically related to this flight sector and flight promotion expense. These are expenses that will not be incurred if the flight is not operated. Hence, relevant for decision making.

Other expenses like salaries of flight crew and hanger parking fees for aircraft are fixed expenses that will be incurred even if the flight does not operate. Loading and flight preparation expense is an allocated cost that will continue to be incurred even if the flight does not operate. Depreciation of aircraft and liability insurance expense (2/3 rd portion not related to a specific flight sector) are sunk costs. These expenses have already been incurred and hence are irrelevant to decision making. Therefore, these fixed, allocated and sunk expenses are ignored while analyzing the decision whether to continue operating flight 9S6313 using relevant costing principles.

2. Option (d): Gain of ₹1,30,000

Reason

₹ 1,30,000 would be the net gain calculated using relevant costing principles that NAL will earn if it continues to operate this flight. Please refer to Working Note.

3. Option (c): i, iii, and iv**Reason**

Lean thinking is an organized management philosophy to reduce waste. In the above case scenario (i), (iii) and (iv) represent reduction of waiting time for guests. Waiting time is a form of waste in a lean system. Across the board reduction of ground staff to reduce cost of operations on the other hand does not necessarily lead to reduction of waste. While cost efficiencies are important, indiscriminate across the board reduction of ground staff can cause inefficiencies in the process flow of operations. Since there is a lot of passenger volume, this rather increases the possibility of generating waste in the form of inefficient operations since there may be insufficient staff to handle the operations.

4. Option (a): Operate affordable low-cost model and premium full-service model under different brands of NAL. Pricing of tickets can be differentiated based on which model that particular flight is offering, higher price for premium full-service tickets and lower price for affordable tickets.**Reason**

This concept is based on multi-brand strategy with the goal of catering to different customer segments simultaneously. By operating under different brands for example, NAL Express (for low-cost affordable travel) and NAL Comfort (for full service premium travel), the passengers can clearly understand the expected level of service offering from the flight. Pricing will also be accordingly charged based on the level of service. Hence, this will help avoid confusion about the service offering for the flight, enabling NAL to operate both models simultaneously.

5. Option (a): Performance attribute**Reason**

Performance attribute. This one dimensional shows the linear relationship between NAL's investment in providing extensive connectivity at affordable rates to that of customer satisfaction. Better the connectivity and better the affordability of the customer, better the customer satisfaction.

Workings**Statement Showing Net Gain / (Loss) if Flight Operations Continue**

Particulars	Amount (₹)
Contribution Margin if flight operations continue	7,50,000
Less: Relevant costs if flight operations continue	
Salaries – Flight Assistants	1,50,000
Fuel for aircraft	2,50,000
Liability insurance (<i>1/3 being special charge for high-risk destinations</i>)	70,000
Flight promotion	50,000
Overnight costs for flight crew and assistants	1,00,000
Total relevant costs	6,20,000
Net Gain if flight operations continue	1,30,000

CASE SCENARIO 10

Roadrunner is a trucking company engaged in transporting commercial goods for businesses to various ports within the state of Gujarat. These ports act as transit points from where goods are shipped by sea to their final destinations. Operating in a highly competitive environment, the company emphasizes maintaining high standards of delivery quality to strengthen its market position.

All outbound shipments handled by Roadrunner involve transporting goods from multiple locations within Gujarat to designated ports. On the return leg of a trip, the company attempts to secure shipments from the port to major destinations within the state. In the trucking industry, a vehicle travelling without any cargo is referred to as “deadheading.” Since deadhead kilometres generate costs without corresponding revenue, the company seeks to minimize such unproductive travel. To address this, Roadrunner employs ground-level agents who identify suitable return shipments within a short period, thereby improving truck utilization and overall operational productivity.

To date, Roadrunner has operated exclusively under a “Full Truck Load” (FTL) model. Under this arrangement, the entire truck is reserved for a single customer’s consignment, which is transported directly from the customer’s location to the destination port. FTL shipments offer several advantages, including minimal handling of goods, single-point loading and unloading, faster delivery times, and reduced risk of damage.

Historically, the company has benefited from low fuel prices, which supported healthy profit margins. However, rising fuel costs in recent months, coupled with an economic slowdown, have led to stagnation in shipment volumes and the likelihood of smaller shipment sizes in the future. In response, Roadrunner plans to introduce a “Less than Truck Load” (LTL) service alongside its existing FTL operations. Under the LTL model, individual consignments are too large for parcel carriers but insufficient to justify a full truckload. Shipments from multiple customers are consolidated at a common collection point and transported together to a common destination port. Customers are typically willing to accept delivery within a maximum of seven days from the time the goods are handed over. This model enables the company to transport smaller

consignments at a more economical cost, thereby enhancing operational flexibility. However, to ensure full capacity utilization, the company must expand its customer base.

The introduction of LTL services represents a strategic shift for Roadrunner. Currently, the company handles approximately 15% of the total consignments shipped from within Gujarat to various ports and aims to maintain, and if possible, increase this market share amid intense competition. To attract a broader clientele, Roadrunner has increased its advertising and promotional efforts, including advertisements in trade publications, memberships on online trucking load boards, and participation in industry association events. The company intends to target mid-sized businesses that can provide shipment volumes at regular intervals.

Senior management has established the following financial performance targets:

- a. A cost per kilometre of ₹200
- b. Revenue per kilometre of ₹350
- c. An average accounts receivable collection period of 10 working days
- d. An average customer lifetime value of ₹20 lakh or more, focusing on mid-sized customers with recurring shipment requirements

While management has traditionally concentrated on financial performance, it now recognizes the importance of tracking non-financial operational metrics to sustain and enhance long-term performance. To evaluate the effectiveness of the LTL system, the following non-financial operational measures are proposed:

- a. Number and percentage of customer claims for damaged goods under the LTL system
- b. Average time taken to resolve customer claims (in days from the date of claim)
- c. Percentage of LTL shipments delivered later than the agreed delivery timeline
- d. Number of days trucks remain idle due to maintenance issues or insufficient load

- e. Average time required to accumulate a full truckload under the LTL model (in days)
- f. Deadhead kilometres, representing distances travelled without cargo
- g. Number of orders rejected due to non-availability of trucks
- h. Percentage of LTL shipments delivered within seven days from receipt of goods

As a management consultant to the company, you are required to analyse the above information using the Performance Pyramid model proposed by Lynch and Cross.

MULTIPLE CHOICE QUESTIONS

1. Under the LTL system, a reduction in average time to get full truck load (level 4 operational driver) will lead direct improvement in which financial metric (level 2)?
 - (a) Market share
 - (b) Customer lifetime value
 - (c) Cash flow
 - (d) Revenue-per-kilometer
2. If under the LTL system "deadheading" (empty truck miles) increases, which of the strategic objectives in Level 3 of the pyramid are in immediate conflict?
 - (a) Customer satisfaction vs Productivity
 - (b) Flexibility vs Productivity
 - (c) Customer satisfaction vs Productivity
 - (d) Market metrics vs financial metrics
3. If under the LTL system, there is an increase in customer claims due to damaged goods, which sequence best describes the bottom-up impact on the pyramid?
 - (a) cycle time increases – flexibility drops – market share reduces

- (b) waste increases – productivity drops – flexibility reduces
 - (c) delivery slows – customer satisfaction – market share reduces
 - (d) quality drops – customer satisfaction – market share reduces
4. The non-financial measures, number of orders turned down due to non-availability of trucks and the ability to deliver within 7 days from the date of receiving client's goods under the LTL system, reflect performance of which strategic objective:
- (a) Customer Satisfaction
 - (b) Flexibility of business
 - (c) Productivity of business
 - (d) Corporate vision
5. Which of the following stakeholders of Roadrunner are not focused upon under the Performance Pyramid?
- (i) Employees of roadrunner
 - (ii) Government
 - (iii) Suppliers of roadrunner
 - (iv) Customers of roadrunner

Options

- (a) (i), (ii) and (iii)
- (b) (i) and (iii)
- (c) (ii) and (iii)
- (d) (ii) and (iv)

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Cash flow

Reason

Average time taken to get full truck load under LTL (days) represents the cycle time, time taken to complete the task. This should be kept at a

minimum level to improve productivity. Faster the ability to fill up the truck, improves the utilization of resource and enhances productivity. Enhanced productivity leads to faster billing and collection since the task is completed quickly. This improves cash flow, which is a financial metric.

Note that revenue per kilometer may also improve indirectly, but cash flow is the most immediate and direct impact.

2. Option (b): Flexibility vs Productivity

Reason

The LTL model offers flexibility in operations as clients with smaller loads can send their shipments at an economical cost. However, when a truck runs on the road without any load, it incurs a cost but earns no revenue to recoup it. Therefore, the number of kilometer deadheads is a waste and should be kept at minimum as it reduces productivity. Therefore, increased deadheading causes a direct conflict between flexibility vs productivity.

3. Option (d): quality drops - customer satisfaction – market share reduces

Reason

An increase in customer claims due to damaged goods **indicates** that the quality of delivery has fallen, reducing customer satisfaction and eventually market share will reduce.

4. Option (b): Flexibility of business

Reason

Flexibility of business is the correct answer. Flexibility serves as an enabler that can provide customer satisfaction. It can also be linked to productivity of operations. It is a factor that shows agility of a company with respect to changes in business environment and competition.

Number of orders turned down due to non-availability of truck is a metric that has to be maintained at the very minimum. The business must be able to cater to as many orders as possible. Tracking this metric can indicate if

the current capacity (flexibility) of trucks is sufficient to cater to the demand from customers.

Ability to deliver within 7 days from the date of receiving client's goods under the LTL system (% of shipments under the LTL system). The ability to meet this expectation of the customer is very important to maintain and sustain business. It must have enough flexibility (capacity) in its operations to accommodate any exigencies to ensure that this expectation is met.

5. Option (a): (i), (ii) and (iii)

Reason

The Performance Pyramid primarily focuses on aligning internal operational measures with the expectations of **shareholders and customers**. While employees, suppliers, and government are important stakeholders, their interests are not explicitly captured within the framework of the Performance Pyramid.

CASE SCENARIO 11

First Financial Bank Ltd. (FFBL) is a mid-sized bank whose loan asset portfolio primarily consists of housing loans and commercial loans. The bank is currently exploring opportunities to diversify its revenue streams and identify business segments that can contribute positively to its overall profitability. As a management analyst, you are examining the bank's interest income from various loan portfolios, which constitutes the core income source for any banking institution.

During the analysis, you observe interest income from two relatively small loan segments i.e. student education loans and consumer durable loans. Historically, these portfolios have not received significant managerial attention, as each account for less than 1% of the bank's total loan portfolio. Consequently, their contribution to overall interest income has also remained marginal. The bank's strategic focus has traditionally been on housing and commercial loans, which together form the dominant share of the loan book.

The interest income generated from the student education loan segment and the consumer durable loan segment over the past five years is presented below (₹ in lakhs):

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Interest earned on Student Education Loans	15	18	21	28	35
Interest earned on Consumer Durable loans	30	28	22	16	12

Student Education Loans:

FFBL currently recognizes approximately 150 educational institutions for the purpose of extending education loans. These institutions are primarily premier institutes, known for their academic rigor and strong industry reputation. As a result, students graduating from these institutions achieve nearly 100% placement immediately after course completion. Consequently, loan defaults in this segment have been negligible. The bank has also identified around 25

eligible courses (predominantly postgraduate programmes) for which it offers education loans.

In contrast, data from peer banks indicates that, on average, they recognize nearly 450 educational institutions and offer financing for about 100 courses spanning both undergraduate and postgraduate levels. Not all of these institutions are considered premier, and the market recognition of the degrees varies. As a result, only about 80% of students financed by peer banks secure immediate employment after graduation.

Consumer Durable Loans:

FFBL offers unsecured consumer durable loans for a limited range of products such as televisions, refrigerators, and mobile phones. Currently, the bank finances purchase of only 15 identified products. Loan disbursement is facilitated through sales personnel stationed at select partner retail outlets that have tie-ups with the bank. The loan approval process involves document-based due diligence and typically takes a few days to complete. Owing to these stringent checks, default rates in this segment have remained negligible.

Peer banks, however, finance approximately 45 different consumer durable products on average. Their loan processing systems are largely digital, with minimal documentation requirements aimed at driving higher volumes. Loan approvals are almost instantaneous, and customers can purchase products from any retailer rather than only from partnered stores. This approach provides customers with a faster and more convenient shopping experience, albeit with higher risk exposure.

Healthcare Loan Initiative:

FFBL has recently introduced an innovative healthcare loan product designed to bridge the gap between hospitalization expenses and health insurance reimbursements. These loans are available to salaried individuals and self-employed professionals who are covered by health insurance and meet specific credit score and income or balance requirements. This healthcare loan is the first offering of its kind in the banking industry.

MULTIPLE CHOICE QUESTIONS

1. In order to expand its student loan portfolio, if FFBL increases the number of its recognized institutes from 150 to 450 (to match the level of its peers), what is the most direct risk to the loan's portfolio?
 - (a) Interest rate risk due to increased volatility
 - (b) Liquidity risk due to increased demand for funds
 - (c) Regulatory risks since more scrutiny on disbursement would be required
 - (d) Credit risk since the placement rates in non-premier institutes is lower
2. Use of minimal documentation to drive volumes can expose the banks to which of the following risks?
 - (i) Risk of fluctuation in the value of the underlying collateral
 - (ii) Legal risks since proper know your customer procedures are not followed
 - (iii) Credit risk since the loan disbursement would be made to borrowers who are less creditworthy
 - (iv) Risk of inflation since more demand can increase the price of the underlying collateral

Options

- (a) (i) and (iii)
 - (b) (ii) and (iii)
 - (c) (iii) and (iv)
 - (d) (i) and (iv)
3. FFBL's consumer loans cover only 15 products as compared to its peers who cover 45 products. The loan disbursement procedure does not include any digital interface to speed up the process.

Analyzing this Balanced Scorecard framework, what conclusion should the management draw?

- (a) The bank's internal business process is inefficient as it can cover more products and leverage digital technology better
 - (b) The bank's learning and growth is inefficient since it could cover more products like its peers
 - (c) The bank's customers perspective is inefficient since it does not increase customer satisfaction by not giving instant loans unlike its peers
 - (d) The bank's financial perspective is inefficient since it does not give instant loan disbursements unlike its peers
4. To ensure the success of its novel healthcare loan facility, which organizational capability should be the primary focus for FFBL build?
- (a) Hire more branch managers for disbursing healthcare loans
 - (b) Increase the use of digital technology to disburse loans
 - (c) Comprehensive staff training on medical insurance gap analysis and credit scoring of self-employed professionals
 - (d) Build a customer grievance cell to handle complaints
5. Match the following measures to the appropriate category in the balanced scorecard framework:

Sr. No.	Measure	Sr. No.	Balanced Scorecard Category
i.	Staff training for healthcare loans	a.	Internal business process perspective
ii.	Nonperforming asset ratio	b.	Innovation and learning perspective
iii.	Use of digital technology for loan processing	c.	Customer perspective
iv.	Providing additional loans for cars/homes to student loan borrowers once they start their employment	d.	Financial perspective

Options

- (a) i- c; ii- d; iii- b; iv- a
- (b) i- b; ii- d; iii- a; iv- c
- (c) i- b; ii- d; iii- c; iv- d
- (d) i- d; ii- b; iii- a; iv- c

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (d): Credit risk since the placement rates in non-premier institutes is lower**

Reason

Currently FFBL enjoys an enviable position of having very negligible default rate since loans have been disbursed only to students from premier institutes, enrolled in courses that are capable of generating employment immediately (100% placement reflects that skills developed through these courses are in demand in the market). Whereas, in non-premier institutes the placement levels are 80%, which shows lower levels of immediate employability of students doing these courses, for which the loan is being given. Therefore, since chances of immediate employability is lower, the risk of default (credit risk) is higher.

- 2. Option (b): (ii) and (iii)**

Reason

Banking is a regulated industry, where compliance of know your customer norms is highly emphasized upon. These are done to avoid risks of fraud, money laundering, default risk etc.

Credit risk increases since the loan disbursement is being done without proper vetting procedures for assessing default risk.

Online disbursement with minimal documentation can expose the banks to these risks.

3. **Option (a): The bank's internal business process is inefficient as it can cover more products and leverage digital technology better.**

Reason

The bank's internal business process is inefficient as it can cover more products and leverage digital technology better. Peer banks have inbuilt loan application systems which can enable faster loan processing. While FFBL need not compromise on following due diligence processes to ensure creditworthiness of the borrower, it can leverage digital technology to improve its internal business process.

4. **Option (c): Comprehensive staff training on medical insurance gap analysis and credit scoring of self-employed professionals.**

Reason

FFBL should as a primary step focus on comprehensive staff training on medical insurance gap analysis and credit scoring of self-employed professionals.

These are specialized loans that FFBL is offering for the first time in the market. Hence it has to ensure that its loans processing is done by skilled staff who can ensure proper disbursement, with proper terms and conditions in order to ensure low default rates.

5. **Option (b): i -b; ii- d; iii -a; iv- c**

Reason

Staff training for healthcare loans - Innovation and learning perspective. Healthcare loan requires specialized skills like insurance gap analysis, credit score analysis etc. Staff training helps them acquire these skills to improve human capital and skills for future capabilities.

Nonperforming asset ratio- financial perspective that reflects the financial health and performance of FFBL.

Use of digital technology for loan processing – internal business process perspective. Improves the efficiency of loan processing.

Providing additional loans for cars / homes to student loan borrowers once they start their employment – Customer perspective. FFBL is cross-selling its other loan products to retain its current customers and increase their lifetime value by increasing the loan portfolio with them.

CASE SCENARIO 12

Bhatia & Sharma LLP (BS LLP) is an accounting firm in form of limited liability partnership with 20+ branches across India, in all major cities. BS LLP offers to its customer services in accountancy, assurance, tax consultancy, business advisory services. Due to the economic slowdown in the country, large numbers of business are entering into either internal/ external reconstruction; as a result, advisory services are in huge demand. BS started its business advisory domain service just recently over the past one year. The industry of accounting practices in India is mature, despite some of statues enforced recently. Each domain of service is under the charge of a team of partners. They have clearly demarcated work assignments within themselves.

As part of performance analysis, at BS LLP; partners for each service domain collectively meet with top officers, on monthly basis. Following performance related data (belong to latest financial year) was considered in one of recent conducted partner meeting.

Particulars for BS LLP	Accounting	Audits	Tax Consultancy	Business Advisory
Revenue (In ₹ Crores)	700	823	175	120
Growth of revenue over previous year	2%	6%	10%	18%
Net profit ratio	5%	3%	7%	12%
Revenue (In ₹ Crores) of Accounting Industry as whole	3,500	7,210	1,835	300

For the coming year, the partners have set an across the board 10% growth of revenue target over previous year. This is applicable to all the segments.

Remuneration Structure at BS LLP

- *Partners* are getting fixed contractual payment apart from a variable pay. Each partner will be compensated based on the revenue they generate in their domain service.

- *Non-Partners* are getting fixed salary apart from variable pay depending upon rating in their performance appraisal that they have with their reporting seniors. The rating will take into consideration their individual performance, contribution to the team, their skill sets and overall potential for future contribution to the firm. However, in addition to individual and team performance the variable pay is also dependent on the firm's financial performance during the year. There have been instances when a good performer who is part of a well performing team did not get any significant variable pay on account of the firm not meeting its profit targets.
- HR team holds periodic meetings to explain the remuneration structure to the employees.

Client Relation Officer who is working parallel to marketing team, first time participated in monthly performance evaluation meeting and presented following data which contain rating from clients of BS LLP. It is decided that these ratings will also be added in performance matrix/ table stated above

Particulars for BS LLP	Accounting	Audits	Tax Consultancy	Business Advisory
Customer Ratings (higher the better) on a scale of 5	3.2	2.9	3.4	4.6

MULTIPLE CHOICE QUESTIONS

1. What is the problem with BS LLP's reward structure as per Fitzgerald and Moon's Building Block model?
 - (a) Apart from fixed contractual payment, partners are compensated with a share in profit. Each partner will be compensated based on the revenue they generate in their domain service.
 - (b) Non-partners get a fixed and variable pay component that is dependent on their individual and team performance.
 - (c) Non-partners get variable pay component that is dependent on whether the firm meets its target profits for the year.

-
- (d) HR team holds periodic meetings to explain the remuneration structure to the employees.
2. What is the problem with BS LLP's Standards as per Fitzgerald and Moon's Building Block model?
- (a) Performance is tracked segment wise based on various services provided
- (b) Growth in revenue targets are compared with the previous year
- (c) Their performance is bench-marked with the industry
- (d) For the coming year, the partners have set an across the board 10% growth of revenue target over previous year. This is applicable to all the segments.
3. How would you interpret the resource utilization at BS LLP?
- (a) Resource utilization in the most optimal in the accounting services
- (b) Resource utilization in the most optimal in the audit services
- (c) Resource utilization in the most optimal in the tax services
- (d) Resource utilization in the most optimal in the business advisory services
4. Based on the results and determinants, which of the following has the most promising contribution for future growth of the firm's business?
- (a) Accounting service
- (b) Audit service
- (c) Tax consulting service
- (d) Business advisory service
5. Which of the following shows that BS has flexibility and innovation in its operations?
- (a) Audit services contribute highest in terms of revenue for the firm
- (b) Accounting services has a 20% market share of the industry
- (c) Tax consultancy has a solid customer rating
- (d) Business advisory services have 40% market share of the industry

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Non-partners get a variable pay component that is dependent on whether the firm meets its target profits for the year.**

Reason

Under the Fitzgerald and Moon model, rewards should be linked to factors that employees can influence. Overall firm profitability is affected by partners' strategic decisions, economic conditions, and market forces i.e. factors beyond the control of non-partners. Linking variable pay of non-partners to firm-level profit targets therefore violates the controllability principle and may demotivate employees despite strong individual or team performance.

2. **Option (d): For the coming year, the partners have set an across the board 10% growth of revenue target over previous year. This is applicable to all the segments.**

Reason

The problem lies in setting uniform growth standards across heterogeneous service lines. Accounting and audit services operate in mature, slow-growing markets, whereas tax consultancy and business advisory are in faster-growing segments. Applying an identical 10% growth target violates the principle of equitable and realistic standards, as different segments face different market dynamics and growth potentials.

3. **Option (d): Resource utilization in the most optimal in the business advisory services.**

Reason

Resource utilization is reflected in how efficiently resources generate returns and customer value. Business advisory services show the **highest net profit ratio (12%)**, **highest customer ratings (4.6/5)**, and **strong market share (40%)**, despite being recently introduced. This indicates superior deployment of human expertise and organizational capabilities, making resource utilization most optimal in this segment.

4. Option (d): Business advisory service.**Reason**

Business advisory services demonstrate the strongest future growth potential due to:

- Highest customer satisfaction
- Highest net profit margin
- Rapid revenue growth (18%)
- Significant market share in a growing industry segment

These factors indicate both strong **current performance** and favourable **future prospects**.

5. Option (d): Business advisory services have 40% market share of the industry

Flexibility and innovation are reflected in an organization's ability to respond effectively to environmental changes. BS LLP identified increased demand for reconstruction advisory services during an economic slowdown and successfully introduced business advisory services, achieving a **40% market share within one year**, along with high profitability and customer satisfaction. This demonstrates both **strategic flexibility** and **service innovation**.

CASE SCENARIO 13

Volt Hydropower Development Corporation Limited (VHDCL) developed the Volt Dam Project in Yazali, Arunachal Pradesh. The project began in the year 2003. The project was originally scheduled to be commissioned in 2007, but due to delays, on account of disputes in land acquisition, protests by environmentalists and political uncertainty, the project could be completed only in 2012, five years late from the originally planned commencement date. It has built a 1,900 MW Volt Hydro Power Complex, that comprises of Volt Dam & 1,000 MW Volt Hydro Power Plant (250MW×4), Ujwal HEP (400 MW), and Volt PSP (500 MW).

The Volt Dam is built across the Brahmaputra River. At a height of 1,000 ft, it is a large sized multi-purpose high rock and earth-fill embankment dam, with a reservoir capacity of 5 cubic kilometers. The 1,000 MW Volt Hydro Power Plant was commissioned in 2012, with variable speed features which can optimize the round-trip efficiency under varying water levels in its reservoirs. Power is distributed to 7 northern eastern states, including home state Arunachal Pradesh. This will also afford irrigation to the northeastern states and also supply millions of gallons of drinking water per day for around 2 million people living in this region. The company earns revenue by providing power to the north eastern states. As per agreement, home state Arunachal Pradesh gets 20% of the generated power free. The total expenditure for this project was USD 4.5 billion; it has substantially increased by 120% due to project delays. Since 2012-13, which was the first year of operation, VHDCL has been a profit-making company. The union government owns 75% stake and the state government owns balance 25% stake of VHDCL.

The Volt Dam has been the object of protests by environmental organizations and local people of the region. The protest was against the displacement of town inhabitants and environmental consequences of the weak ecosystem. An estimated 4,000 families have been displaced on account of this project. It led to protracted legal battles over resettlement rights and, ultimately, resulted in the project's delayed completion despite the fact that land acquisition was started in 2003. However, as per the latest reports all the displaced families have

been resettled in the New Volt Township area that has been developed nearby. The resettlement efforts started as early as 2004 at the commencement of the project. The company could acquire alternate land at a much cheaper rate as compared to current market prices. This township has now become a semi-ultra-modern hill station with good road connectivity, healthcare and education facilities. All this was done as part of the project cost. The increased economic activity around this township created alternate employment for the local population. Despite all these measures few human rights activists claim that around 100 families who also lost their land to the dam project have not been officially recognized to be part of the group entitled to resettlement benefits.

Environment activists have sounded alarm over the scale of the project as it is an earthquake prone area. They have also raised concerns about the riverine ecosystem that lives within the river. Following this the project came under intense public and governmental scrutiny; this forced the management to include adequate safeguards. The company's engineering team modified the design and construction of the dam keeping in mind the fragile ecosystem and risk of earthquakes in that region. This improved the dam's sustainability to withstand these risks and improved its longevity.

The project has received the requisite regulatory certifications and has won many international awards. The company has also undertaken many CSR initiatives to conserve the surrounding fragile forests and natural ecosystem, soil and water conservation through rain water harvesting, building rural infrastructure and making health and education affordable to locals.

MULTIPLE CHOICE QUESTIONS

1. From an economic perspective, which of the following represents the hidden cost incurred by VHDCL on account of a delay in commissioning the project?
 - (a) Substantial delay in recouping investment
 - (b) Distribution of 20% of power generated free of cost to home state
 - (c) Developing New Volt Township around the dam site
 - (d) Cost of CSR initiatives

2. Which economic metric was most negatively impacted by the protracted disputes regarding land acquisition and resettlement of affected families that delayed commencement of the project until 2012?
 - (a) The 75% stake owned by the union government and the 25% stake owned by the state government
 - (b) Cost of establishment of New Volt Township
 - (c) Economic activity and business opportunities around the township
 - (d) The Net Present Value (NPV) of the project, as future cash flows were deferred for 5 years
3. The project came under intense public and government scrutiny after environment activists raised alarm about risk of earthquakes as also concern for the riverine ecosystem in the river on account of construction of the dam. What was the impact of Plant (Environmental Stewardship) on the Profit (Economic Viability) dimension of the project using the Triple Bottom Line framework?
 - (a) This had a negative impact on the economic viability as the company had to invest more to build safeguards to mitigate these risks within this project development.
 - (b) This had a negative impact on the economic viability as the company had to undertake CSR activities to protect and maintain the fragile forests and natural ecosystem
 - (c) This had a positive impact on the economic viability as the company was forced to take measures that ensured long term sustainability of the dam due to withstand these risks due to better construction efforts and increased its longevity
 - (d) This had a positive long-term impact on economic viability as the company won many awards on account of better construction efforts

-
4. From a Social Bottom Line perspective, what remains the most significant an unresolved challenge for VHDCL?
- (a) Providing resettlement benefits for the 4,000 families that were identified to be displaced by the project
 - (b) Resolving claims by activists regarding the resettlement claims by 100 families who also lost their land to the dam project but have not been officially recognized to be part of the group entitled to resettlement benefits.
 - (c) Facilitating for irrigation and drinking water requirements of the local population
 - (d) Sharing 20% of power generated free of cost with the state governmental
5. Which of the following best describes the "People" dimension's contribution to the project's long-term success?
- (a) Agreeing to provide 20% of the power generated free of cost to the state government
 - (b) Development of New Volt Township that provided alternate employment opportunities to local population
 - (c) Early resettlement efforts of 4,000 families displaced by the project to shift to land that was acquired at much cheaper rates than current market rates
 - (d) Winning international awards for the dam's engineering excellence

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): Substantial delay in recouping investment.

Reason

The project commencement date was postponed by 5 years on account of activism by environmentalists and human rights activists. This increased the project cost by 120% to USD 4.5 billion. The delay postponed revenue

generation by five years, resulting in opportunity cost and delayed recovery of the large capital investment, which represents a hidden economic cost.

2. **Option (d): The Net Present Value (NPV) of the project, as future cash flows were deferred for 5 years.**

Reason

Delay in project commencement not only increased the project cost by 120% to USD 4.5 Billion, it also delayed the timeline to commence revenue generation since commercial activities could start only after a 5-year delay. This deferred the cash flow by 5 years, therefore negatively impacting NPV of the project.

3. **Option (c): This had a positive impact on the economic viability as the company was forced to take measures that ensured long term sustainability of the dam due to withstand these risks due to better construction efforts and increased its longevity.**

Reason

Pressure from environmental activists forced the company to improve its construction efforts that helped build a more eco-friendly and stronger dam. This increases the sustainability and longevity of the VHDCL

4. **Option (b): Resolving claims by activists regarding the resettlement claims by 100 families who also lost their land to the dam project but have not been officially recognized to be part of the group entitled to resettlement benefits.**

Reason

This issue has not yet been resolved by the company. If the claims of the activists are found to be correct, then the company may be bound to provide similar resettlement benefits as it did for the other group of 4,000 families. Not only would this increase its expenditure, it may also negatively impact its brand image on account of its error in not including in the initial group of impacted families in the first place.

5. Option (b): Development of New Volt Township that provided alternate employment opportunities to local population

Reason

The company's project had a positive impact on the local population as it provided them with modern amenities, alternative employment opportunities, better healthcare and education facilities all of which contributes to the people's upliftment.

CASE SCENARIO 14

Power Gym (PG) is a chain of boutique fitness studios offering “Holistic Wellness” solutions to its members. It operates 15 branches across Mumbai and provides regular gym and fitness workout services. A growing health-conscious population, coupled with increasing aspirations to look fit and stylish, presents strong growth opportunities for PG. However, competition in the fitness industry is intense. In addition to its core gym and fitness offerings, and in response to emerging consumer trends, PG plans to pivot towards providing nutrition and diet-related services under the brand name *Nutriplan*.

PG is a closely held partnership firm. The partners target a Return on Equity (ROE) of 18%, with revenues generated primarily from gym membership fees. The chain has been in operation for the past eight years. Owing to the high quality of its training services, PG has achieved a customer retention rate of 82%, significantly higher than the industry average of 75%. Over the last four years, the company has added new members at an average annual growth rate of 4%.

Customer satisfaction surveys conducted across various branches report an average score of 4.2 out of 5, indicating strong performance. Trainers at PG are well qualified and provide professional coaching to help members achieve their personal fitness goals in a safe and healthy manner. Considering the long commute times in a city like Mumbai, some customers prefer online workout sessions. Accordingly, PG offers both in-person and online fitness classes. Payments for these services can be made either in cash or through cashless modes such as digital wallets.

PG has also developed a mobile application integrated with customers’ wearable technologies such as smartwatches and smartphones. These devices track vital statistics including heart rate, calories burnt, and body weight, and provide comparative workout performance data over time. Based on this data, trainers suggest ways to improve individual members’ performance. The proposed *Nutriplan* service is intended to complement this workout ecosystem. Trainers and studio managers will promote personalised nutrition and diet

recommendations aligned with members' fitness goals, including protein supplements, health and energy drinks, and healthy snacks.

To improve profitability, the partners have decided to increase the monthly gym membership fee from ₹8,000 to ₹10,000. Studio managers and lead trainers at all locations have been assigned targets to increase the annual growth rate of new customers to 7% and improve customer retention to 90%. These uniform targets apply to all studios across Mumbai. However, demand for gym and fitness services is not evenly distributed across different suburbs. While these targets may be easier to achieve in affluent and densely populated areas, studios located in sparsely populated or middle-income suburbs may find them difficult to meet.

At present, machine downtime at each gym studio averages 8% of total working time. The partners aim to reduce this downtime to 2% in order to improve machine utilisation. However, since certain machines require a minimum amount of downtime for routine maintenance and repairs, some staff members doubt whether this target is feasible.

Currently, all employees receive a fixed monthly remuneration. The partners now intend to introduce a variable pay system linked to staff performance. Non-training staff will receive bonuses based on feedback from their superiors. Trainers will be eligible for bonuses based on quarterly feedback from members, but variable pay will be awarded only if the member confirms that their personal fitness goal for the quarter has been achieved. Several trainers have expressed concerns about this policy, highlighting that achievement of fitness goals may depend on factors beyond their control, such as members' dietary habits outside gym hours. This has led to dissatisfaction and resentment among the training staff.

The above strategies and performance measures were implemented in April 2026. By the end of the financial year 2026–27, PG achieved the targeted ROE of 18%. However, increased attrition among trainers led to a decline in customer retention to 70%. This was accompanied by a drop in the customer satisfaction score to 3.4 by the end of the year.

MULTIPLE CHOICE QUESTIONS

1. An assessment of the actual outcome of the partners' strategy and measures that were implemented in April 2026 reflect failure of which of the following linkages?
 - (a) A flawed reward system negatively impacted financial performance
 - (b) A flawed reward system negatively impacted competitive performance
 - (c) An unrealistic resource utilization target negatively impacted financial performance
 - (d) A non-equitable standard negatively impacted competitive performance
2. The partners are confused on how to interpret the results at the end of FY 2026-27, where ROE has increased by 18% as per target but the customer retention rate has fallen to 70% and customer satisfaction score to a scale of 3.4.
 - (a) Financial results are a leading indicator of future quality that will improve customer satisfaction in the long run
 - (b) Achievement of ROE target of 18% increase indicates that critical success factors are being achieved
 - (c) Financial results are lagging indicators, although ROE increased by 18% as per targets leading indicators like customer retention and customer satisfaction rate indicate business sustainability problems in the long run
 - (d) Achievement of ROE target of 18% increase is sufficient to indicate that the business performance is healthy. Partners can ignore non-financial indicators like customer retention rate and customer satisfaction rate.
3. Improve growth rate of new customers to 7% year-on-year and customer retention to 90% are targets given to all studios across suburbs irrespective of the local demographic profile. This violates which criteria of Building Block model:
 - (a) Ownership

- (b) Achievability
 - (c) Equity
 - (d) Productivity
4. The target to achieve reduction in machine downtime from the current 8% of working time to 2%, suggests a flaw in which of the following?
- (a) Achievability of standard
 - (b) Improvement of competitive performance
 - (c) Controllability of rewards
 - (d) Clarity of rewards
5. PG's pivot to provide Nutriplan service, integrate its application with wearable technology, introduce cashless payments are all measures to improve which of the following?
- (a) Clarity of rewards
 - (b) Achievability of standards
 - (c) Financial performance
 - (d) Quality of service

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): a flawed reward system negatively impacted competitive performance.**

Reason

The variable payout policy for trainers was based on factors that were uncontrollable. When the reward is based on uncontrollable factors, it led to higher attrition of trainers, who are a key resource for PG. Being a personalized service, this led to customer dissatisfaction resulting in a lower satisfaction score of 3.4, a huge reduction from the previous year's rating. Due to this, the customer retention rate fell to 70% resulting in negatively impacted competitive performance.

2. **Option (c): Financial results are lagging indicators, although ROE increased by 18% as per targets leading indicators like customer retention and customer satisfaction rate indicate business sustainability problems in the long run**

Reason

Short term financial performance is being prioritized at the expense of competitiveness and quality. Fall in customer retention rate (competitiveness) and lower customer satisfaction rate (quality) will negatively impact business sustainability in the long run.

3. **Option (c): Equity**

Reason

Equity in standards is violated by this target. While studio managers in few affluent and well populated suburbs may find it easier to meet this target, others in sparsely populated or middle-income suburbs may find it difficult to meet these targets.

4. **Option (a): Achievability of standard**

Reason

Given that some machines require minimum hours of downtime for repair and maintenance, some of the staff are in doubt if this target can be met. If the technical requirements make 2% downtime impossible, the target will be unachievable.

5. **Option (d): Quality of service**

Reason

Customers get added value from the Nutriplan service, integration of PG's application with wearable technology, introduction of cashless payments etc. This increases the value proposition that the gym membership offers, therefore improves quality of service.

CASE SCENARIO 15

Caregiver Hospital is a multi-specialty, for profit hospital in a mid-sized town. Most of the community members have their livelihood linked with the hospital. Many of them are directly employed at the hospital as doctors, nursing staff, lab technicians or as other support staff. While, other may be suppliers of medical devices, drugs to the hospital, catering or housekeeping contractors for the hospital. Hence, existence of the hospital is vital to the community.

Growing awareness about sustainable business prompted the management to identify areas that can help the hospital operate in a sustainable manner that would be mutually beneficial to the organization as well as the town that depends on it. Therefore, it has identified the following initiatives that have been put in place to create a sustainable business. Information captured from various departments are being considered to prepare the triple bottom line report that is for the consumption both to internal and external stakeholders.

Identify, which of the following aspects need to be reported in the triple bottom line report and under which of the three categories. Provide reasons for classifying the aspect under a specific category, if applicable. Assume all aspects are material enough to be reported in the triple bottom line report.

- a. Medical staff conduct charity camps every month. Open to all members of the community, who are provided with consultation free of charge.
- b. Prompt and accurate tax payments based on records maintained without errors or fraud.
- c. Medical waste is discarded at a landfill in a nearby dumpsite. Some of the wastes are not bio-degradable.
- d. During review of the supplier for housekeeping service, it was observed that the service provider resorted to child labor to keep cost of operations lower.
- e. Training and professional development programs for doctors and nurses.
- f. Lab reports are being made available online within the hospital computer system. This would reduce printing costs and storage space needed to maintain older records.

- g. Payment to non-medical staff lower than national average.
- h. Emergency department is getting new critical care equipment. This would reduce average wait time of patients by 30 minutes.
- i. The hospital is planning to market "medical check-up packages" so that facilities in its outpatient departments can be utilized better.

MULTIPLE CHOICE QUESTIONS

1. If Caregiver Hospital successfully increases its ROI from 8% to 10% but continues to pay its non-medical staff lower than national average, how would the Triple Bottom-Line report evaluate this?
 - (a) This will be considered positively since Caregiver Hospital is a for profit organization.
 - (b) This will be considered negatively since hospitals should operate to serve the society and not as commercial organizations.
 - (c) This will be considered neutral since Caregiver Hospital can use these profits to conduct more charity camps and fulfill its responsibility to the society
 - (d) This will be considered negatively since this profitability is coming at a trade-off of the social cost of paying non-medical staff lower wages than national average.
2. Which of the following initiatives has a dual impact on the Triple Bottom Line reporting?
 - (a) Providing monthly consultation free of cost in charity camps
 - (b) Installing new equipment in emergency department that would reduce patient wait time by 30 minutes
 - (c) Prompt and accurate tax payments
 - (d) Increase ROI from 8% to 10% within three years
3. Making lab reports available online would save ₹ 21 lakh per year. Caregiver decides to use these specific savings to start a health awareness

program for school children. Which statement best describes the TBL impact?

- (a) This initiative is purely economic because it stems from cost saving measures.
 - (b) This initiative is a link between the planet and people pillars since environmental responsibility has been coupled with social responsibility.
 - (c) This is irrelevant to Triple Bottom Line reporting as it is not the main business operation of Caregiver Hospital.
 - (d) This initiative reflects Triple Bottom Line synergy where Environmental gain (less paper) created Economic gain (cost savings) which was then channeled into social gain (health awareness for school children)
4. Caregiver Hospitals terminates the contract of the housekeeping contractor who employs child labor. Instead, they take a fresh contract with another vendor who follows ethical business practices. This fresh contract is 40% costlier than the previous one. How should this be reported in this in Triple Bottom Line report?
- (a) This action has positive economic impact as potential legal fines are avoided and socially positive as the hospital followed ethical business practices against child labor.
 - (b) This action has a negative economic impact as the contract price is 40% costlier than before but is justified as it has a positive social impact; the hospital followed ethical business practices against child labor.
 - (c) This action has a negative economic impact as the contract price is 40% costlier than before but socially neutral since the unethical practice is being carried out by a third-party vendor.
 - (d) This action has positive economic impact as potential legal fines are avoided and socially neutral since the unethical practice is being carried out by a third-party vendor.

5. The hospital plans to increase utilization of its outpatient department using marketing campaigns for medical check-up packages. In-order to control costs, the hospital does not plan to hire new staff. The staff worry that this will increase their workload manifold and result in a burn-out. Therefore, they went on a protest strike and halted operations for 2 days. How should this be reported in the Triple Bottom Line report?
- (a) Report only the economic gain derived from selling these medical check-up packages.
 - (b) Report only the social gain since the hospital is providing more medical services to the community.
 - (c) Report only the economic loss from loss of revenue due to the two-day strike.
 - (d) Report the socio-economic conflict, the hospital gains economically since higher utilization of the out-patient department will yield higher revenue, at the same time social pillar is negatively impacted due to lower employee well-being.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (d): This will be considered negatively since this profitability is coming at a trade-off of the social cost of paying non-medical staff lower wages than national average.**

Reason

The economic pillar should ideally support and strengthen the social and environmental pillars for the improvement social and environmental pillar. While the hospital is doing well financially, payment of wages below national average is coming at the cost of social responsibility. While hospitals can be commercial organizations, their operations should ensure that they also act as good corporate citizens.

2. **Option (b): Installing new equipment in the emergency department that would reduce patient wait time by 30 minutes**

Reason

Installing a new equipment in the emergency department will build capacity in the operations that will help handle more patient cases.

Increased machine utilization increases revenue growth. At the same time, the hospital is now equipped to provide prompt care to critical care patients, which positively impacts social pillar.

3. **Option (d): This initiative reflects Triple Bottom Line synergy where Environmental gain (less paper) created Economic gain (cost savings) which was then channeled into social gain (health awareness for school children)**

Reason

This initiative promotes synergy where performance of one pillar (environmental) fuels performance of the other two pillars (Economic and Social).

4. **Option (b): This action has a negative economic impact as the contract price is 40% costlier than before but is justified as it has a positive social impact; the hospital followed ethical business practices against child labor.**

Reason

Caregiver Hospitals has the moral responsibility to act against unethical practices like child labor even if it is not in direct control over the actions of the vendor. As a responsible corporate citizen, it took the correct step of replacing the vendor with one who follows ethical practices, even if it came at a higher economic cost. This has to be reported to both internal and external stakeholders.

5. **Option (d): Report the socio-economic conflict, the hospital gains economically since higher utilization of the out-patient department will yield higher revenue, at the same time social pillar is negatively impacted due to lower employee well-being.**

Reason

Triple Bottom Line is a tool to identify conflicts between the three pillars that are needed for business sustainability. Increased revenue and higher utilization of current staff capacity at no extra cost (economic gain) is coming at the cost of employee well-being (socially negative impact). This affects business sustainability, which can be seen in the form of staff protest strike that disrupted operations for 2 days. This has to be reported to both internal and external stakeholders.

CASE SCENARIO 16

KD Railway Catering and Tourism Corporation (KRCTC) operates one of the largest public-facing service systems in the world, handling millions of passengers daily across ticketing, catering, tourism, and online services. Despite technological advancements such as online ticket booking and e-catering platforms, KRCTC faced persistent service quality challenges, system outages during peak booking hours, inconsistent food quality, poor grievance redressal, and low frontline employee accountability.

Customer complaints on social media surged, audit reports highlighted process inefficiencies, and public perception increasingly linked KRCTC with inconvenience rather than service excellence. Senior management realized that piecemeal fixes were insufficient; what KRCTC needed was a Total Quality Management (TQM) transformation embedded across the organization.

The first step was top management commitment, aligning with both the Six Cs of TQM and Deming's philosophy. A clear quality vision— *"Passenger First, Process Always"*— was communicated across zones and departments. Leadership moved away from a blame culture towards system-based problem solving, consistent with Deming's emphasis on improving processes rather than policing individuals.

To build a quality-oriented culture, KRCTC trained employees and vendors on service standards, food safety, and customer handling. Quality circles were introduced at major stations to encourage co-operation between operations, IT, catering partners, and customer service teams. This cross-functional collaboration reduced departmental silos and improved issue resolution speed.

Using the PDCA Cycle, KRCTC adopted a structured improvement approach. In the Plan phase, root causes of booking failures and food complaints were identified using complaint analytics. In the Do phase, pilot solutions such as server capacity upgrades, standardized food menus, and vendor rating systems were rolled out on select routes. During Check, performance metrics like complaint frequency, on-time grievance resolution, and passenger satisfaction scores were monitored. Finally, in the Act/Control stage, successful practices were standardized nationwide, supported by dashboards and periodic audits.

Customer focus has become central to decision-making. Feedback from passengers directly influenced service redesign, while control mechanisms including SOPs, vendor penalties, and real-time monitoring, ensured consistency. Over time, KRCTC witnessed reduced complaints, improved public trust, and measurable service reliability, demonstrating how TQM can transform even complex public-sector systems.

MULTIPLE CHOICE QUESTIONS

1. Which action by KRCTC best reflects "Commitment" under the Six Cs of TQM?
 - (a) Penalizing frontline staff for customer complaints
 - (b) Introducing automated complaint dashboards only
 - (c) Communicating a clear quality vision and shifting focus from blame to process improvement
 - (d) Outsourcing catering operations to private vendors
2. Which of the following initiatives demonstrate PDCA Cycle implementation at KRCTC?
 - i. Analyzing complaint data to identify root causes
 - ii. Rolling out pilot solutions on select routes
 - iii. Monitoring service metrics after implementation
 - iv. Penalizing vendors without process review

Which sequence is correct:

 - (a) i, ii, iii
 - (b) ii, iii, i
 - (c) iii, iv, i
 - (d) ii, iii, iv
3. Which of the following is NOT consistent with Deming's 14 Points as applied in the case?
 - (a) Encouraging cross-department cooperation

- (b) Building quality through inspection and audits alone
 - (c) Training employees for quality improvement
 - (d) Improving systems rather than blaming individuals
4. KRCTC's use of passenger feedback to redesign services primarily reflects which TQM principle?
- (a) Control
 - (b) Co-operation
 - (c) Customer Focus
 - (d) Continuous Improvement
5. Assertion (A): KRCTC standardized successful pilot solutions nationwide only after performance monitoring.
- Reason (R): The PDCA cycle requires validation of outcomes before institutionalizing improvements.
- Choose the correct option:
- (a) Both A and R are true, and R correctly explains A
 - (b) Both A and R are true, but R does not explain A
 - (c) A is true, R is false
 - (d) A is false, R is true

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (c): Communicating a clear quality vision and shifting focus from blame to process improvement**

Reason

Commitment in TQM starts with top management leadership and vision. Shifting from blame to system improvement directly aligns with Deming's philosophy and the Six Cs.

2. Option (a): i, ii, iii**Reason**

- i. reflect Plan – Analyse to Identify
- ii. reflect Do – Rolling Out
- iii. reflect Check - Monitoring
- iv. violates PDCA by focusing on punishment rather than improvement.

3. Option (b): Building quality through inspection and audits alone**Reason**

Deming explicitly warned against reliance on inspection. Quality must be built into processes, not inspected at the end.

4. Option (c): Customer Focus**Reason**

While feedback aids improvement, the primary intent here is aligning services with customer expectations - core to customer focus.

5. Option (a): Both A and R are true, and R correctly explains A**Reason**

This reflects the **Check** → **Act** stages of PDCA, ensuring evidence-based Standardization.

CASE SCENARIO 17

ConnectTel Ltd., a large Indian telecom service provider, had built its growth strategy on rapid customer acquisition. By FY 2024, it serviced over 120 million subscribers, of which nearly 75% were prepaid customers. Management proudly reported steady growth in subscriber numbers; however, profitability per customer was steadily declining.

At a quarterly review, the CFO highlighted a puzzling trend: despite higher revenues from postpaid customers, overall margins were under pressure. Traditional profitability analysis based on average revenue per user (ARPU) was failing to explain the gap. The CEO therefore commissioned a Customer Account Profitability (CAP) study using Activity-Based Costing (ABC) to understand the true cost-to-serve different customer segments.

The internal team identified two dominant segments i.e. Prepaid Subscribers and Postpaid Subscribers. While prepaid users generated lower ARPU, they mostly relied on digital channels for recharges, billing information, and service requests. Postpaid customers, on the other hand, enjoyed higher ARPU but demanded priority services, including frequent call-centre interactions, customized billing queries, roaming support, retention discounts, and manual credit control processes.

Key service activities were mapped: SIM activation, network usage, billing and collections, customer complaint handling, retention offers, and account management. ABC analysis revealed that postpaid customers consumed disproportionately higher resources per account- especially in complaint resolution, credit risk management, and personalized service handling.

Further, a subset of postpaid customers with high complaint frequency and delayed payments turned out to be marginally profitable or even loss-making after allocating activity costs. In contrast, digitally active prepaid customers showed lower service costs and surprisingly stable contribution margins.

The findings triggered a strategic debate at the board level. Should ConnectTel aggressively push postpaid plans for revenue visibility, or should it redesign service levels and pricing to reflect actual cost-to-serve? Should high-

maintenance customers be retained at all costs, or should differentiated pricing and service rationalization be introduced?

The case forced management to confront a fundamental insight: not all high-revenue customers are profitable, and not all low-revenue customers destroy value. CAP using ABC had shifted the focus from "How much revenue do customers generate?" to "How much value do they actually create?"

MULTIPLE CHOICE QUESTIONS

1. Which of the following best explains why postpaid customers appeared less profitable under ABC-based CAP analysis?
 - (a) Lower network usage compared to prepaid customers
 - (b) Higher discounts offered to prepaid customers
 - (c) Higher consumption of service and support activities per customer
 - (d) Lower ARPU generated by postpaid customers
2. Which activities are most likely to be significant cost drivers for postpaid customers under ABC?
 - i. Manual billing adjustments
 - ii. Frequent customer complaint handling
 - iii. Digital self-service recharges
 - iv. Credit risk monitoring and follow-ups

Which sequence is correct:

 - (a) i, ii, iii
 - (b) ii, iv, i
 - (c) iii, iv, i
 - (d) ii, iii, iv
3. What would be the most appropriate strategic response for ConnectTel based on the CAP findings?
 - (a) Eliminate all postpaid plans

- (b) Increase prices uniformly for all customers
 - (c) Redesign pricing and service levels based on cost-to-serve
 - (d) Focus only on increasing subscriber base
4. All of the following statements are true implications of Customer Account Profitability analysis EXCEPT:
- (a) High ARPU customers are always the most profitable
 - (b) Customer profitability can differ significantly within the same segment
 - (c) Cost-to-serve is critical in evaluating customer value
 - (d) ABC improves visibility into hidden service costs
5. Assertion (A): Some prepaid customers were found to be more profitable than certain postpaid customers.
- Reason (R): Prepaid customers generally consumed fewer service activities and relied more on automated channels.
- Choose the correct option:
- (a) Both A and R are true, and R correctly explains A
 - (b) Both A and R are true, but R does not explain A
 - (c) A is true, but R is false
 - (d) A is false, but R is true

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Higher consumption of service and support activities per customer**

Reason

ABC allocates costs based on activities consumed. Postpaid customers consumed more call-centre support, billing queries, credit management, and retention efforts, increasing their cost-to-serve despite higher ARPU.

2. Option (b): ii, iv, i**Reason**

Postpaid customers consume resource-intensive activities such as manual billing support, frequent complaint handling, and credit risk monitoring. Digital self-service recharges are predominantly used by prepaid customers and are low-cost activities. Further Digital self-service recharges are explicitly described in the case as a **prepaid, low-cost activity**.

3. Option (c): Redesign pricing and service levels based on cost-to-serve**Reason**

CAP insights suggest aligning pricing and service differentiation with actual resource consumption rather than abandoning segments or using blanket pricing actions.

4. Option (a): High ARPU customers are always the most profitable**Reason**

A core CAP insight is that high revenue does not automatically imply high profitability.

5. Option (a): Both A and R are true, and R correctly explains A**Reason**

Lower cost-to-serve through digital channels explains why some prepaid customers generate higher contribution margins despite lower ARPU.

CASE SCENARIO 18

Dubai Uni Limited (DUL), one of India's largest FMCG companies, operates in an intensely competitive market where products such as soaps, detergents, and shampoos are highly price-sensitive. Once a product is launched, DUL faces limited flexibility to increase selling prices due to competition and consumer expectations. Therefore, management continuously focuses on post-launch cost reduction without compromising quality or brand perception, a philosophy deeply rooted in Kaizen Costing.

In one of its flagship soap brands, DUL noticed that although manufacturing processes were efficient, packaging costs per unit were steadily increasing due to rising raw material prices and transportation costs. Packaging constituted nearly 18% of the total product cost, making it a critical focus area for improvement. Rather than undertaking a major redesign or capital-intensive overhaul, DUL adopted a Kaizen-based approach, emphasizing small, continuous, and employee-driven improvements.

A cross-functional Kaizen team was formed, comprising members from packaging design, procurement, logistics, quality assurance, and marketing. The team conducted a detailed analysis of the existing packaging process and identified multiple improvement opportunities. These included reducing the thickness of plastic wrappers marginally without affecting durability, optimizing carton dimensions to improve truck utilization, and minimizing the number of colours used in printing while maintaining brand visibility.

Each improvement individually appeared insignificant. However, when implemented consistently across millions of units, the cumulative impact became substantial. Over a six-month period, DUL achieved a 3–4% reduction in packaging cost per unit, without any adverse impact on product quality, customer satisfaction, or regulatory compliance. Importantly, these improvements were not one-time cost cuts but were institutionalized as standard operating procedures, ensuring sustainability.

The Kaizen initiative also had behavioral benefits. Shop-floor employees and junior managers became active contributors to cost management, shifting the mindset from "cost control by finance" to "cost consciousness across the

organization.” Management deliberately avoided aggressive cost targets, focusing instead on continuous monthly improvements, reinforcing the essence of Kaizen Costing.

This case illustrates how Kaizen Costing enables organizations to systematically reduce costs during the production phase, particularly in high-volume, low-margin industries like FMCG, where incremental efficiency gains translate into significant strategic advantage.

MULTIPLE CHOICE QUESTIONS

1. Which feature of DUL’s approach most clearly distinguishes Kaizen Costing from Target Costing in this case?
 - (a) Focus on reducing packaging material prices through renegotiation
 - (b) Emphasis on continuous cost reduction after product launch
 - (c) Involvement of cross-functional teams in cost control
 - (d) Maintaining product quality while reducing costs
2. Which of the following actions taken by DUL represent Kaizen activities? *(Select all that apply)*
 - i. Reducing plastic thickness marginally without affecting durability
 - ii. Redesigning the product formulation to reduce material cost
 - iii. Optimizing carton size to improve truck utilization
 - iv. One-time elimination of packaging department overheads

Which combination is correct:

 - (a) i, ii & iii
 - (b) i, ii & iv
 - (c) i & iii
 - (d) i & ii
3. From a strategic cost management perspective, why was packaging chosen as the focus area for Kaizen?
 - (a) Packaging costs were fixed and easy to control

- (b) Packaging costs formed a significant proportion of total cost and affected logistics efficiency
 - (c) Packaging improvements required minimal employee involvement
 - (d) Packaging cost reductions directly increase selling price
4. Which of the following is NOT consistent with the Kaizen Costing philosophy demonstrated in the case?
- (a) Employee participation in suggesting improvements
 - (b) Implementation of improvements as standard procedures
 - (c) Achieving large cost reductions through radical process change
 - (d) Focus on monthly incremental cost savings
5. If DUL continues this Kaizen initiative over several years, which outcome is most likely?
- (a) Immediate and sharp reduction in selling price
 - (b) Gradual improvement in operating margins without quality dilution
 - (c) Complete elimination of packaging cost
 - (d) Reduced brand equity due to cost focus

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Emphasis on continuous cost reduction after product launch

Reason

Target costing focuses on cost management before launch, whereas Kaizen Costing emphasizes continuous post-launch cost reduction, which is the central theme of the case.

2. Option (c): i & iii

Reason

Kaizen focuses on small, continuous, process-level improvements. Options I & III fit this philosophy. Options B and D represent major redesign or one-time cost cutting, not Kaizen.

-
3. **Option (b): Packaging costs formed a significant proportion of total cost and affected logistics efficiency.**

Reason

The case highlights packaging as 18% of total cost with strong linkage to logistics, making it a high-impact Kaizen opportunity.

4. **Option (c): Achieving large cost reductions through radical process change**

Reason

Kaizen explicitly avoids radical or breakthrough changes, focusing instead on continuous incremental improvements.

5. **Option (b): Gradual improvement in operating margins without quality dilution**

Reason

Sustained Kaizen leads to long-term margin improvement, not drastic price cuts or quality compromise.

CASE SCENARIO 19

In 2009, urban mobility across the world followed a familiar pattern—customers hailed licensed taxis, supply was limited by permits, pricing was largely fixed, and service quality varied widely. In this context, Kuber entered the market not as a transport company, but as a technology platform that connected riders with independent drivers. Crucially, Kuber owned no cars, employed no drivers, and yet aimed to solve a deeply entrenched urban problem: inefficient and unreliable transportation. Despite being asset-light, Kuber remained capital-intensive in terms of technology, data infrastructure, and incentives.

Kuber's hyper-disruptive power lay in its platform vs ownership model. By leveraging smartphone penetration, GPS, and real-time data, Kuber matched demand and supply dynamically. Drivers could monetize idle assets (their cars), while customers benefited from shorter wait times, transparent pricing, and cashless payments. Surge pricing, though controversial, ensured availability during peak demand—something traditional taxi systems struggled to achieve due to rigid fare structures and regulatory caps.

As Kuber scaled rapidly across cities and countries, it bypassed traditional entry barriers such as fleet ownership, taxi medallions, and depot infrastructure. Instead, growth was driven by network effects: more drivers reduced wait times, attracting more riders, which in turn attracted more drivers. Venture capital funding enabled Kuber to subsidize rides and incentives, accelerating adoption but delaying profitability.

However, the same hyper-disruptive model also created systemic tensions. Regulators questioned whether Kuber was a technology intermediary or a de facto transport operator. Driver classification as independent contractors led to legal disputes over wages, benefits, and job security. Traditional taxi unions protested the uneven regulatory playing field. Internally, Kuber faced governance challenges as aggressive growth targets overshadowed compliance, culture, and stakeholder management.

By the late 2010s, Kuber stood at a strategic crossroads. Its platform model had undeniably reshaped global mobility, but questions remained about long-term sustainability, regulatory legitimacy, and unit economics once subsidies were

withdrawn. Kuber's case illustrates how hyper-disruptive business models can unlock massive value rapidly—while simultaneously amplifying strategic, ethical, and governance risks.

MULTIPLE CHOICE QUESTIONS

1. Which element most fundamentally differentiates Kuber's business model from traditional taxi operators?
 - (a) Use of mobile applications
 - (b) Dynamic pricing mechanism
 - (c) Asset ownership structure
 - (d) Cashless payment system
2. Which of the following are direct consequences of Kuber's platform-based model?
 - i. Strong network effects
 - ii. Lower regulatory scrutiny
 - iii. Faster geographic scalability
 - iv. Higher capital intensity compared to taxi firms

Which combination is correct:

 - (a) i, ii & iii
 - (b) i, ii & iv
 - (c) i & iii
 - (d) i & i
3. From a long-term strategic perspective, which action would best enhance Kuber's business model sustainability?
 - (a) Continued deep ride subsidies to protect market share
 - (b) Complete vertical integration by owning vehicles
 - (c) Collaborative engagement with regulators and cities
 - (d) Aggressive automation to eliminate drivers immediately

4. Kuber's model qualifies as *hyper-disruptive* because of all the following EXCEPT:
- (a) It redefined industry boundaries
 - (b) It relied on customer-owned assets
 - (c) It reduced dependence on technology to some extent
 - (d) It altered cost and risk structures
5. If regulators worldwide reclassify Kuber drivers as employees, the most likely strategic impact on Kuber would be:
- (a) Strengthening of network effects
 - (b) Increase in fixed costs and margin pressure
 - (c) Elimination of platform economics
 - (d) Immediate exit from all regulated markets

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Asset ownership structure

Reason

While apps, pricing, and payments are visible features, the core disruption is Kuber's non-ownership of vehicles, which transforms fixed costs into variable costs and enables rapid, scalable expansion-hallmark of a hyper-disruptive model.

2. Option (c): i & iii

Reason

- (a) Platform models inherently generate network effects.
- (b) Incorrect, regulatory scrutiny actually increased.
- (c) Absence of asset ownership enables rapid city-by-city scaling.
- (d) Incorrect, Kuber is less capital-intensive operationally than ownership models.

3. Option (c): Collaborative engagement with regulators and cities**Reason**

Sustainable advantage requires institutional legitimacy. Regulatory collaboration balances innovation with compliance, reducing existential risk—more critical than subsidies or premature automation.

4. Option (c): It reduced dependence on technology to some extent**Reason**

Kuber increased dependence on technology (data, algorithms, apps). The other options correctly describe hyper-disruption characteristics.

5. Option (b): Increase in fixed costs and margin pressure**Reason**

Employee classification would significantly raise fixed costs (wages, benefits, compliance), challenging Kuber's asset-light economics but not necessarily destroying the platform model.

CASE SCENARIO 20

Until the mid-2010s, the Indian hospitality market was sharply fragmented. While premium hotel chains offered standardized experiences at high prices, millions of budget travelers relied on small, unbranded hotels and guesthouses that suffered from inconsistent quality, weak visibility, and low occupancy. For these independent hotel owners, branding, demand forecasting, and technology were expensive and largely inaccessible.

YOYO entered this space with a hyper-disruptive aggregator model. Instead of owning hotels, YOYO partnered with small property owners, standardizing rooms under a single brand promise. In return for a commission, YOYO provided technology, pricing algorithms, online visibility, and operating protocols. This transformed thousands of idle or under-utilized assets into branded inventory overnight—without heavy capital investment.

The disruption lay not merely in aggregation, but in rapid standardization at scale. YOYO imposed uniform check-in experiences, minimum room standards, dynamic pricing, and centralized bookings. For customers, this reduced uncertainty in budget travel. For hotel owners, it promised higher occupancy and revenue stability. Backed by venture capital, YOYO expanded aggressively across Indian cities and then globally, entering Southeast Asia, Europe, and the US within a few years.

However, hyper-scale exposed structural vulnerabilities. Property owners increasingly resisted rigid pricing controls and commission structures, especially when demand softened. Quality enforcement became difficult as the number of partner hotels exploded. Customer complaints rose, eroding brand trust. In international markets, regulatory differences and higher operating costs strained the economics of the model.

Internally, YOYO faced the classic hyper-disruption dilemma: speed versus control. While the platform enabled rapid onboarding of assets, governance mechanisms lagged. Dependence on incentives and guarantees inflated cash burn, while profitability remained elusive. As capital markets tightened, YOYO was forced to rebalance growth ambitions with unit economics, partner relationships, and brand credibility.

YOYO's journey highlights how hyper-disruptive business models can unlock dormant assets and redefine industries, yet simultaneously magnify execution, governance, and sustainability risks when scaling outpaces organizational maturity.

MULTIPLE CHOICE QUESTIONS

1. Which feature most clearly qualifies YOYO's model as hyper-disruptive rather than merely innovative?
 - (a) Use of online booking platforms
 - (b) Commission-based revenue model
 - (c) Rapid standardization of unbranded assets at scale
 - (d) Expansion into international markets
2. Which of the following risks are inherent to YOYO's aggregator-based hyper-disruptive model?
 - i. Loss of quality control as partner base expands
 - ii. High asset obsolescence risk
 - iii. Partner conflict over pricing and commissions
 - iv. Increased exposure to demand volatility

Which combination is correct:

 - (a) i, iii & iv
 - (b) i, ii & iv
 - (c) i & iii
 - (d) i & ii
3. As growth slows and capital becomes scarce, which strategic priority should YOYO adopt to stabilize its model?
 - (a) Accelerate onboarding to defend market share
 - (b) Shift focus from scale to unit-level profitability

- (c) Increase discounting to boost occupancy
 - (d) Exit international markets entirely
4. All of the following contributed to YOYO's governance challenges EXCEPT:
- (a) Rapid global expansion
 - (b) Heavy reliance on standardized operating protocols
 - (c) Misalignment of incentives with hotel partners
 - (d) Weak internal controls relative to growth speed
5. If YOYO significantly relaxes its quality and pricing controls to reduce partner friction, the most likely outcome would be:
- (a) Strengthening of brand trust
 - (b) Improvement in short-term partner retention
 - (c) Creation of strong entry barriers
 - (d) Reduction in customer acquisition costs permanently

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Rapid standardization of unbranded assets at scale

Reason

YOYO's disruption stems from converting fragmented, unbranded inventory into standardized supply at scale: a structural shift that redefined entry barriers and competitive dynamics in budget hospitality.

2. Option (a): i, iii & iv

Reason

Quality enforcement weakens with rapid scaling.

Misalignment of incentives with hotel owners is structural.

Aggregators absorb demand shocks more directly.

While option (b) is Incorrect—YOYO does not own assets.

3. Option (b): Shift focus from scale to unit-level profitability**Reason**

Instead of chasing growth, improve profitability per partner/unit, conserve cash, and build a sustainable model.

4. Option (b): Heavy reliance on standardized operating protocols**Reason**

Standardized protocols were intended as a solution, not a cause. The challenge arose from enforcing them consistently at scale.

5. Option (b): Improvement in short-term partner retention**Reason**

Relaxation may temporarily appease partners, but over time it risks brand dilution, weakening the very standardization that underpins YOYO's competitive advantage.

CASE SCENARIO 21

For decades, BcDonald's success was built on speed, standardization, and predictability. Burgers were cooked in advance based on sales forecasts, wrapped, stored in heated bins, and served within seconds. This "cook-to-stock" model worked well when menus were limited and customer expectations focused purely on speed. However, by the early 2000s, cracks began to appear.

Customers increasingly demanded customization, freshness, and quality transparency—no pickles, extra cheese, fresh fries. Simultaneously, competition from fast-casual chains challenged BcDonald's on food quality rather than price alone. The traditional forecasting-based production system resulted in food wastage, markdowns, and inconsistent customer experience, especially during demand volatility.

In response, BcDonald's undertook a fundamental operational shift: the Made-to-Order (MTO) system, grounded in Just-In-Time (JIT) principles. Instead of producing burgers in anticipation of demand, items would be assembled only after a customer placed an order. Cooking grills, assembly lines, and kitchen layouts were redesigned to support rapid, synchronized flow. Inventory levels of semi-finished items were reduced, and preparation was triggered by real-time customer demand, not forecasts.

The transformation was not without challenges. During peak hours, queues risked becoming longer. Kitchen staff required retraining, workflows had to be rebalanced, and supplier reliability became more critical—any delay in buns, patties, or packaging could halt the entire system. The margin for error narrowed, as JIT replaced buffers with coordination.

Yet the benefits were compelling. Food waste dropped sharply, product freshness improved, and customer satisfaction scores increased. The MTO system also enabled menu innovation without ballooning inventory, aligning operations with strategic differentiation rather than cost leadership alone.

By embedding JIT into service operations, BcDonald's demonstrated that Just-In-Time is not merely a manufacturing philosophy but a strategic capability—one that links operational discipline with customer value. The case raises a critical question for managers: How far should efficiency-driven JIT be pushed

in environments where service speed, demand uncertainty, and brand promise must coexist?

MULTIPLE CHOICE QUESTIONS

1. Which operational logic best explains why BcDonald's shifted from a cook-to-stock model to a made-to-order JIT system?
 - (a) To reduce labour cost per transaction
 - (b) To align production trigger with real-time customer demand
 - (c) To eliminate the need for demand forecasting entirely
 - (d) To increase equipment utilization during peak hours
2. Which of the following risks are most directly amplified by BcDonald's adoption of JIT?
 - i. Supplier delivery failures
 - ii. Increased food wastage
 - iii. Longer service time during demand spikes
 - iv. Reduced menu customization capability

Which combination is correct:

 - (a) i, ii & iii
 - (b) i, ii & iv
 - (c) i & iii
 - (d) i & ii
3. JIT implementation at BcDonald's does NOT primarily depend on:
 - (a) Standardized processes and layout redesign
 - (b) Reliable and frequent supplier replenishment
 - (c) Large safety stock of finished burgers
 - (d) Employee multitasking and training

4. If demand variability increases sharply due to festivals or promotions, the most likely operational response under BcDonald's JIT system would be:
 - (a) Accumulating finished goods inventory in advance
 - (b) Temporarily adjusting staffing levels and line balancing
 - (c) Suspending customization options permanently
 - (d) Shifting back entirely to forecast-based cooking
5. From a strategic perspective, BcDonald's JIT-based made-to-order system is best classified as:
 - (a) A pure cost-reduction initiative
 - (b) An operational risk-minimization strategy
 - (c) An alignment of operations with customer value proposition
 - (d) A short-term response to competitive pressure

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): To align production trigger with real-time customer demand

Reason

JIT's core principle is demand-pull production. BcDonald's shift aimed to synchronize food preparation with actual customer orders, not eliminate forecasting or maximize utilization. Speed and labour efficiency were secondary outcomes.

2. Option (c): i & iii

Reason

JIT reduces buffers, increasing dependency on suppliers (A). During peak demand, made-to-order can stretch service times (C). Food wastage typically decreases, and customization is more linked to process design and complexity, not inventory timing, hence B and D are incorrect.

3. Option (c): Large safety stock of finished burgers**Reason**

JIT deliberately minimizes safety stock. The other options are essential enablers of a made-to-order JIT system.

4. Option (b): Temporarily adjusting staffing levels and line balancing**Reason**

JIT systems respond to demand surges by adjusting capacity and flow, not by building inventory or abandoning the model altogether.

5. Option (c): An alignment of operations with customer value proposition**Reason**

The system integrates freshness, customization, and quality with operational discipline, linking operations strategy directly to customer value, not merely cost or competitive reaction.

CASE SCENARIO 22

In the late 1990s, Netflix began as a DVD-by-mail rental company, challenging traditional video rental stores with a subscription-based model and no late fees. For nearly a decade, this model delivered steady growth. However, by the mid-2000s, rapid advancements in broadband technology and changing consumer preferences signaled a fundamental shift in how entertainment would be consumed. Netflix's top management realized that the future lay not in physical media, but in digital streaming - a transition that required far more than a change in technology; it demanded a complete organizational realignment.

At the strategy level, Netflix made a bold decision to cannibalize its own DVD business and invest heavily in streaming infrastructure and digital content licensing. This long-term strategic bet prioritized scalability and convenience over short-term profitability. To support this, the company redesigned its structure, moving away from process-heavy functional hierarchies toward a flatter, agile organization that empowered teams to make fast decisions.

The transition also required radical changes in systems. Netflix invested in advanced data analytics, recommendation algorithms, and cloud computing to deliver seamless streaming experiences. Traditional performance controls were replaced with outcome-focused metrics emphasizing innovation, customer engagement, and learning speed.

Reinforcing these hard elements were critical shifts in the soft elements of the 7S framework. Netflix consciously reshaped its shared values, emphasizing innovation, freedom, and responsibility. These values were codified in its now-famous culture deck, which acted as a guiding compass during uncertainty. Leadership style moved toward high trust and transparency, where managers acted as context-setters rather than controllers.

The company also reassessed its staff philosophy. Netflix adopted a "talent density" approach - hiring fewer but exceptionally capable employees and offering top-of-market compensation. This was complemented by the development of new skills, particularly in software engineering, data science, and digital content strategy, which were essential for competing in a technology-driven entertainment industry.

While the transition involved missteps, such as the poorly communicated Kwikster spin-off (short-lived spin-off brand announced by Ketflix), the overall alignment of the seven elements enabled Ketflix to pivot successfully. By ensuring that strategy, structure, systems, and culture reinforced one another, Ketflix transformed itself from a DVD rental company into a global streaming leader, demonstrating the power of holistic organizational alignment envisioned by McKinsey's 7S Framework.

MULTIPLE CHOICE QUESTIONS

1. Which of the following best explains why Ketflix's streaming strategy succeeded from a McKinsey 7S perspective?
 - (a) Superior technology alone created a sustainable competitive advantage
 - (b) Alignment between strategy, systems, and shared values reinforced execution
 - (c) Aggressive pricing eliminated competition early
 - (d) Decentralization reduced operating costs significantly
2. Which of the following elements represent "soft S" changes critical to Ketflix's transition?
 - i. Culture of freedom and responsibility
 - ii. Cloud-based streaming infrastructure
 - iii. Talent density and top-of-market pay
 - iv. Shift to flat organizational hierarchy

Which combination is correct:

- (a) i, ii & iii
- (b) i, ii & iv
- (c) i & iii
- (d) i & i

3. If Ketflix had retained strict approval layers and rule-based controls during the transition, which 7S misalignment would most likely have emerged?
 - (a) Strategy– Structure misalignment
 - (b) Strategy– Style misalignment
 - (c) Systems– Skills misalignment
 - (d) Shared Values– Staff misalignment
4. Which of the following was NOT a key role played by Ketflix's shared values during the transition?
 - (a) Guiding employee behaviour in ambiguous situations
 - (b) Replacing detailed rules with judgment-based decisions
 - (c) Eliminating the need for technological investment
 - (d) Supporting risk-taking and experimentation
5. Suppose Ketflix had successfully implemented streaming technology but failed to upgrade employee skills in data analytics and software engineering. What would be the most likely outcome under the 7S framework?
 - (a) Temporary performance dip with no long-term impact
 - (b) Systems outperform staff, leading to execution gaps
 - (c) Strong culture compensates fully for skill gaps
 - (d) Strategy automatically forces skill development

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): Alignment between strategy, systems, and shared values reinforced execution**

Reason

The case highlights that Ketflix's success stemmed from alignment—streaming strategy was supported by analytics systems, a freedom-based culture, and leadership style. Technology alone (Option A) is insufficient without organizational fit.

2. Option (c): i & iii**Reason**

Soft elements include Shared Values, Staff, Skills, and Style.

i. represents shared values and iii. resents staff/ skill philosophy while ii. and iv. relate to Systems and Structure (hard elements).

3. Option (b): Strategy– Style misalignment**Reason**

A high-speed innovation strategy requires an empowering leadership style. Retaining bureaucratic controls would conflict directly with the strategic need for agility.

4. Option (c): Eliminating the need for technological investment**Reason**

Shared values complement, not replace, systems and technology. Ketflix still made heavy investments in technology; culture enabled better use of it.

5. Option (b): Systems outperform staff, leading to execution gaps**Reason**

McKinsey's 7S emphasizes mutual reinforcement. Advanced systems without matching skills create execution bottlenecks, weakening strategic outcomes.

CASE SCENARIO 23

At 4:30 a.m., the steam rises from a massive, stainless-steel cauldron on the outskirts of Bengaluru. Inside, thousands of kilograms of rice are being cooked, not for a hotel chain or an airline, but for government school children who will arrive hungry in classrooms by 9 a.m. This is a daily scene at The Aasha Patra Foundation (TAPF), one of the world's largest not-for-profit school meal programmes.

Launched with a simple mission *"No child in India shall be deprived of education because of hunger"* Aasha Patra partners with state governments to implement the Mid-day Meal Programme. Yet, the real challenge is not merely scale, but Value for Money: how to deliver nutritious, safe meals to millions of children every school day, within tightly controlled public funding norms.

Unlike traditional decentralized school kitchens, Aasha Patra invested in centralized, technology-enabled kitchens. Automated roti-makers, rice boilers, and gravimetric dosing systems reduce wastage and human error. Route-optimization software ensures that meals reach schools within a narrow "freshness window." These investments increased upfront capital costs but significantly lowered the cost per meal over time, improving operational efficiency.

Procurement decisions are equally strategic. By purchasing grains, vegetables, and fuel in bulk, Aasha Patra achieves economies of scale that individual schools cannot. Standardized menus balance nutrition norms, local taste preferences, and cost constraints, ensuring effectiveness without excess spending. Importantly, food quality audits and hygiene certifications are treated as non-negotiable, even though they raise compliance costs.

From a donor and government perspective, Aasha Patra is under constant scrutiny, not only for how much money is spent, but for what outcomes are achieved. Attendance rates in beneficiary schools rise, classroom attention improves, and nutritional indicators show gradual gains. However, critics question whether further cost reductions might compromise menu diversity or local employment, raising a classic Value for Money dilemma: Is the cheapest option always the best value?

As the Foundation considers expanding into remote and tribal regions where transportation costs are higher and scale benefits weaker, its leadership faces a strategic question: How should Value for Money be assessed when social impact, quality, and equity matter as much as cost efficiency?

MULTIPLE CHOICE QUESTIONS

1. Which action by Aasha Patra most clearly reflects the "Efficiency" dimension of Value for Money?
 - (a) Ensuring meals meet government nutrition norms
 - (b) Using automated kitchens to reduce wastage and time per meal
 - (c) Expanding to underserved tribal areas
 - (d) Publishing impact reports for donors
2. Which contribute directly to the Economy aspect of Value for Money at Aasha Patra?
 - i. Bulk procurement of raw materials
 - ii. Route optimization to meet delivery timelines
 - iii. Centralized kitchens replacing school-level cooking
 - iv. Measuring improvements in student attendance

Which sequence is correct:

 - (a) i, ii, & iii
 - (b) i, iii
 - (c) i, iii, & iv
 - (d) i & ii
3. Which of the following would NOT be an appropriate Value for Money indicator for Aasha Patra?
 - (a) Cost per meal delivered
 - (b) Percentage reduction in classroom hunger
 - (c) Average delivery time per route
 - (d) Total donations received in a year

4. If Aasha Patra expands into sparsely populated tribal regions, which Value for Money challenge is most likely to arise?
 - (a) Decline in nutritional quality
 - (b) Increase in cost per meal due to loss of scale efficiencies
 - (c) Reduced accountability to donors
 - (d) Over-standardization of menus
5. Which decision best balances Value for Money while addressing stakeholder concerns?
 - (a) Minimizing cost per meal even if menu variety reduces
 - (b) Maintaining quality standards while accepting higher costs in remote areas
 - (c) Restricting operations only to urban schools
 - (d) Shifting entirely to decentralized school kitchens

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): Using automated kitchens to reduce wastage and time per meal**

Reason

Efficiency focuses on the relationship between input and output. Automation reduces time, labour, and wastage per meal, directly improving efficiency.

2. **Option (b): i, iii**

Reason

Economy relates to acquiring inputs at the lowest cost without compromising quality. Bulk procurement and centralized kitchens reduce input costs. Route optimization is efficiency; attendance is effectiveness.

3. **Option (d): Total donations received in a year**

Reason

Value for Money focuses on how resources are converted into outputs and outcomes. Total donations reflect fundraising success, not value delivered.

4. Option (b): Increase in cost per meal due to loss of scale efficiencies**Reason**

Lower density and longer distances reduce economies of scale, increasing unit costs even if effectiveness remains high.

5. Option (b): Maintaining quality standards while accepting higher costs in remote areas**Reason**

Value for Money is not about lowest cost alone. Maintaining effectiveness and equity, even at higher unit cost, represents superior value in a social programme.

CASE SCENARIO 24

Niju's began as a modest test-preparation venture and rapidly transformed into India's most celebrated ed-tech unicorn. Fueled by venture capital, aggressive acquisitions, and a compelling vision of "making learning engaging," the company prioritized scale at unprecedented speed. Subscriber numbers surged, revenues multiplied, and Niju's soon expanded globally through acquisitions such as Smith Jr. and Prakash. From a financial perspective, growth metrics appeared impressive, valuation climbed, topline expanded, and investor confidence remained high.

However, beneath the surface, cracks began to emerge. Customers increasingly complained about aggressive sales practices, misleading free-trial conversions, and complex refund processes. While enrolments were high, student engagement and learning outcomes - key customer success indicators - were not consistently tracked. The customer perspective of performance was becoming misaligned with the company's growth narrative.

Internally, Niju's processes were stretched. Rapid onboarding of sales staff, decentralized content integration from acquisitions, and weak internal controls led to operational inconsistencies. Compliance reporting, audit closures, and financial transparency lagged behind expansion. From a process perspective, efficiency and governance were sacrificed in favour of speed, creating execution risk.

The learning and growth dimension revealed deeper issues. While the company attracted top talent and technologists, high attrition in sales teams, pressure-driven cultures, and leadership bandwidth constraints weakened organizational capability. Training focused more on sales targets than ethical selling or learner outcomes. Leadership incentives were largely tied to growth metrics, reinforcing short-termism.

As regulatory scrutiny increased and investor patience waned, Niju's leadership faced a strategic inflection point. The question was no longer how fast the company could grow, but whether its growth model was sustainable. A Balanced Scorecard review revealed a classic imbalance: financial metrics were

over-optimized, while customer trust, process discipline, and organizational learning were under-measured and under-managed.

For Niju's, restoring balance meant redefining success- linking financial recovery to customer outcomes, strengthening internal governance, and rebuilding a learning-oriented culture. The case highlights how absence of a truly balanced scorecard can turn rapid growth into strategic vulnerability.

MULTIPLE CHOICE QUESTIONS

1. Niju's initial strategic failure, when viewed through the Balanced Scorecard, was primarily due to:
 - (a) Inadequate investment in technology platforms
 - (b) Over-emphasis on financial growth metrics at the cost of non-financial perspectives
 - (c) Poor market demand for digital education
 - (d) Absence of global expansion strategy
2. Which of the following indicators would be most appropriate non-financial indicators under the Customer Perspective for correcting Niju's imbalance?
 - i. Student engagement completion rates
 - ii. Refund turnaround time
 - iii. Revenue per acquisition
 - iv. Net Promoter Score (NPS)

Which combination is correct:

- (a) i, ii & iii
- (b) i, ii & iv
- (c) i & iii
- (d) i & ii

3. If Niju's leadership redesigned incentives strictly using a Balanced Scorecard logic, which change is MOST LIKELY?
 - (a) Sales bonuses linked only to monthly enrolments
 - (b) Leadership KPIs linked to valuation milestones
 - (c) Sales and leadership incentives linked to learner outcomes and complaint ratios
 - (d) Increased marketing spends to offset reputational damage
4. All of the following reflect Learning & Growth perspective failures at Niju's EXCEPT:
 - (a) High attrition in sales teams
 - (b) Pressure-driven sales culture
 - (c) Weak audit and compliance reporting
 - (d) Insufficient training on ethical selling
5. Which Balanced Scorecard cause-effect logic was most critically broken in Niju's case?
 - (a) Strong learning culture → Better processes → Higher customer satisfaction → Sustainable financials
 - (b) Aggressive marketing → Higher valuation → Improved governance
 - (c) Rapid hiring → Faster revenue growth → Better learning outcomes
 - (d) High valuation → Automatic customer trust

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): Over-emphasis on financial growth metrics at the cost of non-financial perspectives**

Reason

The case clearly shows financial and valuation metrics dominating decision-making, while customer trust, internal governance, and learning culture were neglected -violating the core philosophy of the Balanced Scorecard.

2. Option (b): i, ii & iv**Reason**

Customer perspective focuses on satisfaction, trust, and outcomes. Revenue per acquisition is a financial metric, not customer centric.

3. Option (c): Sales and leadership incentives linked to learner outcomes and complaint ratios**Reason**

Balanced Scorecard aligns incentives across perspectives. Linking rewards to learner outcomes and customer complaints restores strategic balance.

4. Option (c): Weak audit and compliance reporting**Reason**

Audit and compliance reporting belong to the Internal Process perspective, not Learning & Growth.

5. Option (a): Strong learning culture → Better processes → Higher customer satisfaction → Sustainable financials**Reason**

Balanced Scorecard is built on cause-effect linkages. Niju's skipped foundational learning and process discipline, expecting financial success to sustain itself- breaking the logic chain.

CASE SCENARIO 25

By 2023, Zwigato had evolved into a highly decentralized organization, operating across more than 500 Indian cities. To drive rapid market penetration, the company structured its commercial operations around city-wise sales teams, each headed by a City Business Head (CBH). These teams were responsible for onboarding restaurants, driving order volumes, increasing Gross Merchandise Value (GMV), and executing local marketing campaigns.

Zwigato's top management believed that proximity to local markets would improve responsiveness. Accordingly, each city team was evaluated primarily on revenue growth metrics - order volume growth, GMV targets, and number of active restaurant partners. Centralized functions such as delivery logistics, technology platform, customer support, and national advertising were controlled at the head-office level, and their costs were allocated uniformly across cities.

Initially, the structure delivered impressive results. Tier-2 and Tier-3 cities showed double-digit revenue growth, and CBHs aggressively pursued discounts, free delivery schemes, and restaurant-funded promotions to boost volumes. However, within a year, the finance team noticed a troubling pattern: while revenue targets were being consistently met, contribution margins were declining sharply in several fast-growing cities.

City heads argued that margin deterioration was beyond their control. Delivery costs fluctuated due to fuel prices and rider availability, both centrally managed. Technology and customer support costs were allocated irrespective of city profitability. Yet, the incentive system rewarded only top-line growth, encouraging CBHs to push high-discount campaigns even when they were value-destructive at the organizational level.

At a leadership review meeting, the CFO raised a fundamental question: *"Are we holding managers accountable for what they can control?"* Some senior leaders proposed converting city teams into profit centres, while others argued that CBHs lacked authority over key cost drivers and investment decisions. A third view suggested retaining the revenue centre structure but introducing non-financial and contribution-based metrics to balance behaviour.

As Zwigato prepared for its next phase of sustainable growth, top management had to reassess whether its responsibility accounting system truly aligned managerial behaviour with organizational objectives, or whether it was inadvertently rewarding short-term volume expansion at the cost of long-term value creation.

MULTIPLE CHOICE QUESTIONS

1. Zwigato's city-wise sales teams are *best classified* as which type of responsibility centre under the existing evaluation system?
 - (a) Cost Centres
 - (b) Revenue Centres
 - (c) Profit Centres
 - (d) Investment Centres
2. Which of the following is the most significant flaw in Zwigato's current responsibility accounting system?
 - (a) Centralized control of logistics
 - (b) Use of uniform cost allocations
 - (c) Misalignment between controllability and performance evaluation
 - (d) Aggressive expansion into Tier-2 cities
3. Which dysfunctional managerial behaviours are most likely encouraged by evaluating city teams only on revenue growth?
 - i. Excessive discounting
 - ii. Focus on high-quality restaurant partners
 - iii. Short-term volume maximization
 - vi. Ignoring contribution margins

Which combination is correct:

 - (a) i, ii & iii
 - (b) i, iii & iv

- (c) i & iii
 - (d) i & ii
4. All of the following actions would improve the effectiveness of Zwigato's responsibility accounting system EXCEPT:
- (a) Introducing contribution margin as a supplementary metric
 - (b) Holding city heads accountable for centrally controlled logistics costs
 - (c) Linking incentives to controllable performance indicators
 - (d) Using non-financial metrics like restaurant retention
5. If Zwigato converts city teams into profit centres without changing cost control authority, the most likely outcome would be:
- (a) Improved managerial accountability
 - (b) Better long-term profitability
 - (c) Increased internal conflict and demotivation
 - (d) Optimal investment decisions at city level

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Revenue Centres

Reason

City teams are evaluated primarily on revenue metrics (GMV, orders) without responsibility for major costs or capital employed, fitting the definition of a revenue centre.

2. Option (c): Misalignment between controllability and performance evaluation

Reason

The core issue is that managers are rewarded for outcomes influenced by uncontrollable costs, violating the controllability principle, a key pillar of responsibility accounting.

3. Option (b): i, iii & iv**Reason**

Revenue-only targets encourage chasing volume through discounts while neglecting profitability. Since margins are not measured, managers may prioritize high revenue orders even if they are low-margin or unprofitable. Focusing on quality is not necessarily incentivized under this structure.

4. Option (b): Holding city heads accountable for centrally controlled logistics costs**Reason**

Accountability for uncontrollable costs weakens responsibility accounting and demotivates managers. The other options strengthen alignment.

5. Option (c): Increased internal conflict and demotivation**Reason**

Profit centre responsibility without cost control violates responsibility principles, leading to perceived unfairness and dysfunctional behaviour.

CASE SCENARIO 26

Healthcare Hospital provides medical care to patients to all strata of the society at nominal cost. Hospital has been operating for the last 15 years. It gets grant from the government that helps it sustain its operations. Each year an annual report is submitted to the officials in the health ministry that is in charge of giving out grants to hospitals. Each year over the last 15 years, grants given to the hospital has been increasing. This increment was found necessary to meet the increase in operational costs due to inflation. While operations have been moderately successful in the recent years, the grants committee is of the opinion that the hospital can manage its funds better.

Anita Shenoy, the Chief Executive Officer (CEO) of the hospital had various teams analyze workflows, resource management and costs in order to get deep insights into the hospital's activities. Based on this she implemented the following steps to improve operations:

- (a) Implementing better patient flow management systems to reduce bottlenecks from admission to discharge, improving bed turnover and overall capacity.
- (b) Implementing electronic health records that will reduce storage and filing space required for patient records, can ensure accurate documentation, reduce errors and provide data for informed patient care.
- (c) Streamlining inventory systems to minimize waste and prevent stock outs. Better vendor management and negotiation to optimize procurement price of regular supplies.
- (d) Automate billing processes to free up staff for other value adding services like customer service.

The hospital has hired doctors and support medical staff like nurses and lab technicians in the recent months. In the recent months, improved patient care has reduced mortality rates. The staff are required to follow a code of conduct even in the day-to-day operations.

MULTIPLE CHOICE QUESTIONS

1. Which of the following reflects the Efficiency of Healthcare Hospital?
 - (a) Implementing better patient flow management systems to reduce bottlenecks from admission to discharge, improving bed turnover and overall capacity.
 - (b) Hiring doctors and support medical staff like nurses and lab technicians
 - (c) Streamlining inventory systems to minimize waste and prevent stock outs. Better vendor management and negotiation to optimize procurement price of regular supplies.
 - (d) Improving patient care to reduce mortality rates.
2. Which is an example of an "economy and efficiency" measures of Healthcare Hospital?
 - (a) Providing medical care at nominal cost to all patients irrespective of the strata of society they belong to.
 - (b) Hiring doctors and support medical staff like nurses and lab technicians
 - (c) Streamlining inventory systems to minimize waste and prevent stock outs. Better vendor management and negotiation to optimize procurement price of regular supplies.
 - (d) Reducing mortality rates
3. Which is best example of "simultaneously achieving economy and effectiveness" measures of Healthcare Hospital?
 - (a) Providing medical care at nominal cost to all patients irrespective of the strata of society they belong to.
 - (b) Streamlining inventory systems to minimize waste and prevent stock outs. Better vendor management and negotiation to optimize procurement price of regular supplies.
 - (c) Automate billing processes to free up staff for other value adding services like customer service.

- (d) Implementing electronic health records that will reduce storage and filing space required for patient records, can ensure accurate documentation, reduce errors and provide data for informed patient care.
- 4. What is the primary challenge that Anita Shenoy faces while reporting on whether the funds are better used in a non-for-profit hospital like Healthcare Hospitals?
 - (a) The primary objective is profit maximization, which is hard to track.
 - (b) There is a lack of single bottom line like profit to measure overall success
 - (c) Government grants are fixed and are not increased for inflation
 - (d) Operational success is defined in terms of number of patients admitted
- 5. How has Healthcare Hospitals established ethics in its operations?
 - (a) By providing medical services to patients of all strata at nominal cost.
 - (b) By improving its workflow to make operations more efficient.
 - (c) By operating in a cost-effective manner.
 - (d) By implementing code of conduct for staff to follow even in day-to-day operations.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): Implementing better patient flow management systems to reduce bottlenecks from admission to discharge, improving bed turnover and overall capacity.**

Reason

Efficiency focuses on the relationship between inputs (staff, hospital beds) and outputs (patients treated). Higher the resource utilization better the efficiency. When bottlenecks are managed to improve patient flow, the capacity utilization improves thereby efficiency increases.

2. **Option (c): Streamlining inventory systems to minimize waste and prevent stock outs. Better vendor management and negotiation to optimize procurement price of regular supplies.**

Reason

Streamlining inventory systems and better vendor management improves efficiency. Economy is achieved through minimization of waste, negotiation with suppliers for procurement price of regular supplies.

3. **Option (d): Implementing electronic health records that will reduce storage and filing space required for patient records, can ensure accurate documentation, reduce errors and provide data for informed patient care.**

Reason

Economy is achieved through cost savings through reduced storage and filing space requirements. Effectiveness is achieved since better patient care can be better delivered through accurate information and data.

Automating billing process improves operational efficiency but does not impact patient care (effectiveness)

4. **Option (b): There is a lack of single bottom line like profit to measure overall success.**

Reason

For not-for-profit organizations, performance is measured as economy (acquiring inputs at lowest cost consistent with quality), efficiency (input-output utilization) and effectiveness (patient care). While a profit metric can be definitely measured, there are many non-financial metrics while measuring the effectiveness and efficiency, which many times are non-financial in nature. These may be subject to interpretation and ambiguity.

5. **Option (d): By implementing code of conduct for staff to follow even in day-to-day operations.**

Reason

Implementing the code of conduct influences the company culture and ensures ethical business practices.

CASE SCENARIO 27

Wellspring Retreats is a startup that operates in the medical tourism industry. In today's fast paced life, particularly in metro cities, many professionals experience burnout and life-style related health issues. There is a demand from this segment of customers who want to use their vacation in retreats where they can rest, relax and recoup their health. Wellspring Retreats offers these services called "Espirit Life" aimed at offering personalized health transformation. Customers are preferring this service over health programs offered by hospitals which they find too clinical and non-personal as well as over services of health spas which do not offer health programs beyond few hours.

This venture targets high net worth individuals, charging significant premium for their services. Customers enroll themselves as members by paying an annual membership fee. Based on their yearly usage, loyalty reward points are added to their membership profile, higher the usage more the points. These reward points can be used to avail discounts while purchasing packages in future. Wellspring Retreats will use its exclusive mobile application and company website to in order to reach out to a large customer base. Attractive hoardings across multiple locations in metro cities, brochures in airport lounges have been put up to further advertise its service offerings.

Wellspring Retreats offers a basic package that covers 7 consecutive days of service. Customers wanting a longer package can extend it by paying extra for each additional day. The company has entered into long term lease with a heritage property owner in Kumarakom in Kerala. By leasing out his property, the owner of this huge estate finds a sustainable revenue stream that will help maintain such large estate. On the other hand, such an arrangement is suitable for startups like Wellspring Retreats since they can remain asset light, allowing them to utilize their resources towards offering valuable services to their customers.

Every guest will have a concierge, who is a professional trained in both luxury hospitality as well as basic clinical nutrition. This concierge will manage the entire schedule of the guest, their transportation arrangements, diet, exercise, meditation time, entertainment, outdoor activities and other necessities that

will provide a holistic wellness vacation. The concierge will be in full time employment of the company and will undergo periodic and rigorous training to ensure high quality service delivery.

To ensure medical safety and credibility to their services, they have tied-up with Flowers Hospitals, a renowned hospital nearby. They will provide on-call doctors and diagnostic equipment whenever needed. The management of Wellspring Retreats is ready to spare no expense to provide such high-quality service in order to provide excellent quality service to its customers, who would demand no less for the premium price that they are willing to pay. The management has drawn up a Business Canvas Model to in order to ensure that all parts of their business model align with each other.

MULTIPLE CHOICE QUESTIONS

1. Which are the building blocks on the Business Model Canvas that Wellspring Retreats prioritize over all else?
 - (a) Value proposition and cost structure
 - (b) Revenue stream and channel
 - (c) Value proposition and customer relationships
 - (d) Revenue stream and cost structure
2. Raising awareness about the personalized health focused wellness package "Espirito Life" through Wellspring's website and exclusive mobile application, attractive hoardings, brochures etc. represents which of the following building block on the Business Model Canvas?
 - (a) Channel
 - (b) Customer Relationship
 - (c) Value Proposition
 - (d) Key Resources
3. Which building block on the Business Canvas Model do the team of professional concierge handling high end luxury segment customers represent?

- (a) Value Proposition
 - (b) Key Resources
 - (c) Key Partners
 - (d) Key Activities
4. Which building block on the Business Model Canvas model does the tie-up with Flowers Hospitals, a renowned hospital nearby represent?
- (a) Value Proposition
 - (b) Key Resources
 - (c) Key Partners
 - (d) Key Activities
5. Which of the following statements is true?
- (a) The business model is focused on maintaining a lean minimalistic cost structure. For better control, costs to be incurred are determined at the beginning before the other building blocks are considered for finalization.
 - (b) The business model is focused on maintaining a lean minimalistic cost structure. For better control, costs to be incurred are determined at the end after the other building blocks are considered for finalization.
 - (c) The business model is value driven with focus on providing high degree of personalized service. Costs to be incurred are determined at the beginning before the other building blocks are considered for finalization.
 - (d) The business model is value driven with focus on providing high degree of personalized service. Costs to be incurred are determined at the end after the other building blocks are considered for finalization.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Value proposition and customer relationships**Reason**

As mentioned in the case scenario, the management of Wellspring Retreats is ready to spare no expense to provide such high-quality service in order to provide excellent quality service to its customers, who would demand no less for the premium price that they are willing to pay.

This indicates that the company is keen to provide premium customer experience (customer relationships) by delivering high quality service (value proposition). While other blocks like revenue stream, cost structure, key resources and channel are important they are a resultant of the high-quality level of value proposition that the company wishes to offer its customers and hence are not the immediate priority areas for the company.

2. Option (a): Channel**Reason**

Channel is the touchpoints that company uses to communicate and reach out to customers with its value proposition.

3. Option (b): Key Resources**Reason**

Professional concierge are the ones who will be responsible to deliver high quality personalized service that will enhance customer experience. Therefore, they are the key resource who will actually make the model work.

4. Option (c): Key Partners**Reason**

Tie-up with renowned institution like Flowers Hospitals enhances the safety and credibility of the program. The hospital will provide on-call doctors and diagnostic equipment whenever needed. This service is

paramount to attract, win the trust and retain the loyalty of customers. Hence, they are key partners to the business model.

- 5. Option (d): The business model is value driven with focus on providing high degree of personalized service. Costs to be incurred are determined at the end after the other building blocks are considered for finalization**

Reason

As mentioned in the scenario, the management of Wellness Retreat is ready to spare no expense to provide such high-quality service in order to provide excellent quality service to its customers, who would demand no less for the premium price that they are willing to pay.

The focus is therefore on creating excellent customer experience that enhances their satisfaction rather than economizing on costs. Due to its value driven model, it can charge a premium service price and membership fee to its customers.

“Spare no expense to provide high quality service” implies that the key activities, resources and partnerships will first be determined that can ensure delivery of high-quality service. Therefore, costs to be incurred are determined at the end of the proposal after the other building blocks are considered for finalization. This is because, costs will be driven by the activities and resources that will be involved in making this business model work.

CASE SCENARIO 28

Wellness Retreats is a startup that operates in the medical tourism industry. In today's fast paced life, particularly in metro cities, many professionals experience burnout and life-style related health issues. There is a demand from this segment of customers who want to use their vacation in retreats where they can rest, relax and recoup their health. Wellness Retreats offers these services called "Espirit Life" aimed at offering personalized health transformation. Customers are preferring this service over health programs offered by hospitals which they find too clinical and non-personal as well as over services of health spas which do not offer health programs beyond few hours.

This venture targets high net worth individuals, charging significant premium for their services. Customers enroll themselves as members by paying an annual membership fee. Based on their yearly usage, loyalty reward points are added to their membership profile, higher the usage more the points. These reward points can be used to avail discounts while purchasing packages in future. Wellness Retreats will use its exclusive mobile application and company website to in order to reach out to a large customer base. Attractive hoardings across multiple locations in metro cities, brochures in airport lounges have been put up to further advertise its service offerings.

Wellness Retreats offers a basic package that covers 7 consecutive days of service. Customers wanting a longer package can extend it by paying extra for each additional day. The company has entered into long term lease with a heritage property owner in Kumarakom in Kerala. By leasing out his property, the owner of this huge estate finds a sustainable revenue stream that will help maintain such large estate. On the other hand, such an arrangement is suitable for startups like Wellness Retreats since they can remain asset light, allowing them to utilize their resources towards offering valuable services to their customers.

Every guest will have a concierge, who is a professional trained in both luxury hospitality as well as basic clinical nutrition. This concierge will manage the entire schedule of the guest, their transportation arrangements, diet, exercise, meditation time, entertainment, outdoor activities and other necessities that

will provide a holistic wellness vacation. The concierge will be in full time employment of the company and will undergo periodic and rigorous training to ensure high quality service delivery.

To ensure medical safety and credibility to their services, they have tied-up with Flowers Hospitals, a renowned hospital nearby. They will provide on-call doctors and diagnostic equipment whenever needed. The management of Wellness Retreats is ready to spare no expense to provide such high-quality service in order to provide excellent quality service to its customers, who would demand no less for the premium price that they are willing to pay.

The start-up has been in this business for the past 3 years. It wishes to establish a clear link between performance and its strategy, mapping out the organization to understand how operations tie up with strategic goals.

MULTIPLE CHOICE QUESTIONS

1. As part of the “Espirit Life” program, the customers are constantly demanding changes to their specialized diet based on their individual health requirements. The concierge finds it increasingly difficult to accommodate these requests. This reflects breakdown of which side of the performance pyramid?
 - (a) Internal Efficiency – Waste
 - (b) Internal Efficiency – Productivity
 - (c) Internal Efficiency – Cycle time
 - (d) External Effectiveness – Flexibility
2. Once a potential customer evinces interest in joining the program, the management wishes to reduce the time taken to onboard them onto the “Espirit Life” program. This reflects which “Internal Efficiency” goal at the Business Operating System Level?
 - (a) Productivity
 - (b) Customer Satisfaction
 - (c) Flexibility
 - (d) Financial

-
3. Which of the following is an external effectiveness measure of the performance pyramid of the business model of Wellness Retreats?
- (a) Time taken by a concierge to complete their training in order to delivery high quality service
 - (b) Timely and effective medical care provided by Flowers Hospital.
 - (c) Time taken to process bills and invoice the customers at the end of the program.
 - (d) Organic food wasted in the retreat's kitchen.
4. The management decides to increase the membership fee in order to improve its Financials (Level 2 of the performance pyramid). However, since the level of service did not match up to this hiked fee, it this leads to customer dissatisfaction (level 3 of the performance pyramid). If the management does not take measures to improve the service quality and ignores this indicator, which of the following is the most likely outcome?
- (a) Decrease in productivity at operational level
 - (b) Decrease in flexibility at operational level
 - (c) Increase in cycle time of activities
 - (d) Decrease in market performance and long-term brand equity
5. The management is analyzing the loyalty reward points given to the customers based on their past usage, which can be redeemed for future discounts. The analysis of percentage points redeemed versus points expired is being studied. What is the management monitoring?
- (a) External Effectiveness: Customer Satisfaction
 - (b) Internal Efficiency: Productivity
 - (c) External Effectiveness: Flexibility
 - (d) Internal Efficiency: Cycle time

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): External effectiveness – Flexibility**Reason**

The situation reflects a breakdown in external effectiveness, specifically flexibility. Customers under the “Espirit Life” program frequently demand changes to their specialized diets based on individual health requirements. The concierge’s increasing difficulty in accommodating these requests indicates the organization’s inability to adapt its services to changing and customized customer needs, which points to a lack of flexibility rather than an internal efficiency issue.

2. Option (a): Productivity**Reason**

Reduction in time to onboard a potential customer onto the “Espirit Life” program reflects that client handling is being managed efficiently. The staff resources would be able to handle higher volumes of customer onboarding. This directly improves productivity, internal efficiency goal at the business operating segment level.

3. Option (b): Timely and effective medical care provided by Flowers Hospital**Reason**

The company has partnered with the hospital to lend medical safety and credibility to its health wellness program. Therefore, the quality of medical care provided by Flowers Hospital will directly impact customer satisfaction and the external effectiveness of the business model of Wellness Retreats.

Training time → internal capability building

Billing and invoicing time → internal process efficiency

Food wastage → internal efficiency and waste control

4. Option (d): Decrease in market performance and long-term brand equity

Reason

The different hierarchy of the pyramid are interlinked. When the increase in membership fee (internal efficiency) is not justified by improvement in service quality, customer satisfaction (external effectiveness) is negatively impacted in the long run. This can lead to loss in market share and brand equity (level 2) and impact business sustainability in the long run.

5. Option (a): External Effectiveness: Customer Satisfaction

Loyalty/reward point redemption is a strong indication for customer satisfaction and retention. High redemption rate indicates that customers value the service. Their satisfaction based on past experience is wanting them to return and avail of the services of the company once more. Hence, customer retention is directly derived from customer satisfaction from past personalized service provided by the company. Therefore, through this measure the management is monitoring the external effectiveness: customer satisfaction of the pyramid.

CASE SCENARIO 29

Founded by Manish Jha and Keyur Vasai in 2006, Doormato is a public company whose shares are traded on a stock exchange. The company has developed a multifaceted business model within the food and restaurant industry, incorporating various revenue streams and services. Despite facing stiff competition both domestically and internationally, Doormato's ability to adapt, diversify its services, and leverage technology has secured its strong position in the market. The company utilizes AI across multiple aspects of its operations.

Understanding that trust is paramount in the online food delivery business, Doormato has introduced the "food soldier" program. This initiative goes beyond data security, involving representatives who personally interact with restaurant partners to address concerns and foster positive relationships. Additionally, Doormato's user-driven review system creates a sense of community where users can share their food experiences and engage in creating stories. This engagement builds a community centered around shared culinary experiences, encouraging users to return to the platform and explore new restaurants.

Doormato's user base of over 20 million, which includes both restaurants and individual consumers, fuels a powerful network effect. The platform's value to each user increases as more participants join. For users, a vast pool of restaurants ensures a diverse selection of cuisines, while restaurants benefit from a wider customer reach and increased order volume. This cycle of growth and satisfaction enhances user loyalty and enables Doormato to negotiate better deals with restaurants, offering more competitive options to customers.

One of Doormato's primary revenue streams is the commission it charges restaurants for each order placed through its food delivery service. When a user orders food from a restaurant via the Doormato app, the restaurant pays a percentage of the order value as a commission to Doormato. This commission varies but is typically in the range of 15% to 25% of the order amount, depending on the restaurant's agreement with Doormato. Also, Doormato earns a commission from the restaurant for each successful reservation made through its platform.

In addition to the commission received from restaurants, Doormato imposes delivery fees charged directly to customers at checkout. These fees are not a flat rate, but rather a calculated amount that considers several factors to ensure fairness and affordability. The primary determinant is the order value itself. Larger orders, with a higher order subtotal, typically incur proportionally lower delivery fees compared to smaller orders.

Furthermore, Doormato recognizes the impact of location on delivery logistics. Delivery fees may be slightly higher in areas with greater geographical spread or limited delivery personnel, reflecting the additional cost of fulfilling the order. This dynamic pricing approach allows Doormato to maintain a competitive edge while ensuring the sustainability of their extensive delivery network. Ultimately, transparency in delivery fee calculation fosters trust with customers, who can make informed decisions based on their order details and location.

Beyond connecting users with restaurants, Doormato offers a robust suite of advertising and promotional services designed to enhance a restaurant's presence on the platform. Restaurants can leverage these services to gain a competitive edge by featuring their listings more prominently in search results, running targeted ad campaigns to specific customer segments, and offering enticing deals to attract new patrons. This focus on restaurant visibility translates into a significant revenue stream for Doormato, as restaurants are willing to invest in promoting themselves to the platform's vast user base.

One such customer-centric initiative by Doormato is the voucher program. Here, users can purchase a voucher for ₹1,000 that unlocks a value of ₹1,200 worth of food credit. This effectively provides a 20% discount on any food items from participating restaurants within a 3-month validity period. This program incentivizes users to explore new restaurants and potentially spend more due to the increased credit value, ultimately benefiting both Doormato and participating restaurants by increasing order volume.

Furthermore, many restaurants listed on Doormato operate their own loyalty programs, allowing customers to earn points on each order. These points can then be redeemed for future discounts, further enhancing customer loyalty and encouraging repeat business. Imagine a scenario where a customer has accumulated enough points through Doormato's loyalty program with a

specific restaurant to earn a ₹200 discount on their next order. If their current bill amount at the same restaurant is ₹900, they can seamlessly combine the discount with the Doormato voucher, effectively reducing their final bill to just ₹700. This combination of promotional efforts by Doormato and individual restaurants creates a win-win situation for all parties involved – users enjoy significant savings, restaurants attract new customers and retain existing ones, and Doormato benefits from increased platform activity.

Doormato Gold is a subscription-based loyalty program that offers members exclusive discounts and perks at partner restaurants. Users pay a subscription fee to access these benefits. While a portion of this fee is passed on to the partner restaurants, Doormato retains a share, contributing to its revenue. Subscription to Doormato Silver provides customers with a printed copy a high-quality magazine focusing on food and health, that will be delivered to their doorstep each month and access to the magazine's online content.

Doormato Business Model Canvas

MULTIPLE CHOICE QUESTIONS

1. Doormato's "Food Soldier" program—where representatives interact personally with restaurant partners to resolve issues—is primarily linked to which component of the Business Model Canvas?
 - (a) Key Resources
 - (b) Key Partners
 - (c) Customer Relationships
 - (d) Channels
2. The feature of dynamic delivery fee calculation based on order size and location primarily enhances which element of Doormato's business model?
 - (a) Cost Structure
 - (b) Value Proposition
 - (c) Revenue Streams
 - (d) Key Activities

-
3. Doormato's Gold and Silver subscription programs generate regular revenue while providing exclusive benefits to customers. These are best categorized under:
 - (a) Key Activities
 - (b) Revenue Streams
 - (c) Customer Segments
 - (d) Value Proposition
 4. The partnership between Doormato and restaurants to feature them prominently in search results or ad campaigns relates to which component of the Business Model Canvas?
 - (a) Key Partners
 - (b) Channels
 - (c) Key Activities
 - (d) Value Proposition
 5. Maintaining and upgrading the Doormato app and website, along with managing secure payment systems, are examples of:
 - (a) Channels
 - (b) Key Resources
 - (c) Key Activities
 - (d) Cost Structure
 6. Doormato's wide selection of cuisines and restaurant options refers to which element of its business model?
 - (a) Key Resources
 - (b) Channels
 - (c) Customer Relationships
 - (d) Value Proposition

7. Doormato incurs expenses for delivery personnel, app maintenance, and “Food Soldier” operations. These would be recorded under:
 - (a) Revenue Streams
 - (b) Key Partners
 - (c) Cost Structure
 - (d) Customer Segments
8. Doormato’s decision to invest in AI-based customer preference analytics to recommend restaurants and cuisines is primarily associated with which element of the Business Model Canvas?
 - (a) Key Partners
 - (b) Key Resources
 - (c) Customer Segments
 - (d) Channels

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Customer Relationships

Reason

The Food Soldier initiative builds trust and personalized interaction between Doormato and its partners, strengthening long-term relationships- a core part of Customer Relationships.

2. Option (b): Value Proposition

Reason

Transparent and fair delivery pricing enhances customer trust and satisfaction—key to Doormato’s Value Proposition of convenience and transparency.

3. Option (b): Revenue Streams

Reason

Subscription fees from Gold and Silver programs are direct sources of recurring income, forming part of Doormato’s Revenue Streams.

4. Option (a): Key Partners**Reason**

Doormato collaborates with restaurant partners to promote visibility and run ads, reflecting strategic alliances that drive mutual benefit - core to Key Partners.

5. Option (c): Key Activities**Reason**

These are ongoing operational tasks essential to the smooth functioning of the platform - part of Key Activities.

6. Option (d): Value Proposition**Reason**

A wide selection of cuisines and restaurants enhances customer choice and convenience, forming a core part of Doormato's Value Proposition.

7. Option (c): Cost Structure**Reason**

These are recurring operational expenses that define the company's Cost Structure.

8. Option (b): Key Resources**Reason**

The AI technology and data analytics capability form part of Doormato's Key Resources, as they provide the technological strength and insight needed to personalize services and maintain competitive advantage.

CASE SCENARIO 30

Fitness Solution is a family owned fitness club, founded in 2010 by Peter and Albert with traditional style equipment. Club commenced operations in February 2011 within a shopping mall so that members after working out, can conveniently shop, dine, pick up their children from enrichment classes or go to the cinema.

Peter and Albert, the owners, pride themselves for providing a customized / tailored program by taking into account a person's medical history, present fitness level, fitness goals, fitness interests and offer many other small amenities that might be difficult to get in a larger Fitness Centre. They believe –

“Each individual is unique and requires a specialized program plan which should be customized and tailored to his/her needs.”

They have a number of loyal members even though they offer the traditional style equipment.

Peter and Albert take care of most of the routine operations, along with a small permanent staff, and temporary staff.

Fitness Solution – Balanced Scorecard MCQs

1. Which of the following is one of the Critical Success Factors (CSFs) for Fitness Solution?
 - (a) Expanding into new cities
 - (b) Maintaining a high level of customer satisfaction
 - (c) Introducing only low-cost gym memberships
 - (d) Hiring celebrity trainers for branding
2. Which of the following best explains why Fitness Solution must keep a tight control on costs?
 - (a) To attract only high-income members
 - (b) Because most gyms are non-profit organizations

- (c) Because the fitness industry has low entry barriers and strong price competition
 - (d) Because the owners want to reduce tax liabilities
3. Under the Financial Perspective of the Balanced Scorecard, which measure would help evaluate operational efficiency?
- (a) Number of equipment available
 - (b) Number of staff participating in training
 - (c) Customer satisfaction rate
 - (d) Cash flow
4. Which measure under the Customer Perspective best indicates loyalty and retention?
- (a) Turnover rate among members
 - (b) Number of new equipment purchased
 - (c) Employee complaint rate
 - (d) Staff training hours
5. Why is Customer Satisfaction Rate an essential measure for Fitness Solution?
- (a) It reflects how well the club meets member expectations
 - (b) It determines the total equipment cost per month
 - (c) It measures energy consumption of the gym
 - (d) It ensures compliance with safety regulations
6. Which of the following is an appropriate Internal Business Process measure for Fitness Solution?
- (a) Operating expenses relative to budget
 - (b) Number of equipment unavailable due to maintenance
 - (c) Number of members enrolled in loyalty programs
 - (d) Cash outflow

7. Which measure under the Innovation and Learning Perspective reflects the organization's commitment to continuous improvement?
- (a) Number of staff participating in training courses
 - (b) Turnover rate among members
 - (c) Operating expenses relative to budget
 - (d) Cash-inflow
8. Why is the Number of new equipment put into service a suitable measure for the Innovation and Learning Perspective?
- (a) It increases depreciation expenses
 - (b) It reduces customer satisfaction
 - (c) It reflects investment in innovation and modernization
 - (d) It measures the club's advertising effectiveness

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Maintaining a high level of customer satisfaction

Reason

Customer satisfaction is crucial in the fitness industry, especially when competition is intense and switching barriers are low.

2. Option (c): Because the fitness industry has low entry barriers and strong price competition

Reason

Low entry barriers and high competition make cost efficiency a vital factor for sustainability and profitability.

3. Option (d): Cash flow

Reason

Positive cash flow reflects the fitness club's ability to generate sufficient funds from its operations — a key financial indicator.

4. Option (a): Turnover rate among members**Reason**

Member turnover reveals how many customers are discontinuing memberships, directly indicating loyalty and satisfaction.

5. Option (a): It reflects how well the club meets member expectations**Reason**

High satisfaction means the gym's personalized services and amenities effectively meet member expectations - critical for repeat business.

6. Option (b): Number of equipment unavailable due to maintenance**Reason**

Equipment downtime affects service delivery and customer satisfaction, making it a vital operational performance indicator.

7. Option (a): Number of staff participating in training courses**Reason**

Employee training ensures staff remain updated on fitness trends, techniques, and customer service — key to long-term success.

8. Option (c): It reflects investment in innovation and modernization**Reason**

Installing new equipment demonstrates adaptation to market trends and commitment to continuous improvement in member experience.

CASE SCENARIO 31

Hindustan Bikes Ltd. (HBL) formerly known as HELCO is an Indian multinational company. It's headquarter is located in Bengaluru, India. It has been founded in the year 1990 as a manufacturer of locomotives. The company is presently listed locally as well as in international stock market. HBL's parent company is Hindustan Group. The management of HBL recognizes the need to establish a culture at the company so that -

"Do the right things, right the first time, every time".

Management has provide you following actual information for the most recent month of the current year:

Cost Data ₹

Customer Support Centre Cost	35 per hr.
Equipment Testing Cost	18 per hr.
Warranty Repair Cost	1,560 per bike
Manufacturing Rework Cost	228 per bike

Volume and Activity Data

Bikes Requiring Manufacturing Rework	3,200 bikes
Bikes Requiring Warranty Repair	2,600 bikes
Production Line Equipment Testing Time	1,600 hrs.
Customer Support Centre Time	2,000 hrs.

Additional information

HBL carried out a quality review of its existing suppliers to enhance quality levels during the month at a cost of ₹ 1,25,000. Due to the quality issues in the month, the bike production line experienced unproductive 'down time' which cost ₹ 7,70,000.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is considered a Prevention Cost for Hindustan Bikes Ltd. during the month?
 - (a) Manufacturing rework cost
 - (b) Customer support centre cost
 - (c) Cost of quality review of existing suppliers
 - (d) Equipment testing cost
2. Which of the following costs would be classified as an Appraisal Cost?
 - (a) Warranty repair cost
 - (b) Equipment testing cost
 - (c) Cost of supplier review
 - (d) Production line downtime cost
3. Which of the following represents an Internal Failure Cost?
 - (a) Cost of warranty repairs
 - (b) Downtime cost of production line
 - (c) Cost of manufacturing rework
 - (d) Customer support cost
4. Which cost qualifies as an External Failure Cost?
 - (a) Warranty repair cost
 - (b) Equipment testing cost
 - (c) Cost of supplier review
 - (d) Downtime of production line
5. Calculate the Total Quality Cost for the month.
 - (a) ₹ 57,79,400
 - (b) ₹ 49,39,400
 - (c) ₹ 65,00,000
 - (d) ₹ 55,00,000

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Cost of quality review of existing suppliers

Reason

Prevention costs are incurred to avoid quality problems. Reviewing supplier quality is a preventive measure.

2. Option (b): Equipment testing cost

Reason

Appraisal costs are associated with measuring and monitoring activities like inspection or testing.

3. Option (c): Cost of manufacturing rework

Reason

Internal failure costs occur before the product reaches the customer. Rework is an internal failure cost.

4. Option (a): Warranty repair cost

Reason

External failure costs occur after the product reaches the customer - warranty repairs are a typical example.

5. Option (a): ₹ 57,79,400

Reason

Statement Showing "Total Quality Cost"

Particulars of Costs	₹
Prevention Costs	
Supplier Review	1,25,000
Appraisal Costs	
Equipment Testing (₹ 18 × 1,600 hrs.)	28,800

Internal Failure Costs	
Down Time	7,70,000
Manufacturing Rework ($\text{₹ } 228 \times 3,200$ bikes)	7,29,600
External Failure Costs	
Customer Support ($\text{₹ } 35 \times 2,000$ hrs.)	70,000
Warranty Repair ($\text{₹ } 1,560 \times 2,600$ bikes)	40,56,000
Total Quality Costs	57,79,400

CASE SCENARIO 32

Precision Motors Pvt. Ltd., a leading manufacturer of automobile engine components, conducted a quality inspection over one month to identify the most frequent defects in its cylinder head production line. The inspection team recorded the following defect types and their occurrence:

Defect Type	No. of Instances
Bolt hole misalignment	10
Uneven surface grinding	60
Incorrect valve seat machining	20
Surface scratches on metal	110
Oil stains on finished parts	5
Rough edges after milling	70
Paint/Coating colour mismatch	25

The management intends to apply Pareto analysis to identify the “vital few” defects that contribute to the majority of the quality issues, so that targeted corrective measures can be implemented to reduce rework and scrap rates.

MULTIPLE CHOICE QUESTIONS

- Which defect type was recorded most frequently in the inspection?
 - Rough edges after milling
 - Uneven surface grinding
 - Surface scratches on metal
 - Incorrect valve seat machining
- If Pareto analysis is applied, which three defects should be prioritized to potentially address 80% of total quality issues?
 - Surface scratches on metal, Rough edges after milling, Uneven surface grinding

-
- (b) Surface scratches on metal, Paint/Coating colour mismatch, Oil stains on finished parts
 - (c) Rough edges after milling, Bolt hole misalignment, Paint/Coating colour mismatch
 - (d) Uneven surface grinding, Incorrect valve seat machining, Oil stains on finished parts
3. What is the total number of defects recorded during the inspection period?
- (a) 285
 - (b) 300
 - (c) 295
 - (d) 310
4. In a Pareto chart for this data, the cumulative percentage after the top two defects will be:
- (a) 36.67%
 - (b) 60%
 - (c) 80%
 - (d) 88.33%
5. If management focuses on removing the top three defect types, the maximum possible reduction in total defects could be:
- (a) 36.67%
 - (b) 80%
 - (c) 60%
 - (d) 88.33%

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Surface scratches on metal

Reason

Surface scratches on metal have the highest frequency with 110 occurrences.

2. Option (a): Surface scratches on metal, Rough edges after milling, Uneven surface grinding

Reason

These three defects combined contribute to approximately 80% of total defects.

3. Option (b): 300

Reason

Total defects are calculated from the Pareto table summing all defect occurrences.

4. Option (b): 60%

Reason

The cumulative percentage after the top two defects is 60%, based on their combined frequency relative to total defects.

5. Option (b): 80%

Reason

Targeting the top three defects could potentially eliminate around 80% of total defects according to Pareto analysis.

Working (MCQs) - Pareto Table

Rank	Defect	Frequency	Cumulative Frequency	Cumulative %
1	Surface scratches on metal	110	110	36.67%
2	Rough edges after milling	70	180	60.00%

3	Uneven surface grinding	60	240	80.00%
4	Paint/Coating colour mismatch	25	265	88.33%
5	Incorrect valve seat machining	20	285	95.00%
6	Bolt hole misalignment	10	295	98.33%
7	Oil stains on finished parts	5	300	100.00%

CASE SCENARIO 33

Bluebean coffee wishes to expand into other geographical markets. It has limited cash available and so can only afford a low upfront investment. Bluebean know that this is likely to mean they cannot enter the market as fast as they would like and that they will have to settle for a medium speed entry into the market. However, they have a management team that is experienced in the complexity of market expansion and want to involve them directly in the proposed expansion.

In the context of Bluebean Coffee's expansion plans, performance reports play a vital role in Responsibility Accounting by informing responsibility center managers about budgetary deviations, ensuring accountability in decision-making for market expansion. This allows them to take necessary actions to address these variances and maintain accountability within their respective areas of responsibility. The management of Bluebean Coffee ignored the need for undertaking managerial accountability. The Management is of the view that the performance reports can be reviewed anytime.

While preparing the Bluebean Coffee's performance report, it focused on following aspects:

- aligning objectives with organizational goals
- providing an executive summary
- ensuring the reliability of report details.
- conducting employee training programs

JavaJoy Coffee is a competitor of Bluebean Coffee operating in the same industry. Similar in size and resources, JavaJoy also aims to expand its market reach beyond its current geographical boundaries. However, unlike Bluebean, JavaJoy is more aggressive in its approach to market expansion.

However, what distinguishes Java Joy from its competitors is its reliance on external consultants and market research firms for guidance in its expansion strategies. While JavaJoy's management possesses industry experience, they prefer to supplement their knowledge with insights from external experts. This approach provides JavaJoy with a broader perspective and access to specialized expertise.

MULTIPLE CHOICE QUESTIONS

1. Which of the following modes of entry is best suited to Bluebean's constraints and requirements?
 - (a) Licensing
 - (b) Acquisition
 - (c) Joint Venture
 - (d) Strategic Alliance
2. What factor most likely explains the performance difference between JavaJoy Coffee and Bluebeans Coffee?
 - (a) Luck and random chance
 - (b) Differences in structure, culture, and strategy
 - (c) Government regulations
 - (d) Actions of individual employees
3. How does the issuance of performance reports align with Responsibility Accounting in Bluebeans Coffee?
 - (a) By informing responsibility centre managers of deviations from budgets
 - (b) By focusing only on financial performance metrics
 - (c) By delegating performance evaluation solely to the internal management team
 - (d) By ignoring managerial accountability
4. Which of the following should typically not be involved in the preparation of performance reports at Bluebeans Coffee?
 - (a) Establishing objectives aligned with organizational goals
 - (b) Adding an executive summary
 - (c) Cross-checking details for reliability
 - (d) Conducting employee training programmes

5. To ensure timely corrective action based on the review of performance report, which of the following is/are correct?
- i. Performance reports can be reviewed anytime after receipt.
 - ii. Performance reports should be reviewed monthly.
 - iii. Performance reports may be reviewed quarterly.
 - iv. Performance reports may be reviewed annually.
- (a) i only
 - (b) ii and iii only
 - (c) ii, iii and iv only
 - (d) iii and iv only

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Strategic Alliance

Reason

Strategic alliance is an arrangement between two or more enterprises to undertake a mutually beneficial project while each retaining its independence. Each party shares resources, expertise and capabilities for mutual benefit to achieve goals like market expansion, innovation, risk taking etc.

Strategic alliance allows a medium speed of entry to the market, involves managerial complexity but has the advantage of a low upfront investment. (note Strategic Alliance is less complex and less binding than a joint venture). Bluebean coffee has an experienced management team that can provide the expertise for market expansion. However, since it lacks the funds and resources, it can have a mutual alliance with a strategic partner that can provide for this need. Such an alliance that can help it over the cash crunch, can help Bluebean Coffee enter the market at a faster pace than trying to do so on its own.

Option (a): is incorrect because licensing requires low managerial complexity and will not provide the opportunity to leverage the skills of their experienced management team.

Option (b): is incorrect because Bluebean Coffee has limited cash resources to make the upfront payments required to acquire another company. The management of the company is also willing to settle for a slightly less aggressive pace of entry as compared to Java Joy Coffee.

Option (c): is incorrect because a joint venture requires a medium up-front investment since it involves the establishment of a separate business entity. At present, Bluebean Coffee would be unable to do it due its limited cash availability. Since Joint Venture is a combination of two or more parties, it also involves managerial complexity.

2. Option (b): Differences in structure, culture, and strategy

Reason

Despite two businesses operating in the same industry, even at the same level and with the same set of resources, there is surely a difference in their same performance level. The reason behind such a difference is the structure, culture, and strategy of said businesses.

In terms of strategy, Bluebean Coffee has conservative (less aggressive) resource led strategy towards market expansion. They are willing to enter the market at a slower, medium pace. On the other hand, Java Joy Coffee has an aggressive strategy focused on faster market expansion even though it has the same level of resources.

In terms of culture, Bluebean Coffee is more reliant on its internal "in-house" management expertise. Java Joy Coffee is more learning oriented. In addition to its internal expertise, willing to take the inputs of external agencies like consultants, market research firms in order to shape their strategy.

In terms of structure, Bluebean Coffee comes across as more reliant on internal hierarchical framework and expertise. Java Joy Coffee comes across as a more agile organization that is willing to be flexible with its structure in order to make a rapid market expansion.

The factors mentioned above contribute to the difference in performance between Java Joy Coffee and Blue Beans Coffee.

3. Option (a): By informing responsibility centre managers of deviations from budgets

Reason

Market expansion requires accountability in decision making. Performance management can bring ease in strategic planning and control. One of the key aspects of performance management is establishing a responsibility center and assigning responsibility to the manager. This should be communicated at the onset. While evaluating performance, the company measures actual performance against its goals and objectives and identify areas where performance can be improved. Informing the responsibility center managers about deviations from budgets allows them to take necessary actions to address these variances and maintain accountability within their respective areas of responsibility. The management of Bluebean Coffee ignored the need for undertaking managerial accountability. However, the issuance of performance reports at frequent intervals will force the management to take accountability for its actions.

4. Option (d): Conducting employee training programmes

Reason

The aspects involved in the Preparation of Performance Reports:

- Have a clear idea about the need and use-case for the user/ receipt.
- Establishment of Objectives in light of Organisational Objectives (Vision or Mission)
- Add an Executive Summary
- The Real Stuff - Performance Assessment

Thus, conducting employee training is not mentioned as an aspect in the preparation of performance reports of Bluebeans Coffee.

5. Option (c): ii, iii and iv only**Reason**

Once the performance reporting has been established by the organization for its activities or for a specific project, the next step is to analyse the information and take the required corrective (including preventive as well as feed-forward) action. This task typically rests with senior managers or experts who understand business intelligence.

The data that needs to be analysed can be quantitative, such as sales and marketing results, or qualitative, such as customer survey responses. Whatever the type, a structure is required to detail the process, beginning with goal setting and ending with an action plan.

It is critical but equally important that the entity set a time frame for analysis, whether it is a month, quarter, or annual report. This timeframe allows to identify trends.

Thus, based on above, the performance reports should be reviewed by setting a time frame -monthly, quarterly or annually.

CASE SCENARIO 34

Ceber is a ride-sharing company that has until recently been a market leader. The company has operations across India. The operations have been divided into the North, South, East and West regions, with a regional office looking into the operations within its assigned area. Ceber has its Head Office in Gurgaon, which is where the senior management personnel are present.

Recent reports have surfaced regarding how there have been dis-functional operations without proper co-ordination between regional offices and the head office. Many decisions like regional market expansion plans, remuneration to drivers, maintenance of its fleet etc. have been taken in a haphazard manner, without senior management oversight. Dis-satisfied customers leading to loss of brand value, high churn of drivers due to non-conformance to service contracts, run-down fleet of cars are some key factors that led to decline in business and market share for the company. Unhappy investors forced the resignation of the CEO and appointed Mr. Tim as the new CEO of the company.

These issues directly impact Ceber's revenue, profitability, and possibly shareholder value. The scandals and negative publicity may have led to reduced revenue, increased costs due to legal fees or operational challenges and decreased profitability. The new CEO of Ceber Mr. Tim has a big job on his hands. Therefore, Mr. Tim needs to focus on measures which will result into the success and sustainability for the organization.

These issues necessitate a focused approach from Mr. Tim to stabilize the company and restore shareholder confidence.

In this context, Economic Value Added (EVA) emerges as a crucial tool for Mr. Tim. EVA goes beyond traditional financial metrics. This metric enables Mr. Tim to evaluate the efficiency of Ceber's capital utilization and to prioritize investments that promise to maximize shareholder value.

One year after Mr. Tim took charge, Ceber reported the following financial data for the year:

- Net Operating Profit Before Interest & Taxes: ₹50,00,000
- Depreciation Expenses: ₹10,00,000

- Change in Net Working Capital: ₹15,00,000
- Capital Expenditure: ₹20,00,000
- Total Invested Capital: ₹250,00,000
- Weighted Average Cost of Capital (WACC): 12%
- Corporate Tax Rate: 30%

Mr. Tim is dedicated to assembling a staff that is committed to enhancing the organization's success and sustainability.

MULTIPLE CHOICE QUESTIONS

1. In terms of McKinsey's 7-S Framework, which of the following best reflects the Structure dimension while implementing change at Ceber?
 - (a) Evaluating whether the decentralized model of Ceber should be shifted to a more centralized structure
 - (b) Resolving inter-group conflicts and building consensus through effective communication
 - (c) Improving the speed of customer feedback to refine strategies
 - (d) Removing obstacles that cause employees to resist the change process
2. Which perspective of the Balanced Scorecard should Mr. Tim primarily focus on to improve Ceber's revenue, profitability, and shareholder value?
 - (a) Financial
 - (b) Customer
 - (c) Internal Business Processes
 - (d) Learning and Growth
3. What is Ceber's Economic Value Added (EVA) for the year?
 - (a) ₹50,00,000
 - (b) ₹35,00,000
 - (c) ₹38,00,000

- (d) ₹5,00,000
- 4. Economic Value Added (EVA) is primarily used to assess:
 - (a) Accounting profit adjusted for tax benefits
 - (b) Shareholder wealth creation after considering the cost of capital
 - (c) Operating profit before interest and taxes
 - (d) Net profit after tax adjusted for depreciation
- 5. Which of the following represents a primary activity in Ceber's value chain?
 - (a) Human resources and training
 - (b) Upgrading the Ceber mobile application
 - (c) Vehicle maintenance and inspection
 - (d) Legal and regulatory compliance

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (a): Evaluating whether the decentralized model of Ceber should be shifted to a more centralized structure**

Reason

The *Structure* element of McKinsey's 7-S framework relates to organizational hierarchy, reporting lines, and decision-making authority. Assessing whether Ceber should move from a decentralized to a centralized structure directly addresses this dimension and helps align structure with strategic objectives during change.

- 2. Option (a): Financial**

Reason

The Financial perspective of the Balanced Scorecard focuses on outcomes such as revenue growth, profitability, and shareholder value. Improvements in these areas indicate that strategy execution is contributing positively to financial performance.

3. Option (d): ₹5,00,000**Reason**

NOPAT = Net Operating Profit Before Interest & Taxes Less Corporate Tax

$$= ₹50,00,000 - 30\% (₹50,00,000) = ₹35,00,000$$

$$\text{Capital charge} = \text{Total capital invested} \times \text{WACC} = ₹250,00,000 \times 12\%$$

$$= ₹30,00,000$$

$$\text{EVA} = \text{NOPAT} - \text{Capital charge} = ₹35,00,000 - ₹30,00,000 = ₹5,00,000$$

4. Option (b): Shareholder wealth creation after considering the cost of capital**Reason**

EVA measures the economic profit generated by a company after deducting the cost of capital from Net Operating Profit After Tax (NOPAT). It reflects whether the company is creating value for shareholders beyond the required return on capital.

5. Option (c): Vehicle maintenance and inspection**Reason**

Primary activities in the value chain are directly involved in service delivery. Vehicle maintenance and inspection directly support the safe and reliable provision of Ceber's ride-sharing service, while the other options are support activities.

CASE SCENARIO 35

Fresh Milk Enterprises (FME) stands as a distinguished leader in the dairy industry, renowned for its unwavering commitment to delivering exceptional quality dairy products sourced directly from trusted farms. With a steadfast focus on providing premium milk that embodies freshness and purity, FME has garnered a robust reputation among health-conscious consumers and discerning gourmet chefs alike.

At the core of FME's success are several components that have underpinned its market leadership:

- **Quality:** Central to FME's ethos is an uncompromising dedication to quality. Each product undergoes rigorous scrutiny to ensure it meets the highest standards of freshness, purity, and nutritional integrity.
- **Customer Satisfaction:** FME prides itself on consistently meeting the stringent expectations of its diverse clientele. Whether it's health-conscious consumers seeking nutritious options or gourmet chefs demanding impeccable taste and consistency, FME's products are tailored to satisfy even the most discerning palates.
- **Supply Chain Efficiency:** By maintaining direct relationships with reliable farms, FME ensures a seamless supply chain that prioritizes freshness and quality control at every stage. This direct sourcing approach not only guarantees the traceability of ingredients but also reinforces FME's ability to respond swiftly to market demands while upholding its stringent quality standards.
- **Brand Reputation:** Synonymous with excellence, FME's brand is a hallmark of premium quality and reliability in the dairy industry. Upholding this esteemed reputation requires continuous vigilance and adherence to stringent quality assurance protocols, thereby reinforcing consumer confidence and loyalty.
- **Innovation:** Committed to continual improvement, FME embraces innovation across its operations, from state-of-the-art packaging solutions that preserve freshness to efficient distribution channels that ensure timely delivery.

Recently, FME has encountered market pressures to reduce prices in order to compete more aggressively and increase market share. Management is considering the implications of this decision on their overall corporate strategy.

After much deliberation, the management decided to lower the price of its products as well. Therefore, instead of sourcing its milk from farmers, it decided to buy it large-scale milk producers. While the quality of the milk may not be the same, the company is left with no option but to match the market prices in order to stay in business. Once implemented there was a change in the demand mix. Gourmet chefs, who were previously the most profitable customers, started switching to other brands since the quality of FME's products were not the same as before.

Leveraging technological innovation, FME undertook a gradual shift towards automation in its manufacturing operations. This resulted in faster rate of production. To manage these machines, the company hired higher skilled labor. Such skilled labor are paid higher than ordinary factory floor workers.

New standards and budgets based on the above management decisions were made. Once the decisions were implemented, the management has received the MIS with the following variances:

Variance Type	Amount (Favourable/Adverse)
Sales Volume Variance	15,000 (F)
Sales Mix Variance	7,500 (A)
Direct Material Price Variance	9,200 (F)
Direct Labor Rate Variance	6,800 (A)
Variable Overhead Efficiency Variance	4,300 (F)

MULTIPLE CHOICE QUESTIONS

1. What is the primary Critical Success Factor (CSF) for Fresh Milk Enterprises (FME)?
 - (a) Price competitiveness
 - (b) Supply chain efficiency

- (c) Quality
 - (d) Customer base expansion
2. The Sales Mix Variance of FME is ₹7,500 (Adverse). What does this indicate?
- (a) FME sold more products than anticipated, leading to higher overall revenue
 - (b) There was a shift in the proportion of product sales compared to the budgeted mix, resulting in lower revenue than expected.
 - (c) Operating costs related to sales activities exceeded budgeted amounts.
 - (d) The efficiency of variable overhead costs improved due to enhanced production methods.
3. The Direct Labour Rate Variance of FME is ₹6,800 (Adverse). What does this primarily indicate?
- (a) FME experienced higher-than-expected labour costs per unit of production.
 - (b) There was an increase in labour efficiency, resulting in lower overall labour costs.
 - (c) The actual number of labour hours used exceeded the budgeted amount.
 - (d) Direct labour costs were lower due to reduced overtime expenses.
4. The Variable Overhead Efficiency Variance for FME is 4,300 (F). What does this variance suggest about FME's operations?
- (a) FME incurred higher-than-expected variable overhead costs due to increased production.
 - (b) There was an improvement in the efficiency of using variable overhead resources compared to the standard.
 - (c) Variable overhead costs were exactly as budgeted, with no deviations.

- (d) FMEs variable overhead costs were lower due to renegotiated supplier contracts.
5. Which of the following correctly captures the potential conflict between management decisions and the company's overall objective?
- (a) Sales Mix variance is 7,500 (Adverse) while Direct Material Price Variance is 9,200 (Favorable)
 - (b) Direct Labor rate variance is 6,800 (Adverse) while Direct Material Price Variance is 9,200 (Favorable)
 - (c) Direct Labor rate variance is 6,800 (Adverse) while Variable Overhead Efficiency Variance is 4,300 (Favorable)
 - (d) Sales Mix variance is 7,500 (Adverse) while Variable Overhead Efficiency Variance is 4,300 (Favorable)
6. Which of the following shows synergy between management decisions and the company's overall objective?
- (a) Sales Mix variance is 7,500 (Adverse) while Direct Material Price Variance is 9,200 (Favorable)
 - (b) Direct Labor rate variance is 6,800 (Adverse) while Direct Material Price Variance is 9,200 (Favorable)
 - (c) Direct Labor rate variance is 6,800 (Adverse) while Variable Overhead Efficiency Variance is 4,300 (Favorable)
 - (d) Sales Mix variance is 7,500 (Adverse) while Variable Overhead Efficiency Variance is 4,300 (Favorable)
7. Following its strategic decision to lower its prices to current market rates, FME's Sales volume variance is ₹15,000 (Favorable) but the sales mix variance is ₹7,500 (Adverse). Which of the following would be the most likely conclusion regarding this decision?
- (a) The price reduction is an unqualified success since it resulted in higher volume of sales despite an adverse sales mix.
 - (b) The price reduction is a failure because adverse sales mix variance reflects eroding customer base across all customer segments.

- (c) The favorable sales volume variance suggests that the market is price sensitive but the adverse mix indicates erosion of high yielding profitable customers
- (d) The given information is insufficient to draw any conclusion.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Quality

Reason

FME's reputation and success are built on providing premium quality dairy products. This factor is critical as it distinguishes FME from competitors and attracts health-conscious consumers and gourmet chefs who prioritize freshness and purity. All the others are secondary.

2. Option (b): There was a shift in the proportion of product sales compared to the budgeted mix, resulting in lower revenue than expected.

Reason

Sales Mix Variance measures the impact on revenue (or contribution) arising from changes in the proportion of different products sold, compared to the budgeted or standard sales mix, assuming total sales volume remains the same. A negative (adverse) variance suggests that the actual mix led to lower revenue compared to what was budgeted. It is given in the problem that gourmet chefs started switching brands due to the reduction in quality of the products. On account of this compromise in quality, the sales mix has a lower proportion of higher yielding sales to gourmet chefs as compared to other customers.

3. Option (a): FME experienced higher-than-expected labour costs per unit of production.

Reason

Direct Labor Rate Variance reflects the difference between the actual labour rate paid per hour and the standard rate. An adverse variance

indicates that the actual rate was higher than the standard rate, leading to increased labour costs per unit of production. FME hired skilled labour at a higher rate than budgeted, therefore the labor rate variance is adverse.

- 4. Option (b): There was an improvement in the efficiency of using variable overhead resources compared to the standard.**

Reason

Variable Overhead Efficiency Variance measures the efficiency with which the activity base (such as labour hours or machine hours) is used compared to the standard. A favourable variance indicates that actual hours used were lower than the standard hours for actual output, reflecting improved operational efficiency. In FME's case, this improvement is attributable to the gradual shift towards automation in the manufacturing process, resulting in faster production and more efficient utilization of variable overhead resources.

- 5. Option (a): Sales Mix variance is 7,500 (Adverse) while Direct Material Price Variance is 9,200 (Favorable)**

Reason

Favorable material price variance indicates that FME was able to procure material at lower costs as compared to its budget.

Adverse sales mix variance indicates that there has been lower proportion of higher yielding sales to gourmet chefs as compared to other customers.

In order to match the market prices, FME decided to procure its milk at lower prices compromising on quality. However, this resulted in loss of high yielding customers who are the gourmet chefs who have moved to other brands instead. Therefore, the decision of the management to procure cheaper material contradicts with FME's objective of being a premium quality dairy producer.

- 6. Option (c): Direct Labor rate variance is 6,800 (Adverse) while Variable Overhead Efficiency Variance is 4,300 (Favorable)**

Reason

The company hired skilled labor at a higher rate. However, this labor operating the machines that are being used to automate the process enabled to bring efficiencies in the process. This is reflected in the variable overhead efficiency variance being favorable since production rate is much faster than budgeted.

7. **Option (c): The favorable sales volume variance suggests that the market is price sensitive but the adverse mix indicates erosion of high yielding profitable customers**

Reason

Favorable sales volume variance indicates that more products were sold as compared to the budget. This shows that the market is price sensitive since it responded positively to the management's trigger of lowering the sale price. However, the decision is not a complete success since the adverse sales mix variance reflects the erosion of high yielding profitable customers. In the case study it is mentioned that gourmet chefs are switching to other brands due to loss of quality. Therefore, there are negative outcomes as well to the management's decision.

CASE SCENARIO 36

Akanksha Foundation is a non-profit organization dedicated to transforming the lives of children from low-income communities in India through education. They operate from a strategic location where big business hubs are situated. Established with the mission to provide quality education, Akanksha operates schools and centers that cater to underserved children, focusing on academic excellence, character development, and holistic growth. The foundation believes in nurturing talent and empowering children to reach their full potential, equipping them with the skills and opportunities needed to break the cycle of poverty. Through innovative educational initiatives and partnerships, Akanksha Foundation strives to create positive, sustainable change in the lives of students and their communities.

The government's policies, funding allocations, and support for education initiatives directly impact the foundation's ability to achieve its mission. The state or government's commitment includes not only financial support but also regulatory frameworks that affect educational standards, curriculum approvals, and operational permissions for educational institutions. Akanksha Foundation secures funding from both local and international sources consistently each year. The donor base remains largely stable over time, providing a reliable stream of financial support. To ensure accountability and transparency towards their contributors, Akanksha Foundation measures its performance to demonstrate the effective use of funds. Akanksha Foundation measures the performance as under:

- They assess the percentage of students who demonstrate improved academic performance and character development after participating in their programs.
- They analyze the cost-effectiveness of their initiatives, such as calculating the cost per student educated or per program implemented. By leveraging technology and innovative teaching methods, Akanksha maximizes the impact of every rupee spent, ensuring that resources are used efficiently to deliver high-quality education to a large number of students.

- They negotiate favorable terms with suppliers for educational materials and services. They also collaborate with local communities and businesses to access discounted or donated resources, minimizing operational costs while expanding their educational reach.

However, the Management of Akanksha Foundation wants your guidance as to how to analyse and accordingly implement the necessary action points after understanding the outcome of above performance measures.

MULTIPLE CHOICE QUESTIONS

1. Which of the following performance measures would be most appropriate for the Akanksha Foundation to utilize?
 - (a) Financial Statements
 - (b) Internal Communications
 - (c) Staff Turnover Rate
 - (d) Board Meeting Frequency
2. The performance of not-for-profit organizations like Akanksha Foundation largely depends on what factor?
 - (a) Commitment of donors
 - (b) Commitment of the state (or government)
 - (c) International support
 - (d) Location of operations
3. Which model has Akanksha Foundation used to measure its performance?
 - (a) Value for Money (VFM) Framework
 - (b) Adapted Balanced Scorecard
 - (c) Theory of Change
 - (d) Outcome Mapping

-
4. The outcome of the performance measurement by Akanksha Foundation is called as_____.
 - (a) Performance Report
 - (b) Impact Assessment
 - (c) Results Evaluation
 - (d) Effectiveness Analysis
 5. What action does the person who receives the above outcome of the performance measurement should undertake?
 - (a) Take action in case of unfavourable variance
 - (b) Take action in case of both favourable and unfavourable variance
 - (c) Share the results with stakeholders
 - (d) Publish the findings in academic journals
 6. Based on the performance report, if Akanksha Foundation revises its teaching methods in order to help students improve their academic performance, which component of the Value for Money framework is it trying to improve?
 - (a) Effectiveness
 - (b) Efficiency
 - (c) Economy
 - (d) Corporate Social Responsibility
 7. Based on the performance report, if Akanksha Foundation increases the class strength by 50%, which component of the Value for Money framework is it trying to improve?
 - (a) Effectiveness
 - (b) Efficiency
 - (c) Economy
 - (d) Corporate Social Responsibility

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): Financial Statements**Reason**

Financial statements are crucial for NPOs to demonstrate fiscal responsibility and transparency. They provide detailed information on how funds are utilized, ensuring accountability towards contributors.

Internal communications [Option (b)] are important but primarily focus on organizational efficiency rather than directly demonstrating the use of funds. Staff turnover rate [Option (c)] and board meeting frequency [Option (d)] are indicators of organizational health and governance but do not directly measure the use of funds for the stated purpose. Therefore, financial statements are the most appropriate measure to ensure contributors' confidence.

2. Option (b): Commitment of the state (or government)**Reason**

The performance of not-for-profit organizations is significantly affected by the commitment and performance of the state or government in similar sectors. (Specifically in food security, education and health).

It is given the scenario that the state or government's commitment includes not only financial support but also regulatory frameworks that affect educational standards, curriculum approvals, and operational permissions for educational institutions. Therefore, Akanksha's performance largely depending on the government's commitment, policies and support.

3. Option (a): Value for Money (VFM) Framework**Reason**

Akanksha Foundation used VFM Framework to measure the performance. VFM framework can be used for measurement of performance in the not-for-profit sector because Not-for-profit organisations are expected to provide the best possible value from available money (usually limited). VFM framework ensures–

- Effectiveness (spend wisely) (an output measure, the goal approach) whether the organisation has achieved its desired mission and objectives?
- Efficiency (spend well) (a link between input and output factor, as a process approach) → Whether the resources and funds available to the organisation have been efficiently utilised i.e., maximum output has been obtained with minimum input?
- Economy (spend less) (as an input measure, the resource approach) Whether the appropriate quantity and quality of inputs are available at the lowest cost?

4. Option (a): Performance Report

Reason

A performance report is a document that addresses the outcome of an activity or the work of an individual.

5. Option (a): Take action in case of unfavourable variance

Reason

The recipient of a performance report is expected to take action when there is an unfavourable variance.

6. Option (a): Effectiveness

Reason

By revising the teaching methods the organization is trying to improve the quality of teaching execution (input) in order to get help students improve their academic performance (output). This is the effectiveness component of the VFM framework.

7. Option (b): Efficiency

Reason

Utilizing the same resources in terms of infrastructure, teachers etc. when Akaksha increases the class strength by 50%, more students are catered to using the same resources. This improves the Efficiency component of Value for Money Framework.

CASE SCENARIO 37

Vinotech Inc. (hereinafter referred to as “the company”) is renowned for its high-quality wines and operates vineyards across several regions. Seeking to strengthen its supply chain efficiencies and ensure consistent product quality, Vinotech Inc. acquired wines stores located in prime grape-growing regions, thus controlling the entire process.

Vinotech Inc. has acquired vineyards of competitors, ensuring a consistent and quality grape supply for its winemaking operations, thereby enhancing control over its production process and supply chain. Vinotech partnered with luxury food company to offer exclusive wine and food pairing experiences, diversifying its business into related industries and integrated marketing, sales, and production departments to streamline operations and improve collaboration.

The company aims to ensure efficient resource utilization and optimize operational performance. The company understands that minimizing waste throughout the production process is essential for maximizing efficiency and profitability. By identifying areas where waste occurs, such as in raw materials, labor, or energy usage, the company can implement strategies to mitigate these losses. Additionally, reducing production costs without compromising on quality enables Vinotech Inc. to remain competitive in the market while meeting consumer demands.

While competitive analysis is essential for Vinotech Inc.'s strategic positioning, it diverges from direct engagement in operational tactics. Instead, Vinotech primarily relies on tools like value analysis, sustainable farming practices, and target costing to refine its production processes and ensure optimal resource utilization. These methods contribute to Vinotech's commitment to excellence and efficiency in its operations, aligning with its overarching goals for quality and sustainability.

The company aims to maintain profitability by employing advanced agricultural techniques to optimize vineyard conditions, ensuring abundant grape harvests, leveraging digital platforms and innovative marketing strategies, by diversifying its distribution channels, reaching a broader audience of wine enthusiasts

worldwide. Vinotech Inc. meticulously crafts its wines, allowing them to mature in carefully selected barrels, imparting complex flavors and aromas.

Within Vinotech Inc., effective delegation of authority and accountability for costs is fundamental. This practice ensures that managers take ownership of cost centers, fostering a culture of responsibility and enabling efficient cost management throughout the organization's operations.

By investing in state-of-the-art aging facilities and employing skilled enologists, Vinotech Inc. ensures that each wine undergoes a meticulous aging process, resulting in exceptional quality and character.

The company recognizes the pivotal role of customer satisfaction in sustaining long-term success. The company endeavors to discern customer preferences and allocate resources efficiently to meet or exceed expectations. In order to achieve the same, the company is seeking some advice from a professional consultant as to which of the following action points needs to be implemented as per Kano's model:

- Introduce new varieties of products.
- Attending to customer complaints and gathering data from the same can lead to innovation.
- Improving every aspect of a product will lead to improved customer satisfaction outcomes.
- To innovate because customers switching costs are low.

The company is already implementing following action plans since last 2 years:

- Launching expensive marketing campaigns.
- Setting ambitious sales targets.
- Investing in high-end packaging materials.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is the best example of forward vertical integration?
 - (a) The company acquiring vineyards owned by competitors
 - (b) The company selling wines through its own wine stores

- (c) The company partnering with a luxury food company to offer exclusive wine–food pairing experiences
 - (d) The company integrating marketing, sales, and production departments to streamline operations
2. Which of the following best describes the underlying idea behind Kano's Model?
- (a) Customer satisfaction decays over time, requiring continuous product launches
 - (b) Customer complaints are the primary source of innovation
 - (c) Improving every aspect of a product does not necessarily increase customer satisfaction
 - (d) Innovation is the only driver of profitability due to low switching costs
3. Which of the following action points best signifies cost control undertaken by Vinotech Inc.?
- (a) Maximizing grape yields
 - (b) Minimizing waste and reducing production costs
 - (c) Expanding distribution channels
 - (d) Enhancing wine quality through extended aging
4. Which of the following tools or techniques is NOT commonly associated with cost reduction efforts at Vinotech Inc.?
- (a) Value Analysis
 - (b) Implementing sustainable farming practices
 - (c) Target Costing
 - (d) Competitive Analysis
5. Which of the following is a prerequisite for effective cost control within Vinotech Inc. according to industry standards?
- (a) Launching expensive marketing campaigns

- (b) Setting highly ambitious sales targets
 - (c) Delegating authority and assigning responsibility for costs
 - (d) Investing in high-end packaging materials
6. When analyzed using the Business Model Canvas, which of the following incorrectly describes the impact on its specific building blocks?
- (a) The acquisition of competitors' vineyards strengthens the Key Resources block by securing the supply of high quality grapes.
 - (b) Opening proprietary wine stores represents a shift in the Channels block, moving from indirect distribution to direct-to-customer model.
 - (c) The partnership with luxury food company to offer exclusive wine and food pairing experiences is an expansion of the Value Proposition, adding experiential value beyond the physical product.
 - (d) Integrating marketing, sales, and production departments to streamline operations and improve collaboration exclusively impacts the Customer Relationship block.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): The company selling wines through its own wine stores

Reason

The company selling wines to its wine stores - This is an example of forward vertical integration, as it involves expanding into the distribution and retail stage.

2. Option (c): Improving every aspect of a product does not necessarily increase customer satisfaction

Reason

Option (c) is correct because Kano was challenging the notion that if you improve all the key attributes of a product, it will lead to improved customer satisfaction outcomes.

Option (a) is incorrect because customer satisfaction may decay over time, but this is not the point of Kano's observations.

Option (b) is incorrect because customer complaints are not a key factor for delivering innovation.

Option (d) is incorrect because innovation is not always the answer to an improvement in the bottom line - it is one option an organisation can consider.

3. Option (b): Minimizing waste and reducing production costs

Reason

Cost control would primarily focus on minimizing waste and reducing production costs to improve profitability while maintaining quality standards. This ensures efficient resource utilization and optimal operational performance.

4. Option (d): Competitive Analysis

Reason

While competitive analysis is important for strategic decision-making, it is not directly associated with cost reduction efforts. Tools like value analysis, target costing, and implementing sustainable farming practices are more commonly used by company to reduce production costs and improve efficiency. Cost Control does competitive analysis of actual results with established standards.

5. Option (c): Delegating authority and assigning responsibility for costs

Reason

Effective delegation of authority and assigning responsibility for costs ensures accountability. This allows managers to take ownership of cost centers and work towards achieving cost control objectives, ensuring that costs are managed effectively at all levels of the organization.

- 6. Option (d): Integrating marketing, sales, and production departments to streamline operations and improve collaboration exclusively impacts the Customer Relationship block.**

Reason

Integrating marketing, sales, and production departments to streamline operations and impacts key activities and cost structure blocks. While customer experiences may be impacted, the primary change is in the way the operations are performed thereby having a higher impact on the business model activities and their related costs. Customer Relationships describes the touch points the company has with its customers rather than the organization of business.

CASE SCENARIO 38

In 2021, Clod Drinks introduced a pioneering protein drink product into the Australian market, achieving remarkable success characterized by robust sales and a dominant market position. During this period, the company operated in an environment marked by minimal competition and a conspicuous absence of substitute products. The Clod Drinks team spent heavily on marketing and advertising and product development to grow their market share.

In 2026, they noticed competitors for protein drink entering the market and eating into their market share. This influx of competitors, along with the emergence of alternative products, notably impacted Clod Drinks' profitability, underscoring the influence of competitive pressures. The role of suppliers became increasingly significant in sustaining their operations and maintaining competitiveness. Suppliers play a crucial role in providing the necessary raw materials and ingredients for Clod Drinks' protein drink production. However, with the influx of rival companies into the market and the emergence of alternative products, Clod Drinks may face challenges related to supplier power. As Clod Drinks faces intensified competition, the demand for raw materials may fluctuate, potentially leading to smaller quantities being purchased. This scenario could bolster the bargaining power of suppliers, enabling them to negotiate more favourable terms or impose higher prices on Clod Drinks.

Moreover, suppliers with limited alternatives may capitalize on their position to exert greater influence during negotiations, especially considering Clod Drinks' reliance on their input for production. Therefore, effectively managing supplier relationships becomes crucial for Clod Drinks to ensure a stable supply chain, mitigate risks associated with changing market dynamics, and sustain competitiveness amidst heightened competition.

In response to the heightened competition and fluctuating market dynamics, Clod Drinks could conduct scenario analysis to anticipate various outcomes and devise strategic responses. By simulating different scenarios, such as changes in market share, pricing strategies, or supplier negotiations, Clod Drinks can proactively identify risks and opportunities to maintain competitiveness and ensure a resilient supply chain. Scenario analysis enables Clod Drinks to make

informed decisions, adapt quickly to evolving market conditions, and safeguard their market position in the face of intensified competition.

Specialized protein isolates, like pea, soy protein, have experienced price fluctuations due to weather conditions affecting crop yields. Droughts, floods, or other extreme weather events disrupted production, leading to increased costs and potential shortages in the market. The price of protein isolates has fallen dramatically in the last few years from over US\$15/kg to less than US\$7/kg.

Clod Drinks is dedicated to empowering individuals to live more vibrant lives through our science-driven approach to chilled beverages. Clod Drinks website states *“Our aim is to help people do more, feel better, and live longer”*.

MULTIPLE CHOICE QUESTIONS

1. Which of the following should the Clod Drinks team have done to combat the competitive threat?
 - (a) Raise barriers to entry by threatening legal action against competitors
 - (b) Immediately take out a patent on their protein drink process
 - (c) Trademark the Clod name and continue to leverage their first-mover advantage
 - (d) Seek copyright protection for the creation of the Clod protein drink
2. Which statement best captures the relationship between industry profitability and Porter's Five Forces in the context of Clod Drinks?
 - (a) Higher threat of new entrants increases industry profitability
 - (b) Industry profitability is lowest when the threat of substitutes declines
 - (c) Moderate buyer power and moderate rivalry increase profitability
 - (d) Low rivalry and low supplier power lead to higher industry profitability

3. Which statement regarding supplier power in Clod Drinks is most likely to be correct?
 - (a) Higher threat of supplier forward integration reduces supplier power
 - (b) Smaller quantities purchased increase supplier power
 - (c) Greater number of suppliers increases supplier power
 - (d) Higher importance of supplier inputs increases buyer power
4. The sharp fall in protein isolate prices has been most influenced by which external factor?
 - (a) Social
 - (b) Political
 - (c) Economic
 - (d) Environmental
5. Which strategic component best summarises Clod Drinks' stated aim on its website?
 - (a) Vision
 - (b) Goals
 - (c) Values
 - (d) Mission
6. Based on the information given in the case scenario, in 2026 in which stage of the product life cycle is Australian protein industry most likely entering?
 - (a) Introduction
 - (b) Growth
 - (c) Maturity
 - (d) Decline

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (c): Trademark the Clod name and continue to leverage their first-mover advantage**

Reason

This is the only option they can reasonably take. Competitors have already entered the market, so they would trademark their name and use their brand strength to grow their market. Trademarks don't protect products from being copied. All the other options are not valid given the question information.

Option (a) is incorrect because they have no basis on which to take legal action.

Option (b) is incorrect because the company would need to do this before competitors come into the market with a similar product. It is too late to attempt to get a patent, which can take years, to protect market share that is already reducing. There is also no evidence they have a process that is unique and could be patented.

Option (d): is incorrect because company can't copyright a process. Copyright is for artistic creations which would not cover a protein drink.

- 2. Option (d): Low rivalry and low supplier power lead to higher industry profitability**

Reason

Industry profitability is likely to be the highest when the power of each of the five forces is low. A low level of rivalry suggests that competitors in the industry do not have to compete away profits in order to attract buyers. Similarly, low supplier power suggests that organisations in the industry are not forced to pay high prices for their purchases. Both features are positive for industry profitability.

Option (a) is incorrect because the threat of new entrants and industry profitability are usually inversely related— that is, the higher the threat the lower the profitability. Note that in a fast-growing industry new entrants often don't reduce industry profitability at that stage of the

industry life cycle. However, as the industry moves towards maturity, profit margins erode.

Option (b) is incorrect because lower threat of substitutes would give rise to high industry profitability. If there are fewer substitutes to the industry's product there are low alternatives for buyers to purchase and reduced pressure on profitability.

Option (c) is incorrect because only low buyer power and industry rivalry would give rise to higher industry profitability. Moderate levels of these forces would give rise to moderate levels of profitability only.

3. Option (b): Smaller quantities purchased increase supplier power

Reason

If the companies in an industry purchase a low volume of products from suppliers, the industry is relatively unimportant to the suppliers, and companies in the industry are not in a position to bargain down the prices paid for these supplies.

Option (a) is incorrect because the ability for suppliers to forward integrate increases their power relative to the industry.

Option (c) is incorrect because the more suppliers that exist, the more likely industry rivals will hold the negotiating power by having a wider range of supplier choice.

Option (d) is incorrect because the higher the importance of the suppliers' input to industry rivals, the less power industry rivals have in negotiating with suppliers.

4. Option (c): Economic

Reason

These are commodities and are therefore heavily influenced by the market they are traded in and therefore the economic conditions in the countries of buyers and sellers.

Option (a) is incorrect as social norms have little impact on this industry.

Option (b) is incorrect although countries can have a political influence with policy changes, they are not as strong as the economic influences on this market.

Option (d) is incorrect because although the environmental impact is increasing and causing some policy changes this influence is much smaller than the economic one.

5. Option (d): Mission

Reason

The company stated their fundamental purpose, or why they exist (to help people do more, feel better and live longer). This form what is known as the mission.

Option (a) is incorrect because the vision describes what an organisation wishes to achieve—it is not a description of its ideal future state.

Option (b) is incorrect because goals set the desired achievement outcomes for the organisation.

Option (c) is incorrect because values support the mission by guiding behaviour.

6. Option (c): Maturity

Reason

The maturity stage is characterized by high competition, market saturation and a focus on maintaining market share against rivals than just growing the total market.

In 2021 Clod Drinks had minimal competition in the market. Being a pioneering drink the industry was in the introductory phase of product life cycle. Over time “influx of rivals” and “fluctuation of demand” in 2026 point to a more mature stage of the product life cycle. In order to maintain its market share. Clod Drinks is developing various scenario analysis such as changes in market share, pricing strategies, or supplier negotiations to obtain information to respond to changing market dynamics and competition. This shows that the industry has entered a mature phase in the product lifecycle.

CASE SCENARIO 39

In the competitive world of premium watches, Japanese Bugatsune World (BW) located in Northern Japan stands out as a hallmark of quality and tradition. BW is 80% owned by KKR, a private equity fund who is known across the world for strategic investments and involved in the business decisions of their investments.

BW exports its premium watches to select markets worldwide. However, with competitors from countries like Australia gaining traction, BW is determined to expand its market reach while safeguarding its intellectual property. Recognizing the need for strategic expansion, BW explores franchising options in Australia also they were exploring joint venture with a local distribution company in Asia as a potential business model. In the case of BW, an important factor for success in Asia and Australia is its ability to adapt its products and strategies to the preferences and trends of different target markets. This involves understanding the cultural, social, and economic dynamics of each market and tailoring offerings accordingly. To measure BW's effectiveness in this aspect, they can track the rate at which it successfully enters and establishes a presence in new markets. This can be quantified by monitoring the number of new markets penetrated within a given time period and observing the corresponding increase in sales and brand visibility in those markets. Due to their weak financial position, BW is reluctant to incur significant debt. Additionally, BW needs to identify its core competencies to effectively capitalize on its strengths and gain a competitive advantage. With this understanding, BW should assess its core competencies in terms of their relevance and breadth of application. By focusing on core competencies that align with its strategic goals, BW can enhance its market position and successfully expand into new markets while protecting its intellectual property.

MULTIPLE CHOICE QUESTIONS

1. Which of the following advantages mentioned above is true in the case of a franchising business model?
 - (a) Distributing profits and sharing costs and resources

-
- (b) Providing branding and intellectual property to others
 - (c) Using a standardized operating model across the business
 - (d) Moving part of operations offshore to deliver lower costs
2. Considering modes of entry to new markets, which of the following would you recommend for Japanese BW?
- (a) Continue to export and approach new markets with low prices and high volumes with the aim to capture market share quickly
 - (b) Form a joint venture with a target market distribution company who sells the product but is not involved in any other operations
 - (c) Make the investment in a wholly owned operation with extensive marketing and promotion to grow customer awareness and sales
 - (d) License their production processes with contracts including high damages payments if intellectual property conditions are breached
3. KKR, a private equity fund has both high interest and power over BW's strategy, which of the following techniques would you use to interact with them?
- (a) Keep them both updated on any strategic changes and empowered to steer the direction of change
 - (b) Keep these stakeholders satisfied.
 - (c) Keep these stakeholders informed
 - (d) Spend time to manage the expectations of this stakeholder group even if doesn't coincide with the company's goals.
4. Which of the following is a Critical Success Factor (CSF) relevant to BW's expansion into new markets?
- (a) Product Quality
 - (b) Intellectual Property Sharing
 - (c) Market Adaptability
 - (d) Brand Reputation

5. Which of the following statements best describes a core competency for BW?
- (a) A core competency is any skill or capability that a company possesses
 - (b) A core competency is a unique proposition that provides value to customers and is easy for competitors to copy
 - (c) A core competency is a skill or capability that strongly influences customers to choose a company's product or service, is difficult to imitate, and opens up potential markets for growth
 - (d) A core competency is a broad set of skills possessed by a company, regardless of their relevance to the market

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Using a standardized operating model across the business**

Reason

Using a standardised operating model across the business is characteristics of franchise operation.

Option (a) is incorrect because this is a characteristic of a joint venture model. Option (b) is incorrect because this is a characteristic of a licensing model. Option (d) is incorrect because this is a characteristic of offshoring.

2. **Option (b): Form a joint venture with a target market distribution company who sells the product but is not involved in any other operations**

Reason

Option (b) is correct because a joint venture enables them to achieve more market penetration than they have now. A local partner could assist them in selling the product and growing the customer base. By limiting the partner to those functions, they hope to limit the technology leakage.

Option (a) is incorrect because continuing to export is not going to increase their market penetration enough. Lowering prices might assist (noting that gross margins will decline); however, option (b) is likely to be more successful.

Option (c) is incorrect because the question states they have some capital but are not willing to take on significant debt. Wholly owned operations are likely the most expensive option for market entry which means they are unlikely to pursue this option.

Option (d) is incorrect because licensing has one of the highest risks for technology leakage and would be a risky option to undertake.

3. Option (a): Keep them both updated on any strategic changes and empowered to steer the direction of change

Reason

As per the Mendelow's Matrix framework, KKR will be considered key stakeholders/ players, and a business will need to actively engage this group. This group is likely to have a significant influence; they may be the driver behind the change or strategy. They will likely have the power to stop the change or strategy from going ahead if they are unhappy. This is the group that requires most focus. Keep them both updated on any strategic changes and empowered to steer the direction of change (or at least feel that they have the opportunity to input into the direction of the project).

4. Option (c): Market Adaptability

Reason

Market Adaptability refers to the ability to adjust products and strategies according to the preferences and trends of different target markets. While product quality, intellectual property protection, and brand reputation are important factors, in the context of expanding into new markets, the ability to adapt to the nuances of each market is crucial for success.

5. Option (c): A core competency is a skill or capability that strongly influences customers to choose a company's product or service, is difficult to imitate, and opens up potential markets for growth.

Reason

According to the provided information, a core competency must meet three parameters: relevance to customers, difficulty of imitation, and breadth of application. Therefore, option (c) best describes a core competency as it encompasses all three parameters.

CASE SCENARIO 40

GreenRoute Logistics Pvt. Ltd., a mid-sized transportation and supply chain company operating across major Indian cities, has recently redefined its business strategy to address growing environmental concerns, evolving regulations, and rising expectations from socially conscious stakeholders. The company adopted a more holistic approach to ensure long-term success while balancing operational efficiency with social and environmental impact.

GreenRoute made significant improvements to workforce welfare by introducing advanced safety measures such as driver safety programme, fatigue detection systems and scheduled rest breaks for drivers. It extended benefits like health insurance, accident coverage, and skill development programs for operational staff. In addition, it strengthened community ties through road safety campaigns and provided logistical support during regional disaster relief efforts. The company also implemented inclusive hiring practices, particularly focusing on increasing the participation of women in its fleet and warehouse teams.

On the operational front, the company took deliberate steps to reduce its ecological footprint. It transitioned a major portion of its vehicle fleet to electric and hybrid models, redesigned its warehouses to incorporate solar energy and rainwater harvesting, and equipped its drivers with eco-driving training and fuel-monitoring technology powered by IoT systems.

These initiatives were carefully integrated with the company's business model to ensure that financial performance remained strong. By reducing fuel dependency and optimizing operational practices, GreenRoute achieved a 12% increase in operating margins. Its commitment to responsible practices enhanced its reputation, attracting clients with a preference for sustainable partners and helping the company stay ahead of regulatory trends.

Within 18 months, GreenRoute experienced notable outcomes: employee retention improved by 22%, environmental impact was significantly reduced, and customer satisfaction increased due to transparent and ethical business conduct. The company's experience showcases how sustainability, when embedded in core operations, can drive both social impact and business success.

MULTIPLE CHOICE QUESTIONS

1. Which of the following best represents the Triple Bottom Line (TBL) approach adopted by GreenRoute Logistics?
 - (a) Profit, Process, and People
 - (b) People, Profit, and Planet
 - (c) Performance, Productivity, and Planet
 - (d) Planet, Profit, and Pricing
2. GreenRoute's investment in driver safety programs, health insurance, and skill development primarily reflects which dimension of the TBL framework?
 - (a) Profit
 - (b) Planet
 - (c) People
 - (d) Process
3. Which initiative by GreenRoute Logistics demonstrates its commitment to the "Planet" aspect of the Triple Bottom Line?
 - (a) Hiring more women in warehouse roles
 - (b) Electrifying its vehicle fleet
 - (c) Partnering with NGOs for road safety awareness
 - (d) Offering fuel-based performance bonuses to drivers
4. How did GreenRoute Logistics strengthen the "Profit" aspect of the Triple Bottom Line while also benefiting the environment?
 - (a) By increasing delivery fees for premium services
 - (b) By converting to electric vehicles and reducing fuel costs
 - (c) By automating customer service
 - (d) By outsourcing logistics to reduce headcount

5. What long-term business advantage did GreenRoute gain from implementing the Triple Bottom Line approach?
- (a) Reduced market share due to high compliance costs
 - (b) Increased operational complexity with no clear benefits
 - (c) Improved employee retention, customer trust, and risk mitigation
 - (d) Higher fuel consumption from electric vehicles
6. Which of the following outcomes identifies the synergy between People and Profit pillars on the TBL?
- (a) Reduction in carbon emissions from electric vehicles
 - (b) Following inclusive hiring practices
 - (c) Community initiatives like conducting road safety programs
 - (d) Improved employee retention leading to lower recruitment and training costs

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): People, Profit, and Planet

Reason

The Triple Bottom Line focuses on **social (People)**, **environmental (Planet)**, and **economic (Profit)** aspects of business sustainability. GreenRoute incorporated all three in its strategy.

2. Option (c): People

Reason

These initiatives improve employee welfare and community wellbeing, which are central to the **social (People)** aspect of the Triple Bottom Line.

3. Option (b): Electrifying its vehicle fleet

Reason

Fleet electrification directly reduces carbon emissions and pollution, addressing the **environmental (Planet)** impact of the business.

4. Option (b): By converting to electric vehicles and reducing fuel costs**Reason**

This move helped **lower operational expenses** and increase margins, while also contributing to environmental sustainability, aligning profit with planet.

5. Option (c): Improved employee retention, customer trust, and risk mitigation**Reason**

Adoption of the TBL approach resulted in multiple long-term benefits including stronger employee loyalty, enhanced brand reputation among eco-conscious customers, and better preparedness for regulatory and sustainability risks.

6. Option (d): Improved employee retention leading to lower recruitment and training costs**Reason**

Higher employee retention (People) reduces the need for retraining new hires leading to cost savings (profit)

CASE SCENARIO 41

ABC Ltd. is a leading manufacturer and exporter of readymade garments. It has a state-of-art manufacturing facility in Ludhiana, Punjab. Exports form a substantial portion of its revenue with European Union markets and United States being the primary markets. Quality of the product is a critical success factor for competing in the global markets. Inflationary conditions and geo-political pressures have reduced the profit margin in the recent years.

In response improve its competitiveness, the management of the company has launched a Value Chain Optimization study. Below is a detailed breakdown of the value chain:

- (1) Upstream management: Premium fabric and accessories sourced from a network of suppliers across India. Activities involved in this includes handling, storage, transportation of fabrics, ensuring that only high grade inputs enter the production process.
- (2) Core manufacturing processes include stitching, cutting, finishing, and packaging of garments. The management wants to ensure that these activities are refined as part of this study such that there is reduction in waste, rework etc. that can eliminate defects. This will help them fulfill any warranty assurance given to customers.
- (3) Global distribution: Order processing, packaging, and distribution of finished garments to export markets form part of selling and distribution activities.

The company wishes to cement its market presence through promotion, pricing strategies, and effective channel management. In order to enhance customer experience the company plans to improve the terms for product warranty , repairing and replacement services.

Following the detailed study, the company decides to implement the following measures:

- (1) Introduction of new automated inventory tracking system that will ensure availability of appropriate quality of raw material input at the required time at the shop floor.

- (2) Increase the product warranty period from 1 year to 2 years period. Therefore, they plan to buy material and fabric that is not just of good quality but also ones that are durable.
- (3) Training given to employees regarding storing, handling, stitching and packing of materials and final product.

MULTIPLE CHOICE QUESTIONS

- 1. ABC Ltd. aims to reduce quality costs across its value chain. The activity involving handling, storage, and transportation of fabrics and accessories from suppliers falls under which of the following primary activities?
 - (a) Operations
 - (b) Outbound Logistics
 - (c) Inbound Logistics
 - (d) Service
- 2. In ABC Ltd., stitching, cutting, finishing, and packaging of garments are part of which value chain activity?
 - (a) Operations
 - (b) Inbound Logistics
 - (c) Procurement
 - (d) Outbound Logistics
- 3. Order processing, packaging, and distribution of finished garments to export markets are examples of which primary activity?
 - (a) Inbound Logistics
 - (b) Marketing and Sales
 - (c) Service
 - (d) Outbound Logistics

4. ABC Ltd. plans to strengthen its global market presence through promotion, pricing strategies, and effective channel management. These actions relate to which component of the value chain?
 - (a) Service only
 - (b) Sales only
 - (c) Marketing only
 - (d) Marketing and Sales
5. Providing warranty, repair, and replacement services to customers after delivery of garments would come under which value chain activity?
 - (a) Service
 - (b) Marketing and Sales
 - (c) Operations
 - (d) Outbound Logistics
6. ABC Ltd. intends to enhance quality and offer a long-term warranty. Which of the following activities will have the most direct impact on achieving this goal?
 - (a) Marketing and Sales
 - (b) Operations
 - (c) Service
 - (d) Outbound Logistics
7. Which of the following statements is most accurate regarding Porter's Value Chain for ABC Ltd.?
 - (a) Primary activities directly create value through production, delivery, and service
 - (b) Marketing is considered a support activity
 - (c) Primary activities are indirect support functions such as HR and IT
 - (d) Only inbound logistics and operations affect product quality

-
8. Introduction of automated inventory tracking system as part of its work process would be an attempt to link which of the 2 primary activities in the value chain:
- (a) Operations and Marketing & Sales
 - (b) Inbound Logistics and Operations
 - (c) Procurement and Inbound Logistics
 - (d) Infrastructure and Service
9. The management's decision to impart employee training will be an expenditure classified under which of the following categories under the Cost of Quality (COQ) report?
- (a) Internal Failure cost
 - (b) External Failure cost
 - (c) Prevention cost
 - (d) Appraisal cost

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Inbound Logistics

Reason

Inbound logistics involves receiving, storing, and managing the flow of raw materials and inputs from suppliers into the production process.

2. Option (a): Operations

Reason

Operations convert inputs (fabrics and accessories) into the final product (ready-made garments), which is the core production activity.

3. Option (d): Outbound Logistics

Reason

Outbound logistics deals with the movement of finished goods from the manufacturer to customers or distribution points.

4. Option (d): Marketing and Sales**Reason**

Marketing and sales aim to increase demand, communicate product value, and manage pricing and channels to boost revenue.

5. Option (a): Service**Reason**

Service activities ensure customer satisfaction and product reliability post-sale, enhancing long-term loyalty and brand reputation.

6. Option (b): Operations**Reason**

Operations determine product quality through efficient processes and defect prevention, directly influencing warranty claims and brand image.

7. Option (a): Primary activities directly create value through production, delivery, and service**Reason**

Primary activities are directly linked to creating customer value, from procurement to after-sales service, forming the foundation of competitive advantage.

8. Option (b): Inbound logistics and operations

The system focuses on receipt, storage, movement, and issue of raw materials (Inbound Logistics) and their direct utilisation in production processes (Operations). It does not influence supplier negotiation (Procurement), demand generation (Marketing & Sales), or governance functions (Firm Infrastructure). The strategic value lies in seamless material flow into production, reducing delays, wastage, and downtime.

9. Option (c): Prevention cost**Reason**

Employee training regarding storing, handling, stitching and packing of materials and final product is a proactive measure to eliminate defects from happening in the first place. Therefore, this is a prevention cost.

CASE SCENARIO 42

Indian Petrons Ltd. (IPL) is a leading manufacturing company. Under increasing pressure to reduce costs, to contain inventory and to improve service, IPL's Costing Department has recently undertaken a decision to implement a JIT System.

The management of IPL is convinced of the benefits of their changes. But However, the Supplies Manager Mr. Brian has voiced concerns regarding the costing department's decision. He said:

"We've been driven by suppliers for years ... they would insist that we could only purchase in thousands, that we would have to wait weeks, or that they would only deliver on Mondays!"

Minimum order quantities, long lead times and fixed delivery schedules, these highlight the practical difficulties of implementing a strategic decision. The management is convinced that implementing the JIT system is the way forward. However, it does need to address Mr. Brian's concerns before implementing this decision.

MULTIPLE CHOICE QUESTIONS

1. What was the main reason for IPL's Costing Department to decide on implementing a JIT system?
 - (a) To increase marketing expenditure
 - (b) To reduce costs, control inventory, and improve service
 - (c) To expand into international markets
 - (d) To increase product diversification
2. What is the major concern expressed by the Supplies Manager, Mr. Brian, regarding the JIT implementation?
 - (a) The company lacks proper costing data
 - (b) Employees resist change
 - (c) Suppliers are unwilling to deliver in small, frequent lots

- (d) The accounting system cannot record JIT transactions
- 3. Which of the following best describes a key requirement for successful implementation of a JIT system?
 - (a) Suppliers accepting delayed payments
 - (b) Suppliers providing large batch deliveries at low prices
 - (c) Suppliers delivering frequently in small, exact quantities
 - (d) Suppliers maintaining high levels of buffer inventory
- 4. Why would supplier restrictions such as "only delivering on Mondays" be problematic under JIT?
 - (a) It would increase transportation costs
 - (b) It allows bulk purchasing discounts
 - (c) It prevents continuous and flexible production flow
 - (d) It improves coordination with weekly schedules
- 5. What is the most likely outcome if suppliers are not cooperative under JIT?
 - (a) Lower setup times
 - (b) Reduced inventory carrying costs
 - (c) Improved product quality
 - (d) Increased lead time and production delays
- 6. Which of the following reflects a correct statement about JIT?
 - (a) It relies on maintaining high safety stock to avoid shortages
 - (b) It requires close coordination and trust between buyer and supplier
 - (c) It focuses mainly on marketing efficiency
 - (d) It encourages bulk purchasing to get discounts
- 7. From a strategic viewpoint, what change must IPL make before fully adopting JIT?
 - (a) Replace traditional costing with activity-based costing

- (b) Replace traditional costing with an ERP system
 - (c) Replace traditional costing with target costing
 - (d) Develop long-term supplier partnerships ensuring flexible delivery
8. Considering the current supplier behavior, is Mr. Brian's concern justified?
- (a) No, because suppliers' large deliveries reduce costs
 - (b) No, because JIT does not depend on supplier coordination
 - (c) Yes, because JIT increases costs in the short term
 - (d) Yes, because supplier inflexibility threatens JIT's success

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): To reduce costs, control inventory, and improve service

Reason

The JIT approach helps achieve cost reduction, efficient inventory management, and timely delivery - the primary goals stated in the case.

2. Option (c): Suppliers are unwilling to deliver in small, frequent lots

Reason

Mr. Brian fears that supplier inflexibility — bulk deliveries and fixed schedules — will hinder the success of JIT operations.

3. Option (c): Suppliers delivering frequently in small, exact quantities

Reason

JIT depends on timely, small, and precise deliveries from suppliers to minimize inventory levels and eliminate waste.

4. Option (c): It prevents continuous and flexible production flow

Reason

JIT requires materials to arrive as needed. Fixed delivery schedules cause bottlenecks and disrupt production continuity.

5. Option (d): Increased lead time and production delays**Reason**

Unreliable or infrequent supply can lead to material shortages, halting production and increasing downtime.

6. Option (b): It requires close coordination and trust between buyer and supplier**Reason**

A successful JIT system depends on a strong supplier relationship based on reliability, flexibility, and mutual commitment.

7. Option (d): Develop long-term supplier partnerships ensuring flexible delivery**Reason**

Establishing reliable suppliers willing to align with JIT principles is crucial for its effective implementation

8. Option (d): Yes, because supplier inflexibility threatens JIT's success**Reason**

Mr. Brian's doubts are valid — without supplier flexibility for frequent and small deliveries, JIT cannot function effectively.

CASE SCENARIO 43

Your Bank Ltd., was established on the 30th September, 1940 under the provisions of Co-operative Societies Act by the eminent professionals to encourage self-help, thrift, cooperation among members. Bank was issued Banking License under Banking Regulation Act, 1949 on October 25, 1986 to carry out the Banking Business within the national capital and since then the Bank has been growing continuously. At present, Bank has large number of membership of individuals from different sections. The Bank has 12 branches in the NCT of Delhi. Bank offers 'traditional counter service'. Opening hours are designed to coincide with local market days.

Board of Directors were worried from growing popularity of new style banks. These banks offer diverse range of services such as direct access to executive management, a single point of contact to coordinate all banking needs, appointment banking to save time, free online banking services 24/7, free unlimited ATM access etc.

It has now been decided that the bank will focus on "What Customers Want" and will use a balanced scorecard to achieve this goal.

MULTIPLE CHOICE QUESTIONS

1. The primary reason for Your Bank Ltd. adopting the Balanced Scorecard approach was:
 - (a) Declining employee morale
 - (b) Competitive pressure from customer-centric banks
 - (c) Rising loan default rates
 - (d) Statutory or regulatory requirements
2. Which perspective of the "cross-selling products to existing customers" benefits under the Balanced Scorecard perspective?
 - (a) Financial and Customer
 - (b) Customer and Learning and Growth

- (c) Learning and Growth and Internal Business Process
 - (d) Financial and Learning and Growth
3. Which of the following measures the efficiency of Internal Business Process?
- (a) Branch wise profitability
 - (b) Staff turnover ratio
 - (c) Customer retention rate
 - (d) System uptime for online banking
4. Cross-selling is considered an indicator of customer satisfaction in banking because:
- (a) Customers are compelled to buy additional products
 - (b) Satisfied customers willingly deepen their relationship with the bank
 - (c) It reduces the need for marketing expenditure
 - (d) It improves regulatory compliance
5. Given the bank's transition to new style banking, which of following represents Learning and Growth perspective for Yes Bank Ltd.?
- (a) Increasing number of digital transactions
 - (b) Opening new physical branches
 - (c) Reducing interest rate on fixed deposits
 - (d) Upskilling staff in digital relationship management
6. Which of the following reflects the Learning and Growth objective of innovation?
- (a) Revenue from new financial products
 - (b) Implementing AI tools for fraud detection
 - (c) Number of customers who closed their accounts
 - (d) Market share percentage

-
7. Under the Customer perspective, which measure best indicates customer loyalty in the short term?
- (a) Number of account closure requests
 - (b) Growth in deposits
 - (c) Number of new loan applications from new customers taken onboard
 - (d) Market share in retail banking
8. Why should the bank monitor the number of account closures as a key customer metric?
- (a) To evaluate teller productivity
 - (b) To control marketing expenditure
 - (c) To assess customer retention and service quality
 - (d) To comply with RBI reporting norms
9. Transitioning bank operations from fixed operating timings at branches to 24/7 free online banking services.
- According to balanced scorecard framework, which of the two non-financial perspectives undergo drastic change?
- (a) Learning and Growth and Customer
 - (b) Customer and Internal Business Process
 - (c) Internal Business Process and Financial
 - (d) Internal Business Process and Customer

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Competitive pressure from customer-centric banks

Reason

The traditional service model lost relevance due to customer-focused innovations by competitors.

2. Option (a): Financial and Customer**Reason**

- **Customer Perspective:** Cross-selling succeeds only when customers trust the bank and perceive value in additional products - reflecting satisfaction and loyalty.
- **Financial Perspective:** Selling more products to existing customers increases revenue per customer and improves profitability without proportionate acquisition costs.

3. Option (d): System uptime for online banking**Reason**

This shows that the success of the transition from physical to digital mode. More the system uptime for online banking, higher the efficiency of operations since it improves customers access to services. Reflects improved service delivery.

4. Option (b): Satisfied customers willingly deepen their relationship with the bank**Reason**

Customers purchase additional services only when they trust and value the bank.

5. Option (d): Upskilling staff in digital relationship management**Reason**

The bank is undergoing a transformation from manual, physical banking operations to one that is predominantly driven by digital transactions. With this change, upskilling staff in digital relationship management provides an opportunity for learning and growth.

6. Option (b): Implementing AI tools for fraud detection**Reason**

Leveraging newer technologies like Artificial Intelligence and Machine Learning to detect fraud detection can help the bank manage its risks better.

7. Option (a): Number of account closure requests**Reason**

Fewer closure requests signal higher retention and customer trust.

Growth in deposits need not signify customer loyalty, as it can happen even with a reduced customer based.

Although, in the long run this would be growth in deposits could also be an indicator of customer loyalty.

New loan applications from new customers taken onboard indicates customer acquisition.

Market share in retail banking is again a long-term indicator of customer loyalty, that cannot be immediately interpreted in the short term.

8. Option (c): To assess customer retention and service quality**Reason**

Account closures provide direct feedback on dissatisfaction and retention risks.

9. Option (d): Internal Business Process and Customer**Reason**

Moving from a manual, physical mode of banking operation the Bank is now transitioning to digital operations. This involves deploying digital infrastructure. The move digitizes manual process and makes them available them 24/7 to the customers.

This addresses "What the customers want" and thereby enhances their experience.

Therefore, both internal business process and customer are the key non-financial perspectives that get impacted.

Note - Learning & Growth (skills, training, IT capability) **supports** the transition but does not undergo a *drastic* change visible to customers. The core transformation is in **process design**, not merely employee capability.

CASE SCENARIO 44

ABC Limited is a business advisory company, that undertakes market research project for its clients under its consulting division. The newly appointed CEO Mr. Praveen wants to make the billing pattern simple and proposed to change the price quoting methodology of the organization.

According to his proposal the target expenditure for each research work to be fixed in consultation with the client and the ABC Ltd. will receive an additional fee for completing the work below said target expenditure, while it has to bear a proportion of additional cost incurred as reduction from consultancy fee, in case it overruns the target expenditure to complete the research.

You are provided with financial details (payment clause) of Project 712.

Exhibit – Extracts from Contract Note of Project 712**Payment Clause**

ABC Ltd has agreed upon a target expenditure of ₹ 20,00,000 and a consultancy fee of ₹ 1,40,000 with following terms.

Further, it is decided that if the ABC Ltd completes the research project at a lower expenditure than ₹ 20,00,000; the client keeps 80% of the savings and remaining 20% of the savings passed to ABC Ltd as an additional fee, subject to cap on total fee of ₹ 1,80,000.

Furthermore, it is decided that, if ABC Ltd completes the work for more than the target expenditure, then the client would bear 80% of the excess expenditure over and above the target expenditure and ABC Ltd would bear remaining 20%, which is subtracted from the agreed consultancy fee of ₹ 1,40,000; subject to minimum assured consultancy fee of ₹ 40,000.

MULTIPLE CHOICE QUESTIONS

1. If the actual expenditure amounted to ₹19,00,000, what is the cost saving for the project?
 - (a) ₹ 80,000
 - (b) ₹ 1,00,000

-
- (c) ₹ 1,40,000
(d) ₹ 20,000
2. If the actual expenditure amounted to ₹19,00,000, ABC Ltd.'s share in the saving will be:
(a) ₹ 80,000
(b) ₹ 20,000
(c) ₹ 1,40,000
(d) ₹ 1,80,000
3. If the actual expenditure amounted to ₹19,00,000, what will be ABC Ltd.'s total fee?
(a) ₹ 1,40,000
(b) ₹ 1,60,000
(c) ₹ 1,80,000
(d) ₹ 2,00,000
4. If the actual expenditure amounted to ₹19,00,000, what is the total cost to client of project 712 for the research work?
(a) ₹ 20,00,000
(b) ₹ 20,40,000
(c) ₹ 20,60,000
(d) ₹ 21,00,000
5. If the actual expenditure amounted to ₹ 24,00,000, what is the cost overrun?
(a) ₹ 3,20,000
(b) ₹ 80,000
(c) ₹ 4,00,000
(d) ₹ 20,000

6. If the actual expenditure amounted to ₹ 24,00,000, what is client's share of the excess cost?
- (a) ₹ 80,000
 - (b) ₹ 3,20,000
 - (c) ₹ 4,00,000
 - (d) ₹ 1,40,000
7. If the actual expenditure amounted to ₹ 24,00,000, what is ABC Ltd.'s burden due to cost overrun?
- (a) ₹ 40,000
 - (b) ₹ 80,000
 - (c) ₹ 1,40,000
 - (d) ₹ 3,20,000
8. What will be the total cost to client of project 712, if the actual expenditure amounted to ₹ 24,00,000?
- (a) ₹ 25,40,000
 - (b) ₹ 24,80,000
 - (c) ₹ 24,60,000
 - (d) ₹ 24,00,000
9. The pricing arrangement described in the case best represents which type of contract?
- (a) Fixed price contract
 - (b) Cost-plus contract
 - (c) Incentive-based target cost contract
 - (d) Time and material contract
10. Which objective is primarily achieved through the proposed pricing methodology?
- (a) Complete transfer of risk to the client

- (b) Guaranteed maximum profit for ABC Ltd.
- (c) Cost efficiency through shared incentives
- (d) Elimination of cost overruns

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): ₹ 1,00,000

Reason

Cost saving = Target Expenditure – Actual Expenditure = ₹20,00,000 – ₹ 19,00,000 = ₹1,00,000

2. Option (b): ₹ 20,000

Reason

Saving is ₹ 1,00,000

ABC Ltd.'s share = ₹1,00,000 × 20% = ₹20,000

3. Option (b): ₹1,60,000

Reason

Total Consultancy Fee = Agreed Consultancy Fee + Additional Fee (20% of the Saving i.e. 20% of 1,00,000 i.e. ₹20,000) = ₹1,40,000 + ₹20,000 = ₹1,60,000

4. Option (c): ₹ 20,60,000

Reason

Total cost to client = Actual Expenditure + Consultancy Fee to ABC = ₹19,00,000 + ₹1,60,000 = ₹20,60,000

5. Option (c): ₹ 4,00,000

Reason

Cost overrun = Actual Expenditure – Target Expenditure = ₹24,00,000 – ₹20,00,000 = ₹4,00,000

6. Option (b): ₹ 3,20,000**Reason**

Cost overrun = ₹ 24,00,000 – ₹ 20,00,000 = ₹ 4,00,000

Client's burden = ₹ 4,00,000 × 80% = ₹ 3,20,000

7. Option (b): ₹ 80,000**Reason**

Cost overrun = ₹ 24,00,000 – ₹ 20,00,000 = ₹ 4,00,000

ABC Ltd.'s burden = ₹ 4,00,000 × 20% = ₹ 80,000

8. Option (c): ₹ 24,60,000**Reason**

Total cost to client = Actual Expenditure + (Agreed Consultancy Fee – ABC Ltd.'s burden out of cost overrun) = ₹ 24,00,000 + (₹ 1,40,000 – ₹ 80,000) = ₹ 24,60,000

9. Option (c): Incentive-based target cost contract**10. Option (c): Cost efficiency through shared incentives**

CASE SCENARIO 45

Bharat Heavy Machinery Ltd (BHML) operates in the automotive component manufacturing industry, specialising in the production of internal combustion engines supplied to passenger car manufacturers. The industry is characterised by high fixed investments, intense price competition, and demand sensitivity to vehicle prices, particularly in the mid-segment car market. OEMs (original equipment manufacturers) frequently renegotiate prices with component suppliers to manage their own cost pressures arising from fuel prices, regulatory norms, and consumer affordability.

BHML currently incurs a variable cost of ₹4,200 per engine, comprising direct materials, direct labour, and variable manufacturing overheads. Fixed costs are substantial due to capital-intensive machinery and skilled manpower, making capacity utilisation and contribution maximisation critical strategic objectives for the company. Fixed costs are assumed to be unaffected by output decisions within the relevant range and hence do not influence the $MR = MC$ condition for profit maximisation.

Market research conducted by BHML indicates that:

- At a selling price of ₹7,400 per engine, no orders are received, as competing suppliers offer more cost-competitive alternatives.
- For every ₹400 reduction in the unit selling price below ₹7,400, demand increases by two engines, reflecting high price elasticity in procurement decisions of automobile manufacturers.

The management of BHML is currently reviewing its pricing strategy in light of:

- Under-utilised production capacity,
- Aggressive pricing by competitors,
- The need to balance short-term contribution maximisation with long-term relationships with OEM customers.

The company wishes to determine the optimal unit selling price per engine that will maximise its profit, taking into account the interaction between price,

demand, and contribution, while operating within the competitive dynamics of the automotive components industry.

MULTIPLE CHOICE QUESTIONS

1. Based on the given demand information, which of the following correctly represents the demand (price) function?
 - (a) $P = 7,400 - 400Q$
 - (b) $P = 7,400 - 200Q$
 - (c) $P = 4,200 - 200Q$
 - (d) $P = 7,400 - 2Q$
2. Which of the following correctly represents the Marginal Revenue (MR) equation for Bharat Heavy Machinery Ltd?
 - (a) $MR = 7,400 - 200Q$
 - (b) $MR = 4,200$
 - (c) $MR = 7,400 - 400Q$
 - (d) $MR = 200Q - 7,400$
3. At what level of output (in units) will profit be maximized?
 - (a) 6 units
 - (b) 8 units
 - (c) 10 units
 - (d) 12 units
4. What should be the unit selling price per engine to maximize profit?
 - (a) ₹7,400
 - (b) ₹6,200
 - (c) ₹5,800
 - (d) ₹4,200

5. The fact that demand increases by 2 units for every ₹400 reduction in price indicates that:
- (a) Demand is perfectly inelastic
 - (b) Demand is price elastic within the relevant range
 - (c) Demand is fixed regardless of price
 - (d) Market is regulated by the government

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): $P = 7,400 - 200Q$**

Reason:

Demand increases by **2 units for every ₹400 reduction**, implying:

$$b = 400 / 2 = 200$$

$$\text{Hence, } P = a - bQ = 7,400 - 200Q$$

2. **Option (c): $MR = 7,400 - 400Q$**

Reason

For a linear demand curve:

$$MR = a - 2bQ$$

$$= 7,400 - 2(200)Q$$

$$= 7,400 - 400Q$$

3. **Option (b): 8 units**

Reason

Profit is maximized where $MR = MC$

$$7,400 - 400Q = 4,200$$

$$Q = 8 \text{ units}$$

4. Option (c) ₹ 5,800**Reason**

$$\begin{aligned} P &= 7,400 - 200Q \\ &= 7,400 - 200 \times 8 \\ &= ₹5,800 \end{aligned}$$

5. Option (b): Demand is price elastic within the relevant range**Reason**

A measurable and responsive change in demand due to price reduction reflects **price elasticity of demand**, making pricing decisions crucial.

CASE SCENARIO 46

Sigma Manufacturing Limited operates in a highly competitive, volume-driven environment where equipment reliability, process efficiency and quality consistency are critical for sustaining margins and meeting customer delivery commitments. Machinery X-272K-300, deployed on a continuous production line, operates on a 9-hour shift each day. During the shift, workers are entitled to three short breaks of 10 minutes each and a meal break of 45 minutes, resulting in planned downtime of 75 minutes. In addition, the machine experienced unplanned equipment downtime of 30 minutes, reflecting normal reliability challenges faced in heavy manufacturing operations.

Under standard operating conditions, the machine is designed to produce 30 parts per minute. During the shift, total output amounted to 12,240 units, out of which 240 units were rejected due to quality-related issues. The presence of rejections highlights the importance of Total Productive Maintenance (TPM) and quality control systems in Sigma Manufacturing, where even minor inefficiencies or defects can have a significant impact on overall productivity, customer satisfaction and cost competitiveness.

In such capital-intensive industries, management relies on metrics like Overall Equipment Effectiveness (OEE) to assess the combined impact of availability losses, performance inefficiencies and quality defects. The data relating to Machinery X-272K-300 therefore provides a practical basis for evaluating operational effectiveness and identifying improvement opportunities aligned with lean manufacturing and continuous improvement objectives.

MULTIPLE CHOICE QUESTIONS

1. The Planned Production Time (Net Available Time) for the shift is:
 - (a) 540 minutes
 - (b) 465 minutes
 - (c) 435 minutes
 - (d) 408 minutes

2. Which of the following best represents the Availability loss in the given scenario?
 - (a) Short breaks and meal break
 - (b) Rejected units
 - (c) Equipment downtime
 - (d) Difference between standard and actual output
3. The Availability Rate of the equipment is:
 - (a) 92.47%
 - (b) 93.55%
 - (c) 93.79%
 - (d) 98.04%
4. The Performance Rate primarily reflects losses due to:
 - (a) Planned downtime
 - (b) Equipment breakdowns
 - (c) Operating below ideal speed
 - (d) Defective production
5. The Performance Rate in the given data is:
 - (a) 92.47%
 - (b) 93.55%
 - (c) 93.79%
 - (d) 98.04%
6. The Quality Rate of the process is:
 - (a) 92.47%
 - (b) 93.79%
 - (c) 98.04%

-
- (d) 86.02%
7. The Overall Equipment Effectiveness (OEE) of the equipment is:
- (a) 93.79%
- (b) 98.04%
- (c) 86.02%
- (d) 88.50%
8. The loss of 8 minutes of Lost Operating Time (LOT) is attributable to:
- (a) Breakdown loss
- (b) Speed loss
- (c) Quality defect loss
- (d) Setup and adjustment loss
9. Despite a high-Quality Rate (98.04%), OEE is limited to 86.02% mainly due to:
- (a) Excess planned downtime
- (b) High defect rate
- (c) Combined effect of downtime and speed losses
- (d) Incorrect standard output assumptions
10. From a TPM and continuous improvement perspective, the most appropriate priority area for management intervention is:
- (a) Reducing planned breaks
- (b) Eliminating rejected units
- (c) Improving equipment reliability and operating speed
- (d) Revising standard production rate

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): 465 minutes**Reason**

Planned Production Time = Scheduled Time – Planned Downtime

$$= 540 - 75 = \mathbf{465 \text{ minutes}}$$

2. Option (c): Equipment downtime**Reason**

Availability loss arises from **unplanned downtime**, i.e. **equipment downtime of 30 minutes**.

3. Option (b): 93.55%**Reason**

$$\text{Availability} = \text{NOT} / \text{NAT} = 435 / 465 = \mathbf{93.55\%}$$

4. Option (c): Operating below ideal speed**Reason**

Performance loss measures **speed loss**—actual output vs ideal output during operating time.

5. Option (c): 93.79%**Reason**

$$\text{Performance} = \text{IOT} / \text{NOT} = 408 / 435 = \mathbf{93.79\%}$$

Alternatively, performance can be calculated with help of following formula

$$(\text{Ideal cycle time} \times \text{Total output}) / \text{Operating time}$$

6. Option (c): 98.04%**Reason**

$$\text{Quality} = (\text{IOT} - \text{LOT}) / \text{IOT} = (408 - 8) / 408 = \mathbf{98.04\%}$$

7. Option (c): 86.02%**Reason**

OEE = Availability × Performance × Quality = 93.55% × 93.79% × 98.04%
= **86.02%**

8. Option (c): Quality defect loss**Reason**

LOT arises due to **rejected/defective units**, which fall under **quality losses**.

9. Option (c): Combined effect of downtime and speed losses**Reason**

Availability and Performance losses jointly constrain OEE, even when quality is strong.

10. Option (c): Improving equipment reliability and operating speed**Reason**

TPM focuses on **reducing unplanned downtime and speed losses** through preventive maintenance and operator involvement.

For MCQs – Calculation of OEE

OEE = Availability × Performance × Quality

OEE Factors are calculated as follows

1. Availability: $\text{NOT} / \text{NAT} = (435 / 465) \times 100 = 93.55 \%$
2. Performance: $\text{IOT} / \text{NOT} = (408 / 435) \times 100 = 93.79\%$
3. Quality: $(\text{IOT} - \text{LOT}) / \text{IOT} = (408 - 8) / 408 \times 100 = 98.04\%$

OEE = A × P × Q = 93.55% × 93.79% × 98.04% = 86.02%

Alternatively

Good Counts = 12,240 – 240 = 12,000 units

Planned Production Time = 540 mins. – 75 mins. = 465 mins. (or NAT)

OEE = (Good Counts × Ideal Cycle Time) / Planned Production Time

$$\{(12,000 / 30 \text{ units (per min.)}) / 465\} \times 100 = 86.02\%$$

Or

$$\text{OEE} = (\text{Ideal operating time} - \text{loss operating time}) / \text{Net Available Time}$$

$$\{(408 - 8) / 465\} \times 100 = 86.02\%$$

Workings

1. Scheduled Time (total time) = 540 Minutes (9 hrs. × 60 mins.)
2. Planned Down Time = 3 short breaks × 10 minutes + meal break 45 minutes = 75 minutes
3. Net Available Time (NAT) = 540 – 75 = 465 minutes
4. Unplanned Downtime = 30 minutes
5. Net Operating Time (NOT) = Net Available Time – Unplanned Downtime
NOT = 465 – 30 = 435 minutes
6. Ideal Operating Time (IOT) represents the time required to produce the actual output at ideal speed. Ideal Operating Time (IOT): 12,240 total units / 30 (units per min.) = 12,240 / 30 = 408 minutes
7. Lost Operating Time (LOT): 240 units / 30 (units per min.) = 240 / 30 = 8 minutes

CASE SCENARIO 47

KRI Sanitation Ltd. is engaged in the manufacture of a single standardized sanitation product and follows a standard costing system for cost control and performance evaluation. The standard cost per unit of output has been determined on the basis of normal operating efficiency. As per the standards, each unit of finished product requires 4 kg of direct material at a standard price of ₹7 per kg, resulting in a direct material cost of ₹28 per unit. Direct labour is standardized at 5 hours per unit at a rate of ₹9 per hour, amounting to ₹45 per unit. Variable overheads are absorbed on the basis of labour hours, with 6 hours per unit at a rate of ₹2 per hour, giving a variable overhead cost of ₹12 per unit.

For the month of June 2020, the company had budgeted a production and sales volume of 15,000 units, whereas the actual production and sales achieved were 13,800 units. The budgeted and actual consumption of direct material remained the same at 60,000 kg, purchased and used at the standard rate of ₹7 per kg.

In respect of direct labour, the budget provided for 75,000 labour hours at ₹9 per hour. However, the actual labour cost incurred during the month amounted to ₹5,69,600, corresponding to 71,200 hours worked, indicating a variation in labour rate and efficiency. Variable overheads were budgeted at ₹1,80,000, while the actual variable overhead expenditure for the month stood at ₹1,72,500.

The above data can be used for the computation and analysis of labour and material variances under the standard costing system.

MULTIPLE CHOICE QUESTIONS

1. What is the Direct Labour Rate Variance for the month of June 2020?
 - (a) ₹ 71,200 (Adverse)
 - (b) ₹ 71,200 (Favourable)
 - (c) ₹ 19,800 (Adverse)
 - (d) Nil

2. What are the standard labour hours allowed for the actual production of 13,800 units?
 - (a) 71,200 hours
 - (b) 75,000 hours
 - (c) 69,000 hours
 - (d) 72,000 hours
3. The Direct Labour Efficiency Variance for the month is:
 - (a) ₹ 71,200 (Adverse)
 - (b) ₹ 19,800 (Favourable)
 - (c) ₹ 19,800 (Adverse)
 - (d) Nil
4. A situation where the labour rate variance is favourable but labour efficiency variance is adverse generally indicates:
 - (a) Excessive overtime
 - (b) Employment of higher-skilled labour
 - (c) Use of lower-skilled labour at lower wage rates
 - (d) Improved labour productivity
5. Which of the following best explains the combined effect of labour variances in this case?
 - (a) Ineffective labour cost control
 - (b) Labour cost savings achieved at the cost of efficiency
 - (c) Poor standard setting
 - (d) Increase in labour wage rates
6. The material usage variance is reported ₹ 33,600 (Adverse) in the analysis, this is most likely attributable to:
 - (a) Increase in material prices
 - (b) Inferior quality of raw material

- (c) Inefficient handling of materials by labour
 - (d) Poor supplier selection
7. Which of the following conclusions is most appropriate from the variance analysis?
- (a) Lower wage rates always improve profitability
 - (b) Efficiency losses can be ignored if rate variance is favourable
 - (c) Cost reduction decisions should consider operational efficiency
 - (d) Material variances are independent of labour performance
8. What is the net impact of labour variances on profit?
- (a) ₹ 91,000 (Favourable)
 - (b) ₹ 19,800 (Adverse)
 - (c) ₹ 51,400 (Favourable)
 - (d) ₹ 17,800 (Favourable)
9. Which managerial action would be most effective in improving labour efficiency without eliminating the benefit of lower wage rates?
- (a) Increasing standard labour hours
 - (b) Increasing labour wage rates
 - (c) Improving training and supervision
 - (d) Outsourcing production

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): ₹ 71,200 (Favourable)

Reason

$$\begin{aligned}\text{Labour Rate Variance} &= \text{Standard Cost of Actual Time} - \text{Actual Cost} \\ &= (\text{SR} \times \text{AH}) - (\text{AR} \times \text{AH}) \\ &\text{Or} \\ &= (\text{SR} - \text{AR}) \times \text{AH}\end{aligned}$$

$$= (\text{₹ } 9.00 - \text{₹ } 8.00^*) \times 71,200 \text{ hrs.}$$

$$= \text{₹ } 71,200 \text{ (F)}$$

$$\begin{aligned} (*) \text{ Actual Labour Rate per hour} &= \frac{\text{Actual Paid}}{\text{Actual Hours}} \\ &= \frac{\text{₹ } 5,69,600}{71,200 \text{ hrs.}} \\ &= \text{₹ } 8.00 \end{aligned}$$

2. Option (c): 69,000 hours

Reason

Standard hours = Actual output × Standard hours per unit

$$= 13,800 \text{ units} \times 5 \text{ hours}$$

$$= 69,000 \text{ hours.}$$

3. Option (c): ₹ 19,800 (Adverse)

Reason

$$\begin{aligned} \text{Labour Efficiency Variance} &= \text{Standard Cost of Standard Time for Actual Production} - \text{Standard Cost of Actual Time} \\ &= (\text{SH} \times \text{SR}) - (\text{AH} \times \text{SR}) \end{aligned}$$

Or

$$= (\text{SH} - \text{AH}) \times \text{SR}$$

$$= (69,000 \text{ hrs.} - 71,200 \text{ hrs.}) \times \text{₹ } 9.00$$

$$= \text{₹ } 19,800 \text{ (A)}$$

4. Option (c): Use of lower-skilled labour at lower wage rates

Reason

Lower wage rates reduce cost per hour (favourable rate variance) but may reduce productivity, leading to more hours worked and an adverse efficiency variance.

5. Option (b): Labour cost savings achieved at the cost of efficiency**Reason**

Although labour was hired at lower rates, inefficiency increased total hours worked, indicating a trade-off between cost savings and operational efficiency.

6. Option (c): Inefficient handling of materials by labour**Reason**

Inefficient or inexperienced labour may lead to wastage, higher rejections, and poor handling of materials, increasing material consumption per unit.

7. Option (c): Cost reduction decisions should consider operational efficiency**Reason**

Cost savings from lower wages can be offset by inefficiency and wastage. Management decisions must balance cost control with productivity.

8. Option (c): ₹ 51,400 (Favourable)**Reason**

Net Labour Variance = Labour Rate Variance – Labour Efficiency Variance
= ₹ 71,200 (F) – ₹ 19,800 (A)
= ₹ 51,400 (F).

9. Option (c): Improving training and supervision**Reason**

Training and supervision enhance worker productivity while retaining the benefit of lower wage rates, leading to improved efficiency and reduced wastage.

CASE SCENARIO 48

A company had nearly completed a job relating to the construction of specialised equipment when it discovered that the customer had gone out of business. At this stage, the original cost estimate of the job was ₹1,75,200, of which costs amounting to ₹1,48,500 had already been incurred. A further cost of ₹29,700 would be required to bring the equipment to its original condition. The company had received a progress payment of ₹1,00,000 from the original customer before the business failure.

After making further searches, the company found a new customer who was willing to take over the equipment, provided certain modifications were carried out. The new customer required the equipment in its original condition but without the control device and with some additional modifications. The estimated costs of these additions and modifications included direct materials costing ₹1,050, direct wages of 15 man-days in Department A and 25 man-days in Department B, variable overheads charged at 25% of direct wages in each department, and delivery costs of ₹1,350. Fixed overheads were absorbed at 50% of direct wages in each department.

Additional information revealed that the direct materials required for the modification were already in stock. If these materials were not used for the present modification, they would be utilised in another job in place of materials that would otherwise cost ₹2,250. Department A was working normally, and therefore any labour engaged for this work would have to be paid at the direct wage rate of ₹120 per man-day. Department B, however, was extremely busy. The direct wage rate in Department B was ₹100 per man-day, and the department was currently generating a contribution of ₹3.20 per rupee of direct wages. Supervisory overtime payable specifically for carrying out the modification amounted to ₹1,050.

The control device that the new customer did not require had an original cost of ₹13,500. If removed, this control device could be used in another job in place of a different mechanism that would otherwise have to be purchased for ₹10,500. The dismantling and removal of the control device would require one man-day of work in Department A.

Further, if the conversion was not carried out, some of the materials used in the original equipment could be utilised in another contract in place of materials that would have otherwise cost ₹12,000. To make these materials suitable for that alternative use, two man-days of work in Department A would have been required. The remaining materials would realise ₹11,400 if sold as scrap. In addition, the drawings relating to the job, which formed part of the original work, could be sold for ₹1,500.

The company wishes to analyse the minimum price which it can afford to quote to the new customer under the circumstances stated above.

MULTIPLE CHOICE QUESTIONS

1. Department B is extremely busy and currently yields a contribution of ₹ 3.20 per rupee of direct wages. For the modification work, Department B requires 25 man-days at a wage rate of ₹ 100 per man-day.

What is the relevant cost of Department B labour for decision-making?

- (a) ₹ 2,500
- (b) ₹ 8,000
- (c) ₹ 10,500
- (d) ₹ 12,300

2. The direct materials required for modification are already in stock. If not used here, they would be used in another job replacing materials that would cost ₹ 2,250.

What is the relevant cost of direct materials for the modification?

- (a) ₹ 1,050
- (b) ₹ 2,250
- (c) ₹ 3,300
- (d) Nil

3. The control device has an original cost of ₹ 13,500. If removed, it can replace another mechanism that would otherwise be purchased for ₹ 10,500.

Removal requires 1 man-day in Department A (₹ 120 per day) plus 25% variable overheads.

What is the net saving due to removal of the control device?

- (a) ₹ 10,500
 - (b) ₹ 10,350
 - (c) ₹ 10,200
 - (d) ₹ 9,450
4. If the conversion is not carried out, some materials could be reused in another contract in place of materials costing ₹ 12,000, requiring 2 man-days in Department A plus 25% variable overheads.

What is the net opportunity cost of these materials if the conversion is carried out?

- (a) ₹ 12,000
 - (b) ₹ 11,760
 - (c) ₹ 11,700
 - (d) ₹ 11,400
5. The company has already received ₹ 1,00,000 as progress payment from the original customer who has gone out of business.
- How should this amount be treated while computing the minimum price for the new customer?
- (a) Deducted from minimum price as a recovery
 - (b) Treated as relevant income reducing cost
 - (c) Ignored as sunk and irrelevant
 - (d) Adjusted against opportunity cost of materials

6. Fixed overheads are absorbed at 50% of direct wages in each department. How should fixed overheads be treated for determining the minimum price?
- (a) Included fully using absorption rate
 - (b) Included only for Department B
 - (c) Included only if incremental
 - (d) Completely excluded
7. Department A is working normally. Modification requires 15 man-days in Department A at ₹ 120 per man-day. What is the relevant cost of Department A labour?
- (a) Nil (idle capacity assumed)
 - (b) ₹ 1,800
 - (c) ₹ 2,250
 - (d) ₹ 3,600
8. If the conversion is not carried out, remaining materials can be sold as scrap for ₹ 11,400, and drawings can be sold for ₹ 1,500. How should these amounts be treated in minimum price calculation?
- (a) Ignored as sunk values
 - (b) Deducted from minimum price
 - (c) Added as opportunity costs
 - (d) Adjusted against material cost
9. Variable overheads are charged at 25% of direct wages. What is the relevant variable overhead for the modification work (excluding dismantling)?
- (a) ₹ 1,050
 - (b) ₹ 1,075
 - (c) ₹ 1,125

- (d) ₹ 1,200
10. Supervisory overtime payable for modification is ₹ 1,050.
How should this be treated?
- (a) Ignored as fixed overhead
 - (b) Included as relevant cost
 - (c) Included only if absorbed
 - (d) Treated as sunk cost
11. The cost to bring the equipment to its original condition is ₹ 29,700.
Which of the following best describes this cost?
- (a) Sunk cost
 - (b) Avoidable fixed cost
 - (c) Incremental future cost
 - (d) Opportunity cost
12. If Department B had idle capacity instead of being extremely busy, what would be the relevant cost of its labour?
- (a) Nil
 - (b) ₹ 2,500
 - (c) ₹ 8,000
 - (d) ₹ 10,500
13. Based on relevant costing principles, which of the following correctly computes the minimum price that the company can afford to quote to the new customer?
- (a) ₹ 49,575
 - (b) ₹ 55,925
 - (c) ₹ 61,975
 - (d) ₹ 68,325

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): ₹ 10,500**Reason**

Direct wages = $25 \times 100 = ₹ 2,500$

Opportunity cost (lost contribution) = $2,500 \times 3.20 = ₹ 8,000$

Relevant cost = $2,500 + 8,000 = ₹ 10,500$

2. Option (b): ₹ 2,250**Reason**

When materials are in stock and have an alternative use, replacement cost is relevant.

Hence, relevant cost = ₹ 2,250, not historical cost.

3. Option (b): ₹ 10,350**Reason**

Saving = Avoided purchase = ₹ 10,500

Removal cost:

- Labour = ₹ 120
- Variable OH (25%) = ₹ 30

Total removal cost = ₹ 150

Net saving = $10,500 - 150 = ₹ 10,350$

4. Option (c): ₹ 11,700**Reason**

Saving forgone = ₹ 12,000

Less conversion cost:

- Labour = $2 \times 120 = ₹ 240$
- Variable OH = 25% of 240 = ₹ 60

Net opportunity cost = $12,000 - (240 + 60) = ₹ 11,700$

5. Option (c): Ignored as sunk and irrelevant

Reason

Progress payment already received is a past transaction and does not affect the future decision. Hence, it is irrelevant.

6. Option (c): Included only if incremental

Reason

Fixed overheads are relevant only if they increase due to the decision. Absorbed fixed overheads are normally not relevant unless additional cash outflow occurs.

7. Option (b): ₹ 1,800

Reason

Since Department A is not constrained, relevant cost equals actual wages payable:

$$15 \times 120 = ₹ 1,800$$

8. Option (c): Added as opportunity costs

Reason

By accepting the new customer order, the company forgoes these realizations, hence they are opportunity costs and must be added.

9. Option (b): ₹ 1,075

Reason

Total wages:

Dept. A = 1,800

Dept. B = 2,500

Total = 4,300

$$\text{Variable OH} = 25\% \times 4,300 = ₹ 1,075$$

10. Option (b): Included as relevant cost**Reason**

Supervisory overtime is incremental cash outflow caused solely due to this decision → relevant cost.

11. Option (c): Incremental future cost**Reason**

This cost will be incurred only if the order is accepted, hence it is a relevant incremental cost.

12. Option (b): ₹ 2,500**Reason**

With idle capacity, there is no opportunity cost. Only actual wages are relevant.

13. Option (c): ₹ 61,975

Statement of Minimum Price Which the Company Can Afford to Quote for the New Customer (Based on Relevant Cost)

	(₹)	(₹)
Cost to be incurred <i>to bring the equipment in its original condition</i>		29,700
Direct Material (Replacement Value)		2,250
Direct Wages		
Dept. A: (15 men days × ₹120)	1,800	
Dept. B: (25 men days × ₹100)	2,500	
Opportunity Cost of Contribution Lost by Dept. B (₹ 2,500 × ₹3.20)	8,000	12,300
Variable Overheads [25% × (₹ 1,800 + ₹ 2,500)]		1,075
Delivery Costs		1,350
Supervisory Overtime <i>payable for modification</i>		1,050
Saving Due to Alternative Use of Control Device		

Bought Out Price	10,500	
Less: Dismantling & Removal Cost (1 man day × ₹120)	120	
Less: Variable Cost (25% × ₹ 120)	30	(10,350)
Net Loss on Material Cost Savings		11,700
Opportunity Cost of Remaining Materials <i>which can be sold as scrap</i>		11,400
Opportunity Cost of Sale of Drawings		1,500
Total Minimum Price which may be quoted		61,975

CASE SCENARIO 49

The shoe manufacturing industry is highly competitive and cost-sensitive, with margins often influenced by fluctuations in raw material prices, labour costs, and capacity utilisation levels. Manufacturers are therefore required to take careful pricing and production decisions to ensure profitability, particularly when operating below full capacity and facing cost escalations.

In this context, a shoe manufacturer earns a net profit of ₹25 per pair on a selling price of ₹143. The manufacturer is currently producing 6,000 pairs per annum, which represents 60% of the potential production capacity. The cost per pair at this level of activity comprises direct materials of ₹35.00, direct wages of ₹12.50, works overheads of ₹62.50 (of which 50% is fixed), and administrative overheads of ₹6.00 (of which 75% is fixed).

During the current year, the manufacturer expects demand to remain at 6,000 pairs but anticipates an increase of 10% in fixed charges. In addition, the rates of direct labour and direct materials are expected to increase by 8% and 6% respectively. Despite these cost increases, the manufacturer has no option to increase the selling price. Under these circumstances, the manufacturer receives an offer that would allow utilisation of a further 20% of capacity.

The manufacturer desires to determine the minimum selling price that should be quoted for the additional production in order to ensure an overall profit of ₹1,67,300.

MULTIPLE CHOICE QUESTIONS

1. After considering the anticipated increases in direct materials (6%) and direct wages (8%), what is the revised variable cost per pair at the existing activity level?
 - (a) ₹ 80.25
 - (b) ₹ 82.10
 - (c) ₹ 83.35
 - (d) ₹ 85.60

2. Given that the selling price cannot be increased and remains at ₹ 143 per pair, what is the contribution per pair after revision of costs?
- (a) ₹ 62.75
 - (b) ₹ 59.65
 - (c) ₹ 56.50
 - (d) ₹ 54.90
3. After considering the increase in fixed costs by 10%, what is the profit at the existing activity level of 6,000 pairs?
- (a) ₹ 1,50,000
 - (b) ₹ 1,67,300
 - (c) ₹ 1,25,400
 - (d) ₹ 1,08,750
4. The manufacturer desires an overall profit of ₹ 1,67,300. For the additional 2,000 pairs, what is the minimum profit per pair that must be earned?
- (a) ₹ 25.00
 - (b) ₹ 27.50
 - (c) ₹ 29.275
 - (d) ₹ 31.65
5. What is the minimum selling price per pair that should be quoted for the additional 20% capacity utilisation (2,000 pairs) to achieve the target profit?
- (a) ₹ 108.35
 - (b) ₹ 112.63
 - (c) ₹ 118.00
 - (d) ₹ 143.00

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): ₹ 83.35**Reason**

Direct Materials = $35 \times 1.06 = 37.10$

Direct Wages = $12.50 \times 1.08 = 13.50$

Works OH (variable) = 31.25

Admin OH (variable) = 1.50

Total = **₹ 83.35**

2. Option (b): ₹ 59.65**Reason**

Contribution = Selling price – Revised variable cost

= $143 - 83.35 = \text{₹ } 59.65$

3. Option (d): ₹ 1,08,750**Reason**

Total contribution = $6,000 \times 59.65 = 3,57,900$

Revised fixed costs = 2,49,150

Profit = $3,57,900 - 2,49,150 = \text{₹ } 1,08,750$

4. Option (c): ₹ 29.275**Reason**

Additional profit required = $1,67,300 - 1,08,750 = 58,550$

Profit per additional pair = $58,550 \div 2,000 = \text{₹ } 29.275$

5. Option (b): ₹ 112.63**Reason**

Minimum price = Variable cost per pair + Required profit per pair

= $83.35 + 29.275 = \text{₹ } 112.625 \approx \text{₹ } 112.63$

Workings MCQs 1 to 5

Computation of Profitability at 6,000 Pairs Activity

	Existing Price Level Amount (₹)	Revised Price Level Amount (₹)
Selling Price <i>per pair</i>	143.00	143.00
<i>Variable Costs</i>		
Direct Materials	35.00	37.10 (₹ 35 × 1.06)
Direct Wages	12.50	13.50 (₹ 12.5 × 1.08)
Works Overhead (50% of ₹ 62.50)	31.25	31.25
Administration Overhead (25% of ₹ 6)	1.50	1.50
Total Variable Cost <i>per pair</i>	80.25	83.35
Contribution <i>per pair</i>	62.75	59.65
Total Contribution ... (A)	3,76,500	3,57,900
<i>Fixed Costs</i>		
Works Overhead (6,000 pairs × ₹ 31.25)	1,87,500	2,06,250 (₹ 1,87,500 × 1.1)
Administration Overhead (6,000 pairs × ₹ 4.50)	27,000	29,700 (₹ 27,000 × 1.1)
Other Fixed Overheads *	12,000	13,200 (₹ 12,000 × 1.1)
Total Fixed Costs ... (B)	2,26,500	2,49,150
Profit (A) – (B)	1,50,000	1,08,750
Desired Profit	---	1,67,300
Additional Profit (₹1,67,300-₹1,08,750)	---	58,550
Additional Offer $\left(\frac{6,000}{60\%} \times 20\% \right)$		2,000 Pairs
Profit <i>per pair</i>		29.275

(*)

$$\begin{aligned}\text{Other Fixed Overhead} &= \text{Contribution} - \text{Profit} - (\text{Fixed Works Overheads} + \text{Fixed Administrative Overheads}) \\ \text{Selling Price per pair} &= \text{Variable Cost per pair} + \text{Profit per pair} \\ &= ₹ 83.35 + ₹ 29.275 \\ &= ₹ 112.625 \text{ or } ₹ 112.63\end{aligned}$$

Therefore, minimum selling price per pair for the additional offer shall be ₹ 112.63.

Selling price is ₹ 143 per pair and net profit is ₹ 25 per pair, hence, total cost per pair at the existing level should be ₹118 (₹ 143 – ₹ 25). However, the total cost per pair given is ₹116. It is assumed that balance ₹ 2 per pair (₹ 118 – ₹ 116) is Other Fixed Overheads. This problem can also be solved by assuming difference of ₹ 2 as Other Variable Costs with an anticipation that it will not change in the revised situation.

CASE SCENARIO 50

Payfast Limited offers an application-based service to make payments by phone. It allows linking of phone numbers with bank and allow bank to bank transfer through mobile phone. It was the 1st company in the country to provide such facility. The customers could not believe that money transfer process could be made so much simpler and the company witnessed exponential growth in very few days. The services level was immaculate and no charges were levied on the customers.

Seeing the growth of Payfast, many other companies joined the industry and started providing this service. Now, Payfast was required to provide other innovative offerings to the customers to maintain its leadership position.

Further, the user count was increasing and so Payfast was spending more to maintain security of the user data. Security breach, if any, could result into loss of millions to its users. Similarly, all its competitors were also spending a significant amount on the security of user data.

In order to incentivize customers, Payfast starting giving cash backs to its customers on every transfer. This was unheard of. Getting money for making transfer was unheard and its competitors also could not fathom it.

To compete with Payfast, its competitors started adding new features on their applications like movie booking, cab booking, etc. But this was not well received by customers as customers used different apps for such transactions which had much better user interface and features. Slowly, the competitors removed those features and went back to their original product.

To improve its brand presence, Payfast hired an international brand designed and designed a new logo for Payfast.

MULTIPLE CHOICE QUESTIONS

1. How would you best describe the offering by Payfast of application to make payments through mobile phone?
 - (a) Performance attribute
 - (b) Delighter
 - (c) Indifferent
 - (d) Delighter when introduced, currently threshold attribute
2. Which would be most appropriate description for Payfast's offering of security improvement for user data?
 - (a) Delighter
 - (b) Performance attribute
 - (c) Indifferent
 - (d) Reverse
3. Should Kano spend huge amount on logo designing to improve customer satisfaction?
 - (a) Yes, as customers love great logo
 - (b) No, as customers would be indifferent
 - (c) Yes, as competitors had better logo
 - (d) No, as companies change logo frequently
4. Is giving cashbacks by Payfast a justified cost?
 - (a) Yes, as customers would be delighted
 - (b) No, as customers would be indifferent
 - (c) No, as it would affect profitability
 - (d) No, as competitors would eventually catch up

5. Adding different features by the competitors can be termed as below?
- (a) Indifferent
 - (b) Performance Attributes
 - (c) Threshold
 - (d) Reversal

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (d): Delighter when introduced, currently threshold attribute**

Reason

Delighter when introduced, currently threshold attribute as currently all competitors are providing this feature.

2. **Option (b): Performance attribute**

Reason

Performance attribute as non-maintaining security will cause customer dissatisfaction.

3. **Option (b): No, as customers would be indifferent**

Reason

No as customer would be indifferent as logo does not add any satisfaction to customer.

4. **Option (a): Yes, as customers would be delighted**

Reason

Yes, as customers would be delighted as this is completely new way and customer satisfaction will increase.

5. **Option (d): Reversal**

Reason

Reversal, as complexity, has led to customers not liking it.

CASE SCENARIO 51

You recently joined Management Accounting department of a fashion retail brand '*Paridhaan*' which is struggling with dipping margin and deficiencies issues in distribution network. In meeting with CEO and COO you explained to them that Supply Chain Management can be great help for Paridhaan to overcome the many of challenges that Paridhaan is currently facing.

You explained them the case of Sara Fashions, how they manage their Supply Chain to create value. Sara Fashions is a well-known premium international clothing manufacturer and retailer based in Spain that was founded in the 1980s. Because of the collaborative relationship with customers and suppliers, Sara can complete the development and shipment of a new product to its stores in two to six weeks, which is faster than the industry average of six months. Sara sells their clothing through its own retail outlets.

One of the most significant benefits of Sara's supply chain strategy is its ability to respond quickly to all fashion trends and provide customers with the latest fashion outfits in two weeks in case of existing items while 4-6 weeks in case of new items. Secondly, Sara never produces in large quantities, so if the style does not sell as well as expected, Sara does not suffer as much loss because there is not much stock to discount. Thirdly, the advantages of a vertically integrated and shortened supply chain are obvious. Sara's advertising cost is only 0.3% of its revenue, whereas similar fashion retailers typically spend 3% on advertising and marketing.

The high frequency of shifts in displayed merchandise (about three-quarters of them are changed every three weeks) allows for consistent customer visits.

The main disadvantage of Sara's supply chain is that because Sara owns all of the supply chain channels, it is difficult to expand to distant locations because it is very expensive to distribute such products.

Sara factories in Spain employ flexible manufacturing systems to allow for rapid changeover operations. Only 24% of all items are manufactured in Asia and Africa, while 50% are manufactured in Spain; and rest 26% in the rest of Europe.

Sara's factories can quickly increase and decrease production rates, resulting in less inventory in the supply chain and less need for working capital to finance that inventory. They only do 50 to 60% of their manufacturing in advance, compared to competitors' 80 to 90%. Sara does not need to bet heavily on yearly fashion trends. They can place numerous smaller bets on short-term trends that are easier to predict.

They employ approximately 3,000 workers in manufacturing operations in Spain at an average wage of 11.00 euros per hour, compared to an average wage of 0.80 euros per hour in Asia.

COO pointed that there are two flows that majorly we need to manage at *Paridhaan*; the physical flow of material and exchange of information.

Since many of terms and points are new for them hence, they shower you back with questions which you need to answer (with most appropriate option) keeping above facts in backdrop of your mind.

MULTIPLE CHOICE QUESTIONS

1. By offering products through an exclusive distribution channel, Sara can _____.
 - i. Differentiate
 - ii. Better understand their customers
 - iii. Encourage additional purchase
 - iv. Specialise in a particular type of discounted merchandise

Options

- (a) Only i
- (b) Only iii
- (c) iii and iv
- (d) i, ii, and iii above

2. COO statement in context of flows pertaining to supply chain management at *Paridhaan*, which of the following is/ are true for supply chain management?
- i. The physical material generally has up-stream movement
 - ii. Exchange of information always happens both ways
 - iii. Flow of cash always has downstream movement

Options

- (a) Only i
 - (b) Only ii
 - (c) Only ii and iii
 - (d) All of the i, ii, and iii above
3. Sara's response time to customer's demand is comparatively less than its peers, hence it has better control over physical flow of supply chain and capable to counter negative effects. One such effect is, due to small change in customer demands, inventory oscillations become progressively larger looking through the supply chain. This is known as –
- (a) Net effect
 - (b) Bullwhip effect
 - (c) Chain effect
 - (d) Reverse effect
4. Which of following statements is/ are incorrect regarding Sara Fashions?
- i. Sara Fashions competes on flexibility and agility instead of low cost leadership
 - ii. Sara Fashions can further reduce their cost production by shifting production facility to labour intensive market/ economy

Options

- (a) Only statement i
 - (b) Only statement ii
 - (c) Both of the statements
 - (d) None of the statements
5. Which of following statements is/ are correct regarding cycle-time and turnover ratios of Sara Fashions?
- i. Stores of Sara Fashions expected to have lower inventory turnover ratio than the stores of other retail readymade clothing brands
 - ii. Cycle time is lower in case of Sara Fashions than its peer group

Options

- (a) Only statement i
- (b) Only statement ii
- (c) Both of the statements
- (d) None of the statements

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): i, ii, and iii above**Reason**

Sara only sells its clothing through its own retail outlets. This allows Sara to better understand their customers and encourages additional purchases. By offering products through an exclusive distribution channel, Sara can differentiate.

2. Option (b): Only ii**Reason**

There are three types of main flows that happen in any supply chains: flow of materials/ goods, flow of money/ cash, and flow of information. There is a forward flow of materials/ goods for the regular flow that happens all the way from higher tier suppliers (upstream) to the end-consumer

(downstream). In addition, if there are any returns for any reason, there will be a reverse flow of materials/ goods in the opposite direction to the forward flow.

Flow of money (cash flow) happens from downstream to upstream. For example, the retailer needs to pay the distributor for the goods they have received from them.

Flow of information happens both ways in the supply chain since organizations will need to share different type of information with each other so that the whole supply chain can make better decisions to improve overall performance.

3. Option (b): Bullwhip effect

Reason

The bullwhip effect is a supply chain phenomenon describing how small fluctuations in demand at the retail level can cause progressively larger fluctuations in demand at the wholesale, distributor, manufacturer, and raw material supplier levels. The effect is named after the physics involved in cracking a whip.

4. Option (d): None of the statements

Reason

It is stated in fact of case that they employ approximately 3,000 workers in manufacturing operations in Spain at an average wage of 11.00 euros per hour, compared to an average wage of 0.80 euros per hour in Asia. Hence Sara competes on flexibility and agility instead of low cost and cheap labour.

Further it is stated that Sara factories in Spain employ flexible manufacturing systems to allow for rapid changeover operations. Only 24% of all items are manufactured in Asia and Africa, while 50% are manufactured in Spain; and rest 26% in the rest of Europe; hence scope of reducing cost of production by shifting production facilities to labour intensive economies such as India, Asian and African countries.

5. Option (b): Only statement ii**Reason**

Since Sara Fashions keep low inventory level low and produce in small lots according to latest fashions and customers' needs hence Stores of Sara Fashions have higher inventory turnover ratio than the stores of other retail readymade clothing brands.

Sara Fashions took only 2-6 weeks to reach back to customers with their product that meet their requirements/ expectations hence in comparison to average of 6 months for peer group hence cycle time is lower in case of Sara Fashions.

CASE SCENARIO 52

Glen Engineering Limited (GEL) is adopting lean practices in a drive for excellence and productivity. Among the lean initiatives that GEL has taken in the recent past, TPM is prominent. While speaking to one of the quality circles, the Chief Management Accountant, Mr. Deepak, explains TPM consists of eight strategies (or pillars) that ensure equipment is consistently maintained and inspected by instilling a sense of responsibility for equipment in all employees. He further says one such pillar deals with routine maintenance, and all the workers are partners in the betterment of GEL, and the success of the TPM initiative depends upon their effort.

A couple of training programs for workers, in addition to the EDP (Executive Development Programme) and MDP (Management Development Programme) on 5S practices, were organized by GEL to empower its managers and employees. The focus of the programs was to explain the five S: sort, set-in-order, shine, standardise, and sustain, as well as highlight their scope and useful tools.

Mr. Shukla, who is VP-POM (production and operation management), also attended the MDP. He is of the opinion that there are six S instead of five, and the sixth S is Style, and he further says that the five S are only enablers for continual improvement and not results in themselves. Mr. Shukla's second opinion is countered by Trainer by emphasizing the expected benefits of each of the 5S.

Mr. Dev Raj, floor supervisor, is not sure about how shine can help in productivity and what is to be performed or covered under sort phase, so he desired to understand the importance of shine and the scope of sort phase.

Ms. Archana is the Manager of Risk and Control at GEL, and she is keen to know whether all the workers strive for 5S simultaneously or one person for each department at a time to speed up and avoid conflicts.

You are part of trainer's team for MDP, expected to answer following questions with most appropriate option.

MULTIPLE CHOICE QUESTIONS

1. Which of the following item are parts of the Sort phase?

- i. Use of red tags
- ii. 48-hour rule
- iii. Disposition red tag items
- iv. Putting tools at the point of use

Options

- (a) i, ii, and iii only
- (b) i, ii, and iv only
- (c) i, iii, and iv only
- (d) ii, iii, and iv only

2. Evaluate the correctness of opinions expressed by Mr. Shukla.

- i. Style is sixth S as extension of 5S
- ii. 5S are enablers that leads to continual improvement

Options

- (a) Statement i only
- (b) Statement ii only
- (c) Both Statements
- (d) None of the Statements

3. Which pillar of TPM focuses on routine maintenance?

- (a) Quality maintenance
- (b) Early management
- (c) Planned maintenance
- (d) Autonomous maintenance

4. Which of following included in the expected benefits from Sort?
- i. Make work easier.
 - ii. Customer satisfaction
 - iii. Improving ownership
 - iv. Prevent accumulation of unnecessary items
 - v. Reduce chances of being distributed with unnecessary items

Options

- (a) i, iv, and v only
 - (b) i, iii, and v only
 - (c) ii, iii, and iv only
 - (d) i, ii, iii, iv, and v
5. Which of following included in the expected benefits from Shine?
- i. Creates pleasant environment
 - ii. Makes comfortable with 5S procedures
 - iii. Frees up space
 - iv. Increases workers productivity
 - v. Improves safety

Options

- (a) i, ii, and iii only
 - (b) i, ii, iii, and iv only
 - (c) ii, iii, iv and v only
 - (d) i, iii, iv, and v only
6. Which of the following statements is/are correct?
- i. 5S should be implemented by only one person per department to save time and avoid confusion
 - ii. Changing the area's layout is included in Set-In-Order

Options

- (a) Statement i only
- (b) Statement ii only
- (c) Both Statements
- (d) None of the Statements

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): i, ii, and iii only**Reason**

Putting tools at the point of use belong to set in order rather than sorting. 48-hour rule may be new concept for students; hence students are advised to take note that; the 48-hour rule says if it is not going to be used in the work area within 48 hours, and it does not belong there.

2. Option (b): Statement ii only**Reason**

Safety is sixth S as extension of 5S. In this phase, leaders focus on identifying hazards and developing preventative measures to keep their team safe. 5S, being the foundation of TPM (even all the lean practices that eventually led to TQM), acts as the enabler for continual improvement and fits in at the Do stage.

3. Option (d): Autonomous maintenance**Reason**

Autonomous maintenance focuses on routine maintenance. Routine maintenance includes cleaning, lubricating, and inspection operations performed by the operators.

4. Option (a): i, iv, and v only**Reason**

Sorting makes work easier, prevents accumulation of unnecessary items, reduce chances of being distributed with unnecessary items. Customer satisfaction and ownership don't relate to Sort.

5. Option (d): i, iii, iv, and v only**Reason**

Makes comfortable with 5S procedures relates to Standardize.

6. Option (b): Statement ii only**Reason**

5S shall be implemented across organisation by all, simultaneously because 5S is more than ensuring that a workspace is neat and aesthetically orderly, 5S focuses on keeping everything in its place to maintain consistency in the work environment. Eliminating inconsistencies reduces disruptions to production processes, in turn resulting in reduced waste and a more predictable (and higher) quality of output.

Set-in-order signify the systemic arrangement by adherence to the one of 14th Principle of Management enunciated by Henri Fayol in Administrative Theory of Management i.e., Principle of order which provides that there shall be place for everything and everything shall be in its place. Therefore set-in-order arrange all necessary items into their most efficient and accessible arrangements so that they can be easily selected for use and make workflow smooth and easy. Hence changing the area's layout included in set-in-order.

CASE SCENARIO 53

KG Airlines is the second largest airline in India. Post the Covid 19 pandemic, the airline industry is slowly reviving its pre-pandemic levels of operations. Business is expected to revive and grow in the next few years. Profit margins of all players in the aviation industry are under constant pressure. This is due to adverse global economic factors and overall inflationary conditions within the domestic market. KG airlines like all other players in the industry is preparing for recovery of business and wishes to maintain if not grow its market share.

"Just like the skies we operate in; customers' expectations are limitless. At the same time, a limit certainly exists for the price that the customer is willing to pay for a flight as also to the costs we can incur in order to remain viable" bemoaned the Chief Executive Officer (CEO) of the company. This key challenge of balancing customer satisfaction and cost reduction efforts was discussed at length by the senior management team at the company's head quarters in Mumbai.

The Regional Marketing Head emphasised that customer experience should not be compromised due to cost reduction measures. Annoyed customers are very likely to switch to rival airlines and hence market share can be impacted.

The Chief Financial Officer (CFO) is a capable experienced Chartered Accountant who has good insights about the operations in an airline industry. She says *"We have many costs such as aviation turbine fuel, government taxes etc. which are not within our control. Let us, therefore, target those costs that are variable and hence controllable by us. Charging customers for every service can many times annoy and affect their flight experience. Therefore, let us reward them instead while cutting down costs!"* She further detailed how this can be done:

It was found that passengers arrive at the airport for check in typically or 2 hours before the flight, although the airline recommends that they come 3 hours before in order to avoid congestion. Due to the constant last-minute arrivals, the airline has a higher staffing requirement at the check in counter, flight boarding staff and other ground crew. If the arrivals are streamlined by making the passengers arrive earlier, the company can save ₹ 2,00,00,000 per annum due to lower staffing requirements. This benefit is considering the savings

across all airports that KG airlines operates in. To incentivise passengers to arrive 3 hours early, the airline can propose to add 50-mile points to their frequent flyer reward program. The reward points can be encashed to get exciting, customized gifts. Approximately 10,000 passengers are expected to avail of this incentive each year, with each mile point costing the airline ₹ 20 per mile point.

Additional mile points can help maintain a loyal frequent flyer base. Another major benefit is that the airline can avoid delays in flight take off due to late passenger arrival. Hence, the benefits of this program are far reaching.

MULTIPLE CHOICE QUESTIONS

- Calculate the net benefit to KG airlines by incentivising passengers to arrive early at the airport?
 - 90,00,000
 - 1,00,00,000
 - 1,10,00,000
 - 80,00,000
- As per the Kano model, match the factors to their corresponding attributes –

Factor	Attribute
i. Initiatives taken to ensure flight safety	a. Reverse attribute
ii. Initiative to incentivise early check in of passengers	b. Indifferent attribute
iii. Delay in flight take-off and landing	c. Threshold attribute
iv. Airport fees paid incurred by the airline	d. Excitement or delight attribute

Options

- i- a, ii- b, iii- c and iv- d
- i- c, ii- a, iii- b and iv- d

(c) i- c, ii- d, iii- a and iv- b

(d) i- d, ii- a, iii- c and iv- b

3. During the meeting, the management discussed key information requirements and needs of various stakeholders. Using Mendelow's Matrix, match the stakeholders to the power and interest they wield over KG airlines.

Stakeholder	Power and interest
i. Air traffic control	a. Key Players - High power high interest
ii. Suppliers of aviation fuel	b. Influential - High power low interest
iii. Contract employees	c. Marginal - Low power low interest
iv. Environment activists	d. Affected - Low power high interest

Options

(a) i-b, ii- a, iii- c and iv- d

(b) i-a, ii- b, iii- c and iv- d

(c) i-c, ii- d, iii- a and iv- b

(d) i-b, ii- a, iii- d and iv- c

4. Growth in aviation sector has led to congestion in airports across the country. Due to which parking space available for planes at the airport hanger is limited. Due to high demand, the parking fees is also increasing at a rapid rate. Which tool of strategic cost management will you apply to minimise the time a plane is parked at the hanger?

(a) Kaizen improvement

(b) Quality management

(c) Theory of constraints

(d) Preventive maintenance

5. If KG wants to analyse its revenue generation based on various segments, which analysis should it undertake?
- (a) Value chain analysis
 - (b) Customer profitability analysis
 - (c) Supply chain analysis
 - (d) Balanced scorecard

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): 1,00,00,000

Reason

The correct answer is ₹ 1,00,00,000.

Each mile costs ₹ 20, which means each passenger credited with 50-mile points for coming early, will cost ₹ 1,000. For 10,000 passengers the cost would be ₹ 1,00,00,000. Overall savings to the company due to this initiative is ₹ 2,00,00,000. Therefore, the net benefit to KG airlines for incentivising passengers to arrive early at the airport would be ₹ 1,00,00,000 (Savings of ₹ 2,00,00,000 less cost of ₹ 1,00,00,000).

2. Option (c): i- c, ii- d, iii- a and iv- b

Reason

Initiatives taken to ensure flight safety - Threshold attribute, a must have attribute.

Initiative to incentivise early check in of passengers - Excitement or delight attribute, a unique and unexpected reward that delights passengers.

Delay in flight take-off and landing - Reverse attribute, if present causes dissatisfaction, delays cause dissatisfaction. Customers always expect flights to be on time.

Airport fees paid incurred by the airline – Indifferent attribute since it is irrelevant to customer satisfaction.

3. Option (d): i- b, ii- a, iii- d and iv- c**Reason**

Air Traffic Control: Influential - High power low interest.

Suppliers of aviation fuel: Key Players - High power high interest.

Contract employees: Affected - Low power high interest.

Environment activists: Marginal - Low power low interest.

4. Option (c): Theory of constraints**Reason**

The correct answer is theory of constraints. Here, the constraint/bottleneck is the parking space available in the airports. Using theory of constraints, KG airlines can plan its flight plan and route connections such that either (i) it can choose a time for arrival or departure when parking is reasonably available else (ii) it can plan its route connections such that the need for parking is reduced.

5. Option (b): Customer profitability analysis**Reason**

Only customer profitability analysis.

CASE SCENARIO 54

A private bank has approached an Information Technology (IT) company for consultation regarding various challenges it is facing in business operations. Few of them are:

1. High staffing requirements for validating data across different applications, scanned documents, worksheets, and other paper documents.
2. Unforeseeable fluctuations in staffing (especially during exigencies like floods, pandemic etc.) disrupt regular business operations leading to unpredictable execution lead times. This has in the past lead to violation of Service Level Agreements (SLAs) and compliance issues.
3. Higher instances of error and resultant customer complaints due to significant manual intervention in many processes.

The IT company has studied the bank's various processes and has identified a set of processes that can be automated using Robotic Process Automation (RPA). Robotic Process Automation (RPA) is an intelligent software program that make use of "robotic bots" to handle repetitive, rule based digital tasks just the way humans do. The benefits these bots can do can be explained with an example: A call centre employee gets a complaint from a customer regarding a complaint about account login access. While the employee is attending to the customer, the robotic bot will instantaneously pull out the customer's data from various sources into a single screen. This will help the call centre executive assist the customer in a more holistic manner since information is readily available on hand.

MULTIPLE CHOICE QUESTIONS

1. Given that Robotic Process Automation (RPA) can handle routine repetitive tasks, which of the following tasks cannot be handled by RPA?
 - (a) Generation of Tax Deduction at Source (TDS) Certificates like 15G/15H
 - (b) New product development that requires engagement with clients

- (c) Automated Teller Machine (ATM) transaction reconciliation
 - (d) Loan origination process involving data entry, document routing, email notification, etc.
2. Which of the following are benefits of RPA?
- i. Fraud detection and prevention
 - ii. Cost reduction in staffing requirements
 - iii. Improved business productivity due to fast turnaround time
 - iv. Enhanced customer experience due to continuous availability of service and accurate processing
- Options
- (a) i and ii
 - (b) ii and iv
 - (c) ii and iii
 - (d) i, ii, iii, and iv
3. Successful implementation of RPA would free up the availability of workforce. The bank plans to engage few of its talented workforce to create or unlock value in terms of enhanced revenue, either by cutting costs and/or by creating new processes, products, and services. The workforce will be working with the organization and will not have any ownership rights over innovations and other initiatives. This will promote innovation in the organization to attain cost efficiency and will give impetus to growth. Such a team of workforce would be known as:
- (a) Entrepreneurship
 - (b) Intrapreneurship
 - (c) Innovators
 - (d) Task force
4. Considering that digital technologies are causing disruption across industries, especially the financial services industry, which strategy is the bank following in response to such disruptions?
- (a) Withdraw

- (b) Milking the cash cow
 - (c) Invest and counter invest
 - (d) Restrict presence and shift focus to the core
5. The bank's loan origination department manages handling many types of loans like personal loans, home loans, commercial loans to small and medium enterprises. The department's processes include filling up and completion of loan applications, confirming information in the form with supporting documentary evidence, routing the process further to loan approval and disbursement departments. Thus far, the loan origination process requires a lot of manual intervention and is subject to the capacity of workforce available with the department. With the introduction of RPA, all this can be digitalized and automated. Which of the cost management techniques has the bank implemented?
- (a) Target costing
 - (b) Life cycle costing
 - (c) Theory of constraints
 - (d) Standard costing

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): New product development that requires engagement with clients**

Reason

The correct answer is new product development that requires engagement with clients. These are not repetitive routine tasks that can be automated and hence cannot be handled by RPA. These would require bank personnel (who would now be freed of routine tasks) to engage with clients to develop new products based on changing customer demands.

2. **Option (d): i, ii, iii, and iv**

Reason

RPA dramatically improves business productivity as it automates routine, high volume transactions. Due to automation, processing is largely error

free which enhances customer experience. RPA bots are available any time at the click of the button and hence customers can avail service anytime. Service is no longer dependent on availability of staff. Automation also prevents fraud instances and RPA with other AI technologies can also help in fraud detection. Automation can significantly reduce the workforce requirement for routine tasks, and this can then be used for more creative and innovative work for the company.

3. Option (b): Intrapreneurship

Reason

The correct answer is Intrapreneurship. Intrapreneurship is a revolutionary system of speeding up innovations within large companies by making better use of available or allocated resources (with use of entrepreneurial talent of Intrapreneur). Hence, Intrapreneurship is a restorative action taken to counter stagnation within a large organisation.

4. Option (c): Invest and counter invest

Reason

The correct answer is 'invest and counter invest'. The bank is responding to digital transformation and disruption by investing in resources and capabilities that in turn cause disruption.

5. Option (c): Theory of constraints

Reason

The correct answer is theory of constraints. The loan origination department has a process that requires manual intervention and is subject to the capacity of the available workforce. This problem can be addressed with the introduction of RPA since the entire process can be digitalized and automated at the department. Due to this, the constraint of workforce time availability is reduced, and the freed-up time can be used to handle cases where exceptions have to be made to the standard process.

RPA does not necessarily address target costing, life cycle costing and standard costing, although if implemented properly it can help in cost reduction.

CASE SCENARIO 55

Hydrogen fuel cells are the cutting-edge technological development that is slated to replace standard petrol / diesel engines in large motor vehicles like buses and trucks. Green energy initiatives that reduce carbon emissions are the need of the hour, such ventures are being encouraged by the Governments across the globe through various policy initiatives. In order to have a viable business in place, an entire eco-system for supporting this technology is being developed in the form of service centres, hydrogen fuel storage and distribution centres and other infrastructural needs.

H-Power is a large petroleum oil refining company that has in the past 5 years forayed into manufacturing Green Hydrogen fuel cells business. Green Hydrogen fuel is being considered more environment friendly as compared to Grey Hydrogen fuel as the later uses fossil fuel like natural gas or coal in its production. On the other hand, Green Hydrogen uses solar and wind power in its production and hence is considered more environment friendly. Green Hydrogen can help reduce emission levels drastically.

Hydrogen as a gas is found in scare quantity on earth. Rather, it is found abundantly as being part of water, which is composed of Hydrogen and Oxygen. An electrolyser splits water into hydrogen and oxygen and is hence a very useful component in the production of Green Hydrogen. Ecopower is a company (Global Rank 110) that manufactures hydrogen electrolysers. Ecopower has been a supplier of electrolysers to H-Power for its Hydrogen fuel cell business. Recently, H-Power has been in talks with Ecopower for acquisition of company for a sum of \$1 billion. The acquisition would help strengthen H-Power's production capabilities. Building production capabilities are very capital-intensive requiring billions of dollars of investment.

The adoption of hydrogen fuel technology is dependent on the cost of production of hydrogen fuel. Currently, the cost of producing Grey Hydrogen is much lower than the cost of producing Green Hydrogen. Hence, the adoption of Grey Hydrogen is more popular among both fuel cell manufacturers and manufacturers of buses and trucks. Lately, H-Power has started collaborating closely with the car and truck manufacturers to help them understand Green

Hydrogen technology. It has convinced few large car and truck manufacturers to revise its engines to accommodate Green Hydrogen fuel cells on an experimental basis.

MULTIPLE CHOICE QUESTIONS

1. Acquisition of Ecopower by H-Power would be an example of:
 - (a) Horizontal Integration
 - (b) Backward Vertical Integration
 - (c) Forward Integration
 - (d) Cost Integration
2. Given the information in the above scenario, which of Michael Porter's Five forces should H-Power consider as a concern to its business:
 - i Bargaining power of suppliers
 - ii Bargaining power of buyers
 - iii Threat of substitutes
 - iv Threat of new entrants

Options

 - (a) i and ii
 - (b) i and iii
 - (c) ii and iii
 - (d) iii and iv
3. The transition that H-Power is adopting by foraying Green Hydrogen fuel cells affects which aspect of Triple Bottom Line concept of business?
 - (a) Planet
 - (b) Profit
 - (c) People
 - (d) Investment

4. Assuming that H-Power is able to develop commercially viable Green Hydrogen fuel cells for buses and trucks, with not much change in cost of production from current levels, this technology will represent which of the following business factor:
- Critical Success Factor leading to cost leadership
 - Key Performance Indicator leading to product differentiation
 - Commercial Business Factor leading to cost leadership
 - Core Competency leading to product differentiation
5. Which of the following parameters is not a test for core competency?
- Cost advantage
 - Difficulty in imitation by competitors
 - Relevance to the customer
 - Breadth of application in terms of the potential markets it can open up
6. In the case scenario, an ecosystem is being built for Hydrogen fuel cells which includes manufacturers of fuel cells like H-Power, their suppliers like Ecopower, customers like manufacturers of buses and trucks, other infrastructure providers like service centres, hydrogen fuel storage and distribution centres and other infrastructural need providers. Business ecosystems influence cost, value and performance which is explained in the form of flywheels. Match the following actions to the respective flywheel:

Action	Flywheel
i. Partnering with universities to improve current Green Hydrogen Technology in terms of efficiency and effectiveness	a. Cost Flywheel
ii. Exploring application in other industries like fertilizer and bulk chemicals	b. Data Flywheel
iii. Exploring the ability to achieve economies of scale in production of Green Hydrogen	c. Growth Flywheel

Options

- (a) i-b, ii- c, and iii- a
- (b) i- c, ii- b, and iii- a
- (c) i- a, ii- c, and iii- b
- (d) i- c, ii- b and iii- a

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Backward Vertical Integration

Reason

The correct answer is Backward Vertical Integration. Ecopower is the supplier of H-Power. With this acquisition, H-Power would be able to control more levels of the supply chain, hence it is a vertical integration. Since this would be acquisition of a supplier, it would be backward vertical integration.

2. Option (c): ii and iii

Reason

The correct answer is threat of substitutes and the bargaining power of buyers.

Threat of substitutes, Grey Hydrogen is a substitute to Green Hydrogen. The cost of producing Grey Hydrogen is much lower than the cost of producing Green Hydrogen. This leads to bargaining power of buyers, who are the bus and truck manufacturers. The buyers due to the cost advantage are preferring Grey over Green Hydrogen. Hence, to make the transition to Green Hydrogen, H-Power should be able to convince them of the viability of Green Hydrogen technology.

3. Option (a): Planet

Reason

The correct answer is Planet, Green Hydrogen fuel cells are environmentally friendly. H-Power is transitioning its business from fossil

fuel-based Oil Refining business into Green Hydrogen fuels cell manufacturing. This has a positive impact on the Planet / environment.

4. Option (d): Core Competency leading to product differentiation

Reason

The correct answer is Core Competency leading to product differentiation.

Core Competency is a unique preposition which help firm to stand ahead in industry by serving value to its customers. Core Competency leads to either cost leadership or product differentiation, which are primary source for firm to gain competitive advantage.

In the case of H-Power a commercially viable Green Hydrogen fuel cell technology that results in very low emissions will represent a competency that will give it competitive advantage over its rivals. This leads to product differentiation.

Critical Success Factor articulates what the company must do, and do well, to achieve the goals outlined in its strategic plan.

In this case, H-Power had to make the technology commercially viable, but it does not lead towards cost leadership at the current cost of production. Rather preference of Green Hydrogen over Grey Hydrogen will be based on product differentiation.

Key Performance Indicator measure the performance of business organisation regarding a particular Critical Success Factor.

5. Option (a): Cost advantage

Reason

The correct answer is Cost advantage is not a test of core competency.

6. Option (a): i-b, ii- c, and iii- a

Reason

The correct answer is i- b, ii- c, and iii- a.

Partnering with universities to improve current Green Hydrogen Technology in terms of efficiency and effectiveness – Data Flywheel,

because this action provides data for deeper and better insight that enables Research and Development work in the Hydrogen fuel industry.

Exploring application in other industries like fertilizer and bulk chemicals – Growth Flywheel, since this move explores application of value proposition to increase the network of users and consumers of Green Hydrogen technology.

Exploring the ability to achieve economies of scale in production of Green Hydrogen – Cost Flywheel, since achieving economies of scale in production of Green Hydrogen will help distribute the fixed cost of production over larger production quantity, thereby helping reduce the unit cost of production.

CASE SCENARIO 56

Ski Slope had planned, when it originally designed its budget, to buy its artificial ice for ₹ 10/ per kg. However, due to subsequent innovations in technology, producers slashed their prices to ₹ 9.70 per kg. and this figure is now considered to be a general market price for the purpose of performance assessment for the budget period. The actual price paid was ₹ 9.50, as the Ski Slope procurement department negotiated strongly for a better price. The other information relating to that period were as follows:

Original Standards (ex-ante)		Revised Standards (ex-post)		Actual (5,500 units)	
5,500 units × 5 Kgs. × ₹ 10	₹ 2,75,000	5,500 units × 4.75 Kgs. × ₹ 9.70	₹ 2,53,412.50	27,225 Kgs. × ₹ 9.50	₹ 2,58,637.50

MULTIPLE CHOICE QUESTIONS

1. Traditional Variances for 'Ice' are as under:
 - (a) Usage Variance ₹ 2,750 (F); Price Variance ₹ 13,612.50 (F)
 - (b) Usage Variance ₹ 13,750 (A); Price Variance ₹ 16,362.50 (F)
 - (c) Usage Variance ₹ 2,750 (F); Price Variance ₹ 13,612.50 (A)
 - (d) Usage Variance ₹ 10,670 (A); Price Variance ₹ 5,554 (A)
2. Operational Variances for 'Ice' are as under:
 - (a) Usage Variance ₹ 10,670 (F); Price Variance ₹ 5,225 (A)
 - (b) Usage Variance ₹ 13,750 (A); Price Variance ₹ 5,225 (F)
 - (c) Usage Variance ₹ 10,670 (A); Price Variance ₹ 5,445 (F)
 - (d) Usage Variance ₹ 10,760 (F); Price Variance ₹ 5,445 (A)
3. Planning Variances for 'Ice' are as under:
 - (a) Usage Variance ₹ 13,750 (F); Price Variance ₹ 8,737.50 (A)
 - (b) Usage Variance ₹ 13,570 (A); Price Variance ₹ 7,837.50 (F)

- (c) Usage Variance ₹ 21,587 (A); Price Variance ₹ 8,737.50 (A)
- (d) Usage Variance ₹ 13,750 (F); Price Variance ₹ 7,837.50 (F)
4. The better negotiation of a price should be recognised as an _____ matter.
- (a) Operational
- (b) Financial
- (c) Planning
- (d) Marketing
5. An innovation in technology is _____ the control of Ski Slope and is, by nature, a _____ 'error'.
- (a) Under, Operational
- (b) Outside, Technological
- (c) Outside, Planning
- (d) Outside, Marketing

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (a): Usage Variance ₹ 2,750 (F); Price Variance ₹ 13,612.50 (F)**

Reason

Traditional Variances

$$\text{Usage Variance} = (27,500 \text{ Kgs.} - 27,225 \text{ Kgs.}) \times ₹ 10 = ₹ 2,750 (F)$$

$$\text{Price Variance} = (₹10 - ₹ 9.50) \times 27,225 \text{ Kgs.} = ₹ 13,612.50 (F)$$

- 2. Option (c): Usage Variance ₹ 10,670 (A); Price Variance ₹ 5,445 (F)**

Reason

Operational Variances

$$\begin{aligned}\text{Usage Variance} &= (26,125 \text{ Kgs.} - 27,225 \text{ Kgs.}) \times ₹ 9.70 \\ &= ₹ 10,670 (A)\end{aligned}$$

$$\begin{aligned}\text{Price Variance} &= (\text{₹ } 9.70 - \text{₹ } 9.50) \times 27,225 \text{ Kgs.} \\ &= \text{₹ } 5,445 \text{ (F)}\end{aligned}$$

3. Option (d): Usage Variance ₹ 13,750 (F); Price Variance ₹ 7,837.50 (F)

Reason

Planning Variances

$$\text{Usage Variance} = (27,500 \text{ Kgs.} - 26,125 \text{ Kgs.}) \times \text{₹ } 10 = \text{₹ } 13,750 \text{ (F)}$$

$$\text{Price Variance} = (\text{₹ } 10 - \text{₹ } 9.70) \times 26,125 \text{ Kgs.} = \text{₹ } 7,837.50 \text{ (F)}$$

4. Option (a): Operational

Reason

The better negotiation of a price should be recognised as an operational matter. Operational variances are self-evidently under the control of operational management, so operational efficiency must be assessed with only these figures in mind.

5. Option (c): Outside, Planning

Reason

An innovation in technology is outside the control of Ski Slope and is, by nature, a planning 'error'.

Planning variances are generally not controllable. Where a revision of standards is required due to environmental/ technological changes that were not anticipated at the time the budget was prepared, the planning variances are truly uncontrollable. However, standards that failed to anticipate known market trends when they were set will reflect faulty standard-setting: it could be argued that these variances were controllable at the planning stage.

CASE SCENARIO 57

National Fabric Company (NFC) is a leading manufacturer of Khadi fabric that is further made up into dresses and suits. NFC was established 4 decades ago and presently enjoys the reputation as producer of quality fabric. The popularity of "Made in India" concept in the recent years, has led to a change in demand for Khadi fabric. NFC manufactures this fabric in designs established many years ago keeping its traditional nature intact. The manufactured fabric is further sold to designing and weaving companies who would then convert them into traditional Khadi attire like Kurtas, shirts etc. Hence, currently NFC does not have any direct reach with textile retail outlets or final customers.

Management team at NFC believe in integration (vertical and horizontal) and diversification (product range or market reach) as tool of risk reduction and value enhancement (profit too).

NFC opts for acquiring 'Skylark Designer Clothing' (SDC). SDC is operating in designing and weaving of fabric into fashion wears which are mainly made from modern fabric material (for example satin, chiffon, velvet etc.) that give required gloss, style and look. SDC is targeting the customers who are in age group from 18 to 30 years. Customers in this category comprise of fashion-conscious youth, for whom looking "in vogue" would be a desired preference. Due to its high-quality sourcing of materials, young and dynamic fashion designers and well spread distribution channels, SDC is a very profitable enterprise. SDC's apparel are sold in different retail textile outlets that have a national presence.

The management of NFC plans to retain the fashion apparel line of SDC. However, it plans to scale up the operations of SDC to include the next age group category of 30 to 50 years. The end user customers of this category are generally price sensitive. However, they have higher disposable income as compared to the age group category of 18 to 30 years. Therefore, demand is likely to be at least 8 times more than the demand generated by the 18 to 30 year category.

Since, the scale of operations is expanding many times over, NFC plans for SDC to manufacture its own fabric instead of relying on external vendors. For the 30 to 50 year category, the quality of fabric will be of a lower grade as compared

to the other segment. A detailed market research is undertaken to understand the fashion apparel industry. NFC finds that there are many players in the 30-to-50-year category. Retail outlets hence have a variety of suppliers to choose from for the fashion apparel for the 30-to-50-year category. Hence, due to high competition and price sensitive end users, it is difficult to negotiate a premium price for the apparel for this category. Therefore, NFC finds the profit margin per apparel unit in this venture will be much lower. The management of NFC thereby concludes that due to the different market conditions, the pricing strategies for the 18 to 30 year category and the 30 to 50 year category will be different.

In order to increase profitability NFC plans to circumvent even the retail outlets and reach out to the direct customers directly via online website portals. It plans to ship the orders using private courier service. This is aimed at both the segments of customers of SDC.

MULTIPLE CHOICE QUESTIONS

1. By manufacturing lower grade cloth for use for the price sensitive 30 to 50 year age category, what competitive advantage is NFC trying to achieve?
 - (a) Broad Target with Differentiation
 - (b) Narrow Target with Differentiation Focus
 - (c) Broad Target with Cost Leadership
 - (d) Narrow Target with Cost Focus
2. Which of the following maybe a point of concern in end to end production of fashion apparel?
 - (a) Access to customer specifications and customer related data
 - (b) Control over production, pricing and marketing
 - (c) Complexity of value system
 - (d) Improves profitability

3. If the production at SDC has to happen in a sequential manner, production of fabric, weaving, designing and stitching which of the following may be very helpful to minimize work in progress between the processes:
- (a) Cellular Manufacturing
 - (b) Principle of Kaizen
 - (c) Principle of Six Sigma
 - (d) Just in Time procurement of raw materials

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Narrow Target with Cost Focus

Reason

The correct answer is Narrow target with cost focus NFC is focussing on reducing the cost of production by using lower grade cloth specifically for the 30 to 50 year age category. Hence, the advantage will have narrow target with focus on cost for that particular category.

2. Option (c): Complexity of value system

Reason

NFC is going from being a manufacturer of Khadi fabric sold to weaver and designers and is expanding into an end-to-end business in fashion apparel (manufacturing up to sales and delivery). The expansion of operations will make the value chain more complex with many linkages that NFC must have the capability to attend to.

3. Option (a): Cellular Manufacturing

Reason

The correct answer is – Cellular Manufacturing (i.e., group machines into working cells) that will reduce excessive work-in-process inventory and defective parts. A working cell is a small cluster of machines which can be run by a single machine operator. This individual machine operator takes each output part from machine to machine within the cell; and thus, there is no way for work-in-process to build up between machines.

CASE SCENARIO 58

National Fabric Company (NFC) is a leading manufacturer of Khadi fabric that is further made up into dresses and suits. NFC was established 4 decades ago and presently enjoys the reputation as producer of quality fabric. The popularity of “Made in India” concept in the recent years, has led to a change in demand for Khadi fabric. NFC manufactures this fabric in designs established many years ago keeping its traditional nature intact. The manufactured fabric is further sold to designing and weaving companies who would then convert them into traditional Khadi attire like Kurtas, Shirts etc. Hence, currently NFC does not have any direct reach with textile retail outlets or final customers.

Management team at NFC believe in integration (vertical and horizontal) and diversification (product range or market reach) as tool of risk reduction and value enhancement (profit too).

NFC opts for acquiring ‘Skylark Designer Clothing’ (SDC). SDC is operating in designing and weaving of fabric into fashion wears which are mainly made from modern fabric material (for example satin, chiffon, velvet etc.) that give required gloss, style and look. SDC is targeting the customers who are in age group from 18 to 30 years. Customers in this category comprise of fashion-conscious youth, for whom looking “in vogue” would be a desired preference. Due to its high-quality sourcing of materials, young and dynamic fashion designers and well spread distribution channels, SDC is a very profitable enterprise. SDC’s apparel are sold in different retail textile outlets that have a national presence.

Management of NFC plans to revamp the entire business operation of SDC. Due to their focus on a specific customer segment, in terms of scale of operations SDC is relatively smaller as compared to NFC. The management of NFC then plans to replace fashion apparel line with Khadi apparel. NFC will expand its capacity to manufacture more Khadi fabric, given that demand for the “Made in India” product. It will use SDC’s facilities and manpower for designing and weaving the fabric into traditional attire. Using SDC’s national wide distribution network, it plans to gain access to retail outlets that sell the textile to the end user. The target audience would be of every age group.

MULTIPLE CHOICE QUESTION

1. Which would best describe NFC's acquisition of SDC?
 - (a) Backward organic integration
 - (b) Backward un organic integration
 - (c) Forward organic integration
 - (d) Forward un organic integration
2. What would be the competitive advantage that NFC would gain by acquiring SDC?
 - (a) Broad Target with Differentiation
 - (b) Narrow Target with Differentiation focus
 - (c) Broad Target with Cost Leadership
 - (d) Narrow Target with Cost Focus

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Forward organic integration**Reason**

The correct answer is Forward organic integration. NFC is currently only a manufacturer of Khadi fabric with no access to further segments of the value chain. By acquiring SDC, it (1) plans to expand its own scale of operations to manufacture more Khadi fabric, (2) It plans to use SDC's capabilities to gain access to designing, weaving resources as well as SDC's well established national distribution network with retail textile outlets. Hence, point 1 makes it an organic growth and point 2 makes it a forward integration.

2. Option (a): Broad Target with Differentiation**Reason**

The correct answer is Broad Target with Differentiation. Broad target since the target group is from all age groups. Differentiation is because NFC's products are unique due to their traditional nature and their concept of catering to the demand for "Made in India" products.

CASE SCENARIO 59

National Fabric Company (NFC) is a leading manufacturer of Khadi fabric that is further made up into dresses and suits. NFC was established 4 decades ago and presently enjoys the reputation as producer of quality fabric. The popularity of “Made in India” concept in the recent years, has led to a change in demand for Khadi fabric. NFC manufactures this fabric in designs established many years ago keeping its traditional nature intact. The manufactured fabric is further sold to designing and weaving companies who would then convert them into traditional Khadi attire like Kurtas, shirts etc. Hence, currently NFC does not have any direct reach with textile retail outlets or final customers.

Management team at NFC believe in integration (vertical and horizontal) and diversification (product range or market reach) as tool of risk reduction and value enhancement (profit too).

NFC opts for acquiring ‘Skylark Designer Clothing’ (SDC). SDC is operating in designing and weaving of fabric into fashion wears which are mainly made from modern fabric material (for example satin, chiffon, velvet etc.) that give required gloss, style and look. SDC is targeting the customers who are in age group from 18 to 30 years. Customers in this category comprise of fashion-conscious youth, for whom looking “in vogue” would be a desired preference. Due to its high-quality sourcing of materials, young and dynamic fashion designers and well spread distribution channels, SDC is a very profitable enterprise. SDC’s apparel are sold in different retail textile outlets that have a national presence.

With integration and diversification is the main reason for NFC’s acquisition of SDC. NFC plans to retain the business operations of SDC as it is without changing much of the current structure.

MULTIPLE CHOICE QUESTION

1. Which of the following would best describe the acquisition of NFC of SDC?
 - (a) Backward organic integration
 - (b) Backward un organic integration
 - (c) Forward organic integration
 - (d) Forward un organic integration

2. What would be the competitive advantage (from SDC's business model) that NFC would gain by acquiring SDC?
- (a) Broad Target with Differentiation
 - (b) Narrow Target with Differentiation Focus
 - (c) Broad Target with Cost Leadership
 - (d) Narrow Target with Cost Focus

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Forward un organic integration

Reason

The correct answer is forward un organic integration. NFC is currently only a manufacturer of Khadi fabric with no access to further segments of the value chain. By acquiring SDC, it is going for an un organic integration by acquiring another company, (Organic integration would be one where the company uses internal growth to expand operations) NFC is expanding its operations in the form of extending its reach further in the value chain. SDC's business would give NFC access to textile retail outlets. This makes it a forward un organic integration.

2. Option (b): Narrow Target with Differentiation Focus

Reason

The correct answer is Narrow Target with Differentiation focus. SDC currently targets only customers within the age group from 18 years to 30 years. They are not targeting any other segment. Hence, this is a narrow target. To them, they sell stylish, "in vogue" fashion apparel that appeals to the youth. This is Differentiation focus.

CASE SCENARIO 60

Marcus Neo-Fashion Limited (MNFL) is leading brand in fashion world. Company is dealing in both fabric and readymade garments. Since the company was established long ago, hence has well established SOPs. Management at MNFL is highly concerned with performance and productivity.

In order to determine and appraise the performance, MNFL conducts fortnightly meetings of heads of different responsibility centres apart from quarterly master meeting. In master meeting each of such departmental head need to present report for his department on following aspects–

Performance Matrix Dashboard at MNFL

Criteria	Indicators
I	Average Capital Employed in department with detailed information of source and nature (working or permanent capital)
II	Revenue and Earnings
III	Output (in terms of no of units and per employee productivity)
IV	Existing Clients and New Customer added with data on market share

In one of recent such master meetings, which was chaired by CEO, newly appointed VP-HR quoted 'Intellectual capital is as critical as financial capital in order to ensure smoothening, success and sustainability of any business' hence employee where so ever lagged in technical skills, it is essential and important to work on his skills in order to enhance the productivity. VP-HR said at MNFL ratio of skilled, semi-skilled and unskilled worker are 1:2:6, which needs to be worked at. He also insists to roll-out new wage policy which should support 'Performance Related Pay'. He said, 'I don't know much about enterprise performance, but I strongly believe that performance indicators must include performance of employees in term of their skill and knowledge'.

Immediately *VP-Finance* said existing performance matrix is essentially focused EV/ EBIT and returns on capital hence sufficient from perspective of performance appraisal. Hence there is no major need to consider impact and

effect of human capital. He also added that entities revenue is growing @ of 14% and earning is growing at 12% which 4% on higher side than industry. He said present rate of ROI is 11.5% which is better than industry average of 9%; and Market Cap is also doing well.

VP-Finance countered by *VP-Planning & Operations*, according to him 'skilled labour will be added advantage in order to develop 'zed' culture i.e., zero accidents, zero defects, zero delays, zero inventory, zero breakdowns, zero changeovers, zero waste'. He also said skilled labour can also add value by incorporating innovations. He quoted presently average defect rate is 1.5% of total production.

On this *VP-Marketing* add 'skilled employee means better process and better processes leads to competent value chain which can serve highly customised product; hence preconceived quality (conformance to customers' need) leads to strong brand equity.

Chief Information officer support *VP-Marketing* and *VP-HR* by quoting the position of brand can be improved by product development. Newly developed product will meet and set, latest style statement in market; eventually help MNFL to acquire new customers within existing marketing without incurring much on advertisement or sales and promotion. Skilled labour can easily bring innovation to the product.

MULTIPLE CHOICE QUESTION

1. What are the objectives of performance management indicators?
 - i Evaluating the achievements of organisation strategic objective
 - ii Evaluating the performance of the employees
 - iii Provides an objective basis for compensating employees
 - iv Assess the quantitative performance of an organization with its benchmarks only

Options

- (a) ii and iii
- (b) i, ii and iii

-
- (c) i, ii and iv
- (d) i, ii, iii and iv
2. Which are the non-financial performance indicators mentioned in the case scenario?
- I Skill, Attrition and Job Satisfaction of Human Resource
 - li Quality of Product
 - lii Brand Equity
 - Iv Reduction in Delivery Cycle Time
- Options
- (a) i, ii and iii
- (b) i, iii and iv
- (c) ii, iii and iv
- (d) i, ii, iii and iv
3. At present is Marcus Neo-Fashion Limited (MNFL) tracking any non-financial performance indicator at all?
- (a) Yes, MNFL in addition to capital employed and revenue and earnings is tracking output performance indicators in terms of quantity and per employee productivity
 - (b) Yes, MNFL in addition to capital employed and revenue and earnings is tracking customer retention and expansion of market share
 - (c) No, MNFL is tracking only financial indicators since output performance and market share eventually relate to financial profits
 - (d) Yes, MNFL in addition to capital employed and revenue and earnings is tracking both production output (output quantity and employee productivity) and market share (existing and expansion of customer base)

4. Match the non-financial performance models to their objectives:

Non- Financial Performance Model	Objectives
i. Balanced Scorecard	a. Performance assessment based on market related measures in addition to financial measures
ii. Performance Pyramid	b. Identify and track KPIs for CSFs in order to determine performance related rewards for employees
iii. Building Block	c. Better information for decision making with respect to perspectives like customers, financial, innovation & learning and business processes

Options

- (a) i-c, ii- a, and iii- b
- (b) i-c, ii- b, and iii- a
- (c) i-b, ii- a, and iii- c
- (d) i-b, ii- c, and iii- a
5. Which of the following is not true regarding the role of quality in performance measurement systems?
- (a) A strong costing system is a prerequisite for develop KPIs based on cost of quality that can be used as a basis for staff rewards
- (b) There is an inverse relation between the rigor of Quality Management System and the cost of non-conformance
- (c) Lean production system aims at reducing production activities to the minimum in order to improve quality performance
- (d) Good quality information practices improve the reliability, accuracy, timeliness, objectivity of Management Information Systems (MIS) that is used for performance measurement

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): i, ii and iii**Reason**

The correct answer is (i), (ii) and (iii). Statement (iv) is incorrect because performance management indicators assess qualitative performance in addition to quantitative performance of an organization. Therefore, an organization has both financial as well as non-financial indicators.

2. Option (a): i, ii and iii**Reason**

The correct answer is i, ii and iii as all the indicators mentioned are non-financial performance indicators. Financial performance indicators are those that relate to profits of the company like EBIT, growth of revenue, ROI etc. Delivery cycle time is not discussed in the scenario.

3. Option (d): Yes, MNFL in addition to capital employed and revenue and earnings is tracking both production output (output quantity and employee productivity) and market share (existing and expansion of customer base)**Reason**

MNFL in addition to capital employed and revenue and earnings is tracking both production output (output quantity and employee productivity) and market share (existing and expansion of customer base).

4. Option (a): i- c, ii- a, and iii- b**Reason**

The correct answer is i- c, ii- a, and iii- b

Balanced Scorecard - Better information for decision making with respect to perspectives like customers, financial, innovation & learning and business processes.

Performance Pyramid - Performance assessment based on market related measures in addition to financial measures.

Building Block - Identify and track KPIs for CSFs in order to determine performance related rewards for employees.

5. Option (c): Lean production system aims at reducing production activities to the minimum in order to improve quality performance

Reason

The correct answer is - Lean production systems aim at reducing waste in production activities to the minimum in order to get the right thing to the right place at the right time, first time. Hence, lean production results in improvement in performance thought.

CASE SCENARIO 61

Rabi Ltd. Manufactures its product from Divisions X and Y. Rabi Ltd. is considering the discontinuance of Division Y since it is incurring a net loss of ₹ 2,00,000. The production at Division X is going to remain unchanged. The following information is given:

Particulars	Divisions X	Division Y	Total
Sales (Maximum achievable) (₹)	50,00,000	7,00,000	57,00,000
Less: Variable cost (₹)	36,00,000	4,00,000	40,00,000
Contribution (₹)	14,00,000	3,00,000	17,00,000
Less: Specific avoidable fixed cost (₹)	2,00,000	5,00,000	7,00,000
Divisional Income (₹)	12,00,000	-2,00,000	10,00,000

The rates of variable costs are 90% of the normal rates due to the current volume of operation. There is adequate market demand.

For any lower volume of operation, the rates would go back to normal rates.

Specific avoidable fixed cost relates to the rental and property tax cost of the premises of Division Y, which operates from a prime business area.

Facilities released by discontinuing Division Y cannot be used for any other purpose.

MULTIPLE CHOICE QUESTION

1. If Division Y is discontinued, what will the increase in Variable cost be for Rabi Ltd?
 - (a) ₹ 3,60,000
 - (b) ₹ 4,00,000
 - (c) ₹ 4,44,444
 - (d) ₹ 4,20,000

2. If Division Y is discontinued, what will be the total savings and total increase in cost for Rabi Ltd on account of this decision?
- (a) Savings ₹ 5,00,000; Increase in cost ₹ 7,00,000; net loss ₹ 2,00,000
 - (b) Savings ₹ 5,00,000; Increase in cost ₹ 4,00,000; net benefit ₹ 1,00,000
 - (c) Savings ₹ 7,00,000; Increase in cost ₹ 7,00,000; no loss or benefit
 - (d) Savings ₹ 7,00,000; Increase in cost ₹ 4,00,000; net benefit ₹ 3,00,000
3. Rabi Ltd. is compelled to reconsider its decision of closing down Division Y because that could impact its brand image and pose challenges for re-establishment of the market for the product.

What type of consideration is being given weight to by the management by looking into these factors?

- (a) Relevant cost consideration
 - (b) Financial consideration
 - (c) Ethical consideration
 - (d) Non-financial consideration
4. Which of the following is not a limitation of non-financial consideration?
- (a) Subjective measurement that could be subject to bias and interpretation
 - (b) Improper measures will lead the companies to draw attention on wrong objectives
 - (c) Focuses on factors that can aid sustainability of the organization in the long run
 - (d) Possibility of error due to lack of statistical reliability

MULTIPLE CHOICE QUESTION

1. Option (b): ₹ 4,00,000

Reason

The correct answer is ₹ 4,00,000, if Division Y is shut down no variable cost will not be incurred at the division, it will be incurred only in division X. The current variable cost is at 90% of normal rates, hence $(₹ 36,00,000 / 90\%) = ₹ 40,00,000$ will be the total variable cost at full cost basis. Hence, the increase in variable cost will be ₹ 4,00,000

2. Option (a): Savings ₹ 5,00,000; Increase in cost ₹ 7,00,000; net loss ₹ 2,00,000

Reason

The correct answer is Savings ₹ 5,00,000 Increase in cost ₹ 7,00,000 therefore net loss ₹ 2,00,000.

Particulars	Amount (₹)
Savings Due to Discontinuance	
Specific Fixed Cost	5,00,000
Total (A)	5,00,000
Loss/ Increase in Cost Due to Discontinuance	
Loss of Contribution	3,00,000
Increase in Variable Cost	4,00,000
Total (B)	7,00,000
Excess of Loss Over Savings (B) – (A)	2,00,000

3. Option (d): Non-financial consideration

Reason

The correct answer is non-financial consideration. Information about an organization, like number of employees, employee morale, customer satisfaction that cannot be expressed in monetary terms is termed non-financial in nature. Non- financial information is long term focused and ensures profitability and sustainability in the long term for an organization thereby evaluating the internal performance of the company.

Brand image and challenges in re-establishing the market for a product are non-financial aspects that a business must look into taking a balanced view into consideration.

Closure of a branch/ division is not unethical and is driven by business considerations. Relevant cost by its nature is a financial consideration.

4. Option (c): Focuses on factors that can aid sustainability of the organization in the long run

Reason

The correct answer is non-financial consideration makes an organization focus on factors that can aid sustainability of the organization in the long run. This will improve its profitability in the long run and encourages establishing a sustainable business model.

CASE SCENARIO 62

A company follows Cost Volume Profit (CVP) analysis to arrive at the Break Even Point of Sales. The company produces two products, Product A and Product B both of which are manufactured in batches. As quarterly exercise, the management is reassessing its production schedule for the products.

Currently, a machine produces 25 units of Product A in one batch. The monthly production of Product A 10,000 units. After each batch of Product A is produced, a setup is required for setting up the machine to produce product B. The company wants to increase the batch size of Product A to 50 units of Product A in one batch. Therefore, the number of set-ups will reduce from 400 (10,000 units / 25 units) to 200 (10,000 units / 50 units). Due to larger batch production, additional inventory storage area would be required to store that will cost the company ₹ 75,000 per month extra. Given below is information about Product A –

Particulars of Product A	Activity Based CVP Analysis
Monthly demand and production	10,000 units
Selling Price per unit	₹ 5,000 p.u.
Variable cost price per unit	₹ 4,000 p.u.
Fixed cost per month (excluding any additional inventory storage area cost)	₹ 8,00,000 p.m.
Current number of set ups and cost	400 set ups @ ₹ 500 per set up
Proposed number of set ups and cost	200 set ups @ ₹ 500 per set up

MULTIPLE CHOICE QUESTION

- What is the current monthly Breakeven point of Product A in terms of units?
 - 1,000 units
 - 800 units

- (c) 900 units
 - (d) 975 units
2. What is the current monthly profitability of Product A?
- (a) ₹ 1,00,00,000
 - (b) ₹ 90,00,000
 - (c) ₹ 90,25,000
 - (d) ₹ 95,00,000
3. What is the monthly Breakeven point of Product A in terms of units after proposed change in batch size?
- (a) 1,000 units
 - (b) 800 units
 - (c) 900 units
 - (d) 975 units
4. What is the expected monthly profitability of Product A after proposed change in batch size?
- (a) ₹ 1,00,00,000
 - (b) ₹ 90,00,000
 - (c) ₹ 90,25,000
 - (d) ₹ 95,00,000
5. Should the company implement the proposed change of increasing the batch size from 25 units to 50 units of Product A?
- i Yes, the monthly profitability of Product A increases.
 - ii Yes, the company as lesser set ups improve the productivity of the machine
 - iii No, by increasing the batch size, the inventory storage area requirement increases, this reduces the monthly profitability of Product A
 - iv No, because lesser set ups reduce the productivity of the machine

Options

- (a) i only
 - (b) iv only
 - (c) i and ii
 - (d) iii and iv
6. Which of the following should not be included as labour cost while calculating set up cost?
- (a) Cost of temporary labour hired for set up
 - (b) Cost of permanent labour who are otherwise idle
 - (c) Overtime cost paid to labour for set up activities
 - (d) Opportunity cost of permanent labour who are otherwise engaged in some other revenue generating production activity
7. What type of inventory management system is the company following?
- (a) Pull system of inventory management
 - (b) Push system of inventory management
 - (c) Just in time production inventory management
 - (d) Batch level inventory management system

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): 1,000 units

Reason

The correct answer is 1,000 units is the current BEP of product A each month. Refer working in subsequent part.

2. Option (b): ₹ 90,00,000

Reason

₹ 90,00,000 is the current monthly profitability of Product A. Refer working in subsequent part.

3. Option (d): 975 units**Reason**

BEP is 975 units of product A after the proposed change in batch size. Refer working in subsequent part.

4. Option (c): ₹ 90,25,000**Reason**

₹ 90,25,000 is the expected monthly profitability of product A each month after the proposed change in batch size.

Particulars	Activity Based CVP Analysis	Activity Based CVP Analysis
	Current	Proposed
Selling Price per unit	5,000	5,000
Variable Cost per unit	4,000	4,000
Contribution per unit	1,000	1,000
Fixed Cost per month (per Activity Based method)	8,00,000	8,75,000
{Fixed Cost p.m. + (number of set-ups × cost per set-up)} / Contribution p.u.	= {₹ 8,00,000 + (400 × ₹ 500 per set-up)} / ₹ 1,000 per unit	= {₹ 8,75,000 + (200 × ₹ 500 per set-up)} / ₹ 1,000 per unit
Or, Break-even Point (per month in units)	1,000	975
Monthly Demand (units)	10,000	10,000
Profit per month = {Monthly demand (units) × Contribution per unit} – (Fixed Cost per month + Set-up cost per month)	90,00,000	90,25,000

5. Option (c): i and ii**Reason**

The correct answer is (i) and (ii) because the monthly profitability of Product A increases by ₹ 25,000 and lesser the number of set ups better the productivity of the machine. Set up costs will be lower. Since set ups are lesser, labour hour requirement will be lesser, which can be used to reduce costs or improve productivity elsewhere.

6. Option (b): Cost of permanent labour who are otherwise idle**Reason**

The correct answer is the cost of permanent labour who are otherwise idle, is not an additional cost that the company incurs on account of machine set up. It is a sunk cost and hence should not be included while calculating set up costs.

7. Option (b): Push system of inventory management**Reason**

The correct answer is Push System of inventory management, since inventory is being manufactured in anticipation of demand. Batch production is done in anticipation of demand and is not done based on actual client orders. This can also be inferred from the need for additional storage area on increasing the batch size production.

CASE SCENARIO 63

Kowloon Toy Company (KTC) expects to successfully launch Toy "H" based on a Disney character. KTC must pay a 20% royalty on the selling price to Disneyland.

KTC targets a selling price of ₹ 500 per toy and profit of 25% on the selling price.

The following are the cost data forecast:

	Cost Per unit of toy
Component H ₁	90
Component H ₂	70
Labour: 0.40 hr. @ ₹ 200 per hr.	80
Product Specific Overheads	20

In addition to the above, each toy requires 0.6 kg of other materials, which are supplied at a cost of ₹ 40 per kg with a normal 4% substandard quality, which is not usable in the manufacture.

MULTIPLE CHOICE QUESTION

- Calculate the target cost for per unit of Toy "H".
 - ₹ 400 per unit
 - ₹ 375 per unit
 - ₹ 500 per unit
 - ₹ 275 per unit
- Calculate the total cost of manufacturing of Toy "H".
 - ₹ 285 per unit
 - ₹ 286 per unit
 - ₹ 280 per unit
 - ₹ 290 per unit

3. What should be the cost reduction to meet the target cost of Toy "H"?
- (a) ₹ 11 per unit
 - (b) ₹ 12 per unit
 - (c) ₹ 10 per unit
 - (d) ₹ 15 per unit
4. Which of the following statements is false?
- (a) Target costing takes a market driven approach towards cost by shifting focus on creation of values that tend to the needs of the customers
 - (b) Target costing is capable to take into account initial design and engineering costs, as well as cost of manufacturing, distribution, sales, and services
 - (c) Strategy of using target costing may affect the quality of the product negatively
 - (d) Cost reduction through target costing is temporary in nature
5. In which of the following industries is the likelihood of utility of target costing may perhaps be lower?
- i Assembly oriented industries where most of the product costs are committed in the design phase
 - ii Service oriented industries
 - iii Industries with high levels of competition
 - iv Industries involved in production of raw materials

Options

- (a) i and iv
- (b) ii and iv
- (c) i, ii and iii
- (d) i, ii, iii, iv

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): ₹ 275 per unit

Reason

The correct answer is ₹ 275 per unit of Toy H. Below is the calculation-

	₹ / Toy
Target Selling Price	500
Less: Royalty @20%	100
Less: Profit @ 25%	125
Target Cost	275

2. Option (a): ₹ 285 per unit

Reason

The correct answer is ₹ 285 per unit of Toy "H". Below is the calculation -

	₹/ Toy
Component H ₁	90
Component H ₂	70
Labour (0.40 hr. × ₹ 200 per hr.)	80
Product Specific Overheads	20
Other Material (0.6 kg / 96% × ₹ 40)	25
Total Cost of Manufacturing	285

3. Option (c): ₹10 per unit

Reason

The correct answer is ₹ 10 per unit of Toy "H". As explained above, the target cost is ₹ 275 per unit while the current cost of manufacturing is ₹ 285 per unit. Hence, the cost reduction should be ₹ 10 per unit.

4. Option (d): Cost reduction through target costing is temporary in nature

Reason

Cost reduction through target costing is permanent in nature. Target costing is not just a product costing system, but rather a management technique that aims at reducing the overall cost of a product (over the entire life cycle) with the help of productivity, value engineering, and effectiveness at the research and design phase.

5. Option (b): ii and iv

Reason

Target costing may be less useful in –

Service industries - In the services area, such as consulting, the bulk of all activities can be reconfigured for cost reduction when services are being provided directly to the customer.

Industries involved in production of raw materials - Production of raw materials has no design features. Instead, the industrial engineering staff tries to create the most efficient possible production process, which has little to do with cost reduction through the improvement of customer value.

CASE SCENARIO 64

H. Ltd. manufactures three products. The material cost, selling price and bottleneck resource details per unit are as follows:

Particulars	Product X	Product Y	Product Z
Selling Price (\$)	100	200	300
Material and Other Variable Cost (\$)	70	140	240
Bottleneck Resource Time (Minutes)	15	15	20

Budgeted factory costs for the period are \$2,00,000. The bottleneck resources time available is 1,25,000 minutes per period.

Company adopted throughput accounting and products are ranked according to 'product return per minute'.

MULTIPLE CHOICE QUESTION

- Which of the following is true regarding ranking of product as per product return per minute?
 - Rank 1 - Product X, Rank 2 - Product Y, and Rank 3 - Product Z
 - Rank 1 - Product Y, Rank 2 - Product X, and Rank 3 - Product Z
 - Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X
 - Rank 1 - Product X, Rank 2 - Product Z, and Rank 3 - Product Y
- Which of the following is true regarding ranking of product as per Throughput Accounting Ratio?
 - Rank 1 - Product X, Rank 2 - Product Y, and Rank 3 - Product Z
 - Rank 1 - Product Y, Rank 2 - Product X, and Rank 3 - Product Z
 - Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X
 - Rank 1 - Product X, Rank 2 - Product Z, and Rank 3 - Product Y
- Which of the following is not true regarding theory of constraints?
 - The optimum production of bottleneck activity should determine the production schedule of the non-bottleneck activities

- (b) The workers of non-bottleneck machines should be motivated to improve their productivity
 - (c) Constraint can be removed by elevating system bottlenecks
 - (d) Constraint can be removed by increasing bottleneck efficiency and capacity
4. Which of the following is not true regarding Theory of constraints / Throughput Accounting (TOC/ TA) based approach for product mix decisions?
- (a) The TOC/ TA approach focuses on push approach to production management as opposed to pull approach of Just in Time Management
 - (b) One of the disadvantages of the TOC/ TA approach is that there may be circumstances when operating expenses cannot be classified definitively as fixed
 - (c) Where the TA ratio is greater than 1 the product in question is profitable
 - (d) TOC/ TA approach has its main emphasis on quality of production

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X**

Reason

The correct answer is Rank 1 - Product Y, Rank 2 - Product Z and Rank 3 - Product X

Particulars	X	Y	Z
Selling Price	100	200	300
Variable Cost	70	140	240
Throughput Contribution	30	60	60
Minutes per unit	15	15	20
Contribution per minute	2	4	3
Ranking	III	I	II

2. Option (c): Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X

Reason

The correct answer is Rank 1 - Product Y, Rank 2- Product Z, and Rank 3 - Product X

Particulars	X	Y	Z
Selling Price	100	200	300
Variable Cost	70	140	240
Throughput Contribution	30	60	60
Minutes per unit	15	15	20
Contribution per minute	2	4	3
Factory Cost per minute (2,00,000 / 1,25,000)	1.6	1.6	1.6
TA Ratio (Cont. per minute / Factory Cost per minute)	1.25	2.5	1.875
Ranking Based on TA Ratio	III	I	II

3. Option (b): The workers of non-bottleneck machines should be motivated to improve their productivity

Reason

It is not true that the workers of non-bottleneck machines should be motivated to improve their productivity. Producing more non-bottleneck output results in an increase in WIP inventories. This is because the additional output cannot be processed by bottleneck machine. Therefore, the optimum production of bottleneck activity should determine the production schedule of the non-bottleneck activities.

4. Option (d): TOC/ TA approach has its main emphasis on quality of production

Reason

It is not true that the TOC/ TA approach places its main emphasis on quality of production. The main emphasis of this approach is to increase sales and sales volume.

CASE SCENARIO 65

Given data about Price (P) and quantity demanded (Q) given the following sales and demand data –

Selling Price per unit (P)	Number of units sold (Q)
₹ 100	500
₹ 90	480

MULTIPLE CHOICE QUESTION

- Find the linear relationship between P and Q.
 - $P = 350 - 0.5Q$
 - $Q = 350 - 0.5P$
 - $P = 350 + 0.5Q$
 - $Q = 350 + 0.5P$
- Find the equation for the Marginal Revenue based on your calculations above.
 - $MR = 350 - Q$
 - $MR = 350 + P$
 - $MR = 350 + Q$
 - $MR = 350 - P$
- What is the volume of sales / production (Q) when it is given that profit is maximum when marginal cost is ₹ 150 per unit?
 - 210 units
 - 200 units
 - 190 units
 - 220 units

4. Based on your calculation in (iii) above, at what selling price (P) is the profit maximum.
- (a) ₹ 220 per unit
 - (b) ₹ 240 per unit
 - (c) ₹ 230 per unit
 - (d) ₹ 250 per unit
5. The condition for profit maximisation is –
- (a) MC Curve cuts MR Curve from below
 - (b) MC Curve cuts MR Curve from above
 - (c) Slope of MC > Slope of MR
 - (d) Slope of MC = Slope of MR

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): $P = 350 - 0.5Q$

Reason

$$P = a - bQ$$

Where 'P' is the selling price per unit, a is the price at which demand is zero, Q is the quantity demanded.

$$-b = -0.5 \text{ (change in price / change in quantity demanded} = (\text{₹ } 100 - \text{₹ } 90) / (500 - 480) \text{ units} = -0.5)$$

Therefore, the equation is $P = a - 0.5Q$.

Substitute P and Q in the above equation to find 'a'

$$100 = a - (0.5 \times 500). \text{ Therefore, } a = 350 \text{ units.}$$

Therefore, the linear relationship between Price (P) and quantity demanded (Q) can be written as $P = 350 - 0.5Q$.

2. Option (a): $MR = 350 - Q$ **Reason**

Marginal Revenue = $a - 2bQ$ whereas calculated in (i) $a = 350$ units and $b = -0.5$

Therefore, the Marginal Revenue equation is $MR = 350 - 2(0.5)Q$; $MR = 350 - Q$

3. Option (b): 200 units**Reason**

When profit is maximum, as per the pricing theory Marginal Cost = Marginal Revenue = in this case ₹ 150 per unit.

From (ii) $MR = 350 - Q$. Therefore, $150 = 350 - Q$. Therefore $Q = 200$ units. This is the sales volume at which profit is maximum.

4. Option (d): ₹ 250 per unit**Reason**

Profit will be maximum when Selling Price (P) is ₹ 250 per unit.

From (iii) it is found that when sales volume is 200 units (Q) the profit is maximum because it is at this point that $MR = MC$.

From (i) the linear equation between P and Q is $P = 350 - 0.5Q$.

$$\begin{aligned}\text{Substituting } Q \text{ to be 200 units} \quad P &= 350 - 0.5(200) \\ &= 350 - 100 \\ &= ₹ 250\end{aligned}$$

Therefore, it can be concluded that when Selling Price (P) is ₹ 250, the sales volume (Q) is 200 units and the profit earned at this level will be maximum.

5. Option (a): MC Curve cuts MR Curve from below**Reason**

One of the two requirements for a firm to reach stable equilibrium is that its MC curve cuts the MR curve from below, not from above. The equilibrium created if the MC curve cuts the MR curve from above won't be stable because greater production could increase profits.

CASE SCENARIO 66

Nutty Bites produces many edible snacks that are very popular especially among children. Peanuts, Peanut oil are essential ingredients in many of its products. They are currently facing this ethical issue: Medical studies have indicated peanut allergic reactions are on the rise. The prevalence is more profound among children. Reactions can range from hives around the mouth to potentially life-threatening reactions when exposed even to the slightest trace of peanuts. There is growing media campaign to force companies like Nutty Bites to make disclosure about the presence of peanut on its package labelling.

Nutty Bites is a mid-size company that has a growing market. Risk to peanut exposure can come not just from the presence of peanuts in its products. Some of its bought-in ingredients (raw material input) are cooked in peanut oil. There are risks of “cross-contamination” amongst products. Let us say, an equipment has been used produce cookies that has peanuts. Next, the equipment is used, without being cleaned, to produce chips that does not have peanuts as an ingredient. Some portion of the peanuts / peanut oil could contaminate that specific batch of chips produced. Since labels of chips would not mention “peanuts” as an ingredient, it poses a potential risk of causing allergic reaction to a customer unaware of this contamination. Management of Nutty Bites has called for a meeting to discuss this issue. “The issue need not be addressed at all. After-all Nutty Bites is doing nothing against the law” is the opinion of many members on the board of the company.

MULTIPLE CHOICE QUESTION

1. Would you agree with the popular opinion with the management of Nutty Bites that “The issue need not be addressed at all. After-all Nutty Bites is doing nothing against the law”?
 - (a) Yes, the health and safety of consumers cannot be the responsibility of Nutty Bites. Hence, the issue need not be addressed at all.

- (b) No, food safety is a fiduciary duty that Nutty Bites owes to the society. Corporate Social Responsibility (CSR) is the duty an organization has towards a wider community. Hence, Nutty Bites has to take steps to address the problem.
 - (c) Yes, Nutty Bites is doing nothing against the law. Hence the issue need not be addressed at all.
 - (d) Yes, Nutty Bites need not take any action as there is no lawsuit filed against the company from the customers.
2. Which of the following scenarios has a less chance of happening if Nutty Bites does not take any action?
- (a) On consuming the product, if the consumer faces a medical issue that gets traced back to the product manufactured by Nutty Bites, it could result in bad publicity that could damage its brand value
 - (b) It can increase the risk of potential legal action for tort or committing a civil wrong
 - (c) Operating in an ethical environment can increase employee morale and well being
 - (d) Profitability from sale of the products for the current month (short run) will be impacted
3. Which is not a non-financial consideration while considering any potential responses to address the health and safety issue?
- (a) Disclosure about the presence of peanut on its package labelling
 - (b) Machine sanitization to remove traces of peanut oil
 - (c) Increase in selling price of products to recoup the cost of making proposed changes
 - (d) Audit of upstream supply chain to get information of which bought in ingredients (raw material input) are cooked in peanut oil

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): No, food safety is a fiduciary duty that Nutty Bites owes to the society. Corporate Social Responsibility (CSR) is the duty an organization has towards a wider community. Hence, Nutty Bites has to take steps to address the problem.**

Reason

The correct answer is No, food safety is a fiduciary duty that Nutty Bites owes to the society. Corporate Social Responsibility (CSR) is the duty an organization has towards a wider community. Hence, Nutty Bites has to take steps to address the problem.

2. **Option (d): Profitability from sale of the products for the current month (short run) will be impacted**

Reason

The correct answer is - Profitability from sale of the products for the current month (short run) will be impacted. In the very immediate future, as mentioned the span of current month, it is unlikely that the profit will be impacted. However, in the long-term health and safety concerns about the product can lead to potential financial penalties, legal issues that can impact the brand image.

3. **Option (c): Increase in selling price of products to recoup the cost of making proposed changes**

Reason

The correct answer is - Increase in selling price of products to recoup the cost of making proposed changes is a financial consideration. The rest are non-financial considerations.

CASE SCENARIO 67

A company makes a single product with the following details:

Particulars	Current Situation	Proposed Situation
Selling Price per unit (₹)	10	10
Direct Cost per unit (₹)	5	5
Present number of setups per production period, (Before each production run, setup is done)	40	₹
Cost per set up (₹)	400	270
Production units per run	1,000	2,000
Engineering hours for production period	600	460
Cost per engineering hour (₹)	10	10

The company has begun Activity Based Costing of fixed costs and has presently identified two cost drivers, viz. production runs and engineering hours. The total current fixed costs are ₹ 97,000. After the above ABC analysis on production runs and engineering runs, ₹ 75,000 of the remaining fixed costs are yet to be analysed. There are changes as proposed above for the next production period for the same volume of output.

MULTIPLE CHOICE QUESTION

1. Given the information above, compute the number of setups (which will also be the number of production runs) after the proposed change.
 - (a) 20 production runs
 - (b) 18 production runs
 - (c) 24 production runs
 - (d) 22 production runs

2. Based on the calculation in (i) above, what is the total set up cost?
 - (a) ₹ 5,400
 - (b) ₹ 4,860
 - (c) ₹ 4,680
 - (d) ₹ 5,940
3. What is the break-even point in the current scenario?
 - (a) 19,200 units
 - (b) 19,320 units
 - (c) 19,400 units
 - (d) 19,420 units
4. What is the break-even point in the proposed scenario?
 - (a) 16,900 units
 - (b) 16,000 units
 - (c) 17,200 units
 - (d) 17,000 units
5. The break-even point in the proposed scenario will be achieved in _____ production run.
 - (a) 8th
 - (b) 9th
 - (c) 10th
 - (d) 11th
6. What do you infer from the above case scenario?
 - i Activity Based Costing showed that while costs may be fixed with respect to volume, they may not be fixed with respect to other cost drivers.
 - ii Analysing cost using cost drivers can open up opportunities to save costs

- iii It might be advisable to analyse the balance ₹ 75,000 fixed cost as well using Activity Based Costing
- iv A lower break even point after proposed changes increases the chances of being profitable

Options

- (a) i and ii
 - (b) i, ii and iv
 - (c) i, ii and iii
 - (d) i, ii, iii and iv
7. Given the above case scenario, if the management implements that proposed change in production, which among these will be a concern that the management needs to pay attention to?
- (a) Set up time for production runs reduces due to the proposed change in production
 - (b) Doubling the batch size can lead to the risk of machine downtime and more repairs and maintenance
 - (c) Break even point has reduced due to the proposed change in production
 - (d) Engineering hours required for production run reduces due to proposed change in production

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): 20 production runs

Reason

The correct answer is 20 production runs.

Total number of units produced currently = Production units per run × Number of set ups (which is also the number of production runs) = 1,000 units × 40 set ups = 40,000 units.

Batch size after proposed changes = 2,000 units. Therefore, the number of production runs = 40,000 units / 2,000 units = 20 production runs.

2. Option (a): ₹ 5,400

Reason

The correct answer is ₹ 5,400. Total set up costs = 20 set ups × ₹ 270 per set up.

3. Option (c): 19,400 units

Reason

The correct answer is 19,400 units.

Total fixed cost = ₹ 97,000 and contribution per unit = ₹ 5 per unit (selling price ₹ 10 – direct cost ₹ 5).

Hence, Break-even point = fixed cost / contribution per unit = 97,000 / 5 = 19,400 units.

4. Option (d): 17,000 units

Reason

The correct answer is 17,000 units.

Total fixed cost = ₹ 85,000 and contribution per unit = ₹ 5 per unit (selling price ₹ 10 – direct cost ₹ 5).

Hence Break-even point = fixed cost / contribution per unit = 85,000 / 5 = 17,000 units.

5. Option (b): 9th

Reason

The break-even point will be achieved in 9th production run (BEP 17,000 units / 2,000 units per batch) = 8.5 batch which is basically the 9th batch being produced.

6. Option (d): i, ii, iii and iv

Reason

The correct answer is all the statements are true.

7. Option (b): Doubling the batch size can lead to the risk of machine downtime and more repairs and maintenance

Reason

The correct answer is doubling the batch size implies that the machine runs for longer. The management has to consider whether this could lead to machine break down. In the long run this will lead to machine downtime and therefore more repairs and maintenance. Batch size is a non-financial factor which has a longer-term implication. Hence, while the company may be able to earn short term profits, it might not be profitable in the long term.

CASE SCENARIO 68

VServeU connects customers who require home services to service providers. Services provided include electrical, plumbing and similar home repair services at the customer's doorstep. The company owns the digital platform that uses algorithms to match users to service providers in the required locality. The working of the business model is relatively simple. The consumer in need of services, uses VServeU's application that is available on both Android and iOS phones. By specifying their requirement, they place a request through the app. The company's algorithm then matches the request with service providers who are registered with the company. Once a match is made with respect to the requirement, locality and cost, the service provider is despatched to the customer's home for providing the service.

In order to make the business more profitable, VServeU wishes to compete in the market based on quality and variety of services it can offer. Recent business trends indicate that services required by customers are more complex in nature that require an experienced service provider. Many times, they may require a host of service providers to address different home repair problems at the same time. Hence, VServeU wants to onboard agencies that offer different home repair services. These agencies hire different specialists who can work as a team while on assignments.

Agencies approach the platform to advertise their services on it. In return, VServeU helps the agency connect with customers who need their services. The agency benefits from this since its business reach expands exponentially using VServeU's platform. On the other hand, customers would prefer VServeU's platform since the quality and variety of services advertised is much more. Customers get it free, do not have to pay for using the VServeU application. This increases the popularity of the platform application, which in turn improves the visibility that the home repair agency can get. Higher visibility allows VServeU to charge a premium from agencies to advertise on its application platform. This makes the model more profitable for VServeU.

Once the assignment is complete, the customer can, using the VServeU application, rate the service agency on certain other parameters like cost,

quality, punctuality etc. and as also rate the digital platform provided by VServeU in terms of whether the customer expectations have been met, reliability etc.

MULTIPLE CHOICE QUESTION

1. Which is the business model that VServeU follows?
 - (a) Experience model
 - (b) On Demand model
 - (c) Subscription model
 - (d) Service ecosystem model
2. Which business model VServeU is planning to follow?
 - (a) Hidden Revenue model
 - (b) Razor Blade model
 - (c) Subscription model
 - (d) On Demand model
3. Which element of the business model canvas does the activity of customer rating and feedback represent?
 - (a) Customer relationship
 - (b) Key activity
 - (c) Channel
 - (d) Customer segment
4. VServeU is the first company in the country to offer convenient and standard quality home services to customers through the digital app platform. What kind of innovation does this represent?
 - (a) Transformational innovation
 - (b) Disruptive innovation
 - (c) Basic research
 - (d) Incremental innovation

5. Which is the key resource for VServeU as per the business model canvas?
- (a) The digital platform operating on applications
 - (b) Service providers
 - (c) Customers
 - (d) Both customers and service providers

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): On Demand model

Reason

The correct answer is On Demand model, the digital platform connecting customers to service providers has made accessibility of service easier and convenient and "on demand" for the customer. VServeU earns a commission for matching the customer with the service provider.

2. Option (a): Hidden Revenue model

Reason

The correct answer is Hidden Revenue Model, also known Advertising model. This is a subset of the Free Business Models. The customer, user of the application platform, does not pay. The application instead earns revenue from the advertiser, who is the agency providing home repair solutions. The value proposition here is to connect customers to agencies that provide high quality service for a variety of home repair needs.

3. Option (a): Customer relationship

Reason

The answer is Customer relationship, where the company engages with the customer regarding the service. VServeU uses the feedback and ratings to improve its services that will help it develop a loyal customer base.

4. Option (b): Disruptive innovation**Reason**

The correct answer is disruptive innovation as it is challenging the existing industry. The company is making home services easily accessible to customers in need of them while also providing the platform to service providers to expand their reach. Its online presence is bound to help extend the reach of services. Hence, the company is disrupting the current industry by making services easily available to a broader customer base.

5. Option (a): The digital platform operating on applications**Reason**

The correct answer is the Digital platform operating on applications is the key resource of VServeU. It is this algorithm that matches customers to service providers. This is the key resource to deliver on the value proposition to both customers and service providers. Customers and service providers form part of the customer segment on the business canvas.

CASE SCENARIO 69

VServeU connects customers who require home services to service providers. Services provided include electrical, plumbing and similar home repair services at the customer's doorstep. The company owns the digital platform that uses algorithms to match users to service providers in the required locality. The working of the business model is relatively simple. The consumer in need of services, uses VServeU's application that is available on both Android and iOS phones. By specifying their requirement, they place a request through the app. The company's algorithm then matches the request with service providers who are registered with the company. Once a match is made with respect to the requirement, locality and cost, the service provider is despatched to the customer's home for providing the service.

In general, customers have safety concerns about using the services of unknown professionals at home. To address this problem, VServeU has taken the onus of doing thorough background check and police verification of all service providers to ensure the safety of the customer. The other challenge is to keep the standard of service delivery uniform across service providers. This is vital for the company to ensure that the quality of service is as per standard irrespective of whichever service provider is deployed for the request. For this, the service providers are given training and are groomed for the service. They are also provided full equipment and other tools so that the customer gets an enhanced experience of getting service with least inconvenience.

Each time a service request is placed on the application, the customer makes an upfront payment. VServeU retains a part of it as commission for its service and the balance is passed onto the service provider. This commission-based revenue forms a large chunk of its revenue source.

MULTIPLE CHOICE QUESTION

1. Which is the business model that VServeU follows?
 - (a) Experience model
 - (b) Service ecosystem model

-
- (c) Subscription model
- (d) On Demand model
2. Who form the customer segment of VServeU on the business model canvas?
- (a) Customers who need the service
- (b) Service providers who provide the service
- (c) Both customers and service providers
- (d) All current and future customers
3. Which of the following are the value propositions for VServeU as per business model canvas?
- i Providing quality home services on demand to customers conveniently at their doorstep.
- ii Expanding the service reach of the service provider
- iii Getting access to training and tools to provide the service effectively
- iv Providing service at cost efficient rates
- Options
- (a) only i
- (b) i and ii
- (c) i, ii and iii
- (d) i, ii and iv
4. Which is the key resource for VServeU as per the business model canvas?
- (a) The digital platform operating on applications
- (b) The service providers
- (c) The customers
- (d) Both customers and service providers

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): On Demand model**Reason**

The correct answer is On Demand Model, the digital platform connecting customers to service providers has made accessibility of service easier and convenient and "on demand" for the customer. VServeU earns a commission for matching the customer with the service provider.

2. Option (c): Both customers and service providers**Reason**

The correct answer is both customers and service providers form the customer segment for VServeU. The company earns a commission from the charges paid by the customer, the balance is passed onto the service provider. Service providers generate the commission revenue stream for the company and therefore are part of the customer segment.

3. Option (c): i, ii and iii**Reason**

The correct answer is i, ii and iii.

Statement i is a value proposition for the customer who gets the service on demand at their convenience.

Statement ii is a value proposition for the service provider as their service reach can expand using the company's application. Without this, the service provider would have to find his own ways of marketing his services typically depending on word of mouth or advertisements in local papers.

Statement iii is also a value proposition for the service provider, who gets a structured training to improve and implement his skills.

The case scenario above does not state that services will be provided at cost efficient rates.

4. Option (a): The digital platform operating on applications**Reason**

The correct answer is the digital platform operating on applications is the key resource of VServeU. It is this algorithm that matches customers to service providers. This is the key resource to deliver on the value proposition to both customers and service providers. Customers and service providers form part of the customer segment on the business canvas.

CASE SCENARIO 70

DG is a consumer goods multinational company well known for its personal health care and hygiene products. It manages world famous brands for products ranging from baby care, fabric care, home care, personal hygiene, skin care products. Traditionally it depended on its internal research and development team for innovation of new products. Over the years however, with increasing competition, the research was giving lesser payoffs. In the year 2000, its then CEO Mr. DKG saw that DG cannot meet its growth targets by spending more on R&D with lesser and lesser payoffs. Therefore, the "Connect and Develop" model was adopted partially opening up the research and development of products to experts from outside. While the core team of researchers and infrastructure would be in place, DG would also collaborate with external scientists, entrepreneurs, suppliers, and universities to create newer, better, and cheaper products. Through the internet, they partnered with platforms such as InnoCentives, Your-encore among others to reach out to the talent pool that can help generate and create ideas for its products. This is the "connect" part of the program. Using proven technologies, packages and products, viable ideas would then be assessed for improvement, scaling up and marketing. This is the "develop" part of the program.

In the following years, DG noticed that the connect and develop program substantially improved research productivity. Many products were launched that were influenced mainly by external expertise. Some of the well-known innovations are Swiffer Duster, Magic Eraser, Spinbrush etc. This created a sustainable innovation model for the company.

MULTIPLE CHOICE QUESTION

1. Match the following:

i. Converting ideas into viable products	a. Key Resources
ii. Platforms that connect P&G to the expert talent pool	b. Cost Structure
iii. Grow by creating newer, better and cheaper products	c. Key Activity

iv. Improving impact of R&D spend by bridging internal R&D with external expertise	d. Value Proposition

Options

- (a) i-a, ii- b, iii- c, iv- d
 - (b) i-c, ii- a, iii- d, iv- b
 - (c) i-c, ii- b, iii- a, iv- d
 - (d) i-b, ii- c, iii- d, iv- a
2. Which type of approach has DG taken for developing a sustainable business model?
- (a) Open innovation
 - (b) Sharing economy
 - (c) Closed loop production
 - (d) Social enterprises and benefit corporations

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1 Option (b): i- c, ii- a, iii- d, iv- b

Reason

Converting ideas into viable products – Key Activity

Platforms that connect DG to the expert talent pool – Key Resource

Grow by creating newer, better and cheaper products – Value Proposition

Improving impact of R&D spend by bridging internal R&D with external expertise – Cost Structure

2. Option (a): Open innovation

Reason

The correct answer is Open Innovation where a company collaborates with other organizations, groups of people, or individuals to generate and commercialize new ideas. This type of collaboration is especially suited to dealing with the complex interdependencies that characterize the transition to a more sustainable built environment.

CASE SCENARIO 71

"Be Informed" is a monthly magazine that focuses on current affairs, economics, international business, technology and culture. Few college students pursuing their course in Mass Communication had started this as a summer project. During the course of their project, they realized that there was a gap in the news media sector for in depth analysis on the afore-stated topics. Hence, this project was scaled up to become a regular business which has continued successfully for the last 5 years. The magazine has both a print edition and an online edition. Readers of the print edition pay an annual fee; the magazine is posted to their correspondence address each month during the year.

Due to ongoing economic slowdown, advertisement spend by companies have reduced across all mediums. Accordingly, advertisement revenue from the print version has been on the decline over the last 2 years. The annual fee income from readers alone will not be sufficient to support the print version of the magazine in the long run. To address this, the publishers decided to offer the online edition of the magazine. Readers of the online version create a login on their website, sharing personal details and reading preferences. They can access up to 5 articles each month free of cost. Beyond this the reader has to pay a subscription fee to access articles. A reader may be willing to pay for these articles because of the insight these in-depth analytical articles offer.

MULTIPLE CHOICE QUESTION

1. Identify the business model that is followed for the print edition of "Be Informed".
 - (a) Freemium model
 - (b) Subscription model
 - (c) Advertising model (Hidden Revenue model)
 - (d) Cross Subsidisation model
2. Identify the business model that is followed for the online edition of "Be Informed".
 - (a) Freemium model

- (b) Subscription model
 - (c) Advertising model (Hidden Revenue model)
 - (d) Cross Subsidisation model
3. What would be an appropriate Key Performance Indicator to determine if the business model of the online version of "Be Informed" is successful?
- (a) Number of readers creating their user account on the website
 - (b) Number of readers reading the 5 articles each month free of cost
 - (c) Number of users upgrading their account to access further online articles
 - (d) Advertisement revenue increase for the online version of the magazine
4. What is the objective of publishers following the business model as described in the question for their online edition of the magazine?
- i To reduce the reliance on advertisement as an income stream for the online edition
 - ii Corporate social responsibility of offering few articles for free to a user who creates an account on their website
 - iii To charge a premium for the value that the magazine is creating for the reader in the form of insights from its in depth analysis
 - iv To popularise and increase the readership of the magazine
- Options
- (a) i, ii and iv
 - (b) iii and iv
 - (c) i and iv
 - (d) i, iii and iv
5. "Be Informed" is a monthly magazine that provides an analytical viewpoint of on various subjects. The accuracy and relevance of these analytical write up would fall under which attribute of the Kano Model?
- (a) Threshold Attribute
 - (b) Excitement Attribute

- (c) Reverse Quality
- (d) Indifferent Quality

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Subscription model

Reason

The correct answer is Subscription model. The readers of the print edition have to pay an annual fee (subscription) to receive their magazine.

2. Option (a): Freemium model

Reason

The correct answer is Freemium model. Users share their personal information and preferences while creating an account on the website. 5 articles can be read free of cost of the online edition. Beyond this the reader has to pay a subscription fee to access articles. Hence, the product is first offered for free and for further access subscription fee has to be paid. Therefore, this is a freemium model.

3. Option (c): Number of users upgrading their account to access further online articles

Reason

Key Performance Indicator for the online version of the magazine (Freemium Model) would be the conversion of free users to subscription paying users. This is shown by the number of users upgrading their account to access further online articles.

4. Option (d): i, iii and iv

Reason

Statement i – It is given in the question description that the economic slowdown has reduced the advertisement spend of companies across all mediums. Hence, it is important to create an independent revenue stream for the magazine, which the publishers have done in the form of charging subscription fee for the magazine beyond 5 articles a month.

Statement iii – It costs to run and publish a magazine, hence it would be prudent to charge for the valuable insights that the reader derives from the in depth analysis of these articles. Hence, the Freemium business model followed here charges a fee for the premium product articles.

Statement iv – The idea of offering 5 articles for free each month to every reader is to spark their interest in the magazine and popularize it. This is the way to increase the conversion of readers from free model to a paying reader.

5. Option (a): Threshold Attribute

Reason

The correct answer is Threshold attribute of the Kano Model. Threshold attribute is the characteristics that are taken for granted, but when not met lead to dissatisfaction of the customers. If the articles are not accurate and relevant, the readers would be dissatisfied with the magazine and may slowly switch to other resources for information.

CASE SCENARIO 72

Buymore is an ecommerce company that connects retail buyers and sellers of wide range of products in consumer electronics, home essentials, fashion etc. It does not own any of the products, rather it connects the sellers of these brands to the buyers through its website. The company earns a seller fee for the sales made through the website. Buyers pay a yearly subscription fee in order to access the website services.

Data analysts at Buymore noticed that with penetration of internet connectivity, buyers in rural Indian towns have aspirations to procure many of the products sold on the website. Likewise, many of the sellers who are registered with Buymore are mainly medium to small scale entrepreneurs who do not have the capability of storing and shipping the goods beyond certain geographical limits from their main area of operation. Due to their inability to invest in warehousing and shipping services, sellers are unable to expand the reach of their products to newer markets. This is the reason most of the sales that are routed through the Buymore website are in more localized markets concentrated in mainly in the big cities.

Buymore is a well established company, that has the resources to rent out/ own warehouses and also to provide shipping services over road and railway means of transport. Therefore, to address the problem of the sellers' inability to expand their product reach, Buymore has decided to provide warehousing and shipping services. This will be provided at a charge in addition to the seller fee that is paid on each sale. This move will alleviate the pain faced by the sellers in expanding their product reach. It will also create gain to the buyers in rural Indian markets since they can now buy these products online.

MULTIPLE CHOICE QUESTION

1. What type of business model does Buymore follow?
 - (a) Hypermarket model
 - (b) Digital Platform model

-
- (c) Freemium model
 - (d) Service Ecosystem model
2. Who are the customers of Buymore?
- (a) The sellers who register on their website
 - (b) The buyers who register on their website
 - (c) The sellers and buyers who register on their website
 - (d) The sellers and buyers who do not register on their website
3. The aspirational need of buyers in rural Indian towns as well as the need of the sellers to expand their product reach represent which of the following in the Value Proposition Canvas?
- (a) Customer Jobs
 - (b) Customer Pains
 - (c) Customer Gains
 - (d) Gain Creators
4. Inability of sellers to invest in warehousing and storage facilities represents which of the following represents in the Value Proposition Canvas?
- (a) Customer Jobs
 - (b) Customer Pains
 - (c) Customer Gains
 - (d) Pain Relivers
5. Which of the following elements have acted as a pain reliver and/or a gain creator to each of Buymore's customers?
- i Risk reduction
 - ii Accessibility
 - iii Performance
 - iv Convenience

Options

- (a) i and ii
- (b) ii and iv
- (c) i and iii
- (d) i and iv

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Digital Platform model

Reason

The correct answer is Digital Platform model. More specifically Buymore follows the Business to Consumer digital platform Model. Buymore is a digital platform that connects business to retail consumers.

2. Option (c): The sellers and buyers who register on their website

Reason

The correct answer is – the sellers and buyers who register on their website. There are two revenue streams for Buymore, the seller fee collected on sales made through the website and the yearly subscription fees that the buyers pay to access the services.

3. Option (a): Customer Jobs

Reason

The correct answer is Customer Jobs. Customer Jobs describes the important issues that business's customers are trying to solve/resolve in their work, it could be their needs that they wish to satisfy or may be a task that they try to perform and complete in their life (professional and personal) or at workspace. The aspirational need of buyers in rural Indian towns as well as the need of the sellers to expand their product reach represent a need that is unresolved.

4. Option (b): Customer Pains**Reason**

The correct answer is Customer Pains. Sellers who are registered with Buymore are its (Buymore's) customers. Inability to invest in warehousing and storage facilities have hindered their prospects of expanding their product reach. Hence, this represents customer pains on the value proposition canvas.

5. Option (b): ii and iv**Reason**

Accessibility is making products and services available to customers who previously lacked access to them. Convenience is making things more convenient or easier to use can create substantial value. By providing warehousing and shipping services to sellers registered with Buymore, the company has made it easier for these sellers to expand their product reach. Along with convenience, access to these services have been provided by Buymore. This is a pain reliever / gain creator for the sellers.

Also, for buyers in the rural Indian markets this move will provide them access to products that were previously not available to them. Procurement of these products can be done online on Buymore's website, which adds to the convenience aspect. This is a pain reliever / gain creator for the buyers.

CASE SCENARIO 73

JPY Motors Corp. is a race car manufacturer based in Iwaki (city name). The company manufactures cars primarily for professional car racers who participate in championships held all across the world. Race cars need high grade fuel that is specially used in high performance engines. The company has many engineers from allied fields who constantly research on ways to improve performance. They have recently proposed a change to the fuel composition that will make a marked improvement to the performance of the engine. This will have a direct and immediate impact on the training and career performance of the customers of JPY Ltd, who are all professional car racers.

Improved engine performance has a direct bearing on the careers of professional car racers. Improved engine performance will enable JPY Ltd to improve its market share in this niche market. This will have substantial impact on the financials of the company. Changing the fuel composition also requires the company to get approvals from the Government for meeting emission standards as well as safety standards for the car. Many environmental groups have hailed this change as the new fuel composition is made from more sustainable source of fuel, moving away from fossil fuels.

The adoption of new fuel composition will require a change in the engine design and components. Hence, material requirement for the new model will require changes to the procurement function of the supply chain. Currently, suppliers for key components like engine and its parts are based in the vicinity of JPY Motors's factory in Iwaki. However, the proposed changes will require the company to purchase the key engine component from suppliers based in Yokohama.

While manufacturing process undergoes a change due to change in engine design, there will be no significant variation in the assembly line operations for the new model. Most of the employees in the assembly line are hired on contractual basis and do not have any union to represent them.

The above consideration to change the fuel composition is being viewed a decision that will affect the company's strategic position. Before making their decision public, the senior management wants to first assess the power and

interest of various stakeholders who can influence this decision. As a management accountant, you need to assist the senior management to understand the type of information to be given to each stakeholder depending on their power to influence and their interest in the objective to change fuel composition.

Using Mendelow's Matrix, answer the following questions –

MULTIPLE CHOICE QUESTIONS

1. Which of the following stakeholders are in the high interest and high power group?
 - (a) Customers and Government regulators
 - (b) Customers and Board of Directors
 - (c) Government Regulators and Current Suppliers of key components
 - (d) Suppliers of key components and Employees at assembly line operations
2. Which of the following stakeholders are in the high interest and low power group?
 - (a) Current suppliers of key components and Environment activist groups
 - (b) Government regulators and Environment activist groups
 - (c) Employees at the assembly line and Current suppliers of key components
 - (d) Customers and Environment activist groups
3. Which of the following stakeholders are in the high power and low interest group?
 - (a) Employees at the assembly line
 - (b) Customers
 - (c) Current suppliers of key components
 - (d) Government regulators

4. Which of the following stakeholders are in the low power and low interest group?
 - (a) Employees at the assembly line
 - (b) Customers
 - (c) Current suppliers of key components
 - (d) Government regulators
5. With which group should the company actively engage in order while implementing the change?
 - (a) High power and low interest group
 - (b) Low power and high interest group
 - (c) High power and high interest group
 - (d) Low power and low interest group
6. With which stakeholders should the company keep informed while implementing the change?
 - (a) High power and low interest group, because they can be impacted by the decision
 - (b) Low power and high interest group, because they can join forces with a more powerful stakeholder to influence the decision
 - (c) High power and high interest group, because cannot influence the decision
 - (d) Low power and low interest group, because it is very relevant decision for them
7. With which stakeholder should the company ensure that they are satisfied while implementing the change?
 - (a) High power and low interest group
 - (b) Low power and high interest group
 - (c) High power and high interest group
 - (d) Low power and low interest group

8. With which stakeholder is minimum effort to be taken while implementing the change?
- (a) High power and low interest group
 - (b) Low power and high interest group
 - (c) High power and high interest group
 - (d) Low power and low interest group

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Customers and Board of Directors

Reason

The correct answer is Customers and Board of Directors. Customers who are professional car racers will be directly impacted by JPY's decision as it affects both their training and career performance. JPY Motors manufactures cars primarily for professional car racers, hence customers have both high power and high influence over this objective. The change will improve market share in this niche market segment and will have substantial financial impact on the company. The Board of Directors as stakeholders will have high power and high influence over this objective.

2. Option (a): Current suppliers of key components and Environment activist groups

Reason

The correct answer is Current suppliers of key components and Environment activist groups. Current suppliers of key components will be adversely impacted by this decision since procurement for the new engine model will happen from Yokohama. However, despite having high interest, they do not have the power to influence this decision directly. Environment activist groups have a high interest since the fuel composition impacts the environment directly, which in the case of this change will be a positive impact due to the sustainable nature of the fuel. However, they too do not have the power to influence the decision directly.

3. Option (d): Government regulators**Reason**

The correct answer is Government regulators. They have high power since the fuel composition change can be implemented only with their approval. However, they are not directly interested in the objective.

4. Option (a): Employees at the assembly line**Reason**

The correct answer is Employees at the assembly line. While manufacturing process undergoes a change due to change in engine design, there will be no significant variation in the assembly line operations for the new model. Most of the employees in the assembly line are hired on contractual basis and do not have any union to represent them. Hence assembly line employees have low power and low interest in this decision.

5. Option (c): High power and high interest group**Reason**

The correct answer is high power and high interest group. This will comprise of the customers will be directly impacted by the decision. Since the company manufactures the cars primarily for them, they need to be actively engaged while the decision is being taken. Likewise, since the financials and the market share of the company are going to be impacted, the board of directors will need to be actively engaged while the decision is being taken.

6. Option (b): Low power and high interest group, because they can join forces with a more powerful stakeholder to influence the decision**Reason**

The correct answer is low power and high interest group. This group will comprise of current suppliers of key components and environment activist groups. While they have low power, they can join more powerful groups like the customers (professional car racers) and then try to influence the decision. By keeping the group informed, the company is showing

consideration towards this group. This may make them less inclined to try to indirectly influence by joining forces with other groups. Similarly, environment activist groups do not have direct power to influence the decision. However, they are in a position to influence indirectly say by influencing the news media perception about the change. Hence, this group should also be given consideration and be kept informed about the change while it is being implemented.

7. Option (a): High power and low interest group

Reason

The correct answer is high power and low interest group. These would be the government regulators who need to give approval for the fuel composition change. They have high power since the fuel composition change can be implemented only with their approval. While they are not directly interested in this decision, they have the power to influence it. Hence, the company should ensure that relevant information is provided to keep them satisfied while implementing the change.

8. Option (d): Low power and low interest group

Reason

The correct answer is low power and low interest group. This would be the group of assembly line workers who are not impacted by the change. Hence, their interest is low in this decision. As employees they do not have a union representing them, hence their power is low. Since there is no direct impact on their working, the company need not to focus too much on this group while implementing the change.

CASE SCENARIO 74

A company has a division A producing three products called X, Y, Z. Each product can be sold in the open market in the following manner.

Maximum external sales are X 800 units, Y 500 units, Z 300 units.

Particulars	X	Y	Z
Selling price per unit (\$)	96	92	80
Variable Cost of production in Division A (\$)	33	24	28
Labour Hours required per unit in Division A	6	8	4

Product Y can be transferred to Division B, but the maximum quantity that might be required for transfer is 300 units of Y.

Division B could buy similar product in the open market at a price of \$45 per unit.

MULTIPLE CHOICE QUESTION

1. The number of hours needed for external sales are _____.
 - (a) 11,500
 - (b) 11,000
 - (c) 10,000
 - (d) 10,500
2. When Division A has capacity of 12,000 hours, which of the following statements are true?
 - i. Contribution per hour of X is \$10.50, Y is \$8.50 and Z is \$13
 - ii. The constraining factor is labour hours, which needs to be utilized optimally
 - iii. There is a shortfall 400 hours, to meet both external production and the request of 300 units of Y from Division B

- iv. Due to limited capacity Division A will incur an opportunity cost due to lost sales if it caters to the request of Division B

Options

- (a) i and ii
(b) ii, iii and iv
(c) i, iii and iv
(d) i, ii, iii and iv
3. When Division A has capacity of 12,000 hours, what will be optimum mix of production for external sales?
- (a) X - 800 units, Y - 500 units and Z - 300 units
(b) X - 800 units, Y - 600 units and Z - 300 units
(c) X - 800 units, Y - 250 units and Z - 300 units
(d) X - 800 units, Y - 800 units and Z - 300 units
4. Given that Division A has a capacity of 12,000 hours. If Division A accepts to produce 300 units of Y for Division B, what will be the contribution lost from reduced sales?
- (a) Contribution lost from reduced sales of X - \$3,400
(b) Contribution lost from reduced sales of Y - \$ 3,400
(c) Contribution lost from reduced sales of Y - \$2,550
(d) Contribution lost from reduced sales of Y - \$4,250
5. Given that Division A has a capacity of 12,000 hours. If Division A accepts to produce 300 units of Y for Division B, what should be the transfer price that should be charged to Division B at the minimum?
- (a) \$24 per unit
(b) \$45 per unit
(c) \$35.33 per unit
(d) \$92 per unit

6. Given that Division A has a capacity of 12,000 hours. If Division A accepts to produce 300 units of Y for Division B, what should be the transfer price range that should be charged to Division B?
- (a) \$24 per unit - \$45 per unit
 (b) \$45 per unit - \$92 per unit
 (c) \$35.33 per unit - \$45 per unit
 (d) \$92 per unit

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): 10,000

Reason

The number of hours needed for external sales are 10,000.

External Sales	Quantity (units)	Hours per unit	Total Hours need
X	800	6	4,800
Y	500	8	4,000
Z	300	4	1,200
Total hours needed for external sales			10,000

2. Option (d): i, ii, iii and iv

Reason

Statement i, ii, iii, iv are true.

The total hours needed for external sales is 10,000 and those need for internal transfer is 2,400 hours. In all, 12,400 hours are needed, when only 12,000 hours are available. There is a shortfall of 400 hours.

Capacity is hence limited. Since labour hours is the constraint, it should be used optimally for which the contribution per labour hour has to be calculated.

If Division A has to cater to the request from Division B, it has to account for opportunity cost from lost sales.

Contribution per hour of X is \$10.50 per unit, Y is \$8.50 per unit and Z is \$13 per unit.

Particulars	X	Y	Z
Selling Price per unit	\$96	\$92	\$80
Less: Variable Cost per unit	\$33	\$24	\$28
Contribution per unit	\$63	\$68	\$52
Labour hours per unit	6	8	4
Contribution per hour	\$10.50	\$8.50	\$13.00
Ranking high to low	II	III	I

3. Option (a): X - 800 units, Y - 500 units and Z - 300 units

Reason

The correct answer is X 800 units, Y 500 units and Z 300 units is the optimum mix for external sales. The entire demand of Product Z will be produced first. This requires 1,200 hours. Out of the balance 10,800 hours, Product X will require 4,800 hours. This leaves a balance of 6,000 hours for Product Y. Product Y requires 8 hours p.u. External sales of product require 4,000 hours (500 units × 8 hours p.u.). This leaves 2,000 hours available for production of 300 units of Y to be sold to Division B.

Priority	External Sales	Quantity units	Hours per unit	Total Hours needed	Remaining hours
1	Z	300	4	1,200	10,800
2	X	800	6	4,800	6,000
3	Y	500	8	4,000	2,000

For the internal demand of Product Y 300 units will require 2,400 hours (300 units × 8 hours p.u.). Hence, there is a shortfall of 400 hours to meet this internal demand. This shortfall of 400 hours will be made up with diverting hours earmarked for external sale of Product Y (Rank 3 as explained earlier).

4. Option (b): Contribution lost from reduced sales of Y - \$ 3,400**Reason**

Contribution lost from reduced sales of Y \$ 3,400.

As explained earlier, the shortfall of 400 hours to meet the internal requirement for Y is met by diverting hours earmarked for external sale of Product Y (Rank 3 as explained earlier).

Contribution Lost by Diverting 400 hours from Product Y for External Sales –

= 400 hours × contribution per hour

= 400 hours × \$8.5

= \$3,400

5. Option (c): \$35.33 per unit**Reason**

The correct answer is \$35.33 per unit.

On a per unit basis, lost contribution = $3,400 / 300 \text{ units} = 11.33 \text{ per unit}$

Therefore, Transfer Price

= Marginal Cost p.u. + Contribution Lost from Reduced External Sales

= $24 + 11.33$

= \$35.33 per unit

6. Option (c): \$35.33 per unit - \$45 per unit**Reason**

The correct answer is \$35.33 per unit - \$45 per unit.

Division B will be willing to buy within in this range below the external buy in piece of \$45 per unit. Division A will want to charge at the minimum \$35.33 per unit.

In order to recoup the contribution from lost sales. Hence this will be the range.

CASE SCENARIO 75

A company has a division A producing three products called X, Y, Z. Each product can be sold in the open market in the following manner.

Maximum external sales are X 800 units, Y 500 units, Z 300 units.

Particulars	X	Y	Z
Selling price per unit (\$)	96	92	80
Variable Cost of production in Division A (\$)	33	24	28
Labour Hours required per unit in Division A	6	8	4

Product Y can be transferred to Division B, but the maximum quantity that might be required for transfer is 300 units of Y.

Division B could buy similar product in the open market at a price of \$45 per unit.

MULTIPLE CHOICE QUESTIONS

1. The number of hours needed for external sales are _____.
 - (a) 9,000
 - (b) 10,000
 - (c) 12,000
 - (d) 11,000
2. When Division A has capacity of 8,000 hours, which of the following statements are true?
 - i. There is a shortfall 4,400 hours to meet both external production and request of 300 units of Y from Division B
 - ii. The constraining factor is labour hours, which needs to be utilized optimally
 - iii. Contribution per hour of X is \$10.50, Y is \$8.50 and Z is \$13

- iv. Due to limited capacity Division A will incur an opportunity cost due to lost sales if it caters to the request of Division B

Options

- (a) i and ii
(b) ii, iii and iv
(c) i, iii and iv
(d) i, ii, iii and iv
3. When Division A has capacity of 8,000 hours, what will be optimum mix of production for external sales?
- (a) X - 800 units, Y - 500 units and Z - 300 units
(b) X - 800 units, Y - 600 units and Z - 300 units
(c) X - 800 units, Y - 250 units and Z - 300 units
(d) X - 733 units, Y - 500 units and Z - 300 units
4. Given that Division A has a capacity of 8,000 hours. If Division A accepts to produce 300 units of Y for Division B, what will be the contribution lost from reduced sales?
- (a) Contribution lost from reduced sales of X - \$8,400 and Z - \$3,900
(b) Contribution lost from reduced sales of Y - \$17,000 and Z - \$3,900
(c) Contribution lost from reduced sales of Y - \$17,000 and X - \$8,400
(d) Contribution lost from reduced sales of Y - \$17,000 and X - \$4,200
5. Given that Division A has a capacity of 8,000 hours. If Division A accepts to produce 300 units of Y for Division B, what should be the transfer price that should be charged to Division B?
- (a) \$24 per unit
(b) \$45 per unit
(c) \$94.66 per unit
(d) \$92 per unit

6. In continuation of previous part..... Should Division B purchase Y from Division A?
- (a) Yes, purchasing from Division A promotes goal congruence
 - (b) No, the product Y is cheaper in the external market and hence Division B should purchase it from outside
 - (c) Yes, the product Y is marginally cheaper in the external market and hence Division B should purchase it from Division A to promote goal congruence
 - (d) No, the product Y is costlier in the external market and hence Division B should not purchase it from outside

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): 10,000

Reason

The number of hours needed for external sales are 10,000.

External Sales	Quantity (units)	Hours per unit	Total Hours need
X	800	6	4,800
Y	500	8	4,000
Z	300	4	1,200
Total hours needed for external sales			10,000

2. Option (d): i, ii, iii and iv

Reason

Statements i, ii, iii and iv are true when Division A has 8,000 hours of actual capacity.

Division A needs 10,000 hours for external sales and 2,400 hours for meeting Division B's request. Hence the total hours required is 12,400. Actual capacity is 8,000 hours. Hence there is a shortfall of 4,400 hours.

Since labour hours is the constraint, it should be used optimally for which the contribution per labour hour has to be calculated.

If Division A has to cater to the request from Division B, it has to account for opportunity cost from lost sales.

Particulars	X	Y	Z
Selling Price per unit	\$96	\$92	\$80
Less: Variable Cost per unit	\$33	\$24	\$28
Contribution per unit	\$63	\$68	\$52
Labour hours per unit	6	8	4
Contribution per hour	\$10.50	\$8.50	\$13.00
Ranking high to low	II	III	I

3. Option (c): X - 800 units, Y - 250 units and Z - 300 units

Reason

The correct answer is X - 800 units, Y - 250 units and Z - 300 units. The optimum production mix for external sales is calculated as –

Total hours available = 8,000 hours. The products are ranked as per their contribution per hour. Product Z yields the maximum contribution per labour hour, followed by X and Y (Refer to earlier part). Hence, hours will first be allotted to Z, then to X and the last to Y.

Priority	External Sales	Quantity units	Hours per unit	Total Hours needed	Remaining hours
1	Z	300	4	1,200	6,800
2	X	800	6	4,800	2,000
3	Y	250	8	2,000	NIL

The entire demand of Product Z will be produced first. This requires 1,200 hours. Out of the balance 6,800 hours, Product X will require 4,800 hours. This leaves a balance of 2,000 hours for Product Y. Product Y requires 8

hours per unit. Hence, maximum production of product Y = 2,000 hours/8 = 250 units.

4. Option (d): Contribution lost from reduced sales of Y - \$17,000 and X - \$4,200

Reason

Contribution lost from reduced sales of Y = \$17,000 and X = \$4,200.

If Division A accepts to produce 300 units of Y for Division B, the total hours required for internal sales would be 2,400 hours. This can be catered to by curtailing its external sales. 2,000 hours from production of external sales of Product Y is first diverted and the balance 400 hours are diverted from production of Product X. Hence this results in lost contribution, an opportunity cost that has to be included in transfer pricing.

Contribution Lost from Reduced External Sales –

$$\begin{aligned} &= \text{Product Y (2,000 hours} \times \text{contribution per hour of \$8.5)} + \text{Product X} \\ &\quad \text{(400 hours} \times \text{contribution per hour of \$10.5)} \\ &= \$17,000 + \$4,200 = \$21,200 \end{aligned}$$

5. Option (c): \$94.66 per unit

Reason

If Division A accepts to produce 300 units of Y for Division B, what should be the transfer price range that can be charged to Division B would be \$94.66 per unit.

On a per unit basis, lost contribution works out to \$21,200/ 300 units = \$70.66. Please refer to earlier parts for explanation for lost contribution.

Transfer Price = Marginal Cost p.u. + Contribution Lost from Reduced External Sales

$$= \$24 + \$70.66 = \$94.66$$

Since Division B can buy at \$45, it would be cheaper to purchase the component from outside.

- 6. Option (b): No, the product Y is cheaper in the external market and hence Division B should purchase it from outside**

Reason

No, the product Y is cheaper in the external market and hence Division B should purchase it from outside.

Transfer price set at as explained in earlier part is \$94.66 per unit. External buy in cost is \$45 per unit. Hence it would be cheaper to purchase from outside.

CASE SCENARIO 76

Speed Auto-mobile Limited (SAL) is recently formed Indian automobile company with aspiration to be global brand in upcoming decade. It enters into strategic alliance with enterprises based in Japan, Germany, and France for R&D support apart from sharing of latest technologies. SAL striving towards effectiveness and efficiency by better correlate system, strategy, staff, skill etc.

Mr. Deepak Gupta, the Management Accountant of SAL had experience of using 7-S framework in his previous job and willing to apply the same framework at SAL to support the drive for efficiency and effectiveness. He made presentation to C-suite. CEO is convinced with utility that 7-S framework is capable to produce. But she and some of officers have queries regarding the application of Mckinsey's 7-S; moreover, sceptic about; how SAL going to get maximum out of 7-S?

Mr. Gupta explained that 7-S are divided into two sets i.e., Soft and Hard elements based upon ease in their identification and degree of influence that management can exercise. He also explained the successful cases of US companies which used 7-S in drive towards efficiency and effectiveness.

Since concept is new for many of C-suite members, hence, MD-cum-CEO Ms. Catz asked Mr. Gupta to list out the 7-S with classification into Soft and Hard S elements and also stating reason and implications thereof.

Chief Strategic Officer Ms. Karen argues that business environment of US and India is not same, hence not wise to opt and implement 7-S framework applied by US firms. She asked Mr. Gupta to explain the steps that are involved in implementation of 7-S framework, so that a caution list can be prepared if it is decided to go ahead. She further raises the issue of change resistance.

HR head Mr. Ajai Singh asked, whether HR practices also covered by any one out of 7-S, or combination thereof. He took reference of role a leader play, stories and belief prevailing among employees, etc.

Chief marketing officer Mr. Andrew extended the point raised by Mr. Ajai and ask whether 7-S has bearing on generic strategies adopted by business. He took reference of various global automobiles companies to understand how these

automobile company with different generic strategies get advantage from 7-S framework.

Then, Chief Operating Officer Ms. Anjum Aggarwal whose KRA includes designing and implementation of SOPs willing to know whether adjustment can be made to all the S elements or only in some of them.

Some of question posed by C-suite are specified ahead, you are required to select most appropriate option for each of MCQ.

Students may take note, the C-suite refers to a company's top management positions, where the "C" stands for "chief." Various chief officers (e.g., CEO, CIO, CFO, etc.) are the occupants of the C-suite.

MULTIPLE CHOICE QUESTIONS

1. The McKinsey 7-S Framework highlights the _____ of the seven hard and soft elements.
 - (a) Interchangeability
 - (b) Independence
 - (c) Interconnectedness
 - (d) Intermittence
2. In context to question posed by Ms. Anjum, which of the following statement are correct –
 - i. If one area of the 7-S framework needs adjusting or tweaking for business success, the other S elements are presumed to be stable or remain constant i.e., *ceteris paribus*
 - ii. If one area of the 7-S framework needs adjusting or tweaking for business success, the other S elements are need adjusting too
 - iii. Hard S elements are easily identified and influenced by management comparing to Soft S
 - iv. Soft S elements are easily identified and influenced by management comparing to Hard S

Options

- (a) Only statement i and iii are correct
 - (b) Only statements ii and iii are correct
 - (c) Only statement i and iv are correct
 - (d) Only statements ii and iv are correct
3. In context of requirement to list out Hard and Soft S elements by Ms. Catz, the 'hard' elements of the 7-S framework include all of the following except –
- (a) Strategy
 - (b) Structure
 - (c) System
 - (d) Style
4. The McKinsey 7-S Framework is useful in which of these situations?
- i. Improving overall business performance
 - ii. Understanding worker termination process
 - iii. Examining effects of future change
 - iv. Aligning departments during a merger

Options

- (a) i and iii only
 - (b) i and iv only
 - (c) i, ii and iii only
 - (d) i, iii and iv only
5. Which of the following S element signify the superordinate goals?
- (a) Staff
 - (b) Shared Value
 - (c) Strategy
 - (d) Not covered by any of S element of 7-S

6. In context to question posed by HR head, Mr. Ajai Singh 'How the company's managers lead' falls under which S element of 7-S?
- (a) Skill
 - (b) Style
 - (c) Staff
 - (d) Not covered by any of S element of 7-S
7. In context of requirement to list out Hard and Soft S elements by Ms. Catz, the 'Soft' elements of the 7-S framework include all of the following except –
- (a) Skills
 - (b) Shared values
 - (c) Systems
 - (d) Style
8. Regarding concern highlighted by Ms. Karen in context to implementation of 7-S framework and change resistance, which of following statement are incorrect?
- i. Change agents can effectively implement the McKinsey 7-S model using a top-bottom approach
 - ii. Organisation should identify internal change agents or hire change consultants best suited to implement your changes

Options

- (a) Statement i only
- (b) Statement ii only
- (c) Both of the statement i and ii
- (d) None of the statement i and ii

9. In context of relation among the elements of 7-S framework and with the strategy which of following are incorrect:
- i. Strategy is one among the 7 elements of 7S framework that is core to all remaining elements of 7S
 - ii. All the element of 7S framework have equal importance
 - iii. Hard S elements have more important than Soft S elements
- Options
- (a) i and ii
 - (b) ii and iii
 - (c) i and iii
 - (d) None of the i, ii and iii

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Interconnectedness

Reason

The McKinsey 7S Model refers to a tool that analyses a company's 'organizational design'. The goal of the model is to depict how effectiveness can be achieved in an organization through the interactions of seven key and interconnected elements that are Structure, Strategy, Skill, System, Shared Values, Style, and Staff.

Note – All the 'S' of 7-S having same importance and impact on each other due to interconnectedness.

2. Option (b): Only statements ii and iii are correct

Reason

The goal of the 7-S framework is to depict how effectiveness can be achieved in an organization through the interactions of seven key and interconnected elements that are Structure, Strategy, Skill, System, Shared Values, Style, and Staff. Since all the S of 7-S impact each other due to interconnectedness, hence if one area of the 7-S framework needs

adjusting or tweaking for business success, the other S elements are need adjusting too.

The seven components of McKinsey's 7-S model are divided into two groups: hard S and soft S. The Hard S elements are Strategy, Structure, and Systems. The Soft S elements are Style, Staff, Skills, and Shared values. Since there is substantial involvement of human element in Soft S elements, which make change management relatively difficult; further Soft S elements are highly intangible and invisible in nature hence identification of underlying sub-set of Soft S elements are relatively difficult. Therefore, Hard S elements are easily identified and influenced by management comparing to Soft S.

3. Option (d): Style

Reason

Strategy, Structure, and Systems are feasible and easy to identify. These can be found in strategy statements, corporate plans, organizational charts, and other documentations. They are easier to change than the others. Therefore, called Hard S elements.

While Skills, Staff, Style, and Shared Values are called Soft S elements.

4. Option (d): i, iii and iv only

Reason

Understanding worker termination process is not covered by any S element of the 7-S Framework. While rest three are objectives or use-cases of 7-S.

5. Option (b): Shared Value

Reason

The superordinate goals signify what we stand for and are the glue that holds the organization together i.e., shared values (refers to the values the members of the organization share). When this model was suggested first, the term superordinate goals was used instead of shared value, later replaced with shared value.

6. Option (b): Style**Reason**

Style refers to the management style prevalent in a company that decides the level of employee productivity and satisfaction, including leadership styles (such as Autocrat, Bureaucrat, Democrat, Laissez-faire, Transformational and Transactional).

Staff represents the talent pool required, the size of the existing workforce, and their motivations.

Skill refer to the abilities of employees to complete tasks.

7. Option (c): Systems**Reason**

Strategy, Structure, and Systems are feasible and easy to identify. These can be found in strategy statements, corporate plans, organizational charts, and other documentations. They are easier to change than the others. Therefore, called hard S elements.

While Skills, Staff, Style, and Shared Values are not change-feasible. These are harder to describe since capabilities, values and elements of corporate culture are continuously developing and changing. They are highly determined by the people at work in the organization. Hence these are harder to change directly, and typically take longer to do so. Therefore, called soft S elements.

Note - Effective companies, however, tend to pay as much attention to these soft S factors as to the hard S's.

8. Option (d): None of the statement i and ii**Reason**

The change implementation stage is the most critical stage of any change initiative, and only well-implemented changes will avoid resistance to change and prevent overall change failures. Hence change agents can effectively implement the McKinsey 7-S model using a top-bottom approach. Moreover, the organisation should identify internal change agents or hire change consultants best suited to implement your changes.

A change agent, or agent of change, is someone who promotes and enables change to happen within any group or organization. In business, a change agent is an individual who promotes and supports a new way of doing something within the company.

9. Option (c): i and iii

Reason

All the elements of 7S framework have equal importance, while shared values are core to rest of elements. Hard and Soft S are different from each other only in respect to identification and influence that can be exercised by the management.

CASE SCENARIO 77

Given the information below

	Division A	Division B
Profit	₹ 50,00,000	₹ 12,00,000
Investment	₹ 5,00,00,000	₹ 80,00,000
Cost of capital	8%	8%

MULTIPLE CHOICE QUESTIONS

- What is the Return on Investment for Division A and Division B?
 - Division A 12%; Division B 15%
 - Division A 10%; Division B 15%
 - Division A 8%; Division B 8%
 - Division A 2%; Division B 7%
- What is the Residual Income for Division A and Division B?
 - Division A ₹ 50,00,000; Division B ₹ 12,00,000
 - Division A ₹ 40,00,000; Division B ₹ 6,40,000
 - Division A ₹ 10,00,000; Division B ₹ 5,60,000
 - Division A ₹ 90,00,000; Division B ₹ 18,40,000
- Which of the following summarizes the performance of Division A and Division B correctly-
 - The return on investment of Division B is more than Division A but in absolute terms the residual income of Division B is lower than of Division A
 - The return on investment of Division A is more than Division B but in absolute terms the residual income of Division A is lower than of Division B

- (c) The return on investment of Division B is more than Division A but in absolute terms the residual income of Division A is lower than of Division B
- (d) The return on investment of Division B is the same as Division A but in absolute terms the residual income of Division B is lower than of Division A
4. Based on the conclusion in above, which of the following are correct?
- Higher the residual income of the division necessarily means better the performance of the division
 - Residual income alone is the best measure of evaluating the performance of managers of Division A and B
 - It is not appropriate to use residual income as the only basis for evaluating the performance of managers of Division A and B
 - Return on investment along with residual income should be considered for evaluating the performance of managers of Division A and B
- Options
- i only
 - ii only
 - i and iv
 - iii and iv

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Division A 10%; Division B 15%

Reason

The correct answer is – Division A 10% and Division B 15%.

ROI = Profit / Investment

	Division A	Division B
Profit	50,00,000	12,00,000
Investment	5,00,00,000	80,00,000
ROI	10%	15%

2. Option (c): Division A ₹ 10,00,000; Division B ₹ 5,60,000

Reason

Residual Income is – Division A ₹ 10,00,000; Division B ₹ 5,60,000

Residual Income = Profit less Cost of Capital

Cost of Capital = 8% × Investment in Division

	Division A	Division B
Profit	50,00,000	12,00,000
Less: Cost of Capital	40,00,000	6,40,000
Residual Income	10,00,000	5,60,000

3. Option (a): The return on investment of Division B is more than Division A but in absolute terms the residual income of Division B is lower than of Division A

Reason

The return on investment of Division B (15%) is more than Division A (10%) but in *absolute terms* the residual income of Division B (₹ 5,60,000) is lower than of Division A (₹ 10,00,000).

4. Option (d): iii and iv

Reason

It is not appropriate to use Residual Income as the only basis for evaluating the performance of managers of Division A and B. The ROI of Division B (15%) is more than Division A (10%) but in absolute terms the residual income of Division B (₹ 5,60,000) is lower than of Division A (₹ 10,00,000). Hence, going by Residual Income alone, it seems that Division A is performing better than Division B. However, this is only because of the *difference in size of operation* of Division A and Division B. As per ROI, Division B is more profitable. Hence Return on Investment along with Residual Income should be considered for evaluating the performance of managers of Division A and B.

CASE SCENARIO 78

A1 is an organization that does trading of milk and milk products and operates within a large district in Uttar Pradesh, India. Milk producers (dairy farmers) sell quality milk and milk products which is then sent to retailers to be sold to customers. Each day the milk producers get the milk to the collection centre in the village. A sample of milk is drawn from individual lots to test the milk for quality. Once the quality check is passed, measurement of milk is done carefully, and the milk collected is recorded in the name of the individual milk producer. The milk is then brought to the main collection centre where further quality check is done. Once the quality test is passed, the milk is then packaged and dispatched in specially designed vans with coolers to retailers spread across various locations within the district. Consumers get their daily milk supplies from the retailers.

MULTIPLE CHOICE QUESTIONS

1. From the viewpoint of A1, procurement of good quality milk from dairy farmers best describes which of the following situations?
 - (a) Value chain management
 - (b) Upstream supply chain management
 - (c) Downstream supply chain management
 - (d) Triple bottom line
2. From the viewpoint of A1, ensuring distribution of milk packets to retailers well within the expiry date (milk being a perishable commodity) best describes which of the following situations?
 - (a) Value chain management
 - (b) Upstream supply chain management
 - (c) Downstream supply chain management
 - (d) Triple bottom line

3. In the recent years, A1 has been battling complaints about decreasing quality of products. Hence it is thinking of taking strategic decisions. One among them is to own dairy farms where the livestock are kept, instead of procuring the milk from dairy farmers individually. It is felt that this would standardize the rearing the livestock cattle (breed of cattle, their feed, milk collection procedure etc). This will also give better control over milk production and therefore improve quality of milk output. Which scenario best describes this scenario?
- (a) Value chain management
 - (b) Upstream supply chain management
 - (c) Downstream supply chain management
 - (d) Triple bottom line
4. The decision enumerated in (iii) above has raised concerns with the dairy farmers who stand to lose their livelihood. A1 has assured them that all the dairy farmers will be given employment within the dairy farms owned by the organization. Moreover, milk production will be based on sustainable methods which will ensure the good health of the livestock cattle as also that of the environment. The customers also benefit by getting farm fresh milk. A happy customer will be a loyal customer, thus ensuring the sustainability of business. A1 aims to develop a framework that will monitor and ensure the well-being of the livestock cattle and its dairy farmers, ensure sustainability practices that ensure that production is done in an eco-friendly manner. Which scenario best describes this scenario?
- (a) Value chain management
 - (b) Upstream supply chain management
 - (c) Downstream supply chain management
 - (d) Triple bottom line

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): Upstream supply chain management**Reason**

The correct answer is 'Upstream Supply Chain Management'. Procurement of good quality milk from dairy farmers refers to procurement of raw materials from suppliers, which is Upstream Supply Chain Management.

2. Option (c): Downstream supply chain management**Reason**

The correct answer is 'Downstream Supply Chain Management'. Distribution of milk within expiry date is a post-manufacturing activity that deals with the movement of finished goods to the retailer and therefrom the final customer.

3. Option (a): Value chain management**Reason**

The correct answer is 'Value Chain Management'. A1 essentially wants to do *vertical integration* to ensure that the quality of milk produced can be controlled. This decision relates to the procurement function of Porter's Value Chain Analysis.

4. Option (d): Triple bottom line**Reason**

The correct answer is 'Triple Bottom Line'. This is framework that organizations can adopt to ensure that their operations are being carried out in sustainable manner with respect to Profit, People and the Planet.

CASE SCENARIO 79

Bluebean coffee wishes to expand into other geographical markets. It has limited cash available and so can only afford a low upfront investment. Bluebean know that this is likely to mean they cannot enter the market as fast as they would like and that they will have to settle for a medium speed entry into the market. However, they have a management team that is experienced in the complexity of market expansion and want to involve them directly in the proposed expansion.

In the context of Bluebean Coffee's expansion plans, performance reports play a vital role in Responsibility Accounting by informing responsibility center managers about budgetary deviations, ensuring accountability in decision-making for market expansion. This allows them to take necessary actions to address these variances and maintain accountability within their respective areas of responsibility. The management of Bluebean Coffee ignored the need for undertaking managerial accountability. The Management is of the view that the performance reports can be reviewed anytime.

While preparing the Bluebean Coffee's performance report, it focused on following aspects:

- ◆ aligning objectives with organizational goals
- ◆ providing an executive summary
- ◆ ensuring the reliability of report details.
- ◆ conducting employee training programs

JavaJoy Coffee is a competitor of Bluebean Coffee operating in the same industry. Similar in size and resources, JavaJoy also aims to expand its market reach beyond its current geographical boundaries. However, unlike Bluebean, JavaJoy is more aggressive in its approach to market expansion.

However, what distinguishes JavaJoy from its competitors is its reliance on external consultants and market research firms for guidance in its expansion strategies. While JavaJoy's management possesses industry experience, they prefer to supplement their knowledge with insights from external experts. This approach provides JavaJoy with a broader perspective and access to specialized expertise.

MULTIPLE CHOICE QUESTIONS

1. Which of the following modes of entry is best suited to Bluebean's constraints and requirements?
 - (a) Licensing
 - (b) Acquisition
 - (c) Joint venture
 - (d) Strategic alliance
2. What factors most likely contribute to this performance difference between JavaJoy Coffee from Bluebean Coffee?
 - (a) Luck and random chance
 - (b) Differences in structure, culture, and strategy
 - (c) Government regulations
 - (d) Actions of individual employees
3. How does the issuance of performance reports align with Responsibility Accounting in Bluebeans Coffee?
 - (a) By informing responsibility center managers of deviations from budgets
 - (b) By solely focusing on financial performance metrics
 - (c) By undertaking performance evaluation through internal management team
 - (d) By ignoring the need for managerial accountability
4. Which aspect should typically not be involved in the preparation of performance reports of Bluebeans Coffee?
 - (a) Establishing objectives aligned with organizational goals.
 - (b) Adding an Executive Summary for a brief overview.
 - (c) Cross-checking details for report reliability.
 - (d) Conducting employee training programs.

5. According to you, can the performance reports be reviewed anytime?
- i. The performance reports can be reviewed anytime after receipt of the same.
 - ii. The performance reports needs to be reviewed within a month after receipt of the same.
 - iii. The performance reports can be reviewed within a quarter after receipt of the same.
 - iv. The performance reports can be reviewed within a year after receipt of the same.

Options

- (a) i
- (b) ii,iii
- (c) ii,iii,iv
- (d) iii,iv

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Strategic alliance

Reason

This option is correct because a strategic alliance allows a medium speed of entry to the market, involves managerial complexity but has the advantage of a low upfront investment. (note Strategic Alliance is less complex and less binding than a joint venture).

Option (a) is incorrect because licensing requires low managerial complexity and will not provide the opportunity to leverage the skills of their experienced management team.

Option (b) is incorrect because they have limited funds. Acquiring a company has a faster speed of entry than forming an alliance.

Option (c) is incorrect because a joint venture requires a medium up-front investment which Bluebean do not have, involves managerial complexity.

2. Option (b): Differences in structure, culture, and strategy**Reason**

Despite two businesses operating in the same industry, even at the same level and with the same set of resources, there is surely a difference in their performance level. The reason behind such a difference is the structure, culture, and strategy of said businesses.

The same factors mentioned above contribute to the difference in performance between JavaJoy and Blue Beans Coffee.

3. Option (a): By informing responsibility center managers of deviations from budgets.**Reason**

Responsibility Accounting is implemented by issuing performance reports at frequent intervals that inform responsibility centre managers of the deviations from budgets for which they are accountable and required to take action.

4. Option (d): Conducting employee training programs.**Reason****The aspects involved in the Preparation of Performance Reports:**

- ◆ Have a clear idea about the need and use-case for the user/ receipt.
- ◆ Establishment of Objectives in light of Organisational Objectives (Vision or Mission)
- ◆ Add an Executive Summary
- ◆ The Real Stuff - Performance Assessment

Thus, conducting employee training is not mentioned as an aspect in the preparation of performance reports of Bluebeans Coffee.

5. Option (c): ii,iii,iv**Reason**

Once the performance reporting has been established by the organization for its activities or for a specific project, the next step is to analyse the

information and take the required corrective (including preventive as well as feed-forward) action. This task typically rests with senior managers or experts who understand business intelligence.

The data that needs to be analysed can be quantitative, such as sales and marketing results, or qualitative, such as customer survey responses. Whatever the type, a structure is required to detail the process, beginning with goal setting and ending with an action plan.

It is critical but equally important that the entity set a time frame for analysis, whether it is a month, quarter, or annual report. This timeframe allows to identify trends.

Thus, based on above, the performance reports should be reviewed by setting a time frame -monthly, quarterly or annually.

CASE SCENARIO 80

Ceber, the ride-sharing company, has been hit by various scandals that have led to the co-founder having to resign as CEO, Board members resigning and significant public relations damage. These issues directly impact Ceber's revenue, profitability, and possibly shareholder value. The scandals and negative publicity may have led to reduced revenue, increased costs due to legal fees or operational changes and decreased profitability. The new CEO of Ceber Mr. Tim has a big job on his hands. Therefore, Mr. Tim needs to focus on measures which will result into the success and sustainability for the organization.

These issues necessitate a focused approach from Mr. Tim to stabilize the company and restore shareholder confidence.

In this context, Economic Value Added (EVA) emerges as a crucial tool for Mr. Tim. EVA goes beyond traditional financial metrics. This metric enables Mr. Tim to evaluate the efficiency of Ceber's capital utilization and to prioritize investments that promise to maximize shareholder value.

Ceber reported the following financial data for the year:

- ◆ Net Operating Profit Before Interest & Taxes: \$50,000
- ◆ Depreciation Expenses: \$10,000
- ◆ Change in Net Working Capital: \$5,000
- ◆ Capital Expenditure: \$20,000
- ◆ Total Invested Capital: \$150,000
- ◆ Weighted Average Cost of Capital (WACC): 12%
- ◆ Corporate Tax Rate: 30%

Mr. Tim is dedicated to assembling a staff that is committed to enhancing the organization's success and sustainability.

MULTIPLE CHOICE QUESTIONS

1. In terms of McKinsey's 7-S framework, which of the following describes structure dimension as he implements change at the company?
 - (a) Consider whether the decentralised model for Ceber should be moved to one that is more centralised.
 - (b) Resolve inter-group conflicts and build a consensus for change that is embedded with effective communication.
 - (c) Improve the speed of feedback from customers to better understand which strategies need to be modified.
 - (d) Remove obstacles that are causing Ceber staff to resist or ignore the change process that needs to be implemented.
2. According to you, which of the following perspectives of the balanced scorecard will Mr. Tim need to focus in order to improve Ceber's revenue, profitability and shareholder value?
 - (a) Financial.
 - (b) Customers.
 - (c) Business processes.
 - (d) Learning and growth.
3. Calculate Ceber's Economic Value Added (EVA) for the year.
 - (a) \$17000
 - (b) \$6,200
 - (c) \$3,200
 - (d) (\$3,200)
4. Economic Value Added (EVA) is a metric used to assess:
 - (a) Accounting profit adjusted for tax benefits
 - (b) Shareholder wealth creation beyond the cost of capital
 - (c) Operating profit before interest and taxes
 - (d) Net profit after tax adjusted for depreciation

5. Which of the following activities are considered primary activities in Ceber's value chain?
- (a) Human Resources and Training
 - (b) Upgrading Caber App
 - (c) Vehicle Maintenance and Inspection
 - (d) Legal and Regulatory Compliance

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): Consider whether the decentralised model for Ceber should be moved to one that is more centralised.**

Reason

Option (a) is correct as it directly addresses the **structure** dimension of McKinsey's 7-S framework, which focuses on the organizational hierarchy and decision-making model.

Evaluating whether Ceber should transition from a decentralized to a centralized model is critical for aligning the structure with the company's strategic goals during this period of change.

2. **Option (a): Financial**

Reason

Financial performance measures indicate whether the company's strategy implementation and execution are contributing to its revenue and earnings.

Thus, Mr. Tim will need to focus on financial perspective.

3. **Option (a): \$17000**

Reason

To calculate EVA, we need to follow these steps:

Calculate NOPAT = \$50,000 - \$15,000 = \$35,000

Calculate Capital Charge: = \$150,000 * 12% = \$18,000

Calculate EVA: EVA = \$35,000 - \$18,000 = \$17,000

4. Option (b): Shareholder wealth creation beyond the cost of capital**Reason**

EVA measures the value created by a company by subtracting the cost of capital (both equity and debt) from its net operating profit after tax (NOPAT), reflecting shareholder wealth creation.

Option (a) is incorrect. EVA does not directly adjust accounting profit for tax benefits but rather assesses economic profit by subtracting the cost of capital.

Option (c) is incorrect. EVA is not based on operating profit before interest and taxes but uses NOPAT in its calculation.

Option (d) is incorrect. EVA is not based on net profit after tax adjusted for depreciation but rather focuses on economic profit adjusted for the cost of capital.

5. Option (c): Vehicle Maintenance and Inspection**Reason**

Value chain comprises the activities in two sets, the first being primary activities (vertical) which are directly involved in the transformation of products or provisioning of services.

Primary activities in Ceber's value chain directly contribute to the creation and delivery of its ride-sharing service. Options (a), (b) and (d) are support activities that facilitate the smooth operation of the business but are not directly involved in the core service of transporting passengers. Option (c), Vehicle Maintenance and Inspection, is crucial as it ensures the quality and safety of the vehicles used in providing the ride-sharing service, thereby directly impacting service delivery and customer satisfaction.

CASE SCENARIO 81

Fresh Milk Enterprises (FME) stands as a distinguished leader in the dairy industry, renowned for its unwavering commitment to delivering exceptional quality dairy products sourced directly from trusted farms. With a steadfast focus on providing premium milk that embodies freshness and purity, FME has garnered a robust reputation among health-conscious consumers and discerning gourmet chefs alike.

At the core of FME's success are several components that have underpinned its market leadership:

1. **Quality:** Central to FME's ethos is an uncompromising dedication to quality. Each product undergoes rigorous scrutiny to ensure it meets the highest standards of freshness, purity, and nutritional integrity.
2. **Customer Satisfaction:** FME prides itself on consistently meeting the stringent expectations of its diverse clientele. Whether it's health-conscious consumers seeking nutritious options or gourmet chefs demanding impeccable taste and consistency, FME's products are tailored to satisfy even the most discerning palates.
3. **Supply Chain Efficiency:** By maintaining direct relationships with reliable farms, FME ensures a seamless supply chain that prioritizes freshness and quality control at every stage. This direct sourcing approach not only guarantees the traceability of ingredients but also reinforces FME's ability to respond swiftly to market demands while upholding its stringent quality standards.
4. **Brand Reputation:** Synonymous with excellence, FME's brand is a hallmark of premium quality and reliability in the dairy industry. Upholding this esteemed reputation requires continuous vigilance and adherence to stringent quality assurance protocols, thereby reinforcing consumer confidence and loyalty.
5. **Innovation:** Committed to continual improvement, FME embraces innovation across its operations, from state-of-the-art packaging

solutions that preserve freshness to efficient distribution channels that ensure timely delivery.

Recently, FME has encountered market pressures to reduce prices in order to compete more aggressively and increase market share. Management is considering the implications of this decision on their overall corporate strategy.

The Management has predicted following variances if the decision to lower prices is undertaken:

Variance Type	Amount (Favourable /Adverse)
Sales Volume Variance	15,000 (F)
Sales Mix Variance	7,500 (A)
Direct Material Price Variance	9,200 (F)
Direct Labor Rate Variance	6,800 (A)
Variable Overhead Efficiency Variance	4,300 (F)

Based on above, the Management will take a decision whether to reduce the prices or not.

MULTIPLE CHOICE QUESTIONS

- What is the primary Critical Success Factor for Fresh Milk Enterprises (FME)?
 - Price competitiveness
 - Supply chain efficiency
 - Quality
 - Customer base expansion
- Why might FME face pressures to lower prices despite its focus on quality?
 - To attract high-end restaurants
 - To increase profitability

- (c) To meet customer demand for variety
 - (d) To expand into price-sensitive markets
3. The Sales Mix Variance for Fresh Milk Enterprises (FME) is 7,500 (A). What does this variance signify?
- (a) FME sold more products than anticipated, leading to higher overall revenue.
 - (b) There was a shift in the proportion of product sales compared to the budgeted mix, resulting in lower revenue than expected.
 - (c) Operating costs related to sales activities exceeded budgeted amounts.
 - (d) The efficiency of variable overhead costs improved due to enhanced production methods.
4. The Direct Labor Rate Variance for FME is 6,800 (A). What does this variance primarily indicate?
- (a) FME experienced higher-than-expected labour costs per unit of production.
 - (b) There was an increase in labour efficiency, resulting in lower overall labour costs.
 - (c) The actual number of labour hours used exceeded the budgeted amount.
 - (d) Direct labour costs were lower due to reduced overtime expenses.
5. The Variable Overhead Efficiency Variance for FME is 4,300 (F). What does this variance suggest about FME's operations?
- (a) FME incurred higher-than-expected variable overhead costs due to increased production.
 - (b) There was an improvement in the efficiency of using variable overhead resources compared to the standard.
 - (c) Variable overhead costs were exactly as budgeted, with no deviations.

- (d) FME's variable overhead costs were lower due to renegotiated supplier contracts.

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): Quality

Reason

FME's reputation and success are built on providing premium quality dairy products. This factor is critical as it distinguishes FME from competitors and attracts health-conscious consumers and gourmet chefs who prioritize freshness and purity. All the others are secondary.

2. Option (d): To expand into price-sensitive markets

Reason

FME may face competitive pressures to enter new market segments that prioritize lower prices over premium quality. This strategy aims to capture market share from more price-sensitive consumers and increase overall sales volume.

3. Option (b): There was a shift in the proportion of product sales compared to the budgeted mix, resulting in lower revenue than expected.

Reason

Sales Mix Variance indicates how changes in the proportion of products sold (compared to the budgeted mix) impact overall revenue. A negative (adverse) variance suggests that the actual mix led to lower revenue compared to what was budgeted.

4. Option (a): FME experienced higher-than-expected labour costs per unit of production.

Reason

Direct Labor Rate Variance reflects the difference between the actual labour rate paid per hour and the standard rate. An adverse variance indicates that the actual rate was higher than the standard rate, leading to increased labour costs per unit of production.

5. **Option (b): There was an improvement in the efficiency of using variable overhead resources compared to the standard.**

Reason

Variable Overhead Efficiency Variance measures how efficiently FME utilized variable overhead resources compared to the standard. A favorable (positive) variance indicates that the actual usage was more efficient than expected, leading to lower variable overhead costs.

CASE SCENARIO 82

Akanksha Foundation is a non-profit organization dedicated to transforming the lives of children from low-income communities in India through education. They operate from a strategic location where big business hubs are situated. Established with the mission to provide quality education, Akanksha operates schools and centers that cater to underserved children, focusing on academic excellence, character development, and holistic growth. The foundation believes in nurturing talent and empowering children to reach their full potential, equipping them with the skills and opportunities needed to break the cycle of poverty. Through innovative educational initiatives and partnerships, Akanksha Foundation strives to create positive, sustainable change in the lives of students and their communities.

The government's policies, funding allocations, and support for education initiatives directly impact the foundation's ability to achieve its mission. The state or government's commitment includes not only financial support but also regulatory frameworks that affect educational standards, curriculum approvals, and operational permissions for educational institutions. Akanksha Foundation secures funding from both local and international sources consistently each year. The donor base remains largely stable over time, providing a reliable stream of financial support. To ensure accountability and transparency towards their contributors, Akanksha Foundation measures its performance to demonstrate the effective use of funds. Akanksha Foundation measures the performance as under:

- ◆ They assess the percentage of students who demonstrate improved academic performance and character development after participating in their programs.
- ◆ They analyze the cost-effectiveness of their initiatives, such as calculating the cost per student educated or per program implemented. By leveraging technology and innovative teaching methods, Akanksha maximizes the impact of every rupee spent, ensuring that resources are used efficiently to deliver high-quality education to a large number of students.

- ◆ They negotiate favorable terms with suppliers for educational materials and services. They also collaborate with local communities and businesses to access discounted or donated resources, minimizing operational costs while expanding their educational reach.

However, the Management of Akanksha Foundation wants your guidance as to how to analyse and accordingly implement the necessary action points after understanding the outcome of above performance measures.

MULTIPLE CHOICE QUESTIONS

1. Which of the following performance measures would be most appropriate for the Akanksha Foundation to utilize?
 - (a) Financial Statements
 - (b) Internal Communications
 - (c) Staff Turnover Rate
 - (d) Board Meeting Frequency
2. The performance of not-for-profit organizations like Akanksha Foundation largely depends on what factor?
 - (a) The commitment of donors
 - (b) The commitment of the state (or government)
 - (c) The international support
 - (d) The location of operations
3. Which model has Akanksha Foundation used to measure the performance?
 - (a) Value for Money Framework
 - (b) Adapted Balanced Scorecard
 - (c) Theory of Change
 - (d) Outcome Mapping

4. The outcome of the performance measurement by Akanksha Foundation is called as _____.
- (a) Performance Report
 - (b) Impact Assessment
 - (c) Results Evaluation
 - (d) Effectiveness Analysis
5. What action does the person who receives the above outcome of the performance measurement should undertake?
- (a) To take action in case of unfavourable variance.
 - (b) To take action in case of both favourable and unfavourable variance.
 - (c) Share the results with stakeholders
 - (d) Publish the findings in academic journals

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): Financial Statements

Reason

Financial statements are crucial for NPOs to demonstrate fiscal responsibility and transparency. They provide detailed information on how funds are utilized, ensuring accountability towards contributors.

Internal communications [Option (b)] are important but primarily focus on organizational efficiency rather than directly demonstrating the use of funds. Staff turnover rate [Option (c)] and board meeting frequency [Option (d)] are indicators of organizational health and governance but do not directly measure the use of funds for the stated purpose. Therefore, financial statements are the most appropriate measure to ensure contributors' confidence.

2. Option (b): The commitment of the state (or government)**Reason**

The performance of not-for-profit organizations is significantly affected by the commitment and performance of the state or government in similar sectors. (Specifically in food security, education and health)

3. Option (a): Value for Money Framework**Reason**

Akanksha Foundation used VFM Framework to measure the performance. VFM framework can be used for measurement of performance in the not-for-profit sector because Not-for-profit organisations are expected to provide the best possible value from available money (usually limited). VFM framework ensures–

- ◆ Effectiveness (spend wisely) (an output measure, the goal approach) whether the organisation has achieved its desired mission and objectives?
- ◆ Efficiency (spend well) (a link between input and output factor, as a process approach) → Whether the resources and funds available to the organisation have been efficiently utilised i.e., maximum output has been obtained with minimum input?
- ◆ Economy (spend less) (as an input measure, the resource approach) Whether the appropriate quantity and quality of inputs are available at the lowest cost?

4. Option (a): Performance Report**Reason**

A performance report is a document that addresses the outcome of an activity or the work of an individual.

5. Option (a): To take action in case of unfavourable variance**Reason**

The recipient of a performance report is expected to take action when there is an unfavourable variance.

CASE SCENARIO 83

Vinotech Inc. (hereinafter referred to as “the company”) is renowned for its high-quality wines and operates vineyards across several regions. Seeking to strengthen its supply chain efficiencies and ensure consistent product quality, Vinotech Inc. acquired wines stores located in prime grape-growing regions, thus controlling the entire process.

Vinotech Inc. has acquired vineyards of competitors, ensuring a consistent and quality grape supply for its winemaking operations, thereby enhancing control over its production process and supply chain. Vinotech partnered with luxury food company to offer exclusive wine and food pairing experiences, diversifying its business into related industries and integrated marketing, sales, and production departments to streamline operations and improve collaboration.

The company aims to ensure efficient resource utilization and optimize operational performance. The company understands that minimizing waste throughout the production process is essential for maximizing efficiency and profitability. By identifying areas where waste occurs, such as in raw materials, labor, or energy usage, the company can implement strategies to mitigate these losses. Additionally, reducing production costs without compromising on quality enables Vinotech Inc. to remain competitive in the market while meeting consumer demands.

While competitive analysis is essential for Vinotech Inc.'s strategic positioning, it diverges from direct engagement in operational tactics. Instead, Vinotech primarily relies on tools like value analysis, sustainable farming practices, and target costing to refine its production processes and ensure optimal resource utilization. These methods contribute to Vinotech's commitment to excellence and efficiency in its operations, aligning with its overarching goals for quality and sustainability.

The company aims to maintain profitability by employing advanced agricultural techniques to optimize vineyard conditions, ensuring abundant grape harvests, leveraging digital platforms and innovative marketing strategies, by diversifying its distribution channels, reaching a broader audience of wine enthusiasts

worldwide. Vinotech Inc. meticulously crafts its wines, allowing them to mature in carefully selected barrels, imparting complex flavors and aromas.

Within Vinotech Inc., effective delegation of authority and accountability for costs is fundamental. This practice ensures that managers take ownership of cost centers, fostering a culture of responsibility and enabling efficient cost management throughout the organization's operations.

By investing in state-of-the-art aging facilities and employing skilled enologists, Vinotech Inc. ensures that each wine undergoes a meticulous aging process, resulting in exceptional quality and character.

The company recognizes the pivotal role of customer satisfaction in sustaining long-term success. The company endeavors to discern customer preferences and allocate resources efficiently to meet or exceed expectations. In order to achieve the same, the company is seeking some advice from a professional consultant as to which of the following action points needs to be implemented as per Kano's model:

- ◆ Introduce new varieties of products.
- ◆ Attending to customer complaints and gathering data from the same can lead to innovation.
- ◆ Improving every aspect of a product will lead to improved customer satisfaction outcomes.
- ◆ To innovate because customers switching costs are low.

The company is already implementing following action plans since last 2 years:

- ◆ Launching expensive marketing campaigns.
- ◆ Setting ambitious sales targets.
- ◆ Investing in high-end packaging materials.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is the best example of forward vertical integration?
 - (a) The company acquiring other vineyards of competitors
 - (b) The company selling wines to its wine stores

-
- (c) The company partners with luxury food company to offer exclusive wine and food pairing experiences, diversifying its business into related industries.
 - (d) The company integrates marketing, sales, and production departments to streamline operations and improve collaboration.
2. Which of the following describes the underlying idea behind Kano's model?
- (a) Customer satisfaction decays over time so companies must continually release new products
 - (b) Customer complaints are a source of data that often results in companies delivering innovation
 - (c) Improving every aspect of a product doesn't necessarily lead to improved customer satisfaction outcomes
 - (d) The only action that will improve the bottom line is innovation because customers switching costs are low
3. According to you, which of the action points mentioned below signifies cost control undertaken by Vinotech Inc.?
- (a) Maximizing grape yields
 - (b) Minimizing waste and reducing production costs
 - (c) Expanding distribution channels
 - (d) Enhancing wine quality through aging processes
4. Which tool or technique is NOT commonly associated with cost reduction efforts at Vinotech Inc.?
- (a) Value Analysis
 - (b) Implementing sustainable farming practices
 - (c) Target Costing
 - (d) Competitive Analysis

5. Which of the following is a prerequisite for effective cost control within Vinotech Inc. according to industry standards?
- (a) Launching expensive marketing campaigns
 - (b) Setting ambitious sales targets
 - (c) Delegating authority and assigning responsibility for costs
 - (d) Investing in high-end packaging materials

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): The company selling wines to its wine stores

Reason

The company selling wines to its wine stores - This is an example of forward vertical integration, as it involves expanding into the distribution and retail stage.

2. Option (c) - Improving every aspect of a product doesn't necessarily lead to improved customer satisfaction outcomes

Reason

Option (c) is correct because Kano was challenging the notion that if you improve all the key attributes of a product, it will lead to improved customer satisfaction outcomes.

Option (a) is incorrect because customer satisfaction may decay over time, but this is not the point of Kano's observations.

Option (b) is incorrect because customer complaints are not a key factor for delivering innovation.

Option (d) is incorrect because innovation is not always the answer to an improvement in the bottom line - it is one option an organisation can consider.

3. Option (b): Minimizing waste and reducing production costs**Reason**

Cost control would primarily focus on minimizing waste and reducing production costs to improve profitability while maintaining quality standards. This ensures efficient resource utilization and optimal operational performance.

4. Option (d): Competitive Analysis**Reason**

While competitive analysis is important for strategic decision-making, it is not directly associated with cost reduction efforts. Tools like value analysis, target costing, and implementing sustainable farming practices are more commonly used by company to reduce production costs and improve efficiency. Cost Control does competitive analysis of actual results with established standards.

5. Option (c): Delegating authority and assigning responsibility for costs**Reason**

Effective delegation of authority and assigning responsibility for costs ensures accountability. This allows managers to take ownership of cost centers and work towards achieving cost control objectives, ensuring that costs are managed effectively at all levels of the organization.

CASE SCENARIO 84

In 2021, Clod Drinks introduced a pioneering protein drink product into the Australian market, achieving remarkable success characterized by robust sales and a dominant market position. During this period, the company operated in an environment marked by minimal competition and a conspicuous absence of substitute products. The Clod Drinks team spent heavily on marketing and advertising and product development to grow their market share.

In 2023, they noticed competitors for protein drink entering the market and eating into their market share. This influx of competitors, along with the emergence of alternative products, notably impacted Clod Drinks' profitability, underscoring the influence of competitive pressures. The role of suppliers became increasingly significant in sustaining their operations and maintaining competitiveness. Suppliers play a crucial role in providing the necessary raw materials and ingredients for Clod Drinks' protein drink production. However, with the influx of rival companies into the market and the emergence of alternative products, Clod Drinks may face challenges related to supplier power. As Clod Drinks faces intensified competition, the demand for raw materials may fluctuate, potentially leading to smaller quantities being purchased. This scenario could bolster the bargaining power of suppliers, enabling them to negotiate more favourable terms or impose higher prices on Clod Drinks.

Moreover, suppliers with limited alternatives may capitalize on their position to exert greater influence during negotiations, especially considering Clod Drinks' reliance on their input for production. Therefore, effectively managing supplier relationships becomes crucial for Clod Drinks to ensure a stable supply chain, mitigate risks associated with changing market dynamics, and sustain competitiveness amidst heightened competition.

In response to the heightened competition and fluctuating market dynamics, Clod Drinks could conduct scenario analysis to anticipate various outcomes and devise strategic responses. By simulating different scenarios, such as changes in market share, pricing strategies, or supplier negotiations, Clod Drinks can proactively identify risks and opportunities to maintain competitiveness and ensure a resilient supply chain. Scenario analysis enables Clod Drinks to make

informed decisions, adapt quickly to evolving market conditions, and safeguard their market position in the face of intensified competition.

Specialized protein isolates, like pea, soy protein, have experienced price fluctuations due to weather conditions affecting crop yields. Droughts, floods, or other extreme weather events disrupted production, leading to increased costs and potential shortages in the market. The price of protein isolates has fallen dramatically in the last few years from over US\$15/kg to less than US\$7/kg.

Clod Drinks is dedicated to empowering individuals to live more vibrant lives through our science-driven approach to chilled beverages. Clod Drinks website states "Our aim is to help people do more, feel better, and live longer".

MULTIPLE CHOICE QUESTIONS

1. Which of the following should the Clod team have done to combat this threat?
 - (a) Raised barriers to entry by threatening legal action against competitors
 - (b) Immediately taken out a patent on their process for making protein drink
 - (c) Trademark the Clod name and continue to leverage their first mover advantage
 - (d) Seek copyright protection for the creation of the Clod protein drink to prevent copies
2. Which of the following statements most accurately captures the relationship between industry profitability in Clod Drinks and Porter's Five Forces model?
 - (a) The higher the threat of new entrants, the higher industry profitability is likely to be
 - (b) Industry profitability is likely to be lowest when the threat of substitutes is declining

- (c) Moderate buyer power and moderate level of rivalry is likely to increase industry profitability
 - (d) Low levels of rivalry and low supplier power are likely to be associated with higher industry profitability.
3. Which of the following statements about supplier power in Clod Drinks is most likely to be correct?
- (a) The higher the threat by suppliers to forward integrate, the lower their power relative to industry rivals.
 - (b) The smaller the quantities of supplies purchased by companies in the industry, the higher the supplier power.
 - (c) The higher the number of suppliers, the more power suppliers will have in negotiating prices with companies in the industry.
 - (d) The higher the importance of the suppliers' input to industry rivals, the more power industry rivals have in negotiating with suppliers.
4. The sharp price fall in the prices of protein isolates has been affected **most** by which of the following external factors?
- (a) Social
 - (b) Political
 - (c) Economic
 - (d) Environmental
5. Which of the following strategic components best summarises Clod Drinks aim as stated on its website?
- (a) Vision
 - (b) Goals
 - (c) Values
 - (d) Mission

ANSWERS TO MULTIPLE CHOICE QUESTIONS

- 1. Option (c): Trademark the Clod name and continue to leverage their first mover advantage**

Reason

This is the only option they can reasonably take. Competitors have already entered the market, so they would trademark their name and use their brand strength to grow their market. Trademarks don't protect products from being copied. All the other options are not valid given the question information.

Option (a) is incorrect because they have no basis on which to take legal action.

Option (b) is incorrect because the company would need to do this before competitors come into the market with a similar product. It is too late to attempt to get a patent, which can take years, to protect market share that is already reducing. There is also no evidence they have a process that is unique and could be patented.

Option (d) is incorrect because company can't copyright a process. Copyright is for artistic creations which would not cover a protein drink.

- 2. Option (d) - Low levels of rivalry and low supplier power are likely to be associated with higher industry profitability**

Reason

Industry profitability is likely to be the highest when the power of each of the five forces is low. A low level of rivalry suggests that competitors in the industry do not have to compete away profits in order to attract buyers. Similarly, low supplier power suggests that organisations in the industry are not forced to pay high prices for their purchases. Both features are positive for industry profitability.

Option (a) is incorrect because the threat of new entrants and industry profitability are usually inversely related— that is, the higher the threat the lower the profitability. Note that in a fast-growing industry new entrants often don't reduce industry profitability at that stage of the

industry life cycle. However, as the industry moves towards maturity, profit margins erode.

Option (b) is incorrect because lower threat of substitutes would give rise to high industry profitability. If there are fewer substitutes to the industry's product there are low alternatives for buyers to purchase and reduced pressure on profitability.

Option (c) is incorrect because only low buyer power and industry rivalry would give rise to higher industry profitability. Moderate levels of these forces would give rise to moderate levels of profitability only.

3. Option (b): The smaller the quantities of supplies purchased by companies in the industry, the higher the supplier power

Reason

If the companies in an industry purchase a low volume of products from suppliers, the industry is relatively unimportant to the suppliers, and companies in the industry are not in a position to bargain down the prices paid for these supplies.

Option (a) is incorrect because the ability for suppliers to forward integrate increases their power relative to the industry.

Option (c) is incorrect because the more suppliers that exist, the more likely industry rivals will hold the negotiating power by having a wider range of supplier choice.

Option (d) is incorrect because the higher the importance of the suppliers' input to industry rivals, the less power industry rivals have in negotiating with suppliers.

4. Option (c): Economic

Reason

These are commodities and are therefore heavily influenced by the market they are traded in and therefore the economic conditions in the countries of buyers and sellers.

Option (a) is incorrect as social norms have little impact on this industry.

Option (b) is incorrect although countries can have a political influence with policy changes, they are not as strong as the economic influences on this market.

Option (d) is incorrect because although the environmental impact is increasing and causing some policy changes this influence is much smaller than the economic one.

5. Option (d): Mission

Reason

The company stated their fundamental purpose, or why they exist (to help people do more, feel better and live longer). This form what is known as the mission.

Option (a) is incorrect because the vision describes what an organisation wishes to achieve—it is not a description of its ideal future state.

Option (b) is incorrect because goals set the desired achievement outcomes for the organisation.

Option (d) is incorrect because values support the mission by guiding behaviour.

CASE SCENARIO 85

In the competitive world of premium watches, Japanese Bugatsune World (BW) located in Northern Japan stands out as a hallmark of quality and tradition. BW is 80% owned by KKR, a private equity fund who is known across the world for strategic investments and involved in the business decisions of their investments.

BW exports its premium watches to select markets worldwide. However, with competitors from countries like Australia gaining traction, BW is determined to expand its market reach while safeguarding its intellectual property. Recognizing the need for strategic expansion, BW explores franchising options in Australia also they were exploring joint venture with a local distribution company in Asia as a potential business model. In the case of BW, an important factor for success in Asia and Australia is its ability to adapt its products and strategies to the preferences and trends of different target markets. This involves understanding the cultural, social, and economic dynamics of each market and tailoring offerings accordingly. To measure BW's effectiveness in this aspect, they can track the rate at which it successfully enters and establishes a presence in new markets. This can be quantified by monitoring the number of new markets penetrated within a given time period and observing the corresponding increase in sales and brand visibility in those markets. Due to their weak financial position, BW is reluctant to incur significant debt. Additionally, BW needs to identify its core competencies to effectively capitalize on its strengths and gain a competitive advantage. With this understanding, BW should assess its core competencies in terms of their relevance and breadth of application. By focusing on core competencies that align with its strategic goals, BW can enhance its market position and successfully expand into new markets while protecting its intellectual property.

MULTIPLE CHOICE QUESTIONS

1. Which of the following advantages mentioned above is true in case of a franchising business model?
 - (a) Distributing profits and sharing costs and resources.

- (b) Providing your branding and intellectual property to others.
 - (c) Using a standardised operating model across the business.
 - (d) Moving part of your operations offshore to deliver lower costs to the business.
2. Considering modes of entry to new markets, which of the following would you recommend for Japanese BW?
- (a) Continue to export and approach new markets with low prices and high volumes with the aim to capture market share quickly
 - (b) Form a joint venture with a target market distribution company who sells the product but is not involved in any other operations
 - (c) Make the investment in a wholly owned operation with extensive marketing and promotion to grow customer awareness and sales
 - (d) License their production processes with contracts including high damages payments if intellectual property conditions are breached
3. KKR, a private equity fund has both high interest and power over BW's strategy, which of the following techniques would you use to interact with them?
- (a) Keep them both updated on any strategic changes and empowered to steer the direction of change
 - (b) Keep these stakeholders satisfied.
 - (c) Keep these stakeholders informed
 - (d) Spend time to manage the expectations of this stakeholder group even if doesn't coincide with the company's goals.
4. Which of the following is a Key Success Factor (CSF) relevant to BW's expansion into new markets?
- (a) Product Quality
 - (b) Intellectual Property Protection
 - (c) Market Adaptability
 - (d) Brand Reputation

5. Which of the following statements best describes a core competency for BW?
- (a) A core competency is any skill or capability that a company possesses
 - (b) A core competency is a unique proposition that provides value to customers and is easy for competitors to copy
 - (c) A core competency is a skill or capability that strongly influences customers to choose a company's product or service, is difficult to imitate, and opens up potential markets for growth
 - (d) A core competency is a broad set of skills possessed by a company, regardless of their relevance to the market

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (c): Using a standardised operating model across the business**

Reason

Using a standardised operating model across the business is characteristics of franchise operation.

Option (a) is incorrect because this is a characteristic of a joint venture model.

Option (b) is incorrect because this is a characteristic of a licensing model.

Option (d) is incorrect because this is a characteristic of offshoring.

2. **Option (b): Form a joint venture with a target market distribution company who sells the product but is not involved in any other operations**

Reason

Option (b) is correct because a joint venture enables them to achieve more market penetration than they have now. A local partner could assist them in selling the product and growing the customer base. By limiting the partner to those functions, they hope to limit the technology leakage.

Option (a) is incorrect because continuing to export is not going to increase their market penetration enough. Lowering prices might assist

(noting that gross margins will decline); however, option (b) is likely to be more successful.

Option (c) is incorrect because the question states they have some capital but are not willing to take on significant debt. Wholly owned operations are likely the most expensive option for market entry which means they are unlikely to pursue this option.

Option (d) is incorrect because licensing has one of the highest risks for technology leakage and would be a risky option to undertake.

3. Option (a): Keep them both updated on any strategic changes and empowered to steer the direction of change

Reason

These will be considered key stakeholders, and a business will need to actively engage this group. This group is likely to have a significant influence; they may be the driver behind the change or strategy. They will likely have the power to stop the change or strategy from going ahead if they are unhappy. This is the group that requires most focus. Keep them both updated on any strategic changes and empowered to steer the direction of change (or at least feel that they have the opportunity to input into the direction of the project).

4. Option (c): Market Adaptability

Reason

Market Adaptability refers to the ability to adjust products and strategies according to the preferences and trends of different target markets. While product quality, intellectual property protection, and brand reputation are important factors, in the context of expanding into new markets, the ability to adapt to the nuances of each market is crucial for success.

5. Option (c): A core competency is a skill or capability that strongly influences customers to choose a company's product or service, is difficult to imitate, and opens up potential markets for growth

Reason

According to the provided information, a core competency must meet three parameters: relevance to customers, difficulty of imitation, and breadth of application. Therefore, option (C) best describes a core competency as it encompasses all three parameters.

CASE SCENARIO 86

In a bustling city, LuxeMart executives wrestled with their performance management system. LuxeMart had a framework of responsibility among managers, clear organizational objectives, periodic performance reviews and enhancing customer satisfaction.

Despite improving operational metrics, financial performance stagnated. CEO Mr. Johnson queried steps to bridge this gap during a boardroom discussion, emphasizing customer satisfaction as crucial for growth. Therefore, maintaining high levels of customer satisfaction was identified as crucial for LuxeMart's continued growth and financial success. LuxeMart measures satisfaction through metrics like NPS, Customer Retention Rate, Repeat Purchase Rate etc.

Luxemart has broken the customer service into following 10 tasks:

1. Greeting Customers

- ◆ Establish a Welcoming Environment: Ensure the physical space is inviting with clear signage and a clean, organized layout.
- ◆ Train Employees on Greeting Standards: Develop specific guidelines for greeting customers, including tone of voice, body language, and timing.
- ◆ Acknowledge Every Customer Promptly: Instruct employees to greet customers as soon as they enter the store, ideally within a few seconds.
- ◆ Personalize Greetings: Encourage employees to personalize greetings based on cues such as customer demeanor or familiarity.
- ◆ Use Professional Language: Provide examples of professional language that employees can use to greet customers respectfully.
- ◆ Offer Assistance: Train employees to offer assistance immediately after greeting, indicating availability to help with product selection or inquiries.

- ◆ Smile and Maintain Eye Contact: Emphasize the importance of non-verbal communication, such as smiling and making eye contact during greetings.
- ◆ Monitor and Provide Feedback: Implement a system to monitor greetings and provide constructive feedback to employees for improvement.
- ◆ Encourage Consistency Across Shifts: Ensure all employees, regardless of shift or location, adhere to the same greeting standards.
- ◆ Empower Employees to Enhance Customer Experience: Teach employees how to adapt greetings based on customer feedback or special circumstances, demonstrating flexibility and empathy.

Out of the above smaller tasks, Luxemart finalised Train Employees on Greeting Standards, Personalize Greetings, Use Professional Language, Smile and Maintain Eye Contact and Empower Employees to Enhance Customer Experience.

2. Assisting with Product Selection
3. Handling Inquiries and Requests
4. Processing Transactions
5. Resolving Issues and Complaints
6. Facilitating Returns and Exchanges
7. Promoting Loyalty Programs and Upselling
8. Maintaining Store Appearance and Cleanliness
9. Continued Training and Development

Similar to greeting customers, all the above tasks were also broken down into smaller tasks and the most efficient method was selected.

During the board meeting, LuxeMart discussed venturing into virtual retail and optimizing online platforms. The company prioritizes skilled personnel and a supportive work environment to foster employee engagement and maximize organizational performance.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is NOT a component of Performance Management?
 - (a) Establishing responsibility centres
 - (b) Setting organizational objectives
 - (c) Reviewing performance periodically
 - (d) Enhancing total productive maintenance
2. According to Robert S. Kaplan and David P. Norton, what should executives do if improved operational performance doesn't lead to improved financial performance?
 - (a) Ignore the operational metrics
 - (b) Change the financial reporting standards
 - (c) Rethink the company's strategy or implementation plans
 - (d) Fire the operational team
3. Which of the following is the Critical Success Factor (CSF) for LuxeMart?
 - (a) Customer Retention rate
 - (b) Repeat Purchase Rate
 - (c) Average Order Value
 - (d) Customer Satisfaction
4. What is the name of the process applied by Luxemart in addressing the task of greeting customers?
 - (a) McDonaldization
 - (b) Change Management
 - (c) Performance Management
 - (d) Gap analysis

5. Luxemart is following _____ type of control by ensuring that every job in their organisation is given to a person with appropriate skills and a conducive environment is provided to all the employees.
- (a) Behavioural Control
 - (b) Personnel and Cultural Control
 - (c) Reporting Control
 - (d) Soft Control
6. According to you, the virtual organisation on which the Board intends to brainstorm will be _____ structure.
- (a) simple business
 - (b) complex business
 - (c) Hybrid business
 - (d) Multi business

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Enhancing total productive maintenance

Reason

Performance Management is considered as key aspect of management accounting, which deals with–

- ◆ Determining an appropriate organisation's structure, level of decentralisation, etc.
- ◆ Establishing a responsibility centre and assigning responsibility to the manager.
- ◆ Establishing a performance measurement system and fixing the yardsticks.
- ◆ Reviewing the performance periodically and taking corrective measures where performance is not acceptable.

Total productive maintenance, is a lean technique.

2. Option (c): Rethink the company's strategy or implementation plans**Reason**

Robert S. Kaplan and David P. Norton, in 1992 suggested the balanced scorecard that can translate a company's strategy into specific, measurable objectives. Further, both authors also suggested that "a failure to convert improved operational performance, as measured in the scorecard, into improved financial performance should send executives back to their drawing boards to rethink the company's strategy or its implementation plans".

3. Option (d): Customer Satisfaction**Reason**

Critical Success Factors (CSF) are specific elements or action areas a business, team, or department must focus on and successfully implement to reach its strategic objectives.

Customer satisfaction is critical for LuxeMart's success as it influences repeat business and brand reputation, directly impacting financial growth.

4. Option (a): McDonaldization**Reason**

McDonaldization – Breaking tasks into smallest possible units and rationalising them to find the single most efficient method for completing each task. All other tasks are discarded. standards can be more accurately set and assessed.

Thus, Luxemart used the process of McDonaldization by breaking down tasks into small possible units and then selecting the most efficient method.

5. Option (b): Personnel and Cultural Control**Reason**

Management control systems have an important role to play in developing accountability, and in turn, accountability leads to better performance. There are three broad categories of control mechanism which any business can use-

Behavioural Control – to ensure only desired actions take place.

Personnel and Cultural Control – for every job, a person with appropriate skills and a conducive environment is provided.

Thus, Luxemart is following Personnel and Cultural Control by ensuring that every job in their organisation is given to a person with appropriate skills and a conducive environment is provided to all the employees.

6. Option (b): Complex business

Reason

A virtual organisation is also considered as a complex business structure. A virtual organisation that works on the Assets Lite Model which means there are little or no physical premises but where employees and managers work remotely (typically from their own location) and are connected using IT.

CASE SCENARIO 87

'Xu' and 'Yu' are two divisions of the Shenzhen group. The 'Xu' division manufactures electrical components which it sells to other divisions and external customers.

The 'Yu' division has designed a new product, Product B, and has asked 'Xu' to supply the electrical component, Component A, that is needed in the new product. This will be a completely new style of component. Each unit of Product B will require one Component A. This component will not be sold by 'Xu' to external customers. 'Xu' has quoted a transfer price to 'Yu' of ₹ 180 for each unit of Component A.

It is the policy of the Shenzhen group to reward managers based on their individual division's return on capital employed.

Details of the monthly production for each division are as follows:

'Xu' Division

Output	Component A will be produced in batches of 1,000 units. The maximum capacity is 6,000 components per month.
Variable Cost	₹ 60 per component
Fixed Costs	₹ 2,00,000 (these are incurred specifically to produce Component A)

'Yu' Division

Output	Product B will be produced in batches of 1,000 units. The maximum customer demand is 24,000 units of Product B per month.
Variable Cost	₹ 36 per unit the cost of Component A
Fixed Costs	₹ 3,00,000 (these are incurred specifically to produce Component B)

The relationship between monthly customer demand and the selling price of Product B is shown below:

Demand	Selling Price per unit (₹)
1,000 units	480
2,000 units	440
3,000 units	400
4,000 units	360
5,000 units	320
6,000 units	268

MULTIPLE CHOICE QUESTIONS

- At a transfer price of ₹ 180 per Component A, how many units of Product B will the 'Yu' division produce to maximize its profit?
 - 6,000 units
 - 4,000 units
 - 8,000 units
 - 5,000 units
- What is the profit for the 'Xu' division when 4,000 units of Component A are sold to the 'Yu' division?
 - ₹ 2,80,000
 - ₹ 2,76,000
 - ₹ 5,56,000
 - ₹ 3,76,000
- What is the maximum monthly profit for the Shenzhen group based on the total marginal costs of the divisions?
 - ₹ 11,20,000
 - ₹ 11,56,000
 - ₹ 6,20,000
 - ₹ 9,99,000

4. What is the selling price per unit of Product B when the maximum output is produced for the highest profit?
- (a) ₹ 400
 (b) ₹ 360
 (c) ₹ 320
 (d) ₹ 440

ANSWER TO MULTIPLE CHOICE QUESTION

1. Option (b): 4,000 units

Reason

Based on a transfer price of ₹ 180 per component, the total variable cost per unit of Product B will be ₹ 216.

Demand	Selling Price (₹)	Variable Cost (₹)	Contribution (₹)	Total Contribution (₹'000)
1,000 units	480	216	264	264
2,000 units	440	216	224	448
3,000 units	400	216	184	552
4,000 units	360	216	144	576
5,000 units	320	216	104	520
6,000 units	268	216	52	312

'Yu' will produce 4,000 units of Product B and will therefore order 4,000 of Component A from 'Xu'.

2. Option (a): ₹ 2,80,000

Reason

Particulars	Xu (₹'000)	Yu (₹'000)	Group (₹'000)
Revenue	720	1,440	1,440
Less: Variable Costs	240	864	384
Less: Fixed Costs	200	300	500
Profit	280	276	556

3. Option (c): ₹ 6,20,000**Reason**

Using the total marginal costs of the divisions: Variable cost per Product B is ₹ 96.

Demand	Selling Price (₹)	Variable Cost (₹)	Contribution (₹)	Total Contribution (₹'000)
1,000 units	480	96	384	384
2,000 units	440	96	344	688
3,000 units	400	96	304	912
4,000 units	360	96	264	1,056
5,000 units	320	96	224	1,120
6,000 units	268	96	172	1,032

The profit maximising output is 5,000 units of Product B. This will earn a total monthly profit for the Shenzhen Group of ₹ 6,20,000 (₹11,20,000 - ₹ 5,00,000).

4. Option (c): ₹ 320**Reason**

Demand	Selling Price (₹)	Variable Cost (₹)	Contribution (₹)	Total Contribution(₹'000)
1,000 units	480	96	384	384
2,000 units	440	96	344	688
3,000 units	400	96	304	912
4,000 units	360	96	264	1,056
5,000 units	320	96	224	1,120
6,000 units	268	96	172	1,032

CASE SCENARIO 88

Oxford Medical Care Co. (OMCC) is a pharmaceutical firm, operating its entire business through its four customers Ox₁, Ox₂, Ox₃, and Ox₄. Ox₁ and Ox₂ are small pharmaceutical stores while Ox₃ and Ox₄ are large discount stores with attached pharmacies. OMCC uses discount pricing strategy and prices its products at variable cost plus 25%.

Item	Small Pharmaceuticals		Large Pharmaceuticals		Activity Rate
	Ox ₁	Ox ₂	Ox ₃	Ox ₄	
Number of Orders	4	9	6	3	₹750
Order Size	₹40,000	₹20,000	₹4,25,000	₹4,00,000	n/a
Average Discount	4.50%	9.50%	17.50%	11.50%	n/a
Regular Deliveries	4	9	6	3	₹375
Expedited Deliveries	2	0	2	0	₹1,250
General Administration Cost	₹20,250		₹48,375		

MULTIPLE CHOICE QUESTIONS

1. What is the total customer profit for large pharmaceuticals (Ox₃ + Ox₄)?
 - (a) ₹ 63,750
 - (b) ₹ 75,630
 - (c) ₹ 36,550
 - (d) ₹ 1,53,125
2. What is the channel profit for small pharmaceuticals?
 - (a) ₹ 6,325
 - (b) ₹ 5326
 - (c) ₹ 88,425
 - (d) ₹ 48,375

3. What is the recommendation for improving the profit from Ox2?
- Increase the order size and reduce the discount
 - Decrease the variable costs
 - Increase expedited deliveries
 - Increase the discount and reduce the order size
4. What is the recommendation for reducing the costs for Ox1?
- Increase the discount
 - Reduce expedited deliveries
 - Increase the order size
 - Increase the discount and reduce the order size

ANSWERS TO THE MULTIPLE CHOICE QUESTIONS

1. Option (d): ₹ 1,53,125

Reason

Particulars	Ox ₁	Ox ₂	Channel Total	Ox ₃	Ox ₄	Channel Total
	Small Stores			Large Stores		
Revenue	1,60,000	1,80,000	3,40,000	25,50,000	12,00,000	37,50,000
Discount	7,200	17,100	24,300	4,46,250	1,38,000	5,84,250
Net Revenue	1,52,800	1,62,900	3,15,700	21,03,750	10,62,000	31,65,750
Variable Costs	1,28,000	1,44,000	2,72,000	20,40,000	9,60,000	30,00,000
Contribution Margin	24,800	18,900	43,700	63,750	1,02,000	1,65,750
Order Processing	3,000	6,750	9,750	4,500	2,250	6,750
Regular Deliveries	1,500	3,375	4,875	2,250	1,125	3,375
Expedited Deliveries	2,500	---	2,500	2,500	---	2,500
Customer Profit	17,800	8,775	26,575	54,500	98,625	1,53,125
Channel Cost			20,250			48,375
Channel Profit			6,325			1,04,750

2. Option (a): ₹ 6,325

Reason

Particulars	Ox ₁	Ox ₂	Channel Total	Ox ₃	Ox ₄	Channel Total
	Small Stores			Large Stores		
Revenue	1,60,000	1,80,000	3,40,000	25,50,000	12,00,000	37,50,000
Discount	7,200	17,100	24,300	4,46,250	1,38,000	5,84,250
Net Revenue	1,52,800	1,62,900	3,15,700	21,03,750	10,62,000	31,65,750
Variable Costs	1,28,000	1,44,000	2,72,000	20,40,000	9,60,000	30,00,000
Contribution Margin	24,800	18,900	43,700	63,750	1,02,000	1,65,750
Order Processing	3,000	6,750	9,750	4,500	2,250	6,750
Regular Deliveries	1,500	3,375	4,875	2,250	1,125	3,375
Expedited Deliveries	2,500	---	2,500	2,500	---	2,500
Customer Profit	17,800	8,775	26,575	54,500	98,625	1,53,125
Channel Cost			20,250			48,375
Channel Profit			6,325			1,04,750

3. Option (a): Increase the order size and reduce the discount

Reason

Small Pharmaceuticals

Even though Ox₁ has lower sales volume (11% lesser from Ox₂), it is contributing around 67% of small store's profit as its order is for larger quantities and discount offered is very less.

OMCC is only just at breakeven point with small pharmaceuticals. To improve profit OMCC should:

- Coordinate with Ox_2 to increase order size and try to negotiate a smaller discount.
- Try to work with Ox_1 to reduce expedited deliveries.

4. Option (b): Reduce expedited deliveries

Reason

Small Pharmaceuticals

Even though Ox_1 has lower sales volume (11% lesser from Ox_2), it is contributing around 67% of small store's profit as its order is for larger quantities and discount offered is very less.

OMCC is only just at breakeven point with small pharmaceuticals. To improve profit OMCC should:

- Coordinate with Ox_2 to increase order size and try to negotiate a smaller discount.
- Try to work with Ox_1 to reduce expedited deliveries.

CASE SCENARIO 89

A and B are two customers of XYZ Electronics Ltd., a manufacturer of audio players. Selling price per unit is ₹ 5,400. Its cost of production per unit is ₹ 4,420.

Additional costs are:

Order Processing Cost ₹ 2,000 per order

Delivery Costs ₹ 3,500 per delivery

Details of customers A and B for the period are given below:

	Customer A	Customer B
Audio Players purchased(nos.)	350	500
No. of orders	5 (each of 70 units)	10 (each of 50 units)
No. of deliveries	5	0

The company's policy is to give a discount of 5% on the selling price on orders for 50 units or more, and to further give 8% discount on the undiscounted selling price if a customer uses his own transport to collect the order. Assume that production levels are not altered by these orders.

MULTIPLE CHOICE QUESTIONS

- What is the net selling price per unit for Customer B after discounts?
 - ₹ 4,420
 - ₹ 4,698
 - ₹ 5,400
 - ₹ 5,020
- What is the total profit for Customer A after additional overheads?
 - ₹ 1,19,000
 - ₹ 1,20,000
 - ₹ 2,21,000
 - ₹ 1,39,000

3. What is the profit per unit for Customer A?
 - (a) ₹ 278
 - (b) ₹ 207
 - (c) ₹ 631
 - (d) ₹ 525
4. What is the profit per unit for Customer B?
 - (a) ₹ 632
 - (b) ₹ 238
 - (c) ₹ 271
 - (d) ₹ 710
5. How much is the delivery discount per unit for Customer B?
 - (a) ₹ 432
 - (b) ₹ 504
 - (c) ₹ 234
 - (d) ₹ 405

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): ₹ 4,698**

Reason

Particulars	Customer- A	Customer- B
Sales (units)	350	500
	(₹)	(₹)
Selling Price per unit	5,400	5,400
Less: Discount (Quantity)	270	270
	(₹5,400 × 5%)	(₹5,400 × 5%)
Less: Discount (Delivery)	-	432
		(₹5,400 × 8%)
Selling Price (Net of Discounts) per unit	5,130	4,698

2. Option (c): ₹ 2,21,000

Reason

Particulars	Customer- A	Customer- B
Sales (units)	350	500
	(₹)	(₹)
Selling Price (Net of Discounts) per unit	5,130	4,698
Less: Variable Cost per unit	4,420	4,420
Contribution per unit	710	278
Total Contribution	2,48,500 (₹710 × 350 units)	1,39,000 (₹278 × 500 units)
Less: Additional Overheads		
Delivery Cost	17,500 (5 × ₹3,500)	-
Order Processing Cost	10,000 (5 × ₹2,000)	20,000 (10 × ₹2,000)
Profit per customer	2,21,000	1,19,000

3. Option (c): ₹ 631

Reason

Particulars	Customer- A	Customer- B
Sales (units)	350	500
	(₹)	(₹)
Selling Price (Net of Discounts) per unit	5,130	4,698
Less: Variable Cost per unit	4,420	4,420
Contribution per unit	710	278
Total Contribution	2,48,500 (₹710 × 350 units)	1,39,000 (₹278 × 500 units)
Less: Additional Overheads		

Delivery Cost	17,500 (5 × ₹3,500)	---
Order Processing Cost	10,000 (5 × ₹2,000)	20,000 (10 × ₹2,000)
Profit per customer*	2,21,000	1,19,000
Profit per customer per unit	631.43	238.00

4. Option (b): ₹ 238

Reason

Particulars	Customer- A	Customer- B
Sales (units)	350	500
	(₹)	(₹)
Selling Price (Net of Discounts) per unit	5,130	4,698
Less: Variable Cost per unit	4,420	4,420
Contribution per unit	710	278
Total Contribution	2,48,500 (₹710 × 350 units)	1,39,000 (₹278 × 500 units)
Less: Additional Overheads		
Delivery Cost	17,500 (5 × ₹3,500)	---
Order Processing Cost	10,000 (5 × ₹2,000)	20,000 (10 × ₹2,000)
Profit per customer	2,21,000	1,19,000
Profit per customer per unit	631.43	238.00

5. Option (a): ₹ 432

Reason

$$₹ 432 = ₹ 5,400 \times 8\%$$

CASE SCENARIO 90

Osaka Manufacturing Co. (OMC) is a leading consumer goods company. The budgeted and actual data of OMC for the year 2023-24 are as follows:-

Particulars	Budget	Actual	Variance
Sales / Production (units)	2,00,000	1,65,000	(35,000)
Sales (₹)	21,00,000	16,92,900	(4,07,100)
Less: Variable Costs (₹)	12,66,000	10,74,150	1,91,850
Less: Fixed Costs (₹)	3,15,000	3,30,000	(15,000)
Profit	5,19,000	2,88,750	(2,30,250)

The budgeted data shown in the table is based on the assumption that total market size would be 4,00,000 units but it turned out to be 3,75,000 units.

MULTIPLE CHOICE QUESTIONS

1. What is the Sales Volume Contribution Planning Variance?
 - (a) ₹ 52,125 (A)
 - (b) ₹ 22,125 (A)
 - (c) ₹ 52,215 (F)
 - (d) ₹ 52,152 (F)
2. What is the Sales Volume Contribution Operational Variance?
 - (a) ₹ 93,825 (F)
 - (b) ₹ 93,825 (A)
 - (c) ₹ 82,582 (A)
 - (d) ₹ 82,582 (F)
3. What is the Fixed Cost Expenditure Variance?
 - (a) ₹ 16,000 (A)
 - (b) ₹ 15,000 (F)
 - (c) ₹ 17,000 (A)
 - (d) ₹ 15,000 (A)

4. What is the Variable Cost Variance?

- (a) ₹ 79,700(A)
- (b) ₹ 79,700(F)
- (c) ₹ 29,700(A)
- (d) ₹ 29,700(F)

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): ₹ 52,125 (A)**

Reason

Volume Contribution Planning

$$= \text{Budgeted Market Share \%} \times (\text{Actual Industry Sales Quantity in units} - \text{Budgeted Industry Sales Quantity in units}) \times (\text{Average Budgeted Contribution per unit})$$

$$= 50\% \times (3,75,000 \text{ units} - 4,00,000 \text{ units}) \times ₹ 4.17 = ₹ 52,125 \text{ (A)}$$

2. **Option (b): ₹ 93,825 (A)**

Reason

Volume Contribution Operational = (Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity in units) × (Average Budgeted Contribution per unit)

$$= (44\% - 50\%) \times 3,75,000 \text{ units} \times ₹ 4.17 = ₹ 93,825 \text{ (A)}$$

3. **Option (d): ₹ 15,000 (A)**

Reason

Fixed Cost Expenditure Variance: = Budgeted Fixed Cost – Actual Fixed Cost

$$= ₹ 3,15,000 - ₹ 3,30,000 = ₹ 15,000 \text{ (A)}$$

4. **Option (c): ₹ 29,700(A)**

Reason

Variable Cost Variance: = Standard Cost for Production – Actual Cost

$$= \text{Actual Production} \times (\text{Standard Cost per unit} - \text{Actual Cost per unit})$$

$$= 1,65,000 \text{ units} \times (₹ 6.33 - ₹ 6.51) = ₹ 29,700 \text{ (A)}$$

CASE SCENARIO 91

Young Chin Limited uses standard and marginal costing system. It provides the following details for the year 2022-23 relating to its production, cost and sales:

Particulars	Budget	Actual
Sales units	24,000	25,600
Sales value (₹)	6,000	6,784
Materials (₹)	960	1,080
Labour (₹)	1,440	1,664
Variable overheads (₹)	2,400	2,592

The sales budget is based on the expectation of the company's estimate of market share of 12%. The entire industry's sales of the same product for the year 2022-23 is 2,40,000 units. Further details are as follows:

Particulars	Standard (In ₹)	Actual (In ₹)
Material price per kg.	8.00	7.50
Labour rate per hour	6.00	6.40

MULTIPLE CHOICE QUESTIONS

1. What is the sales contribution price variance for Young Chin Limited?
 - (a) ₹ 160 (F)
 - (b) ₹ 384 (F)
 - (c) ₹ 384 (A)
 - (d) ₹ 160 (A)
2. What is the budgeted (profit volume ratio) for Young Chin Limited?
 - (a) 0.05
 - (b) 0.20
 - (c) 0.17
 - (d) 0.08

3. What is the market size variance for Young Chin Limited?
- (a) ₹ 160 (A)
 - (b) ₹ 240 (F)
 - (c) ₹ 240 (A)
 - (d) ₹ 160 (F)
4. What is the market share variance for Young Chin Limited?
- (a) ₹ 160 (A)
 - (b) ₹ 240 (F)
 - (c) ₹ 210 (A)
 - (d) ₹ 100 (A)

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (b): ₹ 384 (F)**

Reason : Sales Contribution Price Variance= Sales Price Variance= 384 (F)

2. **Option (b): 0.20**

Reason : Budgeted Profit Volume Ratio= $1,200/6,000 \times 100 = 20\% = 0.20$

3. **Option (b): ₹ 240 (F)**

Reason : Market Size Variance = (Required Sales Quantity in units – Total Budgeted Quantity in units) × Average Budgeted Contribution per unit
 $= (28,800 \text{ units} - 24,000 \text{ units}) \times ₹ 0.05 = ₹ 240 (F)$

4. **Option (a): ₹ 160 (A)**

Reason : Market Share Variance = (Total Actual Quantity in units – Required Sales Quantity in units) × Average Budgeted Contribution per unit
 $= (25,600 \text{ units} - 28,800 \text{ units}) \times ₹ 0.05 = ₹ 160 (A)$

CASE SCENARIO 92

The following figures are available. Find out the missing figures, giving appropriate formulae:

	₹
Budgeted profit	15,000
<i>Less:</i> Adverse variances:	
Contribution price variance	10,600
Direct materials variance	1,000
Fixed overhead variance	600
<i>Add:</i> Favourable variances:	
Contribution quantity variance	1,800
Direct wages variance	600
Variable overhead variance	1,800
Actual profit	7,000

There is no inventory. Production units equals to Sales units for both actual and budget.

Standard selling price	₹ 18 / unit
Standard variable cost	₹ 15 / unit
Budgeted sales	10,000 units
Actual selling price	₹ 17 / unit

Standard material cost per unit	₹ 1 (which is 5 kg. @ ₹ 20 Paise/kg.)
Material usage variance	₹ 400 (A)
Actual labour hours @ actual rate	₹ 63,000
Actual labour hours @ standard rate	₹ 61,950
Variable overhead standard rate	₹ 2

Standard hours of production	4 per unit
Variable overhead at standard rate	₹ 84,800
Variable overhead expenditure variance	₹ 400 (A)
Budgeted fixed overhead	₹ 15,000

MULTIPLE CHOICE QUESTIONS

- What are the actual sales units?
 - 12,400
 - 11,500
 - 10,600
 - 10,700
- What is the actual quantity of raw materials used?
 - 50,000 kg
 - 51,000 kg
 - 55,000 kg
 - 57,000 kg
- What is the actual variable overhead in rupees?
 - ₹ 85,400
 - ₹ 84,400
 - ₹ 83,000
 - ₹ 84,400
- What are the actual fixed overheads?
 - ₹ 15,700
 - ₹ 16,700
 - ₹ 15,800
 - ₹ 15,600

5. What is the operating profit variance? If budgeted profit is considered-
- (a) ₹ 8,000 (F)
 - (b) ₹ 10,000 (A)
 - (c) ₹ 8,000 (A)
 - (d) ₹ 11,000 (A)
6. What is the operating profit variance? If standard profit is considered:
- (a) ₹ 7,000 (A)
 - (b) ₹ 8,000 (A)
 - (c) ₹ 5,200 (A)
 - (d) ₹ 9,800 (A)

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): 10,600

Reason

Computation of Actual Sales (units)

Budgeted Contribution (₹ 15,000 + ₹ 15,000)	₹ 30,000
Add: Contribution Quantity Variance	<u>₹ 1,800</u>
Total Standard Contribution	₹ 31,800
Standard Contribution per unit	₹ 3
Actual Sales Volume (₹ 31,800 / ₹ 3)	10,600 units

2. Option (c): 55,000 kg

Reason

Computation of Actual Quantity of Raw Materials (used)

Standard Consumption (10,600 units x 5 kg.)	53,000 kgs.
Add: Material Usage Variance [400 (A) / ₹ 0.20]	<u>2,000 kgs.</u>
Actual Consumption	<u>55,000 kgs.</u>

3. Option (c): ₹ 83,000**Reason**

Computation of Actual Variable Overhead (₹)

Standard Variable Overheads for Output	₹ 84,800
Less: Variable Overhead Variance	<u>₹ 1,800</u>
Actual Variable Overhead	<u>₹ 83,000</u>

4. Option (d): ₹ 15,600**Reason**

Actual Fixed Overheads (₹ 15,000 + ₹ 600) = 15,600

5. Option (c): ₹ 8,000 (A)**Reason**

Operating Profit Variance:

If budgeted profit is considered (₹ 15,000 – ₹ 7,000) = ₹ 8,000 (A)

6. Option (d): ₹ 9,800 (A)**Reason**

Operating Profit Variance:

If standard profit is considered (₹ 16,800 – ₹ 7,000) = ₹ 9,800 (A)

CASE SCENARIO 93

Zed company manufactures two types of flooring rolls. Budgeted and actual data for 2023 are-

	Static Budget			Actual Result		
	Industrial	Domestic	Total	Industrial	Domestic	Total
Unit Sales in Rolls ('000)	200	600	800	252	588	840
Contribution Margin (₹ in Lacs)	100.00	240.00	340.00	119.70	246.96	366.66

In late 2022, a marketing research estimated industrial volume for industrial and domestic flooring at 80 Lacs Rolls. Actual industry volume for 2023 was 70 Lacs Rolls.

MULTIPLE CHOICE QUESTIONS

1. What is the sales mix variance for Domestic flooring rolls?
 - (a) ₹ 16,80,000 (A)
 - (b) ₹ 12,00,000 (A)
 - (c) ₹ 13,00,000 (A)
 - (d) ₹ 14,00,000 (A)
2. What is the sales quantity variance for Industrial flooring rolls?
 - (a) ₹ 6,00,000 (F)
 - (b) ₹ 5,00,000 (F)
 - (c) ₹ 7,00,000 (F)
 - (d) ₹ 5,00,000 (A)

3. What is the market size variance?
- (a) ₹ 21,50,000 (A)
 - (b) ₹ 50,50,000 (A)
 - (c) ₹ 42,50,000 (A)
 - (d) ₹ 42,50,000 (F)
4. What is the market share variance?
- (a) ₹ 40,10,000 (F)
 - (b) ₹ 19,50,000 (A)
 - (c) ₹ 59,50,000 (A)
 - (d) ₹ 59,50,000 (F)

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): ₹ 16,80,000 (A)**

Reason

$$\text{Domestic} = ₹ 40 \times (5,88,000 - 6,30,000) = ₹ 16,80,000 \text{ (A)}$$

2. **Option (b): ₹ 5,00,000 (F)**

Reason

$$\text{Industrial} = ₹ 50 \times (2,10,000 - 2,00,000) = ₹ 5,00,000 \text{ (F)}$$

3. **Option (c): ₹ 42,50,000 (A)**

Reason

$$= 10\% \times (70,00,000 \text{ Rolls} - 80,00,000 \text{ Rolls}) \times ₹ 42.50 = ₹ 42,50,000 \text{ (A)}$$

4. **Option (d): ₹ 59,50,000 (F)**

Reason

$$= (12\% - 10\%) \times 70,00,000 \text{ Rolls} \times ₹ 42.50 = ₹ 59,50,000 \text{ (F)}$$

CASE SCENARIO 94

7 Star Sports Co. (7SSC) is engaged in the manufacture of cricket bats. Following table shows the budgeted figures for the coming year:

Particulars	₹ per unit
Selling Price	4,800
Less: Components (1 Set)	1,200
Assembling Costs	2,000
Delivery Cost	800
Contribution	800

Components like willow, rubber grip and handle bar in a set, are bought in and an assembling process carried out to transform them into a single bat. Market is intensely competitive where 7SSC currently holds 30% market share. Annual demand of these bats is 1,00,000 units.

On reviewing previous performance it is revealed that 3% of the bats supplied to customers were returned for free replacement because of faults. Defective components, which are initially bought in to assembling process, are held responsible for this. These returned bats cannot be repaired and have no scrap value. Supply of faulty bats to customers could be eliminated by implementing an inspection process immediately before the goods are delivered. This would improve customer perception thus resulting in an increase of 5% in current market share (making in all a total share of 35%).

MULTIPLE CHOICE QUESTIONS

- What is the total quality non-conformance cost for the coming year?
 - ₹ 72,16,000
 - ₹ 27,55,000
 - ₹ 12,10,000
 - ₹ 35,40,000

-
2. What is the additional contribution expected due to the increase in market share after implementing the inspection process?
- (a) ₹ 24,00,000
(b) ₹ 30,00,000
(c) ₹ 35,04,000
(d) ₹ 40,00,000
3. How much will 7SSC save in delivery costs on the 928 faulty bats if the inspection process is implemented?
- (a) ₹ 7,42,400
(b) ₹ 5,16,000
(c) ₹ 6,20,000
(d) ₹ 7,26,000
4. What is the total increase in profit expected due to the implementation of the inspection process?
- (a) ₹ 35,04,400
(b) ₹ 7,46,500
(c) ₹ 46,05,000
(d) ₹ 42,46,400

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): ₹ 72,16,000

Reason

Calculation of Quality Non- Conformance Cost

Annual Sales = 1,00,000 × 30% = 30,000 units

Number of returned bats which are replaced free of cost

= $30,000 \times \frac{3}{97} = 928$ units

Cost of 928 units that are replaced free of charge

$$= 928 \times ₹ 4,000 = ₹ 37,12,000 \text{ (A)}$$

Contribution Lost (Market Share) due to faulty bats = ₹ 35,04,000 (B)

So, Total Quality Non-Conformance Cost [(A) + (B)] = ₹ 72,16,000

Statement Showing "Contribution Lost (Market Share) due to faulty bats"

Particulars	₹ '000
Sales (5,000 units × ₹ 4,800)	24,000
Less: Variable Cost [(₹ 1,200 units + ₹ 2,000 + ₹ 800) × 5,000 units]	20,000
Less: Relevant Cost of faulty bats 155x (2,000+1,200)	496
Contribution	3,504

No. of Faulty Bats = 155 (5000x3/97)

2. Option (c): ₹ 35,04,000

Reason

Additional Contribution due to *increase in market share* = ₹ 35,04,000

3. Option (a): ₹ 7,42,400

Reason

Saving in the Delivery Cost on 928 faulty bats = 928 units × ₹ 800 = ₹ 7,42,400

4. Option (d): ₹ 42,46,400

Reason

Additional Contribution due to *increase in market share* = ₹ 35,04,000

Saving in the Delivery Cost on 928 faulty bats

$$= 928 \text{ units} \times ₹ 800 = ₹ 7,42,400$$

Total Increase in Profit = ₹ 42,46,400

CASE SCENARIO 95

M. India Ltd. (MIL) is an automobile manufacturer in India and a subsidiary of Japanese automobile and motorcycle manufacturer Leon. It manufactures and sells a complete range of cars from the entry level to the hatchback to sedans and has a present market share of 22% of the Indian passenger car markets. MIL uses a system of standard costing to set its budgets. Budgets are set semi-annually by the Finance department after the approval of the Board of Directors at MIL. The Finance department prepares variance reports each month for review in the Board of Directors meeting, where actual performance is compared with the budgeted figures. Mr. Neeraj Thakur, group CEO of the Leon is of the opinion that Kaizen costing method should be implemented as a system of planning and control in the MIL.

MULTIPLE CHOICE QUESTIONS

1. Under Kaizen Costing, what is emphasized?
 - (a) Large one-time improvements
 - (b) Radical changes in the process
 - (c) Sporadic improvements
 - (d) Small but continuous improvements
2. What is one key change required to implement Kaizen Costing at MIL?
 - (a) From Standard Cost Control System to Cost Reduction System
 - (b) From Cost Reduction System to Standard Cost Control System
 - (c) From Activity-Based Costing to Job Order Costing
 - (d) Value Engineering in the current costing system
3. How frequently should cost reduction targets be set under the Kaizen Costing system?
 - (a) Annually
 - (b) Semi-annually

- (c) Quarterly
 - (d) Monthly or weekly
4. Who should participate in setting standards under the Kaizen Costing system?
- (a) Only the Finance Department
 - (b) Only the Board of Directors
 - (c) External consultants
 - (d) Workers and executives involved in the manufacturing process
5. Which of the following key changes is vital for MIL's planning and control system to support the adoption of Kaizen Costing Concepts?
- (a) Transition from a Cost Reduction System to a Standard Cost Control System
 - (b) Increase the periodicity of setting standards from semi-annually to annually
 - (c) Include participation of workers and executives in setting standards
 - (d) Eliminate variance reports from the review process

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (d): Small but continuous improvements

Reason

Refer Reason of Last MCQ

2. Option (a): From Standard Cost Control System to Cost Reduction System

Reason

Refer Reason of Last MCQ

3. Option (d): Monthly or weekly

Reason

Refer Reason of Last MCQ

4. Option (d): Workers and executives involved in the manufacturing process

Reason

Refer Reason of Last MCQ

5. Option (c): Eliminate variance reports from the review process

Reason (All MCQs)

Kaizen Costing emphasizes on *small but continuous improvement*. Targets once set at the beginning of the year or activities are *updated continuously* to reflect the improvement that has already been achieved and that are yet to be achieved.

The suggestive changes which are required to be adopted Kaizen Costing concepts in MIL are as follows:

Standard Cost Control System to Cost Reduction System: Traditionally Standard Costing system assumes stability in the current manufacturing process and standards are set keeping the normal manufacturing process into account thus the whole effort is on to meet performance cost standard. On the other hand, Kaizen Costing believes in continuous improvements in manufacturing processes and hence, the goal is to achieve cost reduction target. The first change required is the standard setting methodology i.e. from earlier Cost Control System to Cost Reduction System.

Reduction in the periodicity of setting Standards and Variance Analysis: Under the existing planning and control system followed by the MIL, standards are set semi-annually and based on these standards monthly variance reports are generated for analysis. But under Kaizen Costing system cost reduction targets are set for small periods say for a week or a month. So the period covered under a standard should be reduced from semi-annually to monthly and the current practice of generating variance reports may be continued or may be reduced to a week.

Participation of Executives or Workers in standard setting: Under the Kaizen Costing system participation of workers or executives who are actually involved in the manufacturing process are highly appreciated while setting standards. So, the current system of setting budgets and standards by the Finance department with the mere consent of Board of Directors required to be changed.

CASE SCENARIO 96

NEC Ltd. manufactures two parts 'P' and 'Q' for Computer Industry.

P : Annual production and sales of 1,00,000 units at a selling price of ₹100.05 per unit.

Q : Annual production and sales of 50,000 units at a selling price of ₹150 per unit.

Direct and Indirect costs incurred on these two parts are as follows:

(₹in thousand)

Particulars of Costs	P	Q	Total
Direct Material Cost (Variable)	4,200	3,000	7,200
Labour Cost (Variable)	1,500	1,000	2,500
Direct Machining Cost (See Note)*	700	550	1,250
Indirect Costs			
Machine Setup Cost			462
Testing Cost			2,375
Engineering Cost			2,250

Note: Direct machining costs represents the cost of machine capacity dedicated to the production of each product. These costs are fixed and are not expected to vary over the long-run horizon.

Additional information is as follows:

	P	Q
Production Batch Size	1,000 units	500 units
Set-up Time per batch	30 hours	36 hours
Testing Time per unit	5 hours	9 hours
Engineering Cost incurred on each product	8.40 lakhs	14.10 lakhs

A foreign competitor has introduced product very similar to 'P'. To maintain the company's share and profit, NEC Ltd. has to reduce the price to ₹86.25. The company calls for a meeting and comes up with a proposal to change design of product 'P'. The expected effect of new design is as follows:

- ◆ Direct Material cost is expected to decrease by ₹5 per unit.
- ◆ Labour cost is expected to decrease by ₹2 per unit.
- ◆ Machine time is expected to decrease by 15 minutes, previously it took 3 hours to produce 1 unit of 'P'. The machine will be dedicated to the production of new design.
- ◆ Set up time will be 28 hours for each set up.
- ◆ Time required for testing each unit will be reduced by 1 hour.
- ◆ Engineering cost and batch size will be unchanged.

MULTIPLE CHOICE QUESTIONS

1. Company management identifies that cost driver for Machine set-up costs is 'Set up hours used in batch setting' and for testing costs is 'testing time'. Engineering costs are assigned to products by special study. The full cost per unit for 'P' and 'Q' using Activity-Based Costing:
 - (a) P- ₹87.00; Q- ₹146.74
 - (b) P- ₹146.74; Q- ₹87.00
 - (c) P- ₹78.00; Q- ₹146.47
 - (d) P- ₹90.00; Q- ₹87.74
2. Mark-up on full cost per unit of P:
 - (a) 10%
 - (b) 15%
 - (c) 20%
 - (d) 25%

3. The Target Cost per unit in ₹ for new design to maintain the same markup percentage on full cost per unit as it had earlier:
(Assume cost per unit of cost drives for the new design remains unchanged)
- (a) 86.25
 - (b) 11.25
 - (c) 75.00
 - (d) 15.25
4. Which of the following statements is correct?
- (a) The target cost is ₹75 p.u. and estimated cost (new design) is ₹77.36 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall not be achieved.
 - (b) The target cost is ₹75 p.u. and estimated cost (new design) is ₹87.36 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall not be achieved.
 - (c) The target cost is ₹77.36 p.u. and estimated cost (new design) is ₹75.00 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall be achieved.
 - (d) The target cost is ₹75 p.u. and estimated cost (new design) is ₹88.96 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall not be achieved.
5. Which of the following is NOT a possible management action that NEC Ltd. should take regarding the new design?
- (a) Value engineering and value analysis to reduce the direct material costs.
 - (b) Exploring possibility of cost reduction in direct machining cost by using appropriate techniques.
 - (c) The expected selling price based on estimated cost of ₹77.36 per unit is ₹98.96. Introduce pareto/ sensitivity analysis after

implementation of new design to study the sales quantity changes in the price range of ₹86.25 to ₹98.96.

- (d) Identification of non-value added activities and eliminating them in order to reduce overheads

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): P- ₹87.00; Q- ₹146.74

Reason

Statement Showing "Cost per unit- Activity Based Costing"

Particulars of Costs	Basis	P	Q
Direct Material	Direct	42,00,000	30,00,000
Direct Labour	Direct	15,00,000	10,00,000
Direct Machine Cost	Direct	7,00,000	5,50,000
Machine Setup Cost	3,000 hrs. @ ₹70	2,10,000	----
	3,600 hrs. @ ₹70	----	2,52,000
Testing Cost	5,00,000 hrs. @ ₹2.50	12,50,000	----
	4,50,000 hrs. @ ₹2.50	----	11,25,000
Engineering Cost	Allocated	8,40,000	14,10,000
Total Cost (₹)		87,00,000	73,37,000
Cost per unit (₹)		87.00	146.74

Working Notes

Particulars		P	Q
(a)	Production / Sales Quantity (units)	1,00,000	50,000
(b)	Batch Size (units)	1,000	500
(c)	No. of Batches (a ÷ b)	100	100

(d)	Setup Time per Batch (hours)	30	36
(e)	Total Setup Hours (hours) (c × d)	3,000	3,600
(f)	Machine Setup Cost ₹4,62,000		
(g)	Cost Driver per Machine Setup Hour = 4,62,000/6,600 = 70		
(h)	Testing Time per Unit (hours)	5	9
(i)	Total Testing Time (hours) (a × h)	5,00,000	4,50,000
(j)	Testing Cost ₹23,75,000		
(k)	Cost Driver per Testing Hour = 23,75,000/ 9,50,000 = 2.50		

2. Option (b): 15%

Reason

Statement Showing "Mark-up (full cost basis)- Product P"

Particulars	Per unit
Selling Price	100.05
Less: Full Cost	87.00
Markup	13.05
Percentage of Markup on Full Cost [13.05/ 87.00 × 100]	15%

3. Option (c): 75

Reason

Statement Showing "Target Cost of Product P" (After New Design is Implemented)

Particulars	(₹)
Target Price (given)	86.25

Mark-up $(86.25 / 115 \times 15)$	11.25
Target Cost <i>per unit</i>	75.00

4. **Option (a):** The target cost is ₹75 p.u. and estimated cost (new design) is ₹77.36 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall not be achieved.

Reason

Statement Showing "Cost of P (New Design)"

Particulars of Costs	Basis of Costs	Rate *	Total Cost
Direct Material	Decrease by ₹5 p.u.	37.00	37,00,000
Direct Labour	Decrease by ₹2 p.u.	13.00	13,00,000
Direct Machining Cost	No Change as Machine is Dedicated	7.00	7,00,000
Machine Setup Cost	100 Setup $\times$ 28 hrs. $\times$ ₹70	1.96	1,96,000
Testing Cost	1,00,000 units $\times$ ₹2.50 $\times$ 4 hrs.	10.00	10,00,000
Engineering Cost	No Change	8.40	8,40,000
Total Cost		77.36	77,36,000

* Rate per unit

The target cost is ₹75 p.u. and estimated cost (new design) is ₹77.36 p.u. The new design does not achieve the target cost set by NEC Ltd. Hence the target mark- up shall not be achieved.

5. **Option (c):** The expected selling price based on estimated cost of ₹77.36 per unit is ₹98.96. Introduce pareto analysis after implementation of new design to study the sales quantity changes in the price range of ₹86.25 to ₹98.96.

Reason

The expected selling price based on estimated cost of ₹77.36 per unit is $(₹77.36 + 15\%)$ ₹88.964. Introduce pareto/ sensitivity analysis after implementation of new design to study the sales quantity changes in the price range of ₹86.25 to ₹98.96.

CASE SCENARIO 97

Great Eastern Appliances Ltd. (GEAL) manufactures consumer durable products in a very highly competitive market. GEAL is considering launching a new product 'Kitchen Care' into the market and gathered the following data:

Expected Market Price	₹ 5,000 per unit
Direct Material Cost	₹ 1,850 per unit
Direct Labour Cost	₹ 80 per hour
Variable Overhead Cost	₹ 1,000 per unit

Packing Machine Cost (specially to be purchased for this product), ₹ 5,00,000

GEAL expects the selling price for the new product will continue throughout the product's life and a total of 1,000 units can be sold over the entire lifetime of the product.

Direct labour costs are expected to reduce as the volume of output increases due to the effects of 80% learning curve (index is -0.3219). The expected time to be taken for the first unit is 30 hours and the learning effect is expected to end after 250 units have been produced. Units produced after first 250 units will take the same time as the 250th unit.

MULTIPLE CHOICE QUESTIONS

- What is the total time required for producing 250 units?
 - 1,268.25 hours
 - 5.073 hours
 - 1,264.67 hours
 - 3.58 hours
- What is the time required for producing 250th unit?
 - 5.073 hours
 - 8.073 hours
 - 7.073 hours
 - 3.58 hours

3. What is the profitability of the product 'Kitchen Care' that GEAL will earn over its lifetime?
- (a) 31,66,260
 - (b) 13,33,740
 - (c) 42,00,000
 - (d) 18,33,740
4. What is the average target labour cost per unit over the lifetime of the product if GEAL requires an average profit of ₹ 800 per unit to achieve its long-term objectives?
- (a) 1,000
 - (b) 1,850
 - (c) 800
 - (d) 850

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): 1,268.25 hours

Reason

The average time per unit for 250 units is

$$Y_x = ax^b$$

$$Y_{250} = 30 \times 250^{-0.3219}$$

$$Y_{250} = 30 \times 0.1691$$

$$Y_{250} = 5.073 \text{ hours}$$

$$\text{Total time for 250 units} = 5.073 \text{ hours} \times 250 \text{ units} = 1,268.25 \text{ hours}$$

2. Option (d): 3.58 hours

Reason

The average time per unit for 249 units is

$$Y_{249} = 30 \times 249^{-0.3219}$$

$$Y_{249} = 30 \times 0.1693$$

$$Y_{249} = 5.079 \text{ hours}$$

Total time for 249 units = 5.079 hours × 249 units = 1,264.67 hours

Time for 250th unit = 1,268.25 hours – 1,264.67 hours = 3.58 hours

3. Option (b): 13,33,740

Reason

Profitability of the Product 'Kitchen Care'

Particulars	Amount (₹)	Amount (₹)
Sales (1,000 units)		50,00,000
Less: Direct Material	18,50,000	
Direct Labour (3,953.25 hours × ₹ 80)	3,16,260	
Variable Overheads (1,000 units × ₹ 1,000)	10,00,000	31,66,260
Contribution		18,33,740
Less: Packing Machine Cost		5,00,000
Profit		13,33,740

4. Option (d): 850

Reason

Average 'Target Labour Cost' per unit

Particulars	Amount (₹)
Expected Sales Value	50,00,000
Less: Desired Profit (1,000 units × ₹ 800)	8,00,000
Target Cost	42,00,000
Less: Direct Material (1,000 units × ₹ 1,850)	18,50,000
Variable Cost (1,000 units × ₹ 1,000)	10,00,000
Packing Machine Cost	5,00,000
Target Labour Cost	8,50,000
Average Target Labour Cost per unit (₹ 8,50,000 ÷ 1,000 units)	850

CASE SCENARIO 98

Hindustan Bikes Ltd. (HBL) formerly known as HELCO is an Indian multinational company. It's headquarter is located in Bengaluru, India. It has been founded in the year 1990 as a manufacturer of locomotives. The company is presently listed locally as well as in international stock market. HBL's parent company is Hindustan Group. The management of HBL recognizes the need to establish a culture at the company so that -

"Do the right things, right the first time, every time".

Management has provide you following actual information for the most recent month of the current year:

Cost Data (₹)

Customer Support Centre Cost	35 per hr.
Equipment Testing Cost	18 per hr.
Warranty Repair Cost	1,560 per bike
Manufacturing Rework Cost	228 per bike

Volume and Activity Data

Bikes Requiring Manufacturing Rework	3,200 bikes
Bikes Requiring Warranty Repair	2,600 bikes
Production Line Equipment Testing Time	1,600 hrs.
Customer Support Centre Time	2,000 hrs.

Additional information

HBL carried out a quality review of its existing suppliers to enhance quality levels during the month at a cost of ₹ 1,25,000. Due to the quality issues in the month, the bike production line experienced unproductive 'down time' which cost ₹ 7,70,000.

MULTIPLE CHOICE QUESTIONS

1. Prevention Costs_____.
 - (a) 1,25,000
 - (b) 28,800
 - (c) 7,70,000
 - (d) 7,29,600
2. Appraisal Costs_____.
 - (a) 1,25,000
 - (b) 28,800
 - (c) 7,29,000
 - (d) 40,56,000
2. Internal Failure Costs_____; External Failure Costs_____.
 - (a) 7,29,000; 7,70,000
 - (b) 28,800; 70,000
 - (c) 14,99,600; 41,26,000
 - (d) 40,56,000; 7,19,600
4. Total Quality Costs_____.
 - (a) 14,29,000
 - (b) 40,56,000
 - (c) 56,40,000
 - (d) 57,79,400

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): 1,25,000

Reason

Statement Showing "Total Quality Cost"

Particulars of Costs	₹
Prevention Costs	
Supplier Review	1,25,000

2. Option (b): 28,800

Reason

Particulars of Costs	₹
Appraisal Costs	
Equipment Testing (₹ 18 × 1,600 hrs.)	28,800

3. Option (c): 14,99,600; 41,26,000

Reason

Particulars of Costs	₹
Internal Failure Costs	
Down Time	7,70,000
Manufacturing Rework (₹ 228 × 3,200 bikes)	7,29,600
External Failure Costs	
Customer Support (₹ 35 × 2,000 hrs.)	70,000
Warranty Repair (₹ 1,560 × 2,600 bikes)	40,56,000

4. Option (d): 57,79,400

Reason

Particulars of Costs	₹
Prevention Costs	
Supplier Review	1,25,000
Appraisal Costs	
Equipment Testing (₹ 18 × 1,600 hrs.)	28,800
Internal Failure Costs	
Down Time	7,70,000
Manufacturing Rework (₹ 228 × 3,200 bikes)	7,29,600
External Failure Costs	
Customer Support (₹ 35 × 2,000 hrs.)	70,000
Warranty Repair (₹ 1,560 × 2,600 bikes)	40,56,000
Total Quality Costs	57,79,400

CASE SCENARIO 99

Computer Tec a manufacturing firm, has entered into an agreement of strategic alliance with Comp Inc. of United States of America for the manufacture of Super Computers in India. Broadly, the terms of agreement are:

- (i) Comp Inc. will provide Computer Tec with kits in a dismantled condition. These will be used in the manufacture of the Super Computer in India. On a value basis, the supply, in terms of the FOB price will be 50% thereof.
- (ii) Computer Tec will procure the balance of materials in India.
- (iii) Comp Inc will provide to Computer Tec with designs and drawings in regard to the materials and supplies to be procured in India. For this, Computer Tec will pay Comp Inc. a technology fee of ₹ 8 crores.
- (iv) Comp Inc. will also be entitled total royalty at 10% of the selling price of the computers fixed for sales in India as reduced by the cost of standard items procured in India and also the cost of imported kits from Comp Inc.
- (v) Computer Tec will furnish to Comp Inc. detailed quarterly returns.

Other information available:

- FOB price agreed \$2,040. Exchange rate to be adopted \$1 = ₹ 55.00
- Insurance and freight – ₹ 2,000 per imported kit;
- Customs duty leviable is 200% of the CIF prices; but as a concession, the actual rate leviable has been fixed at 40% of CIF.
- The technology agreement expires with the production of 8,00,000 computers;
- The quoted price on kits includes a 25% margin of profits on cost to Comp Inc.
- The estimated cost of materials and supplies to be obtained in India will be 150% of the cost of supplies made by Comp Inc.
- 50% of the value in rupees of the locally procured goods represent cost of the standard items.

- Cost of assembly and other overheads in India will be ₹ 8,000 per Super Computer

MULTIPLE CHOICE QUESTIONS

1. What will be the FOB price of the dismantled kit in ₹ ?
 - (a) 1,12,200
 - (b) 67,320
 - (c) 89,760
 - (d) 58,100
2. What is the cost of a dismantled kit to Company Inc in ₹ ?
 - (a) 1,12,200
 - (b) 67,320
 - (c) 56,100
 - (d) 89,760
3. What is the landed cost of a dismantled kit in ₹ ?
 - (a) 56,100
 - (b) 58,100
 - (c) 23,240
 - (d) 81,340
4. Calculate the selling price, of a personal computer in India bearing in mind that Computer Tec Ltd has targeted a profit of 20% to itself on the selling price.
 - (e) 1,56,600
 - (f) 1,56,660
 - (g) 1,66,011
 - (h) 2,07,514

5. What is the royalty payment per computer in ₹ ?

- (a) 81,340
- (b) 2,07,514
- (c) 9,251
- (d) 23,240

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. **Option (a): 1,12,200**

Reason

FOB Price of Dismantled Kit:

FOB Price of Dismantled Kit - \$2,040

FOB Price of dismantled Kit [$\$2,040 \times 55$] - ₹ 1,12,200

2. **Option (d): 89,760**

Reason

Cost of Dismantled Kit to Comp Inc. $(100 / 125 \times 1,12,200) = ₹ 89,760$

3. **Option (d): 81,340**

Reason

	(₹)
FOB Price $(50\% \times 1,12,200)$ (Refer to Working Note-1)	56,100
Add: Insurance & Freight	2,000
CIF Price	58,100
Add: Customs Duty $(40\% \times 58,100)$	23,240
Landed Cost of a Dismantled Kit	81,340

4. Option (d): 2,07,514

Reason

Statement Showing "Selling Price of a Super Computer in India"

	(₹)
A. Landed Cost of a Dismantled Kit	81,340
B. Cost of Local Procurement	67,320
C. Cost of Assembly and Other Overheads <i>per computer</i>	8,000
D. Total Cost of Manufacture (A + B + C)	1,56,660
E. Technology Fee <i>per computer</i> (8,00,00,000 / 8,00,000 Computer)	100
F. Royalty Payment <i>per unit</i>	9,251
G. Total Cost (D + E + F)	166,011
H. Profit (20% on Selling Price of 25% of Total Cost)	41,503
I. Selling Price <i>per computer</i>	207,514

5. Option (c): 9,251

Reason

Royalty Payment per computer:

Let X = Selling Price *per unit* of Super Computer
 Y = Royalty Paid *per computer*

Since 20% is the Margin of Profit on Selling Price. It means Margin of 25% on Cost Price.

Therefore, we have

$$X = 1.25 \times (81,340 + 67,320 + 8,000 + 100 + Y)$$

$$Y = 10\% \times \{X - (33,660 + 81,340)\}$$

On solving the above equations we get:

$$X = 2,07,514 \text{ (Approx)}$$

$$Y = 9,251 \text{ (Approx)}$$

CASE SCENARIO 100

B-Parts Inc., USA based firm, has just invented a new part 'B-20'. New part has a budgeted total profit of ₹ 75,000 from the first 256 parts. The time taken to produce the first part was 112.50 hours. The labour rate is ₹ 20 per hour. A 90% learning curve is expected to apply indefinitely.

MULTIPLE CHOICE QUESTIONS

1. What is the revised labor cost (₹) required to achieve zero profit?
 - (a) 3,22,961.60
 - (b) 2,47,961.60
 - (c) 3,22,960.61
 - (d) 2,47,960.61
2. What is the cumulative average time (Revised) required per part for producing 256 parts based on MCQ-1?
 - (a) 48.43 hrs.
 - (b) 63.80 hrs.
 - (c) 63.08 hrs.
 - (d) 43.48 hrs.
3. The sensitivity of the budgeted total profit from the first 256 parts to changes in the learning rate_____.
 - (a) 93.02%
 - (b) 3.36%
 - (c) 7.76%
 - (d) 56.07%

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (a): 3,22,961.60

Reason

Cumulative Average Time for 256 parts = 48.43 hrs. $[112.50 \times (0.90^8)]$

Total Time for 256 parts = 12,398.08 hrs. $[48.43 \text{ hrs.} \times 256 \text{ parts}]$

Total Labour Cost of 256 parts = 2,47,961.60 $[12,398.08 \text{ hrs.} \times 20]$

Revised Labour Cost for *zero profit* = 3,22,961.60 $[2,47,961.60 + 75,000]$

2. Option (c): 63.08 hrs.

Reason

Revised Labour Cost for *zero profit* = 3,22,961.60 $[2,47,961.60 + 75,000]$

Total Time for 256 parts (Revised) = 16,148.08 hrs. $[3,22,961.60 / 20]$

Cumulative Average Time for 256 parts (Revised) = 63.08 hrs.
 $[16,148.08 / 256]$

3. Option (b): 3.36%

Reason

$$63.08 = 112.50 \times (256)^b$$

$$0.5607 = 2^{8b}$$

$$\log 0.5607 = \log 2^{8b}$$

$$\log 0.5607 = 8 \times b \times \log 2$$

$$\log 0.5607 = \log r^8$$

$$0.5607 = r^8$$

$$\text{Learning Rate (r)} = 93.02\%$$

$$\text{Sensitivity} = 3.02/90 = 3.36\%$$

CASE SCENARIO 101

The chief officer at manufacturing plant of Boeing 777-200LR aircraft observed that workers performing manufacturing operations at the plant showed signs of a definite learning pattern. He noted that most aircraft manufacturing tasks experienced what he called an 80 percent learning rate, meaning that workers need 20 percent fewer hours to make a part each time their cumulative experience making that part doubled. Thus, if the first part took 100 minutes, the second would require 80 minutes, the fourth would require 64 minutes, and so on.

[Note: learning coefficient is -0.322 for learning rate of 80%, $\log 2 = 0.30103$, $\log 3 = 0.47712$, $\log 5 = 0.69897$, Antilog of 1.484 = 30.48, Antilog of 1.4274 = 26.75]

MULTIPLE CHOICE QUESTIONS

1. What is the total time required to produce 40 parts?
 - (a) 30.81 minutes
 - (b) 30.48 minutes
 - (c) 1,219 minutes
 - (d) 1,291 minutes
2. What is the total time required to produce 60 parts?
 - (a) 26.75 minutes
 - (b) 1,219 minutes
 - (c) 1,605 minutes
 - (d) 38.74 minutes
3. Now, calculate the time required for parts 41 to 60.
 - (a) 386 minutes
 - (b) 388 minutes
 - (c) 883 minutes
 - (d) 683 minutes

4. Which of the following is NOT a limitation of a learning curve?
- (a) All activities of a firm are not subject to learning effect
 - (b) More productive equipment are designed and used to make the product
 - (c) Difficulty arises in obtaining valid data that will form basis for computation of learning effect
 - (d) Even slight change in circumstances quickly renders the learning curve obsolete

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (c): 1,219 minutes

Reason

Calculation of total time for 40 part

$$y = 100 \times (40)^{-0.322}$$

$$\log y = \log 100 - 0.322 \times \log 40$$

$$\log y = \log 100 - 0.322 \times [3 \times \log 2 + \log 5]$$

$$\log y = 2 - 0.322 \times [3 \times 0.30103 + 0.69897]$$

$$\log y = 1.484$$

$$y = \text{antilog of } 1.484$$

$$y = 30.48 \text{ minutes}$$

$$\text{Total time for 40 Parts} = 40 \text{ Parts} \times 30.48 \text{ minutes} = 1,219 \text{ minutes}$$

2. Option (c): 1,605 minutes

Reason

Calculation of total time for 60 parts:

$$y = 100 \times (60)^{-0.322}$$

$$\log y = \log 100 - 0.322 \times \log 60$$

$$\log y = \log 100 - 0.322 \times [2 \times \log 2 + \log 5 + \log 3]$$

$$\log y = 2 - 0.322 \times [2 \times 0.30103 + 0.69897 + 0.47712]$$

$$\log y = 1.4274$$

$$y = \text{antilog of } 1.4274$$

$$y = 26.75 \text{ minutes}$$

$$\text{Total Time for 60 Parts} = 60 \text{ Parts} \times 26.75 \text{ minutes} = 1,605 \text{ minutes}$$

3. Option (a): 386 minutes

Reason

Calculation of total time for 41 to 60 parts : = 1,605 minutes – 1,219 minutes = 386 minutes

4. Option (b): More productive equipment are designed and used to make the product

Reason

Limitations of Learning Curve are:

- (i) All activities of a firm are not subject to learning effect. (Activities that have not been performed in the present operational mode, those performed by new or unfamiliar employees are subjected to learning effect, while those performed by familiar or experienced workmen will not be subjected to learning effect)
- (ii) It is correct that learning effect does take place and average time taken is likely to reduce. But in practice it is highly unlikely that there will be a regular consistent rate of decrease. Therefore any cost prediction based on conventional learning curves should be viewed with caution.
- (iii) Considerable difficulty arises in obtaining valid data that will form basis for computation of learning effect.
- (iv) Even slight change in circumstances quickly renders the learning curve obsolete. While the regularity of conventional learning curves can be questioned, it would be wrong to ignore learning effect altogether in predicting costs for decision purposes.

CASE SCENARIO 102

A company which has developed a new machine has observed that the time taken to manufacture the first machine is 600 hours. The actual learning curve rate is 80%.

MULTIPLE CHOICE QUESTIONS

1. Average time taken to produce two machines:
 - (a) 600 hours
 - (b) 480 hours
 - (c) 960 hours
 - (d) 360 hours
2. Cumulative time taken to produce two machines:
 - (a) 600 hours
 - (b) 480 hours
 - (c) 960 hours
 - (d) 360 hours
3. Time taken to produce the second machine:
 - (a) 600 hours
 - (b) 480 hours
 - (c) 960 hours
 - (d) 360 hours
4. What is NOT a primary application of the learning curve?
 - (a) Budgeting and profit planning
 - (b) Pricing
 - (c) Setting standards
 - (d) Kano's performance attributes

5. Time which the company will take to manufacture the second machine if the actual learning curve rate is 90%:
- (a) 600 hours
 - (b) 540 hours
 - (c) 1,080 hours
 - (d) 480 hours

ANSWERS TO MULTIPLE CHOICE QUESTIONS

1. Option (b): 480 hours

Reason

Average time taken to produce two machines = $600 \times 80\%$ hours = 480 hours.

2. Option (c): 960 hours

Reason

Cumulative time taken to produce two machines = 480×2 hours = 960 hours

3. Option (d): 360 hours

Reason

Time taken to produce the second machine = $(960 - 600)$ hours = 360 hours

4. Option (d): Kano's performance attributes

Reason

- ◆ Knowledge of learning curve can be useful both in planning and control. Standard cost for new operations should be revised frequently to reflect the anticipated learning pattern. The main applications are summarised below:
- ◆ Helps to analyse CVP relationship during familiarisation phase: Learning curve is useful to analyse cost-volume-profit relationship during familiarisation phase of product or process and

thus it is very useful for cost estimates. Learning curve can be used as a tool for forecasting.

- ◆ Helps in budgeting and profit planning: Budget manager should select those costs which reflect learning effect and then he should be able to incorporate this effect in process of developing budgets or in the exercises relating to project planning.
- ◆ Helps in pricing: The use of cost data adjusted for learning effect helps in development of advantageous pricing policy.
- ◆ Design makers: It helps design engineers in making decisions based upon expected (predictable from past experience) rates of improvement.
- ◆ Helps in negotiations: It is very useful to Government in negotiations about the contracts.
- ◆ Helps in setting standards: The learning curve is quite helpful in setting standards in learning phase.

5. Option (d): 480 hours

Reason

Average time taken to produce two machines

$$= 600 \times 90\% \text{ hours} = 540 \text{ hours}$$

Cumulative time taken to produce two machines

$$= 540 \times 2 \text{ hours} = 1,080 \text{ hours}$$

Time taken to produce the second machine

$$= (1,080 - 600) \text{ hours} = 480 \text{ hours}$$

SCENARIOS

1. Out of following statements which are correctly depicts the features of Strategic Cost Management (SCM)-
 - i. SCM is use-case of cost information for decision making
 - ii. SCM is reactive approach
 - iii. Scope of SCM is wide enough to allow it to emphasis on product differentiation apart from cost containment

Option

- (a) i and ii only
- (b) i and iii only
- (c) ii and iii only
- (d) All of i, ii, and iii

ANSWER**Option (b) i and iii only**

Reason: Strategic Cost Management (SCM) is application of cost management techniques so that they simultaneously improve the strategic position of a firm and reduce costs. Hence SCM is use-case of cost information for decision making, rather than a cost recording or reporting framework. Scope of Strategic Cost Management is indeed wider than traditional cost management that emphasis on cost control and reduction only. SCM considers the non-cost factors that are strategic (undoubtedly these facts having cost or value implications) such as product differentiation, apart from cost containment SCM is proactive and dynamic approach opposite to traditional cost management that considered to be reactive approach.

2. Out of followings which are the aspects that Traditional Cost Management failed to address–
 - i. Use-case of cost information

- ii. Activity Based Costing
- iii. Qualitative aspects of cost management

Options

- (a) i and ii only
- (b) i and iii only
- (c) ii and iii only
- (d) All of i, ii, and iii

ANSWER

Option (c) ii and iii only

Reason: Traditional Cost Management also use cost information to make decision but consider only quantitative information, therefore ignore the quality aspects. More-so-over typically it assigns/apportions overhead cost to product cost based on an arbitrary average rate, rather than allocating overhead costs by assigning them to activities more precisely using ABC.

3. Correctly match the items of following sets i.e. evolution of cost and objective thereof –

i. Cost Ascertainment	A. Cost Reduction
ii. Cost Control	B. Recoding of Cost
iii. Traditional Cost Management	C. Aligning costs to strategies
iv. Strategic Cost Management	D. Containment of Cost

Options

- (a) i- A, ii-B, iii-C, and iv-D
- (b) i- C, ii-A, iii-B, and iv-D
- (c) i- B, ii-A, iii-D, and iv-C
- (d) i- B, ii-D, iii-A, and iv-C

ANSWER**Option (d) i- B, ii-D, iii-A, and iv-C**

Reason: Cost Ascertainment - Recoding of Cost; Cost Control - Containment of Cost; Traditional Cost Management - Cost Reduction; Strategic Cost Management - Aligning costs to strategies.

4. Strategic Cost Management (SCM) is the implementation of cost management techniques to sustain and improve the company's strategic position as well as reduce costs. The three important pillars of SCM are –
- (a) Strategic positioning, value chain analysis and business environment analysis
 - (b) Cost driver analysis, strategic positioning and value chain analysis
 - (c) Value chain analysis, strategic positioning and performance analysis
 - (d) Strategic positioning, value proposition analysis and business environment analysis

ANSWER**Option (b) Cost driver analysis, strategic positioning and value chain analysis**

Reason: Strategic cost management has three important pillars, viz., strategic positioning, cost driver analysis and value chain analysis. The relation among pillars can be viewed as 'understanding value chain will helps in defining the optimal strategic position (Positioning Strategy), and eventually both help in identifying relevant cost drivers'.

5. Wonder electronics limited is enthuse to create market space for its products, not through only cost leadership or differentiation; but through combination of both. The strategic choice made by wonder electronics is termed by Michael Porter as –
- (a) The road of dilemma
 - (b) The kiss of death
 - (c) The slippery slope
 - (d) The tunnel vision

ANSWER**Option (b) The kiss of death**

Reason: Firstly student must acknowledge that It's possible to compete on low cost and be differentiated at the same time, but the companies that try to be all things to all customers can wind up getting stuck in the middle, a strategic mistake that Michael Porter calls "the kiss of death." Hence option b is correct here.

6. Out of followings which are the correct statements about Osterwalder's Business Model Canvas –
- i. Business's value propositions shall be oriented to the capabilities of business
 - ii. Key activates are critical for absorbing the cost of supporting activities.
 - iii. Key resources has implication in determining activity level

Option

- (a) i and ii only
- (b) i and iii only
- (c) ii and iii only
- (d) All of i, ii, and iii

ANSWER**Option (c) ii and iii only**

Reason: Business's value propositions shall be oriented to customers' need and problem, not the capabilities of business. Key activates become basis for determination of cost drivers for absorbing the cost of supporting activities. Key resources are critical in planning, budgeting and determine the activity level. In some cases, these may be Key factor (or limiting factor).

7. Modern Furniture Limited (MFL) is considering the need, resource outlay and expected benefit to draw the value proposition canvas for its business. Since MFL is already using business model canvas hence the

proposer try to convince the board by emphasis that the value proposition canvas is _____ to the business model canvas.

- (a) Substitute
- (b) Extension
- (c) Plugin
- (d) New Version

ANSWER

Option (c) Plugin

Reason: The value proposition canvas is the tool that will help the organisation to design, test, build and manage the great customer value propositions. It's like a plugin to the business model canvas.

8. The concept of industry is _____ than segment and concept of sector is _____ then industry.
- (a) Narrower, Narrower
 - (b) Narrower, Wider
 - (c) Wider, Narrower
 - (d) Wider, Wider

ANSWER

Option (d) Wider, Wider

Reason: An industry is a group of companies that are relatively comparable based on their primary business activities. There are segments inside the industry. To illustrate passenger vehicle and commercial vehicle (now SUVs/MUVs as well) are segments of automobile industry. Industry classifications are typically grouped into larger categories called sectors. To illustrate BFSI sector comprises of Banking Industry, Financial Services and Insurance Industry

9. An argument is ongoing in board room of Indorama Plastics that which of the model is best fit for industry analysis, chief strategist name the Porter's five force model because it is _____ model wherein all the

five forces _____ determine the intensity of industry competition and profitability.

- (a) Static, Collectively
- (b) Static, Discretely
- (c) Dynamic, Collectively
- (d) Dynamic, Discretely

ANSWER

Option (c) Dynamic, Collectively

Reason: All five competitive forces jointly determine the intensity of industry competition and profitability, and the strongest force or forces are governing and become crucial from the point of view of strategy formulation. The five forces enumerated by Porter's five force model are keep-on changing, this make model a dynamic analytical tool.

10. Jim-jam Power Limited is working on project of designing low cost lithium ion battery for electric vehicle, as a vendor (for manufacturing and delivery) for such batteries to the largest e-vehicle producer of the country. It has been decide that Critical Success Factors shall be used to strategically manage the project and cost thereof. When assessing the use of critical success factors, which one of the following would demonstrate they are being used correctly?
- (a) Critical success factors remain fixed throughout the project
 - (b) Critical success factors are used as measure, if the project is either leading or lagging in performance
 - (c) Critical success factors are derived from key performance indicators to measure if the project is achieving strategic goals
 - (d) Critical success factors are directly aligned to both organisational and project objectives

ANSWER**Option (d) Critical success factors are directly aligned to both organisational and project objectives**

Reason: Essentially, critical success factors or CSFs are the elements of an organization or project that are vital to its success. Critical success factors should be developed to link and align with the strategic goals of a company. They are used to determine how a project, business unit, department, or function can reach its specific goals and facilitate forward progress toward the organization's strategic goals. Students are advised to take note that KPIs are derived from or in context of CSFs.

11. A fast food restaurant chain "Wish-a-Dish" launched its app for placing order online. Order placed through app will be delivered in 30 minutes to customer without any delivery charge if delivery address lies within 5 KM, nominal charges applies above that. The launch of app will result in which of following force –
- (a) Increased threat of new entrants
 - (b) Increased threat of substitute
 - (c) Increased customer power
 - (d) Increased barriers to entry

ANSWER**Option (d) Increased barriers to entry**

Reason: Since Wish-a-Dish offering app to place order online, hence any new player that willing to operate in same market segment or space also have to offer online facility through app to its customers (prospective) to woo them. Hence lead high initial investment therefore the action of launching app by wish-a-dish leads to increase barriers to entry.

12. **Assertion** - Management accountants being a leader, need to be proficient in decisions-making as well as making communications in process of crafting plans and ensuring precise execution

Reason - The role of management has been changed drastically in correspondence to change in business environment and dynamics.

- (a) Both are correct statements but reason is not correct explanation to assertion
- (b) Both are correct statements and reason is correct explanation to assertion
- (c) Only assertion is correct
- (d) Only reason is correct

ANSWER

Option (b) Both are correct statements and reason is correct explanation to assertion

Reason: Undoubtedly the role of management has been changed drastically in correspondence to change in business environment and dynamics. Management accountants being a leader, need to be proficient in decisions-making as well as making communications in process of crafting plans and ensuring precise execution; usually across several divisions and departments of a company. He should observe the professional and business ethics to lead by an example. Both are correct statements and reason is correct explanation to assertion.

13. Management Accountant expected to make ethical decision and effective communication in role of leader. Identify the correct set of reasons out of following why do Management Accountant make irrational decisions –
- i. Not listening to others (& their perspective)
 - ii. Enthusiasm to quickly get to the end of the analysis process
 - iii. Changing business dynamics
 - iv. Superficial understanding of facts

Option

- (a) i, ii, and iii
- (b) ii, iii, and iv
- (c) iii, iv, and i
- (d) iv, i, and ii

ANSWER**Option (d) iv, i, and ii**

Reason: The list of prominent reasons why do Management Accountant make irrational decisions includes – Enthusiasm to quickly get to the end of the analysis process i.e. Jump straight from analysis to recommendation without considering any other alternatives; Not listening to others (& their perspective); Error in forecasting and determining the affecting factors; Readily agreeing with the leader's proposal; Superficial understanding of facts; Judgement error or lack of expertise; Carrying pre-notions - having prior views about the 'best' solution. Note – Changing business dynamics are beyond control of management accountant, undoubtedly change as a factor shall be considered while making decision; hence if it was failing to consider or ignoring the changing business dynamics then this shall also a correct reason.

14. Technological advancement, especially digital technologies has capability to change business model in addition substantial bearing on cost. Correctly match the items of following sets i.e., technological advancement and scope thereof –

i. Automation	A. Using technology to perform new task or process
ii. Extension	B. Use of technology that revamp the products and services in addition to its process and culture
iii. Transformation	C. replacement of humans with technology
iv. Revolution	D. Use of new technology that revamp the products and services in addition to its process and culture

Option

- (a) i- C, ii-A, iii-D, and iv-B
 (b) i- C, ii-A, iii-B, and iv-D
 (c) i- B, ii-A, iii-D, and iv-C
 (d) i- B, ii-D, iii-A, and iv-C

ANSWER**Option (b) i- C, ii-A, iii-B, and iv-D**

Reason: Change in business model on account of technological advancements can be classified into following categories – Automation is mere replacement of humans with technology, without impacting organisational culture and business processes. Installation of passbook updation kiosk in bank lounge. Extension is using technology to perform extended (new) task or process that enhance the functions or utility of product/service. Mobile Banking as an extension of internet banking. Transformation is use of technology that not only revamp the product or services that an organisation offers but also its process and culture. Installing ATM across the towns and villages (Withdrawal of cash, print of mini-statement of transactions and balance enquiry, etc. can be made out of banking hours as well), digital clearing system etc. Transformation some time referred as to Revolution, especially when technology is also new. Use of fin-tech such as blockchain etc.

15. As a management consultant for guiding a company on analysing its competitive position in the market, you wish to present the business activities and processes of the business using Porter's Value Chain Analysis.

What are the benefits of using Porter's value chain model for analysing competitive advantage?

- i. Management can better insights on how to push for low cost leadership strategy or product differentiation strategy
- ii. Enables the company to identify how value can be created, sustained and maximized, a thrust that sparks innovation
- iii. Enables the company to understand the inter-linkages between various processes and how the change in one process can impact another
- iv. Builds efficiency by enabling the company to identify and discontinue nonvalue adding processes

Option

- (a) i and iii only
- (b) i and iv only
- (c) i, ii and iv only
- (d) all of the above

ANSWER**Option (d) all of the above**

Reason: Using this model, the management gets a deeper understanding of what the organization does and helps to identify key processes of the business. These interlinkages help the management take decisions on how to gain a competitive edge (cost leadership or product differentiation). Other than this, by eliminating nonvalue added processes, the profit margins of the company can improve.

16. Which of the following is not part of Operations activity of Porter's Value Chain Analysis?
- (a) Machining
 - (b) Equipment maintenance
 - (c) Assembly
 - (d) Order processing and scheduling

ANSWER**Option (d) Order processing and scheduling**

Reason: Order processing and scheduling is part of outbound logistics activity. The others relate to activities that transform inputs into outputs.

17. Which of the following are the disadvantages of traditional cost management?
- i. It ignores competition, market growth and customer requirement
 - ii. Excessive focus on cost reduction, broad cost reduction leads to inferior quality

- iii. Relies only on financial data (historic in nature), hence dynamics of marketing and economics are ignored
- iv. Reactive in approach, it serves a corrective function instead of preventive function

Option

- (a) i, ii and iv
- (b) i and ii only
- (c) ii and iii only
- (d) All of the above

ANSWER**Option (d) All of the above**

All of the above are all disadvantages of traditional cost management.

18. Which of the following statements is correct about Strategic Cost Management?
- (a) Allocation of cost is based on volume (per unit produced)
 - (b) Has a short term focus, with the main objective being cost control and reduction
 - (c) Based on analysis of internal and external factors, a proactive and dynamic approach to gain competitive advantage while containing costs
 - (d) Focuses reviews and investigation of variances and deviations that are only quantitative in nature

ANSWER**Option (c). Based on analysis of internal and external factors, a proactive and dynamic approach to gain competitive advantage while containing costs**

Reason: Strategic Cost Management is the application cost management techniques to simultaneously improve the strategic position of the firm while also reducing cost. It is the assimilation of cost information into

strategy and vice versa, in order to gain a sustainable competitive advantage. Since it is linked to strategy, is a perpetual exercise and has a long term outlook. This approach to cost management is proactive where decisions are taken based on the strategic objectives of the company. Detailed cost analysis is driven by Value Chain Analysis, Cost Driver Analysis and Strategic Positioning Analysis, hence both quantitative and qualitative information is used in decision making. Allocation of cost is based on cost drivers (Cost Driver Analysis) and not just volume of production. It considers information from external and internal environment. The other points relate to Traditional Cost Management techniques.

19. Identify the false statement regarding cost leadership strategy –
- (a) Standard cost for assessing performance assessment is very important for cost leadership
 - (b) Importance of meeting budgets is very important for cost leadership
 - (c) Market research to know customer perception about the product is very important for cost leadership
 - (d) Product cost as an input for pricing decision is important for cost leadership

ANSWER

Option (c) Market research to know customer perception about the product is very important for cost leadership

Reason: Market research to know customer perception about the product is very important for cost leadership is false. Market research information is very important for product differentiation strategy.

20. Value chain analysis is aimed at which of the following?
- i. Eliminate costs
 - ii. Reduce costs
 - iii. Increase quantity sold
 - iv. Increase sales price
 - v. Identify opportunities for product differentiation

Option

- (a) i, ii, and v
- (b) iii and iv
- (c) iii, iv, and v
- (d) None of the above

ANSWER**Option (a) i, ii, and v**

Reason: Value chain analysis is a framework that helps companies to identify opportunities to gain competitive advantage either by adopting cost leadership strategies (eliminating costs and reducing costs) or by product differentiation strategy (identify opportunities for product differentiation providing the customer something that the rival competitors do not). This analysis does not analyse the quantity sold or selling price of products and service.

21. The board of Modern Furniture Limited considering the need of strategies for Information related aspects. Chief Information and Technology officer made a statement "Information Technology (IT), Information System (IS) and Information Management (IM), all three are inter-connected; but not same. Information technology techniques are used as part of information system to manage information". He further highlights the nature of IT/ IS/ IM strategies and suggests–
- i. IT strategy is supply-oriented
 - ii. IS strategy is demand-oriented
 - iii. IM Strategy is dimension-oriented

Which of the above specified statements are incorrect?

Option

- (a) i only
- (b) iii only
- (c) i and ii only
- (d) i and iii only

ANSWER**Option (b) iii only**

Reason: IM strategy trying to put management into IT by defining the role and structure of the IT activities in the organisation. It is concerned with the management controls for IT, management responsibilities, performance measurement and management processes. Here it is decided who can assess the data and who cannot. It formulated at organisation wide level. It deals with control over the layout of IT uses in organisation. Hence IM strategy is relationship oriented.

22. Ali Fabrics Limited (AFL) has recently decided to invest in an Electronic Data Interchange system that will enable the AFL to automatically place orders with its major suppliers. Currently, AFL purchasing department staff have to place orders using postal mails and telephone to the company's suppliers, which is slow and inefficient.

Which activity within AFL's value chain will the new EDI system improve?

- (a) Infrastructure
- (b) Inbound Logistic
- (c) Procurement
- (d) Outbound Logistic

ANSWER**Option (c) Procurement**

Reason: The EDI system will improve the system for sourcing and purchasing materials. This is procurement. Note that inbound logistics refers to inventory management - not the purchasing of inventory itself.

23. Ms. Angel, Chief Management Accountant and advisor to CEO of Avantha Holdings Inc. considering the value proposition canvas as tool to respond to aspects highlighted by customer profile analysis. You (cost trainee) recently join Avantha, Ms. Angel asked to appraise the following statement to pick the correct statement regarding value proposition map –
- (a) Pain relievers and gain creators counter each other's effects

- (b) Pain relievers and gain creators are the one and same thing
- (c) Pain relievers are different from gain creators
- (d) Either one of pain relievers or gain creator can be part of value proposition map

ANSWER**Option (c) Pain relievers are different from gain creators**

Reason: Pain relievers and gain creators both create value for the customer in different ways. The difference is that the former specifically addresses pains in the customer profile, while the latter specifically addresses gains. It is okay if either of them addresses pains and gains at the same time, The main goal of these two areas is to make the customer value creation of your products and services explicit.

24. The technique of "Management by wandering around" is concerned with which of following leadership aspects of management accountant.
- i. Communication
 - ii. Decisions Making

Option

- (a) Both of i and ii
- (b) Only with i
- (c) Only with ii
- (d) None of i and ii

ANSWER**Option (b) Only with i**

Reason: Management by wandering/walking around (MBWA) is helpful in making communications and supporting TQM. MBWA refers to a style of business management which involves managers wandering around, in an unstructured manner, through the workplace(s), at random (rather than a plan where employees expect a visit from managers at more systematic, pre-approved or scheduled times), to check with employees, equipment, or on the status of ongoing work. The expected benefit is that a manager,

by random sampling of events or employee discussions, is more likely to facilitate improvements to the morale, sense of organizational purpose, productivity and total quality management of the organization, as compared to remaining in a specific office area and waiting for employees.

25. Technology is dynamic in nature and has significant bearing on activities that create value for customers. Your organisation is considering introducing RFID, as technological breakthrough. RFID is capable to revamp which of following primary activities (to generate scope of value) –
- i. Inbound logistic
 - ii. Outbound logistic
 - iii. Sales and Marketing
 - iv. After-Sale Services

Option

- (a) iii and iv only
- (b) ii and iii only
- (c) i and iii only
- (d) i and ii only

ANSWER

Option (d) i and ii only

Reason: RFID (Radio-frequency identification uses electromagnetic fields to automatically identify and track tags attached to objects. An RFID system consists of a tiny radio transponder, a radio receiver and transmitter) can be used to track items in trading concerns throughout the supply chain. It is calibre to positively influence inbound and outbound logistic.

26. A Business model should contain which three components out of those stated below –
- i. Customer value proposition

- ii. Profit formula
- iii. Impact factor
- iv. Key resources and processes

Option

- (a) i, ii and iii only
- (b) i, ii and iv only
- (c) i, iii and iv only
- (d) ii, iii and iv only

ANSWER**Option (b) i, ii and iv only**

Reason: In 2008, Johnson along with Christensen and Kaggerman extended the scope of business model to what was earlier proposed by Margretta and proposed that a business model also needs a value proposition, therefore business model should contain three components- 1. Customer value proposition, 2. Profit formula, 3. Key resources and processes.

27. Shri Krishna Bearing Ball Trading Limited is considering the proposal to enter into trading of casting iron as well. Mr. DK, chief strategic enumerate the entry exist barriers of proposed business line and called a review meeting at request of CEO to consider final advice of C-suite. You (Chief Cost Advisor) also attended the meeting and suggested that barriers have influence on profitability (rate as well as nature). Mr. DK told SKBBT expected that there will be high entry and exit barriers you are advised to tell nature and margin rate in context of five force model.
- (a) Low margin with stable return
 - (b) Low margin with Risky return
 - (c) High margin with Risky return
 - (d) High margin with stable return

ANSWER**Option (c) High margin with Risky return**

Reason: For Impact of exit and entry barriers on profitability (margin) refer exit and entry barriers matrix.

28. John W Fabrics considering the decisions regarding segmentation. Management Accountant raised and said it was acknowledged that managerial discretion and judgment determine which markets are selected and targeted and which others are ignored. In order for market segmentation to be effective, all segments must be –
- (a) Distinct, Artistic, Measurable and Profitable
 - (b) Distinct, Accessible, Measurable and Profitable
 - (c) Desperate, Accessible, Many, and Profitable
 - (d) Distinct, Accessible, Measurable and Popular

ANSWER**Option (b) Distinct, Accessible, Measurable and Profitable**

Reason: In order to be recognised as segment, the following criteria shall be satisfied the segment should be homogeneous internally, heterogeneous externally (distinct), identifiable (measurable), shall be reasonable if not substantial (profitable), and must be responsive (accessible).

29. Freshfood is a large supermarket chain operating in 45 different Indian cities that include the large Tier 1 and Tier 2 cities. Yummy Foods is a consumer goods company that produces products ranging from ketchup, jam, squash etc. Yummy Foods operates at a large scale and has considerable presence in the consumer goods industry. Yummy Foods has a 2 year contract with Freshfood to stock its products in its stores. Freshfood has similar contracts with other consumer goods companies that produce similar products to Yummy Food. These companies are competitors of Yummy Foods, operating at the same scale and margin. Due to the generic nature of their products, there can be no patent filed for them.

Freshfood plans to integrate its supply chain and plans to produce its own brand of consumer goods which will be similar to the products produced by Yummy Foods. This has caused uncertainty at Yummy Foods as their two year contract is now close to expiry after which prices have to be renegotiated with Freshfood.

Which ONE of the following statements relating to Porter's five forces model is correct in relation to Yummy Food's industry?

- i. It has high barriers to entry
- ii. It has high supplier bargaining power
- iii. It has high buyer bargaining power
- iv. It has threat of generic substitution of its products.

Option

- (a) i and ii
- (b) i and iii
- (c) iii and iv
- (d) ii and iv

ANSWER

Option (c) iii and iv

Reason: Statement iii – It has high buyer bargaining power since Freshfood has alternate suppliers who produce similar goods at the same scale and margin as Yummy Foods.

Statement iv – It has threat of generic substitution of its products since there are other companies that produce similar goods. The goods produced are generic and cannot be patented. Hence, the threat of generic substitution, where consumers do not see much difference in the various brands, is more.

Statement i – The barriers of entry are not high since a company like Freshfood, a supermarket chain, can enter the market with its own brand of similar products.

Statement ii – Not much information is available about the bargaining power of Yummy Foods, it is only given that it has considerable market presence.

30. Freshfood is a large supermarket chain operating in 45 different Indian cities that include the large Tier 1 and Tier 2 cities. Yummy Foods is a consumer goods company that produces products ranging from ketchup, jam, squash etc. Yummy Foods operates at a large scale and has considerable presence in the consumer goods industry. Yummy Foods has a 2 year contract with Freshfood to stock its products in its stores. Freshfood has similar contracts with other consumer goods companies that produce similar products to Yummy Food. These companies are competitors of Yummy Foods, operating at the same scale and margin. Due to the generic nature of their products, there can be no patent filed for them.

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What impact will be decision of Freshfood integrating its supply chain to produce its own brand of consumer goods have at the time of renewal of the contract with Yummy Foods?

- (a) Freshfood may order lesser quantity of consumer goods from Yummy Foods
- (b) Freshfood can bargain to lower the procurement cost of products from Yummy Foods
- (c) Freshfood can increase its profit margins by offering its own brand of consumer goods that are similar to Yummy Foods
- (d) Freshfood can offer its products at deep discounts to the customers and thereby gain market share

ANSWER**Option (b) Freshfood can bargain to lower the procurement cost of products from Yummy Foods**

Reason: The correct answer is – Freshfood can bargain for a lower procurement cost from Yummy Foods because it has substitutes in the form of its own brand of products as well as has contracts with other suppliers of similar goods.

It is not necessary that Freshfood may reduce the quantity of consumer goods stocked from Yummy Foods, further not much information in this regard to draw this conclusion.

Also, no information is given about the cost of production of its own brand of consumer goods. Hence, no conclusion can be drawn about the profit margin or cost of production of Freshfood's own brand.

Similarly, the ability of Freshfood to offer its products at deep discounts will depend on partly on its cost of production and profit margin. This information is not available.

31. Using Porter's Five Forces model, which of the following will be evidence of high supplier power?
- i. Buyers are aware of quality of products of supplier and supplier's competitors
 - ii. Ability to reach out to final customers is high (forward integration)
 - iii. Cost of switching suppliers is high for the buyer
 - iv. Products in the industry are homogenous in nature with not much differentiation

Option

- (a) i and ii
- (b) i and iii
- (c) ii and iv
- (d) ii and iii

ANSWER**Option (d) ii and iii**

Reason: Statement ii – Ability to reach out to final customers is high (forward integration). When the suppliers have the ability to circumvent the buyer (say the retailer) and reach out to the final customers directly, they have more power due to forward integration.

Statement iii – When the cost of switching suppliers is high for the buyer, there would be a tendency to stick to the supplier. Hence, supplier gets more power.

Statement i – When buyers have information about the quality difference between the supplier and products of suppliers' competitors, it will add to the buyer's negotiating power.

Statement iv – Product differentiation adds to supplier power. Hence, where there is homogeneity of products supplier power is lesser.

32. Value Proposition canvas is based on which of the following elements of the business model canvas?
- (a) Customer Segment, Key Activities
 - (b) Customer Segment, Channel
 - (c) Value Proposition, Cost Structure
 - (d) Value Proposition, Customer Segment

ANSWER**Option (d) Value Proposition, Customer Segment**

Reason: The answer is based on the value proposition element and customer segment element of the business model canvas. It is a tool that enables companies design, test, build and manage customer value propositions. It shows how a company can try to fit the value it offers (value proposition) with the needs of the customer (customer segment).

33. Which of the following is not a part of the customer segment profile that is done as part of the value proposition canvas –
- (a) Customer Jobs

- (b) Customer Profitability
- (c) Customer Pains
- (d) Customer Gains

ANSWER**Option (b) Customer Profitability**

Reason: Customer profitability is not part of the value proposition canvas. Value proposition is a tool that enables companies design, test, build and manage customer value propositions. It shows how a company can try to fit the value it offers (value proposition) with the needs of the customer (customer segment). Customer profitability analysis, a financial measure, is not done as part of value proposition canvas.

34. Which of the following is not a component of external environment? Use the STEEPLE Framework –
- (a) Ethics
 - (b) Legal
 - (c) Environment
 - (d) Economies of scale

ANSWER**Option (d) Economies of scale**

Reason: The correct answer is Economies of Scale which is determined by the strategic decisions taken by the management of the company. STEEPLE stands for Social, Technology, Environment, Economy, Political, Legal and Ethics.

35. Which of the following is poses Opportunities and Threats to a company?
- (a) Internal Resources
 - (b) Core Competencies
 - (c) Government Policies only
 - (d) External Environment

ANSWER**Option (d) External Environment**

Reason: The correct answer is External Environment. Government policies do pose opportunities and threats but is not the only factor. There are many social, economic, technology factors also pose opportunities and threats.

36. To cope with hyper competition, companies need to develop which of the following –
- i. Speed and flexibility in strategic decision making
 - ii. Creating sustainable competitive advantage
 - iii. Making unexpected decisions that were not anticipated by the market
 - iv. Shift the rules of the market by making fundamental changes to its working

Option

- (a) i and ii
- (b) i and iii
- (c) i, ii and iii
- (d) i, iii and iv

ANSWER**Option (d) i, iii and iv**

Reason: The correct answer is i, iii and iv.

Robert D'Aveni's 7S framework helps companies navigate the hyper competitive market. These include Stakeholder's satisfaction; Strategic soothsaying; Speed; Surprise; Signals; Shifting the rules of a market; and Simultaneous and sequential thrust.

Statement i is the speed and flexibility of strategic decision making.

Statement iii is the surprise element in the decisions taken that gives the company an edge since this was not an anticipated move and therefore gives a temporary competitive advantage.

Statement iv is making fundamental changes to the industry's working; this will cause disruption that will provide competitive advantage.

37. Which of the following is not critically important for cost leadership?
- (a) Importance of competitor cost analysis
 - (b) Importance of product cost as an input for pricing decision
 - (c) Importance of marketing cost analysis
 - (d) Importance of standard costs in assessing performance

ANSWER

Option (c) Importance of marketing cost analysis

Reason: The correct answer is – for cost leadership marketing cost analysis is not very important. It determines the risks and possible gains from various marketing activities. While it will be looked into for efficiency of costs, it is not a critically important for cost leadership. It is very important for product differentiation, where the success of the differentiating factor depends on making the customer aware of this unique feature of the product.

Competitor cost analysis compares the cost structure of the company with that of its rivals. It will help identify areas where better cost control can lead to cost leadership.

Product cost the most important cost component for pricing decision and hence plays an important role in cost leadership.

Standard cost provides the benchmark based on which performance of various cost categories can be assessed.

38. Which of the following is a question relating to value proposition?
- (a) Which of the customer's problems are we helping to solve?
 - (b) For whom are we creating value?
 - (c) How do we reach out to the customer and increase their awareness?
 - (d) What are the customers currently paying for?

ANSWER**Option (a) Which of the customer's problems are we helping to solve?**

Reason: The correct answer is – Which of the customer's problems are we helping to solve? A value proposition creates value for the customers by satisfying their needs. The value proposition may be quantitative (for example price, performance, timeliness of delivery etc.) or qualitative (for example brand value, design, convenience, novelty etc.).

39. Using Mendelow's Matrix for stakeholder influence, match the type of stakeholder to level of power and interest that can influence the objectives of an organization.

Type of Stakeholder	Power and Interest
i. Influential	(a) Low Power, High Interest
ii. Marginal Player	(b) High Power, Low Interest
iii. Key Player	(c) Low Power, Low Interest
iv. Affected	(d) High Power, High Interest

Option

- (a) i- d, ii- a, iii- b, iv- c
 (b) i- d, ii- c, iii- b, iv- a
 (c) i- b, ii- c, iii- d, iv- a
 (d) i- b, ii- a, iii- d, iv- c

ANSWER**Option (c) i- b, ii- c, iii- d, iv- a**

Reason: Influential Stakeholder – High Power Low Interest

Marginal Player – Low Power Low Interest

Key Player – High Power High Interest

Affected – High Power Low Interest

40. Using Mendelow's Matrix for stakeholder influence, match the type of stakeholder to the response to be provided to each type of stakeholder.

Type of Stakeholder	Response to Stakeholder
i. Influential	a. Manage closely
ii. Marginal Player	b. Keep informed
iii. Key Player	c. Keep satisfied
iv. Affected	d. Monitor

Option

- (a) i- c, ii- d, iii- a, iv- b
- (b) i- d, ii- c, iii- b, iv- a
- (c) i- b, ii- c, iii- d, iv- a
- (d) i- b, ii- a, iii- d, iv- c

ANSWER**Option (a) i- c, ii- d, iii- a, iv- b**

Reason: Influential stakeholder – Keep Satisfied

Marginal Player – Monitor

Key Player – Manage Closely

Affected – Keep Informed

41. XYZ Hospitals has emerged as Europe's foremost integrated healthcare services provider and has a robust presence across the healthcare ecosystem. Which one of the following is more likely to relate to XYZ's Value Statement?
- (a) To bring healthcare of International Standards within the reach of every individual
 - (b) Be the global leader in cutting-edge Robotic Surgery
 - (c) Develop innovative programs and services to meet the unique needs of patients
 - (d) Practice the safest, most equitable and effective medical care

ANSWER**Option (d) Practice the safest, most equitable and effective medical care**

Reason: A value statement is a set of ideals that explain what a company believes in and how it operates. Practice the safest, most equitable and effective medical care is the Value Statement.

42. A product that holds high market share in a market experiencing high rates of growth would be considered what type of product according to the BCG matrix?
- (a) Star
 - (b) Cash Cow
 - (c) Dog
 - (d) Question mark

ANSWER**Option (a) Star**

Reason: "Star" products are those that hold a high market share and are in a market that is experiencing high rates of growth.

43. One of the biggest pharmaceutical businesses in the world is Az. Which of the following sums up a competitive advantage's reasons the best?
- (a) Az is a big business that can outwit smaller rivals
 - (b) Az makes significant investments in the research and creation of novel products
 - (c) Az enjoys a good reputation because it hasn't experienced a significant product recall in more than five years
 - (d) Az obtains patents on significant medication breakthroughs in order to safeguard its intellectual property

ANSWER

Option (d) Az obtains patents on significant medication breakthroughs in order to safeguard its intellectual property

Reason: As a patent gives a distinct competitive advantage that keeps rivals from duplicating/ copying a product for a set amount of time.

44. Which of the following statements outlines major limitations of traditional cost management?
- i. Traditional cost management overlooks factors such as competition, market growth, and customer requirements as it primarily deals with quantitative aspects within the organization.
 - ii. Traditional cost management places excessive emphasis on cost reduction, potentially forgoing strategic cases, leading to lower quality.
 - iii. Traditional cost management is static and historical, neglecting the dynamics of marketing and economics, relying on financial accounting data.
 - iv. Traditional cost management has broad focus on reviewing quantitative variances and deviations, considering behavioural aspects also.

Option

- (a) (ii), and (iii)
- (b) (i), (ii), and (iii)
- (c) (ii), (iii) and (iv)
- (d) (i), (ii), (iii), and (iv)

ANSWER

Option (b) (i), (ii), and (iii)

Reason:

- i. Traditional cost management ignores competition, market growth, and customer requirements, because it is largely concerned with the quantitative factors inside the organisation.

- ii. Traditional cost management places excessive focus on cost reduction. It ignores the strategic importance of individual cases. Broad cost reduction leads to inferior quality.
 - iii. Traditional cost management ignores the dynamics of marketing and economics because it relies on financial accounting data that is static and historical in nature.
 - iv. Traditional cost management has a limited focus on review and investigation, only of those variances and deviations that are quantitative in nature.
45. Which of the following is not the aim of strategic supply chain management?
- (a) Develop a supplier network that can cater to raw material requirements with minimum lead time
 - (b) Focus on customers whose lifetime value is very profitable
 - (c) Ensuring proper communication and information systems that will ensure robust functioning of the organization
 - (d) Frequent changing of suppliers and sales dealerships

ANSWER**Option (d) Frequent changing of suppliers and sales dealerships**

Reason: Strategic supply chain management tends to encourage long term relationships with partner organizations both on the supply and demand side. The company can generate sustainable value only from having such synergic relationships. Frequent changing of suppliers and sales dealerships does not support this objective.

46. Which of the following best describes Total Quality Management?
- (a) Identifying the cost drivers for a company's major activities
 - (b) Applying "zero-defect" philosophy aimed at embedding awareness of quality in all organizational processes
 - (c) Tracking costs and revenues attributable to each product over its life cycle
 - (d) Measuring how low the costs of a product need to be by reducing the desired profit margin from the expected selling price

ANSWER**Option (b) Applying “zero-defect” philosophy aimed at embedding awareness of quality in all organizational processes**

Reason: The correct answer is (B) Total Quality Management (TQM) is the planning and controlling of all business functions so that products or services are produced to meet the expectations of the customer. It aims at improving the quality of a company's output through continuous improvement of internal practices. Zero-Defect philosophy aims at embedding awareness of quality in all organizational processes. Option (A) describes activity based costing, Option (C) lifecycle costing and Option (D) target costing.

47. Value chain analysis is aimed at which of the following?

- i. Eliminate costs
- ii. Reduce costs
- iii. Increase quantity sold
- iv. Increase sales price

Option

- (a) Identify opportunities for product differentiation
- (b) i, ii, and v iii and iv
- (c) iii, iv, and v
- (d) None of the above

ANSWER**Option (a) Identify opportunities for product differentiation**

Reason: Value chain analysis is a framework that helps companies to identify opportunities to gain competitive advantage either by adopting cost leadership strategies (eliminating costs and reducing costs) or by product differentiation strategy (identify opportunities for product differentiation providing the customer something that the rival competitors do not). This analysis does not analyse the quantity sold or selling price of products and service.

48. Medicare produces specialized medical equipment used by a number of medical practitioners. It has identified a Critical Success Factor (CSF) "Customers should find zero defects with the medical equipment. Aim for zero defective sale units."

The Critical Success Factor identified above aims to reduce which of the following Cost of Quality (COQ) to the very minimum:

- (a) Cost of External Failure
- (b) Cost of Internal Failure
- (c) Preventive Cost
- (d) Appraisal Cost

ANSWER

Option (a) Cost of External Failure

Reason: Medicare aims to have zero defective unit sales. This implies that they wish to reduce cost of sale returns, warranty costs, cost of product recalls and any other cost incurred due to a complaint from the customer.

The other costs namely internal failure costs, preventive costs and appraisal costs are costs incurred at the discretion of Medicare.

Taking sufficient preventive and appraisal measures and also ensuring that defects are detected before the products reach customers by reworking on defects or scrapping them altogether, would all put together ensure that cost incurred on defective goods due to customer complaints is kept at minimum.

49. Hcare produces specialized medical equipment used by a number of medical practitioners. It has identified a Critical Success Factor (CSF) "Customers should find zero defects with the medical equipment. Aim for zero defective sale units."

Which of the following would be a Key Performance Indicator that directly relates the "zero defective sale "CSF identified above?

- (a) Training hours imparted to manufacturing staff about in quality control for manufacturing process
- (b) Cost of product returns and replacement cost

- (c) Cost of inspection and testing
- (d) Quality certifications from external agencies

ANSWER**Option (b) Cost of product returns and replacement cost**

The correct option is cost of product returns and replacement. Where the sales to customers are expected to be of zero defects, there should ideally be no cost of product returns and replacement cost. Any such incidence captured in the KPI Dashboard should then be investigated by Medicare to detect any weakness in the area identified as critical to success. Training hours imparted to manufacturing staff about quality control is a preventive cost, not directly related to zero defective sales, although it aims at reducing defects by imparting appropriate training to the staff. Cost of inspection and testing aims to find out defects before the product reaches the customer, it is an appraisal cost. Quality certifications from external agencies is an appraisal cost incurred to improve customer perception about the quality of the product. Quality certification by itself does not prevent defects or ensures zero defective sales.

50. A company wants to implement Just in Time Manufacturing (both for procurement and production). Which of the following would not be required to be Critical Success Factors (CSFs) required to be met in order to ensure the success of the JIT project?
- (a) Accuracy of demand prediction and close links with suppliers supply of raw materials
 - (b) Agile production lines that are flexible to meet the change in demands
 - (c) Low set up time and cost each time there is change in the production line
 - (d) Have sufficient storage space to keep excess inventory

ANSWER**Option (d) Have sufficient storage space to keep excess inventory**

Reason: Sufficient storage space to keep excess inventory is not need in JIT system of procurement and production because it is based on pull type supply chain management. Hence production and procurement take place only after an actual order is received from the customer. Since there is no buffer stock between production levels and customer demand, the accuracy of demand prediction is very important (CSF). Also, the suppliers have to supply raw material of the appropriate quality on time for the production to begin. Hence close links and communication with supplier is also important (CSF). Production lines have to be flexible enough to be able to produce the product as per customer requirements (CSF). High set up time and cost each time there is a change in production, will lower profitability and productivity. Hence agility of production is a CSF.

51. Which of the following is false about Kaizen costing?
- (a) It uses target costing to set the required planned cost of the product
 - (b) Continuous improvement is aimed at producing new products
 - (c) The purpose is to build the idea of continuous improvement in the production process
 - (d) Focuses on elimination of waste and improving productivity

ANSWER**Option (b) Continuous improvement is aimed at producing new products**

Reason: The statement continuous improvement is aimed at producing new products is false. Kaizen costing primarily aims to improve the existing production process. It may only indirectly give impetus or enable innovation, the improvement is not directly aimed at making innovative product.

52. Which one is not a benefit of Shine?
- (a) Less production downtime
 - (b) Happier employees

- (c) Improved quality
- (d) Inventory reduction

ANSWER**Option (d) Inventory reduction**

Reason: It is necessary to keep the work area clean and safe. Shining is also an inspection process for the area, i.e., is everything in good condition? This leads to less production time, happier employees by reducing their stress levels, and improved quality. Inventory reduction is not among the benefits of shine.

53. Which of the following does Kaizen improvement process not focus on?
- (a) Poka-Yoke
 - (b) 5S
 - (c) Improvement by innovation
 - (d) Just-in-time principles

ANSWER**Option (c) Improvement by innovation**

Reason: Kaizen is lean thinking and structured around the core premise of continuous improvement rather innovation hence Kaizen focuses on (A), (B) and (D) options only.

54. What will be overall equipment effectiveness, if second is ideal cycle time; planned production time is 7 hour and out of total count of 19,240 units, the good count are 18,848 units.
- (a) 97.96%
 - (b) 76.35%
 - (c) 74.79%
 - (d) 74.97%

ANSWER**Option (c) 74.79%**

Reason: Formula for calculating Overall Equipment Effectiveness (OEE) can be either of Availability × Performance × Quality or (Good Count × Ideal Cycle Time) / Planned Production Time – (18,848 units × 1.0 seconds) / (420 minutes × 60 seconds) = 0.7479 (74.79%).

55. Which of the following is not a prerequisite for an effective JIT system?
- (a) Lesser set up time
 - (b) Total quality management
 - (c) Varying demand patterns
 - (d) Multi skilled labour force

ANSWER**Option (c) Varying demand patterns**

Reason: The correct answer is varying demand patterns are not helpful in JIT systems, the demand should be predictable since the company operates without inventory.

Lesser set up time that makes batch production economical. Total quality management that enables quick elimination of defects. Multi skilled labour force can perform different activities including repairs and maintenance, which reduces idle time.

56. A company follows Just in Time system for material procurement and production. An accountant finds difference between the accounting records of the company and the actual inventory on hand. The company uses backflushing system of accounting to track inventory. Possible reasons for this would be:
- i. Inaccurate production figures entered by production staff due to lack of training
 - ii. Abnormal loss during production is not tracked by production staff

- iii. Back flushing transaction posting utilization of raw material inventory happens only at the end of the day when the production is complete
- iv. Back flushing costing records components used for work in progress while inventory is accounted for at the end of the day by the production staff

Option

- (a) i, ii and iv
- (b) i, ii and iii
- (c) i, iii and iv
- (d) i, ii, iii and iv

ANSWER**Option (b) i, ii and iii**

Reason: The correct answer is (i), (ii) and (iii) are possible reasons for difference between accounting records maintained under backflush costing and actual inventory.

Back flush costing transaction for inventory is posted only once production is complete and is consolidated entry. Hence, back flush costing records do not record components issued that are in work in progress.

57. How is target cost calculated?
- (a) Desired selling price – actual profit margin
 - (b) Market price – desired profit margin
 - (c) Desired selling price – desired profit margin
 - (d) Market price – standard profit margin

ANSWER**Option (b) Market price – desired profit margin**

Reason: Market price less desired profit margin. The product cost estimate is arrived at by subtracting the desired profit margin from a

competitive market price. Option (C) is incorrect since the selling price should be one that the current market commands, not one that the company desires.

58. SW is selling an electronic product that is aiming at a customer base who are early adopters. Their market share in the current year has been growing rapidly and consequently profits are also increasing rapidly. Market competition is increasing with a growing number of competitors for SW.

For this electronic product, which stage of product life cycle is SW experiencing?

- (a) Introduction
- (b) Growth
- (c) Maturity
- (d) Decline

ANSWER

Option (b) Growth

Reason: SW has a customer base for its product who are early adopters. Early adopters are those who embrace new technology, although their risk taking appetite is lower than that of innovators (typically customers of the introduction stage of product life cycle). Increased competition, growing market share and growth in profits are characteristics of growth phase of product life cycle.

59. IEE is selling an electronic product that is aiming at a customer base who are early adopters. Their market share in the current year has been growing rapidly and consequently profits are also increasing rapidly. Market competition is increasing with a growing number of competitors for IEE.

Which strategy should IEE not adopt at this stage?

- (a) Strategy shifts from acquisition to retention of customers
- (b) Development of long term relationships with customers

- (c) Leverage the product's perceived differential advantage to secure a strong market position
- (d) Build selective distribution channels to target niche customers only

ANSWER**Option (d) Build selective distribution channels to target niche customers only**

Reason: Build selective distribution channels to target niche customers only is a strategy followed during the decline stage of product life cycle when the product is being phased out and is made available only to its loyal, niche customer base. IEE (currently in the growth phase) should build a very intensive distribution system in order to reach out to the masses and increase market share. The customer base is given to be that of early adopters, that is they are already aware of the product and its features. Hence, IEE should now try to capture market share through retention of customers. IEE should build relationships through offering product extensions, service and warranty to develop long term relationships with customers. Perceived differential advantage should be used to increase its market position.

60. The management of a company are spending huge money on distribution and promotion of Product Z. Huge efforts are being made to reach out to customers through various marketing channels and promotional events. Decisions are being taken about Product branding, packaging and labelling. This is despite Product Z having low sales volume, yielding negative profits. There are few competitors for Product Z.

Which life cycle characteristics does Product Z show?

- (a) Introduction
- (b) Growth
- (c) Maturity
- (d) Decline

ANSWER**Option (a) Introduction**

Reason: The correct answer is Introduction stage of life cycle of a product where Product Z seems to be a new product that is being launched in the market. The products at this stage are novel and there is minimal awareness about it, hence the huge spend on advertising and promotional events. Generally, customers are innovators who are being enticed to try out the product.

61. Which of the characteristics and strategies in the growth phase of a product's life cycle?
- i. Offer a product with extensions, service and warranty
 - ii. High R&D spend, to improve or enhance product features to differentiate the product from that of the competitors
 - iii. Shift from product awareness to product conviction
 - iv. Build intensive distribution channels to handle additional volumes and new market

Option

- (a) i, ii and iii
- (b) i, iii and iv
- (c) ii, iii, and iv
- (d) i, ii, iii, and iv

ANSWER**Option (b) i, iii and iv**

The correct answer is (i), (iii) and (iv).

Reason: In growth phase, sales are increasing rapidly due to greater customer awareness. Competitors enter the market and hence competition increases. To differentiate, the basic product should now be offered with product extensions, service and warranty. This will help build product conviction and a loyal customer base for the product. Since sales are increasing, the product availability should be made through multiple

retailers over different sales channels. This will increase market reach and market share.

Statement (ii) High R&D spend, to improve or enhance product features to differentiate the product from that of the competitors relates to maturity phase.

62. In WM Ltd. the 'OB' equipment is about to be replaced either by 'CF' system or by an 'OF' system. Finance costs 12% a year and the other estimated costs are as follows:

	CF	OF
Initial Cost	28,000	40,000
Annual Operating Costs	24,000 p.a.	18,000 p.a.

If the company expected the new system (either CF or OF) to last at least for 12 years, which system should be chosen?

- (a) CF since the life cycle cost is ₹ 1,72,049 which is lower as compared to OF having a cost of ₹ 2,86,748
- (b) CF since the life cycle cost is ₹ 5,13,253 which is lower as compared to OF having a cost of ₹ 7,27,952
- (c) OF since the life cycle cost is ₹ 1,49,151 which is lower as compared to CF having cost of ₹ 1,51,492
- (d) OF since the life cycle cost is ₹ 1,51,492 which is lower as compared to CF having cost of ₹ 1,76,656

ANSWER

Option (d) OF since the life cycle cost is ₹ 1,51,492 which is lower as compared to CF having cost of ₹ 1,76,656

Reason:

Calculation of Life-cycle Costs

	CF (₹)	OF (₹)
Initial Cost	28,000	40,000

Add: Present value of annual operating costs over the lifetime	1,48,656 (₹ 24,000 x 6.194)	1,11,492 (₹ 18,000 x 6.194)
Total Life Cycle Costs	1,76,656	1,51,492

The annuity factor of 12% finance costs for 12 years is 6.194.

63. In the industry life cycle, which of the following best characterizes an industry in the growth stage?
- New goods are being created all the time
 - A select few companies control the majority of the market
 - There is little threat from substitutes and few competitors
 - There is no pressing need for competitive differentiation

ANSWER

Option (d) There is no pressing need for competitive differentiation

Reason: There is no pressing need for competitive differentiation- is correct in the sense that there is "enough room for everyone" in the industry, and as the industry expands, competitive differentiation is not currently critical. When new players enter a growing industry, competition intensifies during the growth phase. Due to a constant supply shortage, competition in the industry is low and buyers' power is still relatively low. Most organizations can survive with rapid growth. Rather than focusing on the future, organizations' main concern will be meeting the demand as it arises.

64. The selling price of Product X is set at \$275 for each unit and sales for the coming year are expected to be 400 units. A return of 30% on the investment of \$1,25,000 in Product X will be required in the coming year. What is the target cost for each unit of Product X?
- \$181.25
 - \$165.00
 - \$187.50
 - \$362.50

ANSWER**Option (a) \$181.25**

Reason: Return: $\$1,25,000 \times 30\% = \$37,500$

Total sales revenue = $\$275 \times 400 = \$1,10,000$

Therefore, total cost = $\$1,10,000 - \$37,500 = \$72,500$

Unit cost = $\$72,500 / 400 = \$181.25$

65. A business ecosystem is a _____ of organizations that are involved in the delivery of a specific product or service through both competition and _____.
- (a) Identical group and Co-operation
 - (b) Identical group and rivalry
 - (c) Network and Co-operation
 - (d) Network and rivalry

ANSWER**Option (c) Network and Co-operation**

Reason: A business ecosystem is a network of organizations (such as suppliers, distributors, customers, competitors, government agencies, and so on) that are involved in the delivery of a specific product or service through both competition and cooperation.

66. Care Beauty Products Limited planning to launch Deodorant Spray 'Fresh'. It conducted market study and found that there are –
- i. High entry barriers, not easily allowing new players to enter and challenge existing companies
 - ii. Strong bargaining power of buyer (with fragmented preferences)

Based upon the above two findings the Chief Strategist concluded there is hyper-competition, while marketing VP holds a different opinion. You are required to identify which of the above stated two findings correctly represent hyper-competition.

- (a) Both i and ii

- (b) Only i
- (c) Only ii
- (d) None of i and ii

ANSWER**Option (c) Only ii**

Reason: Hyper competition witness low entry barriers, allowing new players to enter and challenge existing companies; that make competition further stiffer.

67. Which of following are the components of Disruptive Innovation –
- i. Enabling Technology
 - ii. Innovative Business Model
 - iii. Sustainability
 - iv. Coherent Value Network

Option

- (a) i, ii, and iii
- (b) ii, iii and iv
- (c) i, iii, and iv
- (d) i, ii, and iv

ANSWER**Option (d) i, ii, and iv**

Reason: There are three main components of disruptive innovation- Enabling Technology - Innovation requires the ability to create a better product. The transistor radio used the broadcast network to create a low-cost portable radio. Disruptive or Innovative Business Model - In order for a disruptive business to succeed, it must use a new business model that targets new or low-end customers within a given industry. This is what distinguishes a disruptive innovation from a standard innovation. Even if they are unique, not all innovations are disruptive. Coherent Value

Network - For a disruptive innovation to take root, it must be accepted across a coherent value network, which includes suppliers.

68. Lean start-up saves the cost and enhance efficiency because it helps entrepreneurs to navigate extreme uncertainties by testing_____.
- (a) Scientific hypotheses with a minimal viable product using waterfall development
 - (b) Business plan with a minimal viable product using waterfall development
 - (c) Scientific hypotheses with a minimal viable product using agile engineering
 - (d) Business plan with a minimal viable product using agile engineering

ANSWER

Option (c) Scientific hypotheses with a minimal viable product using agile engineering

Reason: Eric Ries explains lean start-up help entrepreneurs to navigate extreme uncertainties by testing scientific hypotheses (statistical assumptions based upon which, strategic options are driven) with a minimal viable product (MVP). On basis of engineering opposite to traditional engineering that is based upon the agile or waterfall development the lean start-up relied upon agile development (i.e. build the product iteratively & incrementally).

69. Lean start-up, Agile and Design thinking are emerging and prominent aspects of Changing Business Environment. _____ is the common core of the Lean start-up, Agile and Design thinking.
- (a) Scientific hypotheses
 - (b) Innovation
 - (c) Creativity
 - (d) Technical Solution

ANSWER**Option (b) Innovation**

Reason: Innovation is the Core of the Design Thinking, Lean Start-up and Agile. Innovation happens when the creative solutions and the technical capabilities come together. Combining these three methodologies really drives the innovative process by involving the technical team as early as possible.

70. A start-up go through three main phases while transforming into Unicorn (and then into Incumbent), each phase involves a unique sort of fitment to be ensured, which of following are not among such fitments.
- (a) Scale Fit
 - (b) Problem-Solution Fit
 - (c) Scope Fit
 - (d) Product-Market Fit

ANSWER**Option (c) Scope Fit**

Reason: There are three main stages start-ups go through - Pre-start-up stage - This is the problem-solution FIT stage. Vision and idea are conceptualized, while considering – a. Who will be the customers? b. Which of their problems to be solved and c. How these will be solved? Start-up stage - This is the product-market FIT stage. It starts showing commitment. Intended to have customer validation that product offered is market valuable product. Testing is also performed to get feedback from clients, and iterate the process accordingly. Scale-up - This is the scale-FIT stage. It start establishing growth, trying to get to profitable cash flow. They are creating bigger customer bases and aim to come close to unicorn.

71. Manager market the viable products into market, while inventor work on idea in search of viable product. Who among the following bridge the gap between inventors and managers?
- (a) Investor

- (b) Industrialist
- (c) Intrapreneur
- (d) Entrepreneur

ANSWER**Option (c) Intrapreneur**

Reason: Intrapreneur is an employee who is entrusted with creating an innovative idea with an organization. One of the main objective of intrapreneur is to strengthen the company's sustainability. An intrapreneur will continue to receive payment in the form of salary, even if the product does not reach the production level, unlike entrepreneur who takes personal risk when a product does not generate revenue.

72. Which of following two statements are incorrect –
- i. Incubator is different from accelerator
 - ii. Accelerator offers structured, collaborative program whereas Incubator relies upon the short term program

Option

- (a) Both i and ii
- (b) i only
- (c) ii only
- (d) None of the i and ii

ANSWER**Option (c) ii only**

Reason: Incubator also referred to as startup hubs i.e., the places that aim to provide the ideal conditions for founders to quickly grow their young businesses; through a structured, collaborative program. Whereas as accelerators accelerate growth by removing some of the risk and uncertainty involved, through a short term program usually for start-ups that already have a Market Viable Product (MVP).

73. Supply chain innovation have evolved in response to customer needs and desires. Correctly match the items of following sets i.e., broad approaches to supply chain innovation and focus thereof –

i. Rapid	A. Respond to changes
ii. Agile	B. Waste elimination
iii. Lean	C. Speed and efficiency

Option

- (a) i- C, ii-B, and iii-A
- (b) i- C, ii-A, and iii-B
- (c) i- B, ii-C, and iii-B
- (d) i- B, ii-A, and iii-C

ANSWER

Option (b) i- C, ii-A, and iii-B

Reason: Three broad approaches to supply chain innovation have evolved in response to customer needs and desires, namely- (i) Rapid supply chains that prioritize speed and efficiency. (ii) Agile supply chains that emphasize a company's ability to respond to changes in demand (volume and variety). (iii) Lean supply chains that prioritize waste elimination (including time).

74. Out of followings which are the correct statements about the hyper-disruptive Business Models –
- i. The pyramid model also referred to as servitisation model
 - ii. The access-over-ownership model provides permanent access to goods and services traditionally only available through purchase

Option

- (a) Both i and ii
- (b) i only
- (c) ii only
- (d) None of i and ii

ANSWER**Option (d) None of i and ii**

Reason: Subscription models are also referred to as servitisation models, servitisation has no nexus with pyramid model. The access-over-ownership model provides temporary access to goods and services traditionally only available through purchase.

75. Out of followings which are the incorrect statements about the models relevant to Sustainability –
- i. Gift economy is an extreme form of sharing economy
 - ii. Closed-loop production is when the materials used to make a product are recycled at last stage of the manufacturing process

Option

- (a) i only
- (b) ii only
- (c) Both of i and ii
- (d) None of the i and ii

ANSWER**Option (b) ii only**

Reason: The Sharing Economy is sort of participatory sharing schemes provide timely access to resources, allowing for more efficient use of otherwise idle resources. Whereas gift economy makes use of voluntary donations, such as 'pay what you want,' and capitalizes on social sustainability concerns. A gift economy is opposed to the commodification of resources and labor exchange through monetary transactions. Therefore, gift economy is an extreme form of sharing economy. Closed-loop production is when the materials used to make a product are recycled throughout the manufacturing process. The premise of circular models is minimising or eliminating waste and maximising resource efficiency in production - consumption systems. It is frequently referred to as 'cradle to cradle' production or 'industrial symbiosis'.

76. Uni-Gel Pens recently entered in hyper-competition market of ball and gel pens; the strategic focus of Uni-Gel Pens shall be on _____ of _____ advantages –
- (a) One shot of windfall advantage
 - (b) Continuity of sustainable advantages
 - (c) Prefect mix of short term and long term advantages
 - (d) Series of short term advantages

ANSWER**Option (d) Series of short term advantages**

Reason: In a highly competitive market, companies frequently aggressively challenge their competitors not to maintain a competitive advantage, but to maintain value creation. Organizations strive for a series of short-term advantages based on market disruption, once such disruption matures, the organization will shift to another disruption. It is worth noting for students that those companies which failed to innovate constantly or at short interval, may become irrelevant in market.

77. Grammarly is an American cloud-based typing assistant. It reviews spelling, grammar, punctuation, clarity, engagement, and delivery mistakes in English texts, detects plagiarism, and suggests replacements for the identified errors. It also allows users to customize their style, tone, and context-specific language. It offers two plans for individuals.

Free for individuals, that offers basic writing suggestions and tone detection (Grammar, Spelling, Punctuation, Conciseness, and Tone detection)

Premium plan for individual that offers Clarity, vocabulary, and tone improvements (Everything in Free, Full-sentence rewrites, Word choice, Tone suggestions and Citations).

Grammarly business relying on which of following business models –

- (a) Free
- (b) Premium
- (c) Subscription
- (d) None of these

ANSWER**Option (d) None of these**

Reason: Model adopted by Grammarly is Freemium, wherein essential services or product is offered free and for premium services or more quantum you have to pay (yes, payment can be further based upon either subscription model or pay as per use model).

78. Disruptive innovations can be classified in following categories:
- (a) Low end disruption and new product disruption
 - (b) Low end disruption and new market disruption
 - (c) High end disruption and new product disruption
 - (d) High end disruption and new market disruption

ANSWER**Option (a) Low end disruption and new product disruption**

Reason: Christensen explains that there are two types of disruptive innovation: low-end and new-market. Low-end disruption is when a company uses a low-cost business model to enter at the bottom of an existing market and claim a segment. New-market disruption is when a company creates a new segment in an existing market with a low-cost version of a product.

79. Which of the following category of technological advancement best describe installing passbook update kiosk at bank?
- (a) Transformation
 - (b) Extension
 - (c) Automation
 - (d) Revolution

ANSWER**Option (c) Automation**

Reason: Change in business model on account of technological advancements can be classified into automation, extension or

transformation. Automation is the use of technologies for performing any function or process digitally which was earlier performed by humans. Installing passbook updation kiosk is mere automation, where installing ATM can be seen as transformation.

80. Which of the following category of technological advancement best describe installing Automated Teller Machine (ATM) that allow the banks' customer to withdraw cash, print of mini statement of transactions and balance enquiry, etc. out of banking hours as well.
- (a) Automation
 - (b) Transformation
 - (c) Extension
 - (d) Revolution

ANSWER

Option (b) Transformation

Reason: Change in business model on account of technological advancements can be classified into automation, extension or transformation. Transformation is the use of technology that not only revamps the product or services that an organisation offers but also its process and culture. Installing ATM can be seen as transformation.

81. Which of the following is not true about Hyper competition?
- i. Competitive advantage is permanent with focus on sustaining value creation
 - ii. Weak bargaining power of buyers in the market
 - iii. Low entry barriers, allowing new players to enter and challenge existing companies
 - iv. Strategic maneuvers occur in a structured and gradual manner

Option

- (a) ii and iii
- (b) i, ii and iii
- (c) ii, iii and iv
- (d) i, ii and iv

ANSWER**Option (d) i, ii and iv**

Reason: Statement i – competitive advantage is temporary, since competition is so intense that the market landscape is constantly changing.

Statement ii – Bargaining power of buyers is high since they have a variety of substitutes to choose from, they can demand quality products at a lower price.

Statement iv – Strategic manoeuvres occur in a very quick, intense and unexpected pace. The idea is to keep sustaining value and remaining ahead of rivals by creating temporary advantages, before it is copied in turn by the rivals.

82. An industry characterized by high instability frequent disruptions from rapid technological growth, ability of buyers to switch between substitutes and profiting from temporary competitive advantage can be classified as –
- (a) Disruption
 - (b) Monopolistic Competition
 - (c) Hyper Competition
 - (d) Monopoly

ANSWER**Option (c) Hyper Competition**

Reason: Hyper Competition, a market place with intense competition, where rivals out do each other by frequently disrupting the market in order to get a temporary competitive advantage over others. It is characterized by rapid technological growth, high buyer bargaining power and availability of substitutes.

83. To cope with hyper competition, companies need to develop which of the following –
- i. Speed and flexibility in strategic decision making
 - ii. Creating sustainable competitive advantage

- iii. Making unexpected decisions that were not anticipated by the market
- iv. Shift the rules of the market by making fundamental changes to its working

Option

- (a) i and iii
- (b) i and ii
- (c) i, iii and iv
- (d) i, ii and iii

ANSWER**Option (c) i, iii and iv**

Reason: Robert D'Aveni's 7S framework helps companies navigate the hyper competitive market. These include Stakeholder's satisfaction; Strategic soothsaying; Speed; Surprise; Signals; Shifting the rules of a market; and Simultaneous and sequential thrust.

Statement i is the speed and flexibility of strategic decision making.

Statement iii is the surprise element in the decisions taken that gives the company an edge since this was not an anticipated move and therefore gives a temporary competitive advantage.

Statement iv is making fundamental changes to the industry's working; this will cause disruption that will provide competitive advantage.

84. Which are the features of traditional business models?
- i. Speed of implementation is rapid and is often based on good enough data
 - ii. Development of a new product happens through Product Management
 - iii. Organization structure is defined customer driven and agile teams
 - iv. Management reporting is primarily based on accounting and financial information
 - v. Failure is considered an exception

Option

- (a) i, ii and iv
- (b) i, iii and iv
- (c) ii, iii and v
- (d) ii, iv and v

ANSWER**Option (d) ii, iv and v**

Reason: Speed of implementation is measured and operate on complete data. Organization structure is driven based on the functions performed within the organization.

85. Which are the features of Lean Start Up business?

- i. It begins with a business plan prepared beforehand and is driven towards its implementation
- ii. New product development process is based on the build-measure-learn-feedback loop. Development is based on customer needs.
- iii. Speed of implementation is measured and operate on complete data
- iv. Management reporting is primarily based on accounting and financial information
- v. Failure is expected, it is fixed by iterating on the idea and pivoting away from ones that do not work

Option

- (a) (i) and (v)
- (b) (ii) and (iv)
- (c) (ii) and (v)
- (d) (iii) and (v)

ANSWER**Option (c) (ii) and (v)**

Reason: Lean start-ups do not have a business plan beforehand. Instead, they begin their search for a business model. Speed of implementation is rapid and operates on good enough data. Management reporting is primarily based on metrics like customer acquisition cost, customer lifetime value and other that may not necessarily be accounting based.

86. Which are the features of Start-ups?
- i. Temporary organization designed to look for a business model that is repeatable and scalable
 - ii. Stable processes for operations and risk management.
 - iii. Majority communication using expensive, traditional media channels
 - iv. Customer focus and innovation is focussed to carve out new, niche categories to address unmet demand
 - v. Seldom profitable in the initial years

Option

- (a) i, iv and v
- (b) i, ii and v
- (c) ii, iv and v
- (d) i, iii and iv

ANSWER**Option (a) i, iv and v are features of start-ups**

Reason: Incumbents have a stable process for operations and risk management. Start Ups generally do not have a formal process in place for operations and risk management.

Incumbents have majority communication using expensive, traditional media channels. Start-ups use less expensive, digital media channels for communications.

87. Which are the features of Incumbents?

- i. Permanent organization designed to execute a business model that is repeatable and scalable
- ii. Innovations supported by tech behemoths or angel investor
- iii. Drive true sense technological change by exploiting it to commercial level
- iv. Production can start small, without an expectation of minimum viable market size
- v. Dynamic, individualistic, entrepreneurial culture

Option

- (a) i and ii
- (b) i and iii
- (c) ii and v
- (d) i, iv and v

ANSWER

Option (b) i and iii are features of incumbents

Reason: Start-ups have their innovations supported by tech behemoths or angel investors. Start-ups can afford to start their production small, without an expectation of minimum viable market size. Incumbents require estimated market is of a minimum viable size. Start ups have a dynamic, individualistic, entrepreneurial culture.

88. Which categories describe changes in a business model due to technological advancements?

- (a) Automation, Extension, Transformation
- (b) Replacement, Enhancement, Revamping
- (c) Substitution, Expansion, Overhaul
- (d) Mechanization, Augmentation, Revolution

ANSWER**Option (a) Automation, Extension, Transformation**

Reason: Automation: Involves the replacement of humans with technology without impacting organizational culture or business processes. Example: Installing a passbook update kiosk in the bank lounge.

Extension: Involves using technology to perform extended (new) tasks or processes that enhance the functions or utility of a product or service. Example: Mobile Banking as an extension of internet banking.

Transformation: Involves the use of technology that not only revamps the products or services offered by an organization but also transforms its processes and culture. Example: Installing ATMs across towns and villages, introducing digital clearing systems, etc.

89. Which one of the following statements best describes the term "Transformation" in the context of technological advancements?
- (a) It involves the mere replacement of humans with technology, focusing on revamping products and services
 - (b) It emphasizes the utilization of technology to extend and enhance tasks or processes, contributing to the overall utility of a product or service
 - (c) It includes the use of technology to completely overhaul not only the products and services but also the processes and culture of an organization, as seen in examples like installing ATMs and implementing a digital clearing system
 - (d) It refers to the mechanization of tasks through technology, emphasizing the complete revolution of an organizations offerings.

ANSWER

Option (c) It includes the use of technology to completely overhaul not only the products and services but also the processes and culture of an organization, as seen in examples like installing ATMs and implementing a digital clearing system

Reason: This involves the use of technology to comprehensively revamp not only the products or services an organization offers but also its processes and culture. For instance, installing ATMs in towns and villages allows for cash withdrawals, printing mini statements, and checking balances outside of banking hours.

90. Which of the following statements best describes the term "business ecosystem"?
- (a) A business ecosystem is a network of organizations involved in the delivery of a specific product or service, emphasizing competition over cooperation
 - (b) A business ecosystem comprises only suppliers, distributors, and customers, excluding competitors, government agencies, and other entities
 - (c) A business ecosystem is a network of organizations engaged in the delivery of a specific product or service through both competition and cooperation, leading to the coexistence and co-evolution of organizations
 - (d) A business ecosystem refers to the isolated evolution of organizations, independent of external interactions and collaborations

ANSWER

Option (c) A business ecosystem is a network of organizations engaged in the delivery of a specific product or service through both competition and cooperation, leading to the coexistence and co-evolution of organizations

Reason: A business ecosystem is a dynamic network that includes various organizations such as suppliers, distributors, customers, competitors, and government agencies. These entities are interconnected and engaged in the delivery of a specific product or service. Importantly, the business ecosystem involves both competition and cooperation among these organizations, contributing to their coexistence and co-evolution over time.

91. What characterizes the condition of hyper-competition in the market?
- (a) Reduced instability and increased bargaining power of buyers
 - (b) Weakened bargaining power of buyers and reduced consumer demand
 - (c) Intense competition leading to market stability
 - (d) Intense competition causing market instability and strengthening the bargaining power of buyers

ANSWER**Option (d) Intense competition causing market instability and strengthening the bargaining power of buyers**

Reason: Hyper-competition is a condition characterized by intense competition that creates instability in the market. In such a scenario, the bargaining power of buyers strengthens, putting increased pressure on producers. Consumers, with the ability to easily switch to competing products, demand not only higher quality but also lower prices, contributing to the overall competitive and unstable market environment.

92. Differentiate between "transformation" and "disruption" in the business context.
- (a) Transformation occurs when a challenger offers greater value to customers, while disruption involves realigning technology and business models
 - (b) Transformation involves challenging existing industry players, while disruption requires realignment of technology and business models
 - (c) Transformation is driven by innovation shifting the basis of competition, necessitating realignment or new investment, while disruption occurs when a challenger offers superior value that existing firms cannot directly compete with
 - (d) Transformation and disruption are interchangeable terms referring to the same concept in the business context

ANSWER

Option (c) Transformation is driven by innovation shifting the basis of competition, necessitating realignment or new investment, while disruption occurs when a challenger offers superior value that existing firms cannot directly compete with

Reason: Correct Answer is transformation is driven by innovation, shifting the basis of competition, and requires realignment or new investment. Disruption, on the other hand, occurs when a challenger provides superior value that existing firms cannot directly compete with.

Transformation involves innovation that shifts the basis of competition, leading to realignment or new investments in technology and business models. Disruption, on the other hand, occurs when a challenger introduces greater value to customers in a way that existing firms cannot compete with directly.

93. Mr. YEE is a management accountant for a not for profit organization that provides subsidized homes for the lower income groups of the society. He is in charge of finance, budgets, and MIS reporting at this organization. In the course of his work, he comes to know that the construction of home is being done with substandard material in order to keep the costs within budgets.

Which of the following is true?

- (a) The use of substandard material in construction is not of relevance since it is outside the domain of management accounting
- (b) The use of substandard material is relevant since it does affect the customer service quality (the beneficiaries from the lower income groups) whose service is the main objective of not for profit organization. This is a non-financial consideration in MIS reports
- (c) The information can be ignored because it does not impact the budgets adversely
- (d) The use of substandard material in construction will not have a long term consequence to the organization

ANSWER

Option (b) The use of substandard material is relevant since it does affect the customer service quality (the beneficiaries from the lower income groups) whose service is the main objective of not for profit organization. This is a non-financial consideration in MIS reports

Reason: The correct answer is (B), the use of substandard material is relevant as it affects customer service quality and hence is a non-financial consideration. Even though it does not affect budget adversely, it does have an impact in the operations of the business. The customers perspective will be negatively impacted which can affect funding for the organization. Hence it does have long term consequences for the organization.

94. Cafe coffee hub offer a feature of writing name of customer on the takeaway glass down under the logo of CCH, the size of logo of CCH on glass of coffee is which type of attribute (referring to Kano Model)?
- (a) Reversal
 - (b) Delighter
 - (c) Performance
 - (d) Indifferent

ANSWER

Option (d) Indifferent

Reason: The size of logo on the takeaway cup of coffee is not really making any difference to value and utility of product or even value perceived by customer hence it is indifferent attribute. Indifferent qualities are neither good nor bad and have no effect, positive or negative, on customer satisfaction. To illustrate - look of emoticons in messaging apps in phone, placing of logo on phone, size thereof.

95. COO of Modern Furniture Limited heard about Kano Model. MFL decided to use Kano Model to enhance customer satisfaction; but not sure which attribute of Kano Model need to be focused mainly (in priority over others) in order to enhance the customer's willingness to pay.
- (a) Reversal

- (b) Delighter
- (c) Performance
- (d) Indifferent

ANSWER

Option (c) Performance

Reason: Most organisations focus on Kanos performance attributes on the basis that the higher the performance attributes, the higher the customers willingness to pay.

96. Match the item of list I with that of list II and suggest correct code –

List I - Pricing Strategy	List II – Explanations
i. Customary Pricing	a. Ending price with 99
ii. Skimming	b. Pricing a product based on perceived expectation of customers
iii. Penetration Pricing	c. Setting a high price which gradually reduces as competitors enter the market
iv. Psychological Pricing	d. Setting a low price for a new product during its initial offering

Option

- (a) i- d, ii- a, iii- b, iv- c
- (b) i- b, ii- c, iii- d, iv- a
- (c) i- c, ii- d, iii- a, iv- b
- (d) i- a, ii- b, iii- c, iv- d

ANSWER

Option (b) i- b, ii- c, iii- d, iv- a

Reason: Customary Pricing is value based perception oriented pricing, skimming is pricing strategy wherein prices are reduced gradually to capture each point of price curve (those who need the product early on have to pay more), penetration pricing is charging low price with intent to capture more market share; whereas psychological pricing rest on

triggering psychological effect (known as Bata pricing in India, because Bata bring this trend to India and price their products say pair of shoes for 999 or 1,499 rather 1,000 or 1,500)

97. In a product mix decision, which is the most important factor to consider in order to try to maximise profit?
- (a) Profit per unit of the product
 - (b) Contribution per unit of the product
 - (c) Profit per unit of a scarce resource used to make the product
 - (d) Contribution per unit of a scarce resource used to make the product

ANSWER

Option (d) Contribution per unit of a scarce resource used to make the product

Reason: Product mix decision is short term decisions where bottleneck or limiting factor is involved. Short term decisions have two characteristics that make them relatively easier than longer term decisions. Firstly, the time value of money can be ignored, secondly most of the fixed costs will be incurred anyway so can be ignored as not relevant. In such cases the main approach is usually to consider relevant cash flows, which may simplify to looking at the impact of the decision on the contribution. Hence contribution per unit of limiting factor shall be used to make the decisions.

98. Modern Gas Limited deals in liquid nitrogen (a standardised product). NGL pay less attention to its own costs or demands and bases its price largely on competitor's prices. The Pricing method adopted by MGL is –
- (a) Value pricing
 - (b) Psychological Pricing
 - (c) Going rate pricing
 - (d) Image pricing

ANSWER**Option (c) Going rate pricing**

Reason: Going rate pricing is completion-based pricing method. Going Rate Pricing is a competitive pricing method under which a firm tries to keep its price at the average level charged by the industry. The use of such a practice of pricing is especially useful where it is difficult to measure costs.

99. NZ Mart is a retail chain. Competition is stiff and revolve around the price among the market player in retail chain segment. NZ Mart adopted the practice of pricing some its products below cost, with an intention to destroying the competitor. Such pricing practice/ strategy is referred to as –
- (a) Loss leader pricing
 - (b) Price discrimination
 - (c) Predatory pricing
 - (d) Penetration Pricing

ANSWER**Option (c) Predatory pricing**

Reason: Predatory pricing (loss leading) is the practice of selling a product or service at a very low price, intending to drive competitors out of the market or create barriers to entry for potential new competitors.

100. Categorize the services based on the nature of service involved –

i. Fitness Centre	(a) Product / possession processing service
ii. Warehousing	(b) Mental stimulus processing service
iii. Advertising	(c) People processing service
iv. Knowledge Processing Offices (KPO)	(d) Information processing service

Option

- (a) i- a, ii- b, iii- c, iv- d
- (b) i- b, ii- a, iii- c, iv- d
- (c) i- a, ii- b, iii- d, iv- c
- (d) i- c, ii- a, iii- b, iv- d

ANSWER**Option (d) i- c, ii- a, iii- b, iv- d**

Reason: Fitness Centre - People processing service, the customer has to be physically present for the service to be rendered. Here, the customer has to attend the gym to use the fitness centre services. Warehousing - Product/ possession processing service, customer need not be present. However, the service is being worked on a tangible object. Here, the goods being stored in the warehouse (tangible object in the possession of the customer) is now being stored in the warehouse (service being provided on the object). Advertising - Mental stimulus processing service. These services influence the customers behaviour, perception etc. There is no need for physical presence of the customer nor is there any need for a tangible product of the customer to be worked on. The customer only has to experience it, this service will be unique to each customer as each of their perception and behaviour is different. Hence, the delivery of the service will be different for different people. Knowledge Processing Offices (KPO) - Information processing service. Service occurs when information is being processed. The work of the client (information) is being processed and service is being rendered. This could relate to accounting work, legal work, taxation etc.

101. When would you not price a product below marginal cost?

- (a) Product is of perishable nature with a very short shelf time remaining
- (b) Product manufactured based on customized orders
- (c) Popularize a product in a new market
- (d) Reduction in price of product can boost the sales of related products that have a larger profit margin

ANSWER**Option (b) Product manufactured based on customized orders**

Reason: Products manufactured based on customized orders will be priced on total cost plus mark-up basis, they will not be charged below marginal cost. Products are priced below marginal cost when the product is perishable nature with a short remaining shelf life, during penetration pricing to gain a hold in the new market or to grow the sales volume of another related product.

102. Which of the following is not a promotional pricing that is used to coax buyers to make an early purchase?
- (a) Longer payment terms
 - (b) Special event pricing
 - (c) Loss leader pricing
 - (d) Price skimming

ANSWER**Option (d) Price skimming**

Reason: Price skimming is charging customers a premium price for a new product when it is initially launched in the market. This does not necessarily coax a buyer to make an early purchase. The terms of promotional pricing are liberal. Longer payment terms give the buyer more credit time to repay, special event pricing aims to attract customers at events using attractive prices, loss leader pricing is lowering the price of well-known brands to stimulate sales growth of other products sold in the shop by making customers visit the location.

103. Match the price discount with their characteristics –

i. Distributor's discount	a. Useful in trades where credit risk is high
ii. Quantity discount	b. Create different prices to different customers on the basis of marketing functions performed by them

iii. Cash discount	c. Channel partners are encouraged to promote company's products (incentive to push a product) to customer
iv. Trade in allowance / promotional allowance	d. Practicable where the commodities are homogeneous or identical in nature, or where they may be measured in terms of truckloads or measured in physical units

Option

- (a) i- b, ii- d, iii- a, iv- c
- (b) i- c, ii- d, iii- a, iv- b
- (c) i- c, ii- d, iii- b, iv- a
- (d) i- d, ii- a, iii- b, iv- c

ANSWER**Option (a) i- b, ii- d, iii- a, iv- c**

Reason: Distributors Discount- Create different prices to different customers on the basis of marketing functions performed by them. Also known as functional discount. Quantity Discount- Practicable where the commodities are homogeneous or identical in nature, or where they may be measured in terms of truckloads or measured in physical units. Cash Discount- Useful in trades where credit risk is high. Reward for prompt payment. Trade in Allowance/ Promotional Allowance- Channel partners are encouraged to promote company's products (incentive to push a product) to customer. For example, retailers may be allowed advertising allowance that encourage them to advertise the company's products in the local newspapers. The retailer gains by getting some allowance towards advertising expense, while the manufacturer gets the advantage of lower advertising costs that retailers typically get while advertising in papers.

104. A company has used Kano Model to understand the correlation between product features and customer satisfaction. If it is facing a constraint of direct labour hours, in which order should the company include the

feature while manufacturing the product? All features require direct labour hours. Manufacture to include feature i.e., –A company has used Kano Model to understand the correlation between product features and customer satisfaction. If it is facing a constraint of direct labour hours, in which order should the company include the feature while manufacturing the product? All features require direct labour hours. Manufacture to include feature i.e., –

- (a) first threshold attribute, second delight attribute, and lastly Indifference qualities
- (b) first a performance attribute, second delight attribute, and lastly threshold attribute
- (c) first excitement attribute, second threshold attribute, and lastly reverse feature
- (d) first reverse feature, second delight attribute, and lastly indifference qualities

ANSWER

Option (a) first threshold attribute, second delight attribute, and lastly Indifference qualities

Reason: Where there is a shortage of direct labour hours, the company's manufacturing plan to include features prioritized based on customer satisfaction. Threshold attribute is a must have feature, the absence of which will cause customer dissatisfaction. Hence, it should be given highest priority as it is a must have in the product. Performance attribute is a feature where the more the availability of the feature, better the customer satisfaction. It is next to threshold attribute in the priority list. Excitement or Delight attribute is an unexpected feature provides satisfaction when they are met but do not cause dissatisfaction when they are not met. Reverse Feature, if present must be removed from the product, rather than include it in the product. This feature when present causes dissatisfaction. Indifference Quality is a lower priority as it does not affect customer satisfaction. Given this, in option where Manufacture to include feature that is first a Threshold attribute, second Excitement or

Delight attribute and lastly Indifference qualities is in appropriate order of priority.

105. How will an exciting or delight attribute help with pricing a product?
- i. Provides a justification to charge a premium price for that feature
 - ii. Build customer loyalty for repeat sales
 - iii. Helps to grow market share and become a market leader
 - iv. Provides the basis for product differentiation

Option

- (a) ii and iv
- (b) i, iii and iv
- (c) i, ii and iii
- (d) All of the above

ANSWER

Option (d) All of the above

Reason: A feature that sets the product apart by providing high level of customer satisfaction will provide a justification for premium pricing, build customer loyalty, improves market share and is the basis for product differentiation.

106. Which of the following is not a feature of price discrimination?
- (a) The market must be capable of being segmented based on customer, product, place or time
 - (b) The customers should not be able to resell the product at another segment for a higher price
 - (c) Pricing the product below cost, lower as may be determined by regulations, to reduce or eliminate competition
 - (d) The chance of competitors' underselling in the segment of higher prices should not be possible

ANSWER**Option (c) Pricing the product below cost, lower as may be determined by regulations, to reduce or eliminate competition**

Reason: Pricing the product below cost, lower as may be determined by regulations, to reduce or eliminate competition is predatory pricing, which is illegal as per Competition Act 2002. Price Discrimination is possible only if market segmentation is possible. If customers start buying the product in one segment and trading it in another to earn profit, the usefulness of price discrimination is lost for the company as the customer (trader) and not the company earns the differential profit. Competitors should not be able to sell the product at a price lower than that offered by the company in that segment, since customers would then prefer the competitors cheaper product.

107. Business may charge higher price to enhance their revenue by striving for to include those features which has higher capability to please the customer; while exclude those have negative impact on value perceived.

Correctly match the items of following sets –

i. Features your product needs to be competitive	a. Performance attributes
ii. More investment in these features, more satisfaction the customer gets	b. Excitement / Delight attributes
iii. Features provide satisfaction when met but do not provide dissatisfaction when not met	c. Threshold (Basic) attributes
iv. Features that have no effect on customer satisfaction	d. Reverse qualities
v. Features if present cause customer dissatisfaction	e. Indifference qualities

Option

- (a) i- a, ii- b, iii- c, iv- e, v- d

- (b) i- c, ii- a, iii- b, iv- e, v- d
- (c) i- c, ii- a, iii- b, iv- d, v- e
- (d) i- d, ii- a, iii- e, iv- b, v- c

ANSWER**Option (b) i- c, ii- a, iii- b, iv- e, v- d**

Reason: Features your product needs to be competitive - Threshold / Basic attributes. More investment in these features, more satisfaction the customer gets - Performance attributes. Features provide satisfaction when met but do not provide dissatisfaction when not met – Excitement/ Delight attributes. Features that have no effect on customer satisfaction - Indifference qualities. Features if present cause customer dissatisfaction - Reverse qualities.

108. How is the Kano Model useful?

It correlates product features with –

- (a) Customer satisfaction
- (b) Market segments
- (c) Profitability
- (d) Innovation

ANSWER**Option (a) Customer satisfaction**

Reason: The Kano Model is useful to correlate product features with customer satisfaction. It is important to have a framework that correlates product features with customer satisfaction. Few features would be must haves that are needed to remain competitive, investment in few other features would enhance performance that improves customer satisfaction, few features would surprise the customer that would give very high satisfaction levels. There are also features that do not influence satisfaction and others that are harmful since they cause dissatisfaction. Kano Model is a framework for product teams that will help them

understand these issues before a product launch. A company can then use this information to appropriately price its product.

109. An automobile company is considering the following features in the latest model of car it wants to develop. Classify the features to the customer satisfaction expectation using Kano Model –

i. Improve engine design that can improve fuel efficiency	a. Threshold attribute
ii. Change colour of cables used internally in the bonnet	b. Performance attribute
iii. Air bags are provided for passenger safety in crash collision	c. Excitement / Delight attribute
iv. Extended warranty on certain spare parts for 3 years instead of the current period of 1 year	d. Indifferent quality

Option

- (a) i- b, ii- d, iii- a, and iv- c
- (b) i- c, ii- d, iii- a, and iv- b
- (c) i- b, ii- c, iii- a, and iv- d
- (d) i- b, ii- a, iii- d, and iv- c

ANSWER

Option (a) i- b, ii- d, iii- a, and iv- c

Reason: Improve engine design that can improve fuel efficiency - More investment in these features, more satisfaction the customer gets (Performance attributes). Change colour of cables used internally in the bonnet - Features that have no effect on customer satisfaction (Indifference qualities). Air bags are provided for passenger safety in crash collision - Features your product needs to be competitive (Threshold/Basic attributes).. Extended warranty on certain spare parts for 3 years instead of the current period of 1 year - Features provide satisfaction

when met but do not provide dissatisfaction when not met (Excitement / Delight attributes).

110. Identify the attribute that can be classified as indifference attribute to a retail customer of a bank under the Kano Model –
- (a) Reduction of limit of a credit card issued by a bank
 - (b) Ability to receive One Time Password (OTP) reliably on the mobile to execute net bank transactions
 - (c) Action within an hour on service requests placed online using net banking services of the bank
 - (d) Cost of embossing the credit card issued by the bank

ANSWER

Option (d) Cost of embossing the credit card issued by the bank

Reason: The cost of embossing (emboss means to carve with a design) the credit card issued by the bank is not linked to customer satisfaction of the retail customer. Hence, it is an indifference attribute/ quality. The other features affect customer satisfaction directly.

111. Identify the attribute that can be classified as reverse attribute to a retail customer of a bank under the Kano Model –
- (a) Action within an hour on service requests placed online using net banking services of the bank
 - (b) Ability to receive One Time Password (OTP) reliably on the mobile to execute net bank transactions
 - (c) Permanent tracking of a smartphone via banking app
 - (d) Cost of embossing the credit card issued by the bank

ANSWER

Option (c) Permanent tracking of a smartphone via banking app

Reason: Permanent tracking of a smartphone via banking app is an unwanted feature that decrease customer satisfaction when present. Hence, it is a reverse attribute/ quality. The other features relate to other attributes. Ability to receive One Time Password (OTP) reliably on the

mobile to execute net bank transactions is a threshold attribute. Action within an hour on service requests placed online using net banking services of the bank is an excitement/ delight attribute. The cost of embossing the credit card issued by the bank is not linked to customer satisfaction of the retail customer. Hence, it is an indifference attribute/ quality.

112. A company has used the Kano Model to identify the product features and correlate them to customer satisfaction. It is having a funding constraint for manufacturing the product. Now, it has to decide between investing in Feature 1 and Feature 2, both of which are significant product features. Feature 1 has a threshold attribute while Feature 2 has a performance attribute. The company does not have enough funds to invest in both these features.

How should the company decide to allocate between the features?

- (a) It should first invest in Feature 1 and any surplus is invested in Feature 2
- (b) It should first invest in Feature 2 and any surplus is invested in Feature 1
- (c) It can split between Feature 1 and 2 equally (even if the cost of manufacturing does not sufficiently cover either feature)
- (d) It need not invest in either Feature 1 or Feature 2

ANSWER

Option (a) It should first invest in Feature 1 and any surplus is invested in Feature 2

Reason: It should first invest in Feature 1 and any surplus is invested in Feature 2. Feature 1 has a threshold attribute, when it is present in the product it is taken for granted but when absent it causes customer dissatisfaction. This attribute deals with the very basic product features that must be present in order to be competitive. Comparatively, Feature 2 has a performance attribute. The more the investment in this feature the more the customer satisfaction. While it can influence the decision of customers who seek certain features in the product, is not a must have

feature unlike Feature 1 which is a very basic attribute. Hence, given a funding constraint, the company should first invest in Feature 1 and any surplus is invested in Feature 2. The objective of Kano Model is to provide the company a framework to prioritize these features based on customer satisfaction. Investment cannot be split equally in both features given that feature 1 is a must have and has to be part of the product feature. Not investing in Feature 1 will cause customer dissatisfaction and hence the company should avoid this decision.

113. Why would a company want to invest in a feature that has to be classified as having an exciting or delight attribute?
- (a) Such a feature is a must have feature which is taken for granted in the product
 - (b) Such a feature is expected to be present in the product, the more it is available the better the satisfaction
 - (c) Such a feature is unexpected and spurs the customer to make spot purchases or build customer loyalty for repeat sales
 - (d) Such a feature is an unspoken expectation from the customer

ANSWER

Option (c) Such a feature is unexpected and spurs the customer to make spot purchases or build customer loyalty for repeat sales

Reason: Such a feature is unexpected and spurs the customer to make spot purchases or build customer loyalty for repeat sales, this feature will not cause dissatisfaction if not present, but if provided it will wow the customer into buying the product or to build customer loyalty for repeat sales. A feature taken for granted or an unspoken expectation from the customer are both threshold / basic attribute, which must be present in the product. The feature where more the better satisfaction has a performance attribute.

114. Sunline is a global mobile phone manufacturer. The company introduces new models of the phone at least once a year. These models are either innovative in their capabilities or have appealing design. The company invests a lot in research and development, sales promotion and

advertising and product distribution. Hence, its production is capital intensive, and the cost of production is high. There is a huge demand whenever Sunline introduces a new model in the market. Over a time period of a year, the demand gradually slows down.

What type of pricing can Sunline adopt to gain maximum profitability during every model launch?

- (a) Going rate pricing
- (b) Price skimming
- (c) Predatory pricing
- (d) Cost based pricing

ANSWER

Option (b) Price skimming

Reason: Sunline can charge a premium for its new model since the value perception of the product is very high due to innovative capabilities or design. Since its cost of production is high and the business is capital intensive, it needs to recoup its investment as early as it can. Hence price skimming, charging a premium to the customers will help it earn more profits.

115. Lord is a luxury hotel chain operating out of many tourist destinations, one of which is in a forest area in Uttarakhand. In the last few years, due to severe drought conditions, the forest ecology got affected. Due to this, tourism reduced to a trickle. Most hotels in that area cut their prices to very low rates in each of these years in order to attract the guests with low prices. Instead, the manager at Lord offered guests free pick up and drop to the airport, railway station, discounted spa services, fast internet connectivity, certain complementary gifts to attract customers. At the same time, it maintained its pricing at luxury room rate levels charged earlier when the tourist season was normal.

Which pricing did the manager of Lord follow?

- (a) Going rate pricing
- (b) Market pricing

- (c) Value based pricing
- (d) Skimming pricing

ANSWER**Option (c) Value based pricing**

Reason: The manager of the hotel chain did not indulge in price wars which hurts profitability in the long run. Instead, the manager followed value based pricing by charging the guests, based on perception of the services offered. Certain low cost services were provided additionally like free pick up and drop, spa services, internet connectivity and gifts. These helped to change the perception of the guests and not reduce the luxury brand image of Lord hotel chain. Therefore, they could justify the higher rates charged to the customer as compared to other hotels in that area.

116. Match the pricing with the scenario in the following cases –

i. Customized product	a. Going rate pricing
ii. Perfect competition	b. Sealed bid pricing
iii. Defence contract work / Infrastructure projects	c. Cost based pricing
iv. Pharma companies, oligopolistic market with few players	d. Collusion pricing

Option

- (a) i- c, ii- a, iii- b, and iv- d
- (b) i- d, ii- b, iii- c, and iv- a
- (c) i- a, ii- c, iii- d, and iv- b
- (d) i- c, ii- b, iii- d, and iv- a

ANSWER**Option (a) i- c, ii- a, iii- b, and iv- d**

Reason: Customized Product – Cost Based Pricing

Generally, when a product is manufactured based on specific customer requirements, the total cost can be easily traced. Adding the required

mark up, cost based pricing becomes a popular pricing method for customized product.

Perfect Competition – Going Rate Pricing

Firms are price takers in a perfect competition. Hence, they will keep the price at the average industry level irrespective of their cost of production or demand.

Defence Contract Work/ Infrastructure Projects – Sealed Bid Pricing

In these scenarios, normally many firms compete for the project. They submit their bids confidentially; pricing is based on the bidding firm's perception of what its rivals would be charging for the same work. It does not depend *only on* its cost of production or demand.

Pharma Companies in an Oligopolistic Market – Collusion Pricing

With few firms in the business, normally the price is set based on the agreement with other firms. This is done so that there is no direct competition among them at the same time the price is set earn sufficient profitability. Collusion pricing also deters new entrants.

117. Which of the following is not a drawback of cost based pricing approach?
- (a) There is no incentive for managers to operate in a cost efficient way
 - (b) The pricing method does not consider the customers' value perception about the product
 - (c) It ignores the structure of the market in which the firm operates
 - (d) It requires market research to understand competitor's strategy

ANSWER

Option (d) It requires market research to understand competitor's strategy

Reason: It is not true that cost based pricing requires market research to understand competitor's strategy. Cost based pricing is based purely on the cost the company incurs and the mark up or profit margin it requires. It does not consider competitors' strategy, market demand, customers' perception, market conditions etc.

118. In which stage of a product life cycle will you use going rate pricing?

- (a) Introduction
- (b) Growth
- (c) Maturity
- (d) Decline

ANSWER

Option (c) Maturity

Reason: In the maturity stage of the product, the market is stable, with more competitors selling homogenous product. Hence, the company generally would not charge more than the average industry price. It would adopt going rate pricing.

119. PowerOn manufactures batteries that power medical devices like medical imaging systems, defibrillators, ventilators and monitoring devices. PowerOn has customers who are medical equipment manufacturers who use these while making medical devices and machines. Bataid is the latest model of battery that PowerOn has developed. It is safe, stable and longer lasting. These are very important attributes since the performance of medical devices can get affected by them. PowerOn wishes to arrive at a price for Bataid batteries. The market has many similar batteries available. However, Bataid is of a much higher quality as compared with the rest. The nearest comparable battery is Bat 1.

Particulars	Bataid	Bat 1
Operating cost per hour	₹ 2 per hour	₹ 1 per hour
Probability of battery failing	1%	11%
Price of a battery per unit	?	₹ 20,000

Due to the critical nature of the medical devices in which it is used, the cost of a battery failing to the buyer has been arrived as ₹ 1,00,000. Both batteries Bataid and Bat 1 can be used for an average of 8,000 hours.

Calculate the probable price (in ₹) PowerOn can charge the medical equipment manufacturer based on the True Economic Value method.

- (a) 38,000
- (b) 18,000
- (c) 23,000
- (d) 22,000

ANSWER

Option (d) 22,000

Reason: The objective value determined here is from whose viewpoint –

- The medical equipment manufacturer
- PowerOn
- Final customer, the hospitals

The correct answer is ₹ 22,000 per unit of Bat aid. It is calculated as below –

True economic value for a consumer is calculated taking two differentials into consideration:

TEV = Cost of the Next Best Alternative + Value of Performance Differential

Cost of the next best alternative is the cost of a comparable product offered by some other company. Value of performance differential is the value of additional features provided by the seller of a product.

Particulars	Amount ₹
1. Difference in Operating Cost per battery (higher expense incurred by buyer) Bataid = ₹ 2 per hour Bat 1 = ₹ 1 per hour For 8,000 hours = $8,000 \times (\text{₹ } 2 - \text{₹ } 1)$	8,000
2. Savings to buyer due to more stable performance of battery Cost of battery failing = ₹ 1,00,000 Difference in probability of battery failure (1% vs 11%) = 10%	10,000

Lower cost of failure to buyer = $10\% \times ₹ 1,00,000$	
3. Value Differential of using Bataid (Step 2 – Step 1)	2,000
4. Price of per unit Bat 1 battery (cost of next best alternative)	20,000
5. True economic value of per unit Bataid	22,000

True economic value/ Objective value determined here is from the point of view of PowerOn, the battery manufacturer. Objective value is a measure of benefits that a product is *intended to deliver to the consumers relative to the other products* without giving any regard whether the consumer can recognize these benefits or not.

120. Which of the following statements is true?

- i. Perceived value of a product is the price the customer is willing to pay for the product
- ii. Perceived value of a product is the price the manufacturer wants to charge the customer
- iii. Perceived value of a product less the price of the product, benefits the customer
- iv. When perceived value is higher than cost of sales, the manufacturer can derive profits

Option

- (a) i and iii
- (b) ii and iii
- (c) i, iii and iv
- (d) i, ii and iii

ANSWER

Option (c) i, iii and iv

121. What are the disadvantages of total cost based pricing for products?

- i. Does not consider if the customer is willing to pay as per value of product

- ii. Requires budgeting of production output volume to determine allocation of overheads, this may not always be accurate
- iii. Surplus generated from sales cannot completely cover the replacement cost of fixed assets in an inflationary economic condition
- iv. Pricing using this method is difficult to arrive at due to lack of information

Option

- (a) i and ii
- (b) i, ii and iii
- (c) i, iii and iv
- (d) i, ii, iii and iv

ANSWER**Option (b) i, ii and iii**

Reason: Statement 1 – Pricing based on total cost with an added mark-up may not always be helpful in generating demand. This method does not take into account the potential customers' preference to buy the product at the determined price (by understanding the perceived value).

Statement 2 – Overhead allocation is a cost used to arrive at the total cost for the product, it is allocated to each produce based on the budgeted production volume. Hence, there may be under or over recovery of overhead if the budgeted production is not accurate enough.

Statement 3 – Sale price is dependent on total cost, for which depreciation is calculated on historic prices of fixed assets. In case the cost of fixed assets remains stable, then the surplus generated using such a sale price will cover the replacement cost of the fixed asset at the end of its useful life. However, in inflationary economic conditions, the cost of fixed assets increase. Hence, the surplus generated from the sale price based on historic costs will not be sufficient to fund the replacement of the fixed asset at the end of its useful life.

Statement 4 – Total cost method is simple to follow with a defined set of steps. The company will have complete information of its costs hence there is no lack of information.

122. A company which has developed a new machine has observed that the time taken to manufacture the first machine is 600 hours.

Calculate the time which the company will take to manufacture the second machine if the actual learning curve rate is 80%.

- (a) 480 hours
- (b) 960 hours
- (c) 360 hours
- (d) 540 hours

ANSWER

Option (c) 360 hours

Reason: Actual learning curve rate is 80%

Time taken to produce the first machine	= 600 hours
Average time taken to produce two machines	= 600 x 80% hours
	= 480 hours.
Cumulative time taken to produce two machines	= 480 x 2 hours
	= 960 hours
Time taken to produce the second machine	= (960-600) hours
	= 360 hours

123. The Gifts Company makes mementos for offering chief guests and other dignitaries at functions. A customer wants 4 identical pieces of hand-crafted gifts for 4 dignitaries invited to its function.

For this product, the Gifts Company estimates the following costs for the 1st unit of the product –

Particulars of Costs	₹/ unit
Direct Variable Costs (excluding labour)	2,000
Direct Labour (20 hours @ ₹ 50 hour)	1,000

90 % learning curve ratio is applicable, and one labourer works for one customer's order.

Calculate price per piece (in ₹) to be quoted for this customer if the targeted contribution is ₹ 1,500 per unit?

- (a) 4,310
- (b) 4,400
- (c) 17,240
- (d) 17,600

ANSWER

Option (a) 4,310

Reason:

	₹/ u Avg. / unit (4 units)
Variable Cost	2,000
Labour	810
Target Contribution	1,500
Price to be Quoted	4,310

124. XL Polymers, located in Sahibabad Industrial Area, manufactures high quality industrial products. AT Industries has asked XL Polymers for a special job that must be completed within one week.

Raw material R_1 (highly toxic) will be needed to complete the AT Industries' special job. XL Polymers purchased the R_1 two weeks ago for ₹ 7,500 for a job 'A' that recently was completed. The R_1 currently in stock is the excess from that job and XL Polymers had been planning to dispose of it. XL Polymers estimates that it would cost them ₹ 1,250 to dispose of the R_1 . Current replacement cost of R_1 is ₹ 6,000.

Special job will require 250 hours of labour G_1 and 100 hours of labour G_2 . XL Polymers pays their G_1 and G_2 employees ₹ 630 and ₹ 336 respectively for 42 hours of work per week. XL Polymers anticipates having excess capacity of 150 [G_1] and 200 [G_2] labour hours in the coming week. XL

Polymers can also hire additional G_1 and G_2 labour on an hourly basis; these part-time employees are paid an hourly wage based on the wages paid to current employees.

Suppose that material and labour comprise XL Polymers's only costs for completing the special job.

'Minimum Price' in ₹ that XL Polymers should bid on this job –

- (a) 250
- (b) 500
- (c) 1,500
- (d) 1,750

ANSWER

Option (a) 250

Reason: Opportunity Cost of Labour - The G_2 labour has zero opportunity cost as there is no other use for the time already paid for and is available. However, XL Polymers needs to pay an additional amount for G_1 labour. This amount can be save if the special job were not there.

G_1 labour:

Hours Required	250
Hours Available	150
Extra Hours Needed	100
Cost per hour (₹ 630/ 42hrs)	₹ 15
Opportunity Cost	₹ 1,500

Thus, the 'Opportunity Cost of Labour' for completing the special job is ₹ 1,500.

Opportunity Cost of Material – XL Polymers has no alternative use for the R_1 , they must dispose of it at a cost of ₹ 1,250. Thus, XL Polymers actually saves ₹ 1,250 by using the materials for the AT Industries' special job. Consequently, the 'Opportunity Cost of Material' is - ₹ 1,250 (i.e., the opportunity cost of this resource is negative).

The minimum price is the price at which XL Polymers just recovers its 'Opportunity Cost'. XL Polymers's 'Total Opportunity Cost' is ₹ 250 (₹ 1,500 – ₹ 1,250). Accordingly, minimum Price for the Special Job is ₹ 250.

125. S Limited is engaged in manufacturing activities. It has received a request from one of its important customers to supply a product which will require conversion of material 'M', which is a non-moving item.

The following details are available:

Book value of material 'M'	₹ 60
Realisable value of material 'M'	₹ 80
Replacement cost of material 'M'	₹ 100

It is estimated that conversion of one unit of 'M' into one unit of the finished product will require one labour hour. At present, labour is paid at the rate of ₹ 20 per hour. Other costs are as follows:

Out-of-pocket expenses	₹ 30 per unit
Allocated overheads	₹ 10 per unit

The labour will be re-deployed from other activities. It is estimated that the temporary redeployment will not result in loss of contribution. The employees to be re-deployed are permanent employees of the company.

The minimum price (in ₹) to be charged from the customer so that the company is not worse off by executing the order –

- (a) 90
- (b) 110
- (c) 120
- (d) 140

ANSWER

Option (b) 110

Reason: Relevant Cost of Producing One Unit of the Finished Product –

	(₹)
Cost of Material 'M' (Realisable Value)	80

Cost of Labour (Being Sunk Cost)	0
Out-of-Pocket Expenses	30
	110

Allocated Overhead is not relevant for the decision. The customer should be charged ₹ 110 per unit.

126. The cost of production and sales of 80,000 units per annum of product Q are:

Material	₹ 4,80,000	Labour	₹ 1,60,000
Variable Overhead	₹ 3,20,000	Fixed overhead	₹ 5,00,000

The fixed portion of capital employed is ₹ 12 lacs and the varying portion is 50% of sales turnover.

The selling price per unit to earn a return of 12% net on capital employed (net of Tax @ 40%) –

- (a) 16.67
- (b) 21.25
- (c) 21.32
- (d) 23.61

ANSWER

Option (d) 23.61

Reason: Return of 12% Net (after tax of 40%) on Capital Employed is equivalent to 20% (Gross) $[12\% \div (1 - 0.4)]$ on Capital Employed.

Let Selling Price per unit to be 'K'

Since Total Sales = Total Cost + Profit

$$80,000 K = 14,60,000 + 20\% (12,00,000 + 0.5 \times 80,000K)$$

$$80,000 K = 14,60,000 + 2,40,000 + 8,000K$$

$$72,000 K = 17,00,000$$

$$'K' = ₹ 23.61$$

Hence Selling Price per unit will be ₹ 23.61.

127. OOL has developed a new product which is about to be launched into the market. The variable cost of selling the product is ₹ 17 per unit. The marketing department has estimated that at a sale price of ₹ 25, annual demand would be 10,000 units. However, if the sale price is set above ₹ 25, sales demand would fall by 500 units for each ₹ 0.50 increase above ₹ 25. Similarly, if the price is below ₹ 25, demand would increase by 500 units for each ₹ 0.50 stepped reduction in price below ₹ 25.

The price (in ₹) and corresponding quantity (in units), which would maximise OOL's profit in the next year–

- (a) Price- 26.00; Quantity- 9,000
- (b) Price- 26.50; Quantity- 8,000
- (c) Price- 26.50; Quantity- 9,000
- (d) Price- 25.50; Quantity- 8,000

ANSWER

Option (a) Price- 26.00; Quantity- 9,000

Reason: Statement of Total Contribution

Sales Price p.u. (₹)	Variable Cost p.u. (₹)	Contribution p.u. (₹)	Sales Volume (units)	Total Contribution (₹)
27.50	17.00	10.50	7,500	78,750
27.00	17.00	10.00	8,000	80,000
26.50	17.00	9.50	8,500	80,750
26.00	17.00	9.00	9,000	81,000
25.50	17.00	8.50	9,500	80,750
25.00	17.00	8.00	10,000	80,000
24.50	17.00	7.50	10,500	78,750
24.00	17.00	7.00	11,000	77,000

From the above statement it is quite apparent that the contribution would be maximum at a sale price of ₹ 26 per unit and sales demand of 9,000 units.

128. Fast Heal Tech Ltd. is a leading IT security solutions and ISO 9001 certified company. The solutions are well integrated systems that simplify IT security management across the length and depth of devices and on multiple platforms. Company has recently developed an Antivirus Software and company expects to have life cycle of less than one year. It was decided that it would be appropriate to adopt a market skimming pricing policy for the launch of the product. This Software is currently in the Introduction stage of its life cycle and is generating significant unit profits.

Out of followings which are the necessary strategies when the Software moves from the Introduction stage to Growth stage of its life cycle –

- i. Improving quality and adding new features
- ii. Lowering price to attract price-sensitive buyers
- iii. Changing marketing strategy to increase demand
- iv. Sourcing new market segments/ distribution channels
- v. Entering into another niche area could increase profits

Option

- (a) iii, iv, and v
- (b) i, ii, iii, and iv
- (c) ii, iii, iv, and v
- (d) i, ii, iii, iv, and v

ANSWER

Option (b) i, ii, iii, and iv

Reason: Following acceptance by early innovators, conventional consumers start following their lead. New competitors are likely to now enter the market attracted by the opportunities for large scale production and profit. Company may wish to discourage competitors from entering the market by lowering the price and thereby lowering the unit profitability. The price needs to be lowered so that the product becomes

attractive to different market segments thus increasing demand to achieve the growth in sales volume.

Strategies at this stage may include the following –

- i. Improving quality and adding new features.
- ii. Sourcing new market segments/ distribution channels.
- iii. Changing marketing strategy to increase demand.
- iv. Lowering price to attract price-sensitive buyers.
- v. Discourage competitors from entering the market by lowering the price.

Entering into another niche area could increase profits is strategy relevant to Decline stage.

129. An airline company had to ground 25% its fleet operations. This was due to low passenger traffic due to economic recession. The company has started incurring losses because of this. The management has convened to decide whether to temporarily shut down operations for few months until there is a spike in air travel.

Pilots of the company are highly skilled, and a lot of investment has been made in training them. Hence, they will continue to be part of the workforce and their regular salary will be paid each month. Ground staff are lesser skilled. The job market can provide the requisite candidates when the company plans to re-hire once normal operations begin. Hence, the company has decided to retrench 30% of its ground staff. They will be paid retrenchment compensation of 2 month's salary. Planes that have been grounded need to be maintained continuously in order to be capable of being put into operation when normal operations resume. Due to the nature of the engine, special maintenance cost will need to be incurred in addition to regular maintenance cost in order to keep it in working condition. Planes will continue to be parked at the airport hangar for which the company will pay fees.

Which of the following will be the relevant items to be considered while deciding on the scenario of this temporary shut down?

- i. Salary paid to pilots for the period when the planes are grounded
- ii. Savings of salary cost of 30% of ground staff who have been let go
- iii. Retrenchment compensation of 2 months salary paid to the ground staff who have been let go
- iv. Special maintenance cost to ensure that engines of grounded fleet remain in working condition
- v. Airport hangar parking fees

Option

- (a) ii, iii, iv
- (b) i, ii, iii and iv
- (c) i, ii, iii and v
- (d) ii, iii, iv and v

ANSWER**Option (a) ii, iii, iv**

Reason: Relevant items to be considered for decision making are –

Statement ii- Savings of salary cost of 30% of ground staff who have been let go.

Statement iii- Retrenchment compensation of 2 months' salary paid to the ground staff who have been let go.

Statement iv- Special maintenance cost to ensure that engines of grounded fleet remain in working condition.

The above three items are savings or expense that relate to the future and will be earned/ incurred only if the decision is taken to temporarily shut down operations. If the decision is taken to continue operations as normal, these savings and expenses will not happen, hence these are differential in nature, thereby relevant to the decision being taken.

Salary paid to the pilots and airport hanger fees will be incurred irrespective of the decision to temporarily shut down or not. Hence, they are not relevant to the decision being made.

130. A Singaporean company manufactures Products A, B and C, they are joint products. C has no realizable value unless it is processed further after the point of separation. The cost details are as follows –

Cost upto the point of separation per unit

Cost upto the point of separation per unit	\$80
<i>Processing after separation –</i>	
Additional Marginal cost per unit	\$80
Additional Fixed cost per unit	\$20

Product C can be sold for \$150 per unit and no more.

Should Product C be processed further?

- (a) Yes, because each unit of Product C sold contributes \$50 per unit towards recovery of joint cost
- (b) Yes, because each unit of Product C sold contributes \$70 per unit towards recovery of joint cost
- (c) No, because each unit of Product C sold yields loss of \$30
- (d) No, because each unit of Product C sold yields loss of \$10

ANSWER

Option (a) Yes, because each unit of Product C sold contributes \$50 per unit towards recovery of joint cost

Reason: Product C should be processed further because each unit of Product C sold contributes \$50 per unit towards recovery of joint cost.

Joint cost upto split off point are irrelevant since they have already been incurred and are sunk cost. It is not relevant to whether the product has to be processed further or not. Hence, joint cost of \$80 per unit incurred upto the point of separation is irrelevant. Only the additional cost incurred on processing after separation has to be considered.

Selling price of Product C per unit	\$150
<i>Less: Additional variable cost after separation per unit</i>	\$80
<i>Less: Additional fixed cost after separation per unit</i>	\$20
Contribution towards recovery of joint costs per unit	\$50

131. Which of the following is not a drawback of cost based pricing approach?

- (a) There is no incentive for managers to operate in a cost efficient way
- (b) The pricing method does not consider the customer(s) value perception about the product
- (c) It ignores the structure of the market in which the firm operates
- (d) It requires market research to understand competitor(s) strategy

ANSWER

Option (d) It requires market research to understand competitor(s) strategy

Reason: It is not true that cost based pricing requires market research to understand competitor(s) strategy. Cost based pricing is based purely on the cost the company incurs and the mark up or profit margin it requires. It does not consider competitor(s) strategy, market demand, customers' perception, market conditions etc.

132. PowerOn manufactures batteries that power medical devices like medical imaging systems, defibrillators, ventilators and monitoring devices. PowerOn has customers who are medical equipment manufacturers who use these while making medical devices and machines. Bataid is the latest model of battery that PowerOn has developed. It is safe, stable and longer lasting. These are very important attributes since the performance of medical devices can get affected by them. PowerOn wishes to arrive at a price for Bataid batteries. The market has many similar batteries available. However, Bataid is of a much higher quality as compared with the rest. The nearest comparable battery is Bat 1.

Particulars	Bataid	Bat 1
Operating cost per hour	S\$ 2 per hour	S\$ 1 per hour
Probability of battery failing	1%	11%
Price of a battery per unit	N.A.	S\$ 20,000

Due to the critical nature of the medical devices in which it is used, the cost of a battery failing to the buyer has been arrived as S\$ 1,00,000. Both batteries Bataid and Bat 1 can be used for an average of 8,000 hours.

Calculate the value differential of using Bataid.

- (a) S\$ 20,000
- (b) S\$ 2,000
- (c) S\$ 23,000
- (d) S\$ 22,000

ANSWER

Option (b) S\$ 2,000

Reason: The correct answer is S\$2,000 per unit of Bat aid. It is calculated as below –

Particulars	Amount S\$
Difference in Operating Cost per battery (higher expense incurred by buyer) Bataid = S\$2 per hour Bat 1 = S\$1 per hour For 8,000 hours = $8,000 \times (\text{S\$}2 - \text{S\$}1)$	8,000
Savings to buyer due to more stable performance of battery Cost of battery failing = S\$1,00,000 Difference in probability of battery failure (1% vs 11%) = 10% Lower cost of failure to buyer = $10\% \times \text{S\$}1,00,000$	10,000
Value Differential of using Bataid (Step 2 – Step 1)	2,000

133. Which of the following is not a criticism of using profits as a single measure of performance evaluation of managers?
- (a) Profits can be manipulated if there is collusion among employees
 - (b) Profits provide a constrained view of performance measurement
 - (c) Profits alone as a measure of performance evaluation can lead to manager focusing on short term profits rather than long term sustainable strategy
 - (d) Profits figures can be objectively measured and defended by the managers

ANSWER**Option (d) Profits figures can be objectively measured and defended by the managers**

Reason: The correct answer is - profits can be objectively measured with lesser room for subjectivity. These can be used by the managers to defend their decisions.

134. Which of the following is not true about non-Financial factors?
- (a) Non-financial factors focus on finer more detailed analysis especially quantitative ones. This offers explanations to certain aspects of financial data too
 - (b) Non-financial factors consider all aspects of organization strategy and are long term in their outlook
 - (c) Non-financial factors can always be standardised and are not subject to ambiguity
 - (d) Non-financial factors encourage managers not to think only about short term financial profitability

ANSWER**Option (c) Non-financial factors can always be standardised and are not subject to ambiguity**

Reason: The correct answer is - it is not true that non-financial factors can be standardised and are not subject to ambiguity. Many non-financial are qualitative in nature. There is no easy way of measuring them and can be subject to interpretation given the objective of each company. Hence, it may at times be difficult to establish an accepted standard for non-financial factors.

135. Which of the following is true for CVP analysis done in Just in Time environment (procurement and production) using pull system of supply chain?
- i. Direct labour is considered as fixed instead of variable
 - ii. Direct material varies with production volume

- iii. Waste scrap and quantity discounts are removed
- iv. Decrease the size of production runs

Option

- (a) i and ii
- (b) ii and iv
- (c) ii, iii and iv
- (d) i, ii, iii and iv

ANSWER

Option (d) (i), (ii), (iii) and (iv)

Reason: Direct labour is considered fixed instead of variable. JIT environment the labour force is multi skilled and are capable of handling different demand levels. Under the pull system of supply chain, production begins only when a customer places the order. Hence, direct labour cost is not volume driven. While there is no production in the work cells, the labour is assigned to some other tasks on the shop floor, which is possible because they are multi-skilled.

Direct material cost on the other hand is driven by volume of production as production happens only when an order is received.

Due to the nature of the JIT material procurement system, there is minimum if not nil waste or scrap. Since material procurement is not in bulk, quantity discounts are generally not there.

The purpose of a just in time production system is to decrease the size of production runs while increasing the lots processed in a period.

136. Given data about Price (P) and quantity demanded (Q) given the following sales and demand data –

Selling Price per unit (P)	Number of units sold (Q)
₹ 100	500
₹ 90	480

Find the linear relationship between P and Q.

- (a) $P = 350 - 0.5Q$

- (b) $Q = 350 - 0.5P$
- (c) $P = 350 + 0.5Q$
- (d) $Q = 350 - 0.5P$

ANSWER**Option (a) $P = 350 - 0.5Q$**

Reason: $P = a - bQ$

Where 'P' is the selling price per unit, a is the price at which demand is zero, Q is the quantity demanded.

$-b = -0.5$ (change in price / change in quantity demanded = $(₹ 100 - ₹ 90) / (500 - 480)$ units = -0.5)

Therefore, the equation is $P = a - 0.5Q$.

Substitute P and Q in the above equation to find 'a'

$100 = a - (0.5 \times 500)$. Therefore, $a = 350$ units.

Therefore, the linear relationship between Price (P) and quantity demanded (Q) can be written as $P = 350 - 0.5Q$.

137. In which market should the firm consider not just the demand for the product but also predict the resultant reaction of its rivals or competitors on any decision it takes?
- (a) Perfect Competition
 - (b) Monopolistic Competition
 - (c) Oligopoly
 - (d) Monopoly

ANSWER**Option (c) Oligopoly**

Reason: Oligopoly is the market in which the firm consider not just the demand for the product but also predict the resultant reaction of its rivals or competitors on any decision it takes.

138. Which of the following is false regarding Price sensitivity for a product?

- (a) Uniqueness of the product makes the buyers less sensitive to its price
- (b) If the buyers have difficulty comparing alternatives they will be more price sensitive
- (c) Higher the perceived quality of the product, less will be the price sensitivity for the product
- (d) Higher the expenditure of the product to the total income of the consumer, higher the price sensitivity of the product

ANSWER

Option (b) If the buyers have difficulty comparing alternatives they will be more price sensitive

Reason: It is false that if the buyers have difficulty comparing alternatives they will be more price sensitive. If they are unable to compare products, they will be less sensitive to price changes.

139. How are short term decisions different from long term decisions?

- i. Short term decisions do not consider time value of money
- ii. Fixed cost is ignored as irrelevant in the short run
- iii. Long term decisions do not consider time value of money
- iv. Fixed cost is ignored as irrelevant in the long run

Option

- (a) i and ii
- (b) i and iv
- (c) ii and iii
- (d) iii and iv

ANSWER**Option (a) i and ii**

Reason: The correct answer is i and ii. In the short run, the purchasing power of money does not change much. Hence, the time value of money is not considered. In the short run, fixed cost needs to be incurred anyway and hence is considered irrelevant. These are not true in the long run where the purchasing power of money changes and fixed cost can be considered relevant cost where required.

140. If you want to reduce the set-up cost allocated to each unit of production, what should you do?
- (a) Manufacture smaller batch sizes, with each batch requiring different machine specifications for which adjustments are made on the machine
 - (b) Manufacture larger batch sizes and schedule the batch operations in such a way as to reduce the number of times manufacturing specifications of the machine need to be changed
 - (c) Manufacture larger batch sizes with each batch requiring different specifications for which adjustments are made on the machine
 - (d) Manufacture each unit based on the specification required for it individually for which adjustments are made on the machine

ANSWER**Option (b) Manufacture larger batch sizes and schedule the batch operations in such a way as to reduce the number of times manufacturing specifications of the machine need to be changed**

Reason: Manufacture larger batch sizes and schedule the batch operations in such a way as to reduce the number of times manufacturing specifications of the machine need to be changed. Lesser the number of changes, lesser the set-up costs. Larger the batch size, lower is the cost allocated per unit of production. Hence both put together, set up cost allocated to each product can be minimized.

When each batch has a different specification for which adjustments are made on the machine, set up cost increases due to more changes to be done on the machine. Also, set up cost will be the highest if instead of batch processing, each individual unit is produced as per the specification required for it individually since the number of changes will be the highest in this case.

141. Which of the following is not a product sustaining activity?

- (a) Designing a product or production process
- (b) Drawing process charts
- (c) Developing special testing routines
- (d) Direct material consumption for each product

ANSWER

Option (d) Direct material consumption for each product

Reason: The correct answer is direct material consumption cost for each product is a unit level activity. This cost is dependent on the volume of production. Product sustaining activity are activities performed to support production or sale of a specific type of product. These costs are not dependent on the volume of production. Examples would be designing a product or production process, drawing process charts, developing special testing routines.

142. What is the disadvantage of conventional Cost Volume Profit (CVP) analysis?

- (a) Conventional CVP analysis cannot be used in finding out expected production volume level to earn a certain profit level
- (b) Conventional CVP analysis cannot be used to determine the ideal selling price to set for the product to earn a target profit
- (c) Conventional CVP analysis classifies cost behaviour as fixed and variable with respect to volume alone. Many non-volume driven costs, having cost drivers other than volume, get classified under a single "fixed cost" overhead pool
- (d) Conventional CVP analysis cannot be used for all types of business

ANSWER

Option (c) Conventional CVP analysis classifies cost behaviour as fixed and variable with respect to volume alone. Many non-volume driven costs, having cost drivers other than volume, get classified under a single "fixed cost" overhead pool

Reason: The disadvantage of conventional CVP analysis is that it classifies cost behaviour as fixed and variable with respect to volume alone. Many non-volume driven costs, having cost drivers other than volume, get classified under a single "fixed cost" overhead pool. This problem is resolved using Activity Based CVP analysis. CVP analysis can help the company determine the production level or selling price of a product to earn a target profit. It can be applied in any type of business.

143. In which of the following scenarios will an organization not outsource its production?
- (a) When the risk of technological obsolescence of the component does not justify the capital investment it requires
 - (b) When the incremental cost savings and opportunity costs if any are less than the incremental cost due to outsourcing
 - (c) When it costs more to manufacture the component internally
 - (d) When the process of making that component is confidential and patented by another organization

ANSWER

Option (b) When the incremental cost savings and opportunity costs if any are less than the incremental cost due to outsourcing

Reason: The correct answer is when the incremental cost savings and opportunity costs if any are less than the incremental cost due to outsourcing. This is when a cost benefit analysis of the outsourcing decision reveals that it might be better to manufacture the component internally as that would be cheaper than outsourcing it.

144. As per market research, when the selling price of a product is ₹ 80,000 per unit there will be no demand. For every ₹ 10,000 reduction in selling price

from ₹ 80,000 per unit, 2 additional units can be sold. The variable cost to manufacture the product is ₹ 50,000 per unit.

The selling price that will maximize the profit for this product will be:

- (a) ₹ 60,000 per unit
- (b) ₹ 65,000 per unit
- (c) ₹ 70,000 per unit
- (d) ₹ 75,000 per unit

ANSWER

Option (b) ₹ 65,000 per unit

Reason: The correct answer is ₹ 65,000 per unit.

As per the profit maximization model,

Price = $a - bQ$ and Marginal Revenue = $a - 2bQ$

where a is the selling price at which demand is nil, b is the slope of the line and Q is the quantity demanded.

Here $a = ₹ 80,000$ per unit, $b = (\text{change in price} / \text{change in units}) = (10,000 / 2) = 5,000$ and Q is the quantity demanded.

Price = $80,000 - 5,000Q$

Marginal revenue = $80,000 - 2(5,000) \times Q = 80,000 - 10,000Q$

Marginal cost = ₹ 50,000 per unit.

Profit is maximum where Marginal Revenue = Marginal Cost.

$80,000 - 10,000Q = 50,000$

$10,000Q = 30,000$. Therefore $Q = 3$ units

Therefore, selling price at which profit will be maximum = Price = $a - bQ$
 $= ₹ 80,000 - ₹ 5,000(3) = ₹ 65,000$ per unit.

145. As per market research, when the selling price of a product is ₹ 80,000 per unit there will be no demand. For every ₹ 10,000 reduction in selling price from ₹ 80,000 per unit, 2 additional units can be sold. The variable cost to manufacture the product is ₹ 50,000 per unit.

What is the optimum quantity that will maximize the profit?

- (a) 8 units
- (b) 2 units
- (c) 3 units
- (d) 5 units

ANSWER

Option (c) 3 units.

Reason: As per the profit maximization model,

Price = $a - bQ$ and Marginal Revenue = $a - 2bQ$

where a is the selling price at which demand is nil, b is the slope of the line and Q is the quantity demanded.

Here $a = ₹ 80,000$ per unit, $b = (\text{change in price} / \text{change in units}) = (10,000 / 2) = 5,000$ and Q is the quantity demanded.

Price = $80,000 - 5,000Q$

Marginal revenue = $80,000 - 2(5,000) \times Q = 80,000 - 10,000Q$

Marginal cost = ₹ 50,000 per unit.

Profit is maximum where Marginal Revenue = Marginal Cost.

$80,000 - 10,000Q = 50,000$

$10,000Q = 30,000$. Therefore $Q = 3$ units

146. Which of the following factors will make the customer more sensitive towards the price of a product?
- (a) Higher perceived quality of the product
 - (b) High perishability of the product
 - (c) Difficulty in comparison of the product with its alternatives
 - (d) High proportion of expenditure (product cost) to the customer income

ANSWER**Option (d) High proportion of expenditure (product cost) to the customer income**

Reason: The correct answer is high proportion of expenditure (product cost) to the customer income. Where the expenditure on account of the purchasing the product is high in proportion to the customer income, the customer will be more sensitive towards the price of a product.

147. Kano Model of product development and customer satisfaction is used for prioritizing the most important features in a product roadmap. Which of the following is not true about the utility of the Kano Model?
- (a) Order of priority of product features that cater to customer needs and satisfaction as determined by Kano Model are permanent
 - (b) The Kano model can prevent wasted time and resources used to develop non-priority features in a product
 - (c) The Kano model helps to prioritize features that can amplify customer satisfaction
 - (d) Kano model helps to speed up decision making based on researched data

ANSWER**Option (a) Order of priority of product features that cater to customer needs and satisfaction as determined by Kano Model are permanent**

Reason: Customer needs and satisfaction from a product are always changing. Hence, the priority of product features determined using Kano Model will not be permanent. A must have feature today, can be a reverse feature (that causes dissatisfaction) in future. Example can be a dial up connection for internet in the early 2000s has changed from a must have feature to a redundant / reverse feature in today's world of wi-fi connectivity.

148. Oz is about to introduce a cutting-edge new product. Because of the product's capabilities and highly regarded design, there is expected to be

a high level of demand. Oz is eager to recover its significant R&D expenses as soon as feasible.

Which pricing strategy would be applied in order to achieve the goal of returning R&D expenses as soon as feasible?

- (a) Price penetration
- (b) Price skimming
- (c) Cost plus pricing
- (d) Discount pricing

ANSWER

Option (b) Price skimming

Reason: Cost plus pricing may seem like a good idea in the beginning of a product's life cycle, but it has the drawback of ignoring market conditions, which could lead to a price that is too high or low to maximize revenue. A price skimming starts with a high price. Despite the low sales volume, this can generate substantial returns very quickly. It makes sense only when the new product is sufficiently distinct to drastically reduce rivalry.

149. O makes lotion for the body to soothe dry skin in the winter. Y received a 10% discount from O on lotion purchases, while Z received a 15% discount. The nature of their dealings was the only distinction between the two, as their order sizes were identical. While Z only offered the lotions for wholesale, Y sold them in the retail market.

Which kind of discount was approved by O?

- (a) discounts for quantity
- (b) discounts for price differentiation
- (c) discounts for trade
- (d) discounts for distributors

ANSWER**Option (d) discounts for distributors**

Reason: Discount was approved by O is - discounts for distributors.

150. A company manufactures a carbonated drink, which is sold in 1 litre bottles. During the bottling process there is a 10% loss of liquid input due to spillage and evaporation.

What is the standard usage of liquid per bottle?

- (a) 1.10 litres
- (b) 1.11 litres
- (c) 1.00 litres
- (d) 0.90 litres

ANSWER**Option (b) 1.11 litres**

Reason: Required liquid input = 1 litre $\times$ 100/ 90

= 1.11 litres

151. Six years ago material M cost \$5 per kg and the price index most appropriate to the cost of material M was 110. The same index now stands at 550.

What is the best estimate of the current cost of material M per kg?

- (a) \$20.00
- (b) \$55.00
- (c) \$50.00
- (d) \$25.00

ANSWER**Option (d) \$25.00**

Reason: \$5 $\times$ 550 $\div$ 110 = \$25

152. Which of the following would you excluded while analysing customer account profitability?

- (a) Sales Revenue
- (b) Direct product costs
- (c) Delivery cost specific to the customer
- (d) Fixed overhead allocation

ANSWER

Option (d) Fixed overhead allocation

Reason: The correct answer is (D) Fixed overhead allocation is excluded from analysing customer account profitability. This has to be incurred irrespective of whether sales are made to the customer or not.

153. Pareto principle based upon the law of –

- (a) Diminishing returns
- (b) Stable returns
- (c) Variable returns
- (d) Increasing returns

ANSWER

Option (a) Diminishing returns

Reason: Pareto Analysis ranks the causes (reasons) in descending order of effect. Hence help to identify pay-off. It's obvious that focus is on items at the top (vital few) of the list because these have a higher probability of payoff. Hence the law of diminishing returns (pick the low hanging fruits first) applies here.

154. Pareto principle can't be applied to –

- (a) Inventory control
- (b) Customer profitability analysis
- (c) Quality control
- (d) None of the above

ANSWER**Option (d) None of the above**

Reason: Pareto analysis can be applied in Inventory Control, Pricing the products, Customer profitability analysis, ABC analysis, and Quality control etc.

155. Pareto analysis shall be performed –

- (a) Continuously
- (b) Occasionally
- (c) Quarterly
- (d) Periodically

ANSWER**Option (d) Periodically**

Reason: To keep check, that trivial should not become vital (and if turning to vital can be responded early one) and to check that effort done by management eliminate or reduce the impact of vital root-causes.

156. Which one need to be responded first –

- (a) Trivial many
- (b) Vital few
- (c) Trivial few
- (d) Vital many

ANSWER**Option (b) Vital few**

Reason: Pareto is one of 7QC tools which help the management as control mechanism to prioritize, in term of root causes that need to be responded first. Vital few causing significant impact hence to offer higher payoff.

157. Which costing system is often used to calculate customer profitability?

- (a) Manufacturing cycle efficiency
- (b) Target costing

- (c) Activity-based costing
- (d) Delivery cycle efficiency

ANSWER**Option (c) Activity-based costing**

Reason: There are several methods, which can be used for this purpose, one commonly used method is activity-based costing.

158. **Assertion** - The informed decision making is essential requirement for efficient strategic Planning and Control.

Reason - Effectiveness of strategy depends upon the efficiency of strategic planning and control.

- (a) Both are correct statements but reason is correct explanation to assertion
- (b) Both are correct statements and reason is not correct explanation to assertion
- (c) Only assertion is correct
- (d) Only reason is correct

ANSWER**Option (b) Both are correct statements and reason is not correct explanation to assertion**

Reason: Effectiveness of strategy depends upon the efficiency of strategic planning and control. Planning ensure apt strategic choice whereas control ensure flawless execution. Further the informed decision making is essential requirement for efficient strategic Planning and Control. The required set of information to make informed decisions, can be obtained from the same information system which is operated for the purpose of performance measurement and evaluation under performance management system. Both the statements are correct, even connected, but reason is not correct explanation of assertion.

159. Correctly match the items of following sets i.e., classification of activities and action to improve/enhance/unlock value –

i. Necessary (essential) activity that can't be improved upon at this time	A. Eliminate eventually
ii. Necessary (essential) activity that can be changed to improve the process	B. None
iii. Unnecessary (non-essential) activity that can be eliminated eventually (but not now) by changing the process	C. Eliminate immediately
iv. Unnecessary (non-essential) activity that can be eliminated quickly by changing the process	D. Modify the process

Option

- (a) i- A, ii-B, iii-C, and iv-D
- (b) i- C, ii-A, iii-B, and iv-D
- (c) i- B, ii-A, iii-D, and iv-C
- (d) i- B, ii-D, iii-A, and iv-C

ANSWER

Option (d) i- B, ii-D, iii-A, and iv-C

Reason: Classification of activities is helpful in devising appropriate strategy. Consider following points to decide course of action after classification. (i) Necessary (essential) activity - can not be improved upon at this time - None (ii) Necessary (essential) activity - can be changed to improve the process - Modify the process to improve value (iii) Unnecessary (non-essential) activity - can be eliminated eventually (but not now) by changing the process - Eventually eliminate the unnecessary activity (iv) Unnecessary (non-essential) activity - can be eliminated quickly by changing the process - Immediately eliminate the unnecessary activity. To improve students understanding - United Parcel Services (UPS)

a logistic company implement the worlds largest wireless network. (Reduce paper work and improve sorting and tracking - helps in resource planning in term of capacity at hub - timely information) Managers at Microsoft chosen to outsource the Xbox manufacturing to Flextronics, because manufacturing hardware is not their core competencies.

160. Business Integration can be attained through McKinsey's 7S model, which of following statements about business integration and McKinsey's 7S are incorrect –

- i. Business integration can overcome the problem of sub-optimisation
- ii. It is easy for management to influence the soft S
- iii. Structure, system and style are hard S

Option

- (a) i only
- (b) i and iii only
- (c) ii and iii only
- (d) iii only

ANSWER

Option (c) ii and iii only

Reason: Business integration can overcome the problem of sub-optimisation, because through it processes are viewed from entities perspective (rather than from viewpoint of individual department or function), that stretch from initial order to final delivery of a product. Further Information Technology breakthrough can be used to integrate these processes and activities. The hard areas comprise 3S namely Strategy, Structure and System. It is easy for management to influence and change these areas, because these hard elements are easily quantified and defined, and deal with facts and rules. Whereas soft areas comprise 4S namely Style, Staff, Skills, and Shared values; since these are influenced by the culture of the organisation, hence more difficult to describe and less tangible, therefore relatively difficult for management to make change.

161. Organisation's Culture and Strategy influence the Performance Measurement. According to you which of following statements are correct –

- i. Predictable and reliable culture encourage participation and risk-taking behaviour
- ii. When it comes to satisfy customer, the strategy needs to consider non-financial aspects of performance additionally

Option

- (a) i only
- (b) ii only
- (c) both i and ii
- (d) None of i and ii

ANSWER

Option (b) ii only

Reason: Predictable and reliable culture encourage formal behaviour and use tried and tested method and techniques of performance measurement, while innovative and creative culture encourage participation and risk-taking behaviour, hence open to adapt new methods and techniques. Organisations that are competing effectively in today's competitive market need to adopt strategies that aim at satisfying customers. These have to focus on quality, time and innovation, in short there is need to consider non-financial aspects of performance additionally to the financial aspects.

162. In functional structure with centralised control, the performance related data _____ at functional level; whereas under decentralised control structure the performance related data _____ at lower down in the hierarchy.

- (a) Collected and Analysed; Collected and Analysed
- (b) Collected; Collected and Analysed
- (c) Collected and Analysed; Collected
- (d) Collected; Collected

ANSWER**Option (b) Collected; Collected and Analysed**

Reason: Traditionally there are two sort of organisation structures are prevalent i.e., functional and divisional which may be seen as organisation with centralised and decentralised control. Functional Structure and Centralised control - Performance related data to be collected at functional level, but analysed at the upper level and then feedback sent to the functional levels. Decentralised control structure - Performance related data to be collected and analysed lower down in the hierarchy, hence managers have more discretion and autonomy.

163. Complex Business Structure is becoming popular or better to say is need of hour. Which of following shall be feature of complex business structure –

- i. Concentrated control
- ii. Shared objectives
- iii. Pooled resources
- iv. Ultimate Beneficial Owner is not easily identifiable

Connected virtually

Option

- (a) i, ii, iii, and iv
- (b) ii, iii, iv, and v
- (c) i, iii, iv, and v
- (d) i, ii, iv, and v

ANSWER**Option (b) ii, iii, iv, and v**

Reason: Though there is no universally acceptable definition of complex business structure or list thereof. But any business structure said to be complex business structure if one or combination of following features exit - Diluted control or Shared objectives (which sometimes makes determination of ultimate beneficial owner difficult) or Pooled resources

or Connected virtually or Collaboration of different cultures, interests or Diverse business environment.

164. Complex business structure is outcome of changing business environment; it has strong bearing on performance management system and allied aspects. Which of following statements is not true in this regard –

- i. The core organisation may invest in the development of an information system that it requires all partners to use.
- ii. Virtual organisation may be considered as complex business structure.
- iii. In a complex business structure, the core organisation does not need to have a detailed analysis of costs incurred by the business partners.

Option

- (a) i only
- (b) ii only
- (c) both i and iii
- (d) None of i, ii and iii

ANSWER

Option (d) None of i, ii and iii

Reason: Accurate, Reliable and Timely information can be answer to majority of issues that performance management may face in case of complex business structure. Hence information systems often play a crucial role in complex business structures. The core organisation may invest in the development of an information system that it requires all partners to use. Having one system used by all partners means that everyone is using the same data. There should be less difficulty collecting information about the performance of partners since the information will all be stored on one system. A virtual organisation is one that has little or no physical premises, but where employees and managers work remotely (typically from their own location) and are connected using IT. These are

sometimes also called as hollow or network organisations; especially where people are connected to each other through some platform such as online trading or retail platforms. Ola, Uber, Flipkart and Amazon are prominent examples. Hence virtual may be considered as complex business structure. In a complex business structure, the core organisation does not need to have a detailed analysis of costs incurred by the business partners. From a financial point of view, the core is only interested the prices that partners will charge, and these will already have been agreed in the service level agreement.

165. Performance measures (CSFs & KPIs thereto) acts as stimuli. Therefore, what get _____, gets_____.
- (a) Established, Achieved
 - (b) Targeted, Attained
 - (c) Measured, Done
 - (d) Reported, Improved

ANSWER

Option (c) Measured, Done

Reason: What gets measured, gets done. People will make a greater effort to perform well in aspects of their roles which they know are being measured, compared to those which are not.

166. In context of the management control systems, correctly match the items of following sets i.e., control and scope thereof –

i. Behavioural control	A. Appropriate skills
ii. Personnel control	B. Desired actions take place
iii. Cultural control	C. Information pertaining to performance
iv. Reporting control	D. Conducive environment

Option

- (a) i- A, ii-B, iii-C, and iv-D
- (b) i- C, ii-A, iii-B, and iv-D

(c) i- B, ii-A, iii-D, and iv-C

(d) i- B, ii-D, iii-A, and iv-C

ANSWER

Option (c) i- B, ii-A, iii-D, and iv-C

Reason: Management control systems have an important role to play in developing accountability and in turn accountability leads to better performance. There are three broad categories of control mechanism which any business can use - Behavioural control - to ensure only desired actions take place. Personnel and cultural control - for every job, person with appropriate skills and conducive environment is provided. Reporting control - to control the collection and reporting of information pertaining to performance (basically to ensure outcome of efforts must be reported fairly).

167. In cut-through competition the survival is equally important as attaining competitive advantage hence Predicting and Preventing Corporate Failure become essential. Which of following statements true in this regard –
- i. Triggering factor is the root cause of corporate failure
 - ii. Predicting corporate failure helps in deploying both corrective and preventive measures

Option

(a) i only

(b) ii only

(c) both i and ii

(d) None of i and ii

ANSWER

Option (b) ii only

Reason: The triggering factor which prime facie may seem to be the cause of corporate failure, may or may not be the root cause; even if it is, then also not necessary being the only cause. Multiple reasons may co-exist. To illustrate, failure of Silicon Valley Bank root cause was poor ALM

(Asset liability Management) whereas triggering factor was increase of rate by Fed Reserve, which results in panic among depositors to withdraw their deposits and bear sentiment among investor to sell the securities they held. In context of Strategic Performance Management, it is significant to detect the signs of corporate failure to take corrective measures to control the damage that has already taken place, in addition to applying the preventive measures for future.

168. Which of the following is true about CSF?

- (a) These factors contribute towards reducing costs
- (b) These factors are fundamental to strategic success
- (c) These factors need to be only financial factors
- (d) These factors concentrate on achieving short term goals

ANSWER

Option (b) These factors are fundamental to strategic success

Reason: The correct answer is (b) these factors are fundamental to strategic success.

169. Which of the following may involve sacrificing long term objectives?

- (a) Utilizing internal reserves to fund capital expenditures
- (b) Increasing quality control measures
- (c) Compromising on product design in the rush to launch a new product in the market
- (d) Increasing skill development programs for staff

ANSWER

Option (c) Compromising on product design in the rush to launch a new product in the market

Reason: The correct answer is (c) compromising on product design in the rush to launch a new product in the market. Product design is a critical activity that impacts the product during its entire life cycle. Capital expenditures are aimed at generating long term benefits. Similarly

increasing quality control and improving the staff skill through development programs have positive long term impact.

170. Inada Group is in infrastructure business for 30 years. It witness growth in double digit in first 10 year of operation and then around 20-30% in next decade; but dramatically registered more than three digits growth in recent decade. But post a whistle-blown even the stock/ share prices tremble like anything and reduced to 25-45% of market value. The threat of corporate failure has been evolved. You are part of team that is hired by IBS bank the largest financial lender to predict corporate failure using Z score. Their total assets are worth 5,00,000 while they have a working capital of 42,000. Their liabilities stand at 5,00,000 while retained earnings amount to 47,500. Earnings before interest and tax come to 65,000. Sales total 5,70,000 while the market value of equity is 7,00,000. (All the figures in crores) The Z score is –

- (a) 2.0880
- (b) 2.6428
- (c) 2.7468
- (d) 3.1226

ANSWER

Option (b) 2.6428

Reason – Calculation of Inada Group's Altman z-score:

Altman z-score can be computed as $1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$

Wherein,

X_1 = working capital/total assets

X_2 = retained earnings/total assets

X_3 = earnings before interest and tax/total assets

X_4 = market value of equity/total liabilities

X_5 = sales/total assets

$$(1.2 \times (42,000 / 5,00,000)) + (1.4 \times (47,500 / 5,00,000)) + (3.3 \times (65,000 / 5,00,000)) + (0.6 \times (7,00,000 / 5,00,000)) + (1.0 \times (5,70,000 / 5,00,000))$$

$$(1.2 \times 0.084) + (1.4 \times 0.095) + (3.3 \times 0.13) + (0.6 \times 1.4) + (1.0 \times 1.14)$$

Altman Z-Score = **2.6428**

Analysis of Computed Altman Z-Score – Score in range from 1.81 to 2.99 is considered a **grey area**. Companies which have a score lying in this range are not very safe. Their finances are not stable and the companies may get into the “danger zone” if suitable measures not taken. Hence Inada group with 2.6428 is not in safe zone (above 2.99), though it is also not fall in distress zone (below 1.81) but has to address the issues.

171. Match the tools to the objectives –

Tool	Objective
i. Balanced Scorecard	a. Link Strategy, Operations and Performance
ii. Performance Pyramid	b. Linkage between performance measures
iii. Building Block	c. Framework for sustainable development
iv. Triple Bottomline	d. Link between achievement of corporate strategy and management of human resources

Option

- (a) i- a, ii- b, iii- c, and iv- d
- (b) i- c, ii- a, iii- b, and iv- d
- (c) i- b, ii- a, iii- d, and iv- c
- (d) i- b, ii- d, iii- a, and iv- c

ANSWER

Option (c) i- b, ii- a, iii- d, and iv- c

Reason: Balanced Scorecard- linkage between performance measures, Performance Pyramid- link strategy, operations and performance, Building Block- link between achievement of corporate strategy and

management of human resources, Triple Bottomline- framework for sustainable development.

172. McKinsey's 7S framework divided 7S into two sets of areas i.e., soft and hard area. The hard S are easy to quantify (measure) hence changes can be made to these by management with greater ease. Which of following is not a hard S?

- (a) Strategy
- (b) Structure
- (c) System
- (d) Style

ANSWER

Option (d) Style

Reason: There are three hard S, Namely Strategy, Structure and System.

173. Business integration brings all aspects of business in alignment, so that business objectives can be achieved; by effective implementation of strategies while making efficient use of available set of resources. There are four aspects that are essential to be integrated, namely people, operations, strategy and_____.

- (a) Finances
- (b) Logistics
- (c) Technology
- (d) Knowledge

ANSWER

Option (c) Technology

Reason: Four aspects in particular need to be linked as part of business integration effort i.e., people, operations, strategy, and technology. Performance management improves as result of integration of these four aspects.

174. T Motors directed T Steels to deliver a specific metal material for its upcoming e-vehicle considering the design. Engineers from Production and Operation division of T Motors visited to T Steel to explain the needs after deliberation decided some of process need to be performed in such metal while in process at T Steel's plant only (even prior to bring to T Motors' Plant). One of engineer from T Motors placed at T Steel till such metal prepared and deliver to keep check at specifications. Above facts highlights the concept of –

- (a) Value Chain
- (b) Value System
- (c) Value Specification
- (d) Value Set

ANSWER

Option (b) Value System

Reason: Extended value chain encompasses the customer's customers and the suppliers' suppliers. Because by creating extended organisation, dynamic and hostile environment can respond in better manner. A firms value chain is connected to what, Porter calls a value system.

175. The new appointed top brass at Jim-Jam Limited give local manager greater autonomy for decision making, with intent to improve performance, in light of fact that company introduced a number of changes in recent past.

Because in past decisions are made at corporate level, local managers only execute them, hence despite power vested with local manager they didn't exercise the authority resultantly changes that were introduced recently failed to create any yield or impact.

Which one of the following elements of McKinsey's 7S's model best explains why the change initiatives have been unsuccessful at Jim-Jam Limited?

- (a) Shared values
- (b) Strategy

- (c) Structure
- (d) Systems

ANSWER

Option (c) Structure

Reason: The Jim-Jam in past used to have centralised structure but sudden change in structure from centralised to decentralised make it difficult for staff to mend their ways. Nothing regarding Shared Values, Strategy and System is specified in facts of case.

176. Skyway Airline Limited (SAL), an international carrier took series of loans to finance the M&A deals, but now observing the working capital crisis. CEO of SAL in response to a question at recent press-conference, reported the Z-score of 1.6 and assure the investors as well as stakeholders that thing are under control. In which of following zones, you place the SAL –
- (a) Distress
 - (b) Grey
 - (c) Safe
 - (d) Warning

ANSWER

Option (b) Grey

Reason: The classification criteria (into zones of discrimination) applicable to non-manufacturing entities, as per Z-score:

Z-Score	Zone of discrimination	Prediction regarding corporate failure (due to bankruptcy)
Less than 1.1	Distress	Companies with a Z score of below 1.1 are in danger and possibly heading towards bankruptcy.
1.1 to 2.6	Grey	Companies with scores 1.1 to 2.6 need further investigation.
More than 2.6	Safe	Companies with a score more than 2.6 are financially sound.

Mind-it, Skyway Airline Limited (SAL) is an international carrier, a non-manufacturing entity.

177. Consider the following categories of performance measures –

i.	Profitability measures.
ii.	Customer-satisfaction measures.
iii.	Efficiency, quality, and time measures.
iv.	Innovation measures.

A cruise line operates on a national scale in a very competitive marketplace. In view of this information, which measures should the company use in the evaluation of its managers?

- (a) i
- (b) i and ii
- (c) ii and iii
- (d) i, ii, iii and iv

ANSWER

Option (d) i, ii, iii and iv

Reason: These categories of performance measures are all the things that a company needs in order to have a competitive advantage. Competitive advantage is an advantage that a company has over its competitors which it gains by offering consumers greater value than they can get from its competitors. In a very competitive marketplace such as this cruise line is in, competitive advantage is essential. In order to have a competitive advantage, the company needs to excel in all of these performance measures. If managers are not evaluated on their performance in these areas, they will not work toward excelling in them, and the company will not have a competitive advantage. Therefore, the company should use all of these measures in its evaluation of its managers.

178. Following are the scores of six firms as per Argenti's A score model. You are required to identify healthy firms –

Firm	Defects	Mistake	Symptoms of trouble
i	10	0	4
ii	2	15	0
iii	10	15	0
iv	15	0	0
v	0	30	0

- (a) Only firm i, ii, iii, and iv
(b) Only firm i and iv
(c) Only firm ii and iii
(d) Only firm ii, iii, iv, and v

ANSWER

Option (c) Only firm ii and iii

Reason: The maximum score allotted is 100 (being 43 from Defects, 45 from Mistake and 12 from Symptoms of trouble). For a firm to be cleared as healthy, its overall score must be less than the maximum acceptable score of 25 (with 10 and 15 being the maximum acceptable scores in defects and mistakes respectively). If a firm scores anything in Symptoms of trouble this is immediately seen as an indicator that the firm is at risk. A firm that scores more than 25 overall, even if it scores below the individual thresholds in either of Defects (10) or Mistake (15), would still be considered at risk. In case of 1st (i) firm Symptoms of trouble score is 4, while in case 4th (iv) firm Defects score is more than 10 whereas in case of 5th (v) firm Mistake scores are 30, which more than acceptable limit of 15, hence Firm 1 (i), 4 (iv) and 5 (v) are at risk. On contrary firm 2 (ii) and 3 (iii) are healthy.

179. Which of following statements are incorrect in regard to Argenti's A score model –
- i. Mistakes and defects not inter-related

- ii. Threshold is Kept at score of 45
- iii. There are three underlying groups (dimensions) i.e., Mistakes, Defects and Symptoms of failure

Option

- (a) Only i
- (b) Only ii
- (c) Both i and ii only
- (d) Both i and iii only

ANSWER**Option (c) Both i and ii only**

Reason: Mistake and defects are interrelated. To illustrate, if the management and accounting system is weak (defect) then mistakes are bound to happen. The threshold score to identify the corporate at risk of failure is 25.

180. Based upon the Z score the companies are classified into different zone of discriminations, which of following is not a Zone of discrimination?
- (a) Distress
 - (b) Warning
 - (c) Grey
 - (d) Safe

ANSWER**Option (b) Warning**

Reason: There are three zones of discrimination - Distress - Companies are in danger and possibly heading towards bankruptcy in upcoming two years, Grey - Further investigation is required, especially in CSFs and KPIs, Safe - Companies are financially sound.

181. Which among the following is not a category of control mechanism that can be used as part of management control system?
- (a) Behavioural Control
 - (b) Reporting Control
 - (c) Cultural Control
 - (d) Physical Control

ANSWER**Option (d) Physical Control**

Reason: Management control systems have an important role to play in developing accountability and in turn accountability leads to better performance. There are three broad categories of control mechanism which any business can use are Behavioural control, Personnel and cultural control, and Reporting control.

182. How can EVA of a company be improved?
- (a) Operating profits can be improved without investing more capital
 - (b) Choose projects where additional infusion of capital gives a return that is less than the cost of obtaining this additional capital
 - (c) Discontinue projects where the return on investments yields more than the cost of capital
 - (d) Change the cost of capital to reflect EVA that is favourable

ANSWER**Option (a) Operating profits can be improved without investing more capital**

Reason: The correct answer is (A) EVA can be improved when operating profits can be improved without investing more capital (that is more efficiency is build into the business operations). In statement (B), the return on capital infused should be more than the cost of additional capital. In statement (C), projects where return is less than cost of capital need to be discontinued. Statement (d) implies that the cost of capital should be manipulated to reflect a favourable EVA, which is not ethical.

183. A courier company wants to analyse its operations using the Building Block model. It receives packages from customers and sends it main collection centres of big logistics companies that deliver the parcel to the final destination outside the city. Similarly, the company collects parcels from these collection centres and delivers them to final recipient within the city.

Which of the following are suitable for measuring resource utilization in the courier service company?

- (a) Ability to handle ad hoc surge in parcels
- (b) Cost of delivery per consignment
- (c) Number of customer complaints
- (d) Client feedback review

ANSWER

Option (b) Cost of delivery per consignment

Reason: The cost of delivery per consignment shows how the utilization of vans to deliver the packages either to the collection centre or to deliver to the final recipient within the city. Resource utilization measures the efficiency of use of business assets. If the vans are utilized to full capacity, the cost of delivery per consignment would be lower. Ability to handle ad hoc surge in parcels shows the flexibility in operations. Number of customer complaints and client feedback review would reflect the quality of service.

184. Which of the following is not indicative of measure for "innovation and learning" in the Balanced Scorecard?
- (a) Ideas generated from employee participation
 - (b) Sale of new products in proportion to total sales
 - (c) Number of patents
 - (d) Sales refunds for products returned

ANSWER**Option (d) Sales refunds for products returned**

Reason: The answer is (d) Sales refunds for products returned, which is part of customer perspective. The other measures are indicative of innovation and learning. Sales from new products in proportion to total sales indicates commercial viability of the innovative products, idea generation from employee staff is indicative of learning, number of patents is indication of innovation.

185. Which of the following is false regarding the Rewards used in the Building Block model?
- (a) Reward schemes should be linked to performance, achievement of standards
 - (b) Employees should have clarity of the targets to achieve and corresponding reward system
 - (c) Employees should be made responsible for all the outcomes of revenue and cost, whether controllable or not
 - (d) Covers a range of financial and non-financial rewards and benefits

ANSWER**Option (c) Employees should be made responsible for all the outcomes of revenue and cost, whether controllable or not**

Reason: The correct answer is (c) it is false that employees should be made responsible for all the outcomes of revenue and cost, whether controllable or not. Evaluating of performance should be based only those aspects that are within the control of the employee.

186. Which of the following is not a measure of Competitiveness?
- (a) Promptness in responding to customer requests
 - (b) Growth in sales
 - (c) Capturing market share
 - (d) Customer retention rate

ANSWER**Option (a) Promptness in responding to customer requests**

Reason: The correct answer is (a) promptness in responding to customer requests, which is a measure of the Flexibility dimension. Flexibility is the responsiveness to the change in the factor influencing business performance. Competitiveness is part of the results metric which reflects how the company stands in comparison with its competitors. Growth in sales, market share and customer retention rate all reflect the company's performance with respect to its competitors.

187. Match the three building blocks with their objectives in the model proposed by Fitzgerald and Moon –

Tool	Objective
i. Standards	a. Goals of the business comprise of the Determinants (performance areas that influence results) and Results that reflect the success or failure of the determinants
ii. Dimensions	b. Define the characteristics of the performance measures used (KPIs) in terms of being equally challenging to everyone, acceptable to everyone and should be an achievable target
iii. Rewards	c. Schemes that should motivate employees to achieve the standards

Option

- (a) i- (a), ii-(b), and iii-(c)
- (b) i- (c), ii-(a), and iii-(b)
- (c) i- (b), ii-(a), and iii-(c)
- (d) i- (b), ii-(c), and iii-(a)

ANSWER**Option (c) i- (b), ii-(a), and iii-(c)**

Reason: Standards- Defines the characteristics of the performance measures, Dimensions- Goals of the business, Rewards- Schemes that should motivate employees to achieve the standards.

188. How is Performance Pyramid superior to Balanced Scorecard?

- (a) Performance Pyramid combines financial and non-financial measures
- (b) Performance Pyramid considers internal as well as external issues
- (c) Performance Pyramid focuses on customers and shareholders only
- (d) Performance Pyramid due to its hierarchical approach forces senior managers to set objectives along with performance indicators for each level of the organization

ANSWER**Option (d) Performance Pyramid due to its hierarchical approach forces senior managers to set objectives along with performance indicators for each level of the organization**

Reason: Performance Pyramid is better than other tools because its hierarchical framework links operational aspects with strategy (corporate vision) and performance. The measures of performance integrate vertically and horizontally thereby linking performance to overall corporate vision. Balanced scorecard on the other hand only links the performance measures of the four perspectives with each other. Senior management misguidedly delegate the responsibility of scorecard implementation and execution to the lower levels of management. This is avoided in Performance Pyramid due to its hierarchical framework that fixes responsibility at all levels of management.

189. Which of the following statements are true about Performance Pyramid?

- i. Integrates the business strategic objective with operational performance objectives using a hierarchical approach
- ii. Focuses on objectives for internal efficiency with external effectiveness

- iii. Performance measures in relation to a wide range of stakeholder groups such as customers, employees and suppliers

Option

- (a) i and iii
- (b) i and ii
- (c) ii and iii
- (d) i, ii, and iii

ANSWER

Option (b) i and ii

Reason: Statement (iii) is incorrect because only 2 stakeholders shareholders and customers are focussed upon.

190. ROI is _____ measures and leads to _____.

- (a) relative, optimisation
- (b) relative, sub-optimisation
- (c) absolute, optimisation
- (d) absolute, sub-optimisation

ANSWER

Option (b) relative, sub-optimisation

Reason: ROI is a relative measure; it discourages investment because this can decrease ROI in the short term, hence leads to sub-optimisation.

191. RI is _____ measures, hence best applicable to compare performance of division of ____size.

- (a) absolute, same
- (b) relative, different
- (c) relative, same
- (d) absolute, different

ANSWER**Option (a) absolute, same**

Reason: RI is excess of operating income over the required income to meet cost of capital hence absolute measure, therefore comparison can be made between divisions of same size only.

192. The number of inpatient hospital deaths decreased 8%, from 776 in 2021 to 715 in 2022.
- (a) Economic (Profit)
 - (b) Environmental (Planet)
 - (c) Social (People)
 - (d) Need not to be reported

ANSWER**Option (c) Social (People)**

Reason: Social bottom line, since hospital mortality rate measures the clinical quality.

193. Key Performance Indicator is the _____ of Critical Success Factor.
- (a) Target Measure
 - (b) Extension
 - (c) Source
 - (d) Substitute

ANSWER**Option (a) Target Measure**

Reason: Key performance indicators (KPIs) are the way to measure whether the CSFs are working. Using CSFs and KPIs helps a business stay focused on the key actions that will keep it on track to achieving its goals.

194. Critical Success Factors are true _____ of Competitive Advantage.
- (a) Target Measure

- (b) Extension
- (c) Source
- (d) Substitute

ANSWER**Option (c) Source**

Reason: If any organisation is able to use its core competencies to exploit the CSFs, it will surely have an edge over rivals, which will position the organisation in a better strategic position; leads to competitive advantages. Hence Critical Success Factors are a true source of Competitive Advantage.

195. A company wishes to collect 95% of its accounts receivables within 60 days of sale. This is an example of:
- (a) A Mission
 - (b) A Critical Success Factor
 - (c) A Key Performance Indicator
 - (d) A Vision

ANSWER**Option (c) A Key Performance Indicator**

Reason: Collection of 95% of accounts receivable within 60 days of sale is a measurable target set by the organization. Hence it is a KPI. Other options would be more general in their definition rather than being a specific measurable target to achieve. A Mission seeks to explain why does the company exist. A Vision describes what the company would like to achieve and generally states an ambitious future. A Critical Success Factor would be those areas or processes that are vital for the attainment of strategic objective. Key Performance Indicators are measurable targets set within such areas critical to success and signals the performance of the company in such areas.

196. In a highly competitive airline industry, the top management of Gofly airline wants to get a comprehensive view of its business regularly. Hence, they have adopted the Balanced Scorecard in order to get access to

information in a crisp and concise manner. Given the challenges of rising costs, decreased profit margins and other business uncertainties, the airline wishes to adopt "operational efficiency and performance" as its strategic theme for the next coming years. The Balanced Scorecard has been prepared with this background.

Match each objective to the appropriate perspective of the Balanced Scorecard –

Balanced Scorecard Perspective	Objective
i. Customer Perspective	a. Investing in modern flight simulators to provide scenario driven model of training to pilots as part of their annual training program
ii. Internal Business Process Perspective	b. Maximize aircraft utilization by reorganizing routes to reduce vacant (unsold) seats in flights
iii. Learning and Growth Perspective	c. Ensure on-time arrival and on-time departure to within 15 minutes of scheduled time
iv. Financial Perspective	d. Fast aircraft turnaround time (time between aircraft landing and next take off)

Option

- (a) i- c, ii- d, iii- a and iv- b
- (b) i- b, ii- d, iii- c and iv- a
- (c) i- d, ii- c, iii- a and iv- b
- (d) i- b, ii- c, iii- a and iv- d

ANSWER

Option (a) i- c, ii- d, iii- a and iv- b

Reason: Ensure on-time arrival and on-time departure to within 15 minutes of scheduled time will determine how the customer perceives

Gofly airline. Punctuality in operations is important for operational efficiency.

Fast aircraft turnaround time (time between aircraft landing and next take off) is a critical internal operation that will enable to help improve operational efficiency. Hence, this is an Internal Business Process Perspective that will help GoFly achieve its strategic objective and ensure customer satisfaction.

Investing in modern flight simulators to provide scenario driven model of training to pilots as part of their annual training program will improve GoFly's valued asset, the team of pilots who operate its fleet. Skilled and experienced pilots is a must for operational efficiency and performance. This pertains to Learning and Growth Perspective.

Maximize aircraft utilization by reorganizing routes to reduce vacant (unsold) seats in flights is needed in order to earn maximum revenue from each flight. This is a Financial Perspective that the shareholders or owners of GoFly would be interested in.

197. Taxaid is tax planning and advisory company that helps clients with filing their tax returns. They also take care of any arbitration and litigation that would arise on account of these filings. When Taxaid receives a client request for filing tax returns, the request is allocated to tax return preparers. Once the tax return is prepared, the supervisor for the team vets the preparation process and the related tax calculations. Taxaid has multiple teams for different types and complexity of clients namely individuals, corporates, partnerships etc. In order to get complete information for filing the return, Taxaid has a questionnaire that is required to be filled out by the client at the beginning of the assignment. This document aims at capturing all relevant aspects relating to taxation, both financial and non-financial information required for disclosure purpose.

Taxaid is developing a Balanced Scorecard to get an overview of their performance under various parameters.

Identify which of the following would be classified as Internal Business Processes –

- i. Average time spent by the supervisor correcting the errors in the tax return prepared by the tax return preparer.
- ii. Gaps and loopholes in the questionnaire given to the client that is needed to capture all relevant aspects relating to taxation, both financial and non-financial information required for disclosure purpose.
- iii. The average number of hours of training imparted to the employees during the year.
- iv. The average system downtime during which time, work needs to be suspended.

Option

- (a) i and ii
- (b) ii and iv
- (c) i, ii and iv
- (d) i, ii and iii

ANSWER**Option (c) i, ii and iv**

Reason: Internal Business Processes Perspective stems from business processes that impact the satisfaction of shareholders and customers. The processes affect cycle time, quality, employee skill, productivity etc. which impact client satisfaction. They also have a financial implication that impacts shareholders' perception.

Statement 1 - Average time spent by the supervisor correcting the errors in the tax return prepared by the tax return preparer reflects employee skill (both of the tax preparer and supervisor) and productivity. Error correction is a non-value adding process and has to be minimized.

Statement 2 - Gaps and loopholes in the questionnaire reflect the quality of information collected from clients. This impacts the quality (accuracy and correctness) of return filing.

Statement 4 - The average system downtime during which time, work needs to be suspended impacts productivity.

All of the above impact the cycle time and productivity of the tax filing process.

Statement 3 - The average number of hours of training imparted to the employees during the year should be captured in the Learning and Growth Perspective.

198. A law firm is looking to implement certain performance measurement metrics to evaluate the performance of its junior law partners.

Match the qualitative aspect related to the employees to the measure (KPI) –

i. Skill	a. Average time taken to handle a case from beginning to closure
ii. Efficiency	b. Client customer surveys after the service is provided
iii. Morale	c. Number of years of practice
iv. Client satisfaction	d. Employee attrition rate

Option

- (a) i- a, ii- b, iii- c, and iv- d
 (b) i- c, ii- a, iii- b, and iv- d
 (c) i- c, ii- a, iii- d, and iv- b
 (d) i- b, ii- d, iii- a, and iv- c

ANSWER

Option (c) i- c, ii- a, iii- d, and iv- b

Reason: Skill – Number of years of practice.

Efficiency - Average time taken to handle a case from beginning to closure.

Morale - Employee attrition rate.

Client satisfaction - Client customer surveys after the service is provided.

199. A company has ₹ 50,00,000 that it can invest either in Project A or Project B. Given below are details given regarding the projects:

	Division A	Division B
Available investment project	50,00,000	50,00,000
Controllable contribution	10,00,000	8,00,000
ROI on proposed project	20%	16%
Present ROI of divisions	25%	15%
Overall cost of capital	18%	18%

Which of the following situations will not lead to goal congruence for the company?

- Manager of Division A rejects the project proposal because current divisional ROI of 25% is higher than the 20% ROI from the project.
- Manager of Division A accepts the project proposal because the 20% ROI from the project is more than the overall cost of capital for the company.
- Manager of Division B rejects the project proposal because current divisional ROI of 15% is lower than the overall cost of capital for the company.
- Manager of Division B accepts the project proposal because the current divisional ROI of 15% is lower than the 16% ROI from the project.

Option

- i and iv
- ii and iii
- i and iii
- ii and iv

ANSWER

Option (a) i and iv

Reason: The correct answer is (i) and (iv) will not lead to goal congruence for the company. A manager should accept the project proposal, in the interest of goal congruence only if it is higher than the overall cost of capital. The overall cost of capital is 18% while the ROI of the project for

Division B is 16%. Acceptance of this project by Division B will impact the profitability of the company. Similarly, as long as the ROI from the project is higher than the overall cost of capital, the Division should accept the project. However, in (i) where Division A rejects the project just because the 20% ROI from the project is lower than the present divisional ROI of 25%, the profitability of the company is impacted. This is because even though the divisional ROI is higher, Division A should have accepted the project as it was higher than the overall cost of capital therefore accepting the project would have positively impacted the overall profit of the company.

200. Which of the following statements is false?

- (a) Residual Income is subject to the scale of operations while Return on Investment is not subject to scale of operations
- (b) Decision based on Residual Income is taken by comparing contribution with cost while decisions based on Return on Investment is taken based upon a comparison between two rates (current rate and expected rate from the project)
- (c) Residual Income is an absolute measure while Return on Investment is a relative measure
- (d) Residual Income is adjusted for price level changes while Return on Investment is measured at current price levels

ANSWER

Option (d) Residual Income is adjusted for price level changes while Return on Investment is measured at current price levels

Reason: The correct answer is- the statement that Residual Income is adjusted for price level changes while Return on Investment is measured at current price levels is false. Both Residual Income and Return on Investment are calculated at current price levels and are not adjusted for inflation. Under both methods, this can cause principal distortions because returns are measured at current levels while investments are depreciation are at historical prices.

201. Which of the following is a benefit of using Triple Bottom Line (TBL) reporting?

- (a) Reporting can result in cost saving by identifying areas where wastage can be reduced

- (b) Reporting is based on objective cash flows, rather than subjective accounting profits
- (c) Reporting aims at maximizing shareholder wealth
- (d) Identification and measurement of targets and actuals is well defined and easily tracked

ANSWER

Option (a) Reporting can result in cost saving by identifying areas where wastage can be reduced

Reason: The correct answer is triple bottom line reporting aims at encouraging staff to reduce wastage such that it has a positive impact on People, Planet and Profits.

202. In which of the four perspectives of a balanced scorecard would ROI be likely to appear?
- (a) Financial
 - (b) Customer
 - (c) Internal processes
 - (d) Learning and growth

ANSWER

Option (a) Financial

Reason: ROI relates to Financial Perspective.

203. In which of the four perspectives of a balanced scorecard is the objective 'reduce staff turnover' mostly likely to be?
- (a) Financial
 - (b) Customer
 - (c) Internal processes
 - (d) Learning and growth

ANSWER**Option (d) Learning and growth**

Reason: Reduce staff turnover is likely to be most relevant to the Internal Processes perspective.

204. Which of the following is NOT a key dimension of the balanced scorecard model?
- (a) Financial
 - (b) Customer
 - (c) Internal processes
 - (d) Rewards

ANSWER**Option (d) Rewards**

Reason: Rewards is not a key dimension of the balanced scorecard model.

205. Which of the following is a key step in how you develop a balanced scorecard?
- (a) Identify industry growth
 - (b) Establish the four categories of perspectives
 - (c) Identify the strategic capabilities and resources
 - (d) Link the vision and objectives to individual performance

ANSWER**Option (d) Link the vision and objectives to individual performance**

Reason: Link the vision and objectives to individual performance is a key step in developing a balanced scorecard.

206. Which of the following measures has ABC Healthcare implemented to ensure 'economy'?
- (a) Established a team of highly qualified medical professionals
 - (b) Negotiated discounted rates with suppliers for medical equipment and supplies

- (c) Conducted community outreach programs
- (d) Implemented a code of conduct for employees

ANSWER**Option (b) Negotiated discounted rates with suppliers for medical equipment and supplies**

Reason: Negotiated discounted rates with suppliers for medical equipment and supplies related to economy. Economy refers to obtaining the appropriate quantity and quality of resources at the lowest cost possible.

207. Which of the following is not a characteristic of Not for Profit Organization?
- (a) Their principal operation is for charitable, welfare, social, environmental and mutual co-operation
 - (b) Sources of funds are from contributions from members or external contributions
 - (c) Wealth creation for shareholders is not the objective of the Not for Profit Organization
 - (d) Surplus do not form part of corpus

ANSWER**Option (d) Surplus do not form part of corpus**

Reason: Not for profit organizations do not operate for profit i.e., wealth creation is not their moto. They are not expected or allowed to distribute surplus to stakeholders. Surplus if any becomes part of corpus.

208. Not for Profit organizations do not operate for profit, their principal operation is for charitable, welfare, social, environmental and mutual co-operation. What about the performance measurement of these organization is false?
- (a) Performance measures are need to monitor to provide reasonable assurance to the contributor that the funds have been used for the purpose for which it was given. Hence, these organizations have a fiduciary responsibility towards the contributor of funds
 - (b) Performance measures can be both financial and non-financial in nature

- (c) It is easy to measure the cost and benefit of activities of not for profit organizations
- (d) At times external factors beyond the control of the organization can affect its performance

ANSWER**Option (c) It is easy to measure the cost and benefit of activities of not for profit organizations**

Reason: It is false that the cost and benefit of activities of not for profit organizations are easy to measure. For example, the benefit of planting trees to reduce pollution takes years to be realized and it may not be easily quantifiable. Hence, the benefit generated of an NGO involved in tree plantation cannot be derived easily. Similarly, some of the costs will not be monetary in nature or directly linked to the activities of the organization. It might involve clearance of land to set up a museum or school, for which certain activities like construction of building, laying roads can cause pollution, which cannot be quantified.

209. Match the following –

i. Effectiveness	a. An input measure, the resource approach
ii. Efficiency	b. Link between input and output, the process approach
iii. Economy	c. An output approach, the goal approach

Option

- (a) i- b, ii- a, iii- c
- (b) i- c, ii- b, iii- a
- (c) i- a, ii- b, iii- c
- (d) i- a, ii- c, iii- b

ANSWER**Option (b) i- c, ii- b, iii- a**

Reason: Effectiveness - An output approach, the goal approach; Efficiency - Link between input and output, the process approach; Economy - An input measure, the resource approach.

210. NZ vocational school offers education programs for students to be trained in areas like electronics, food processing, tourism, and hospitality etc. It has received grant in aid from the local government. The objective is to have an intake of at least 40 students in each of these trades. In order to attract students, the school participated in an education fair. The teachers at the vocational school explained to prospective students about the courses offered and the way the organization works.

You have been asked to assess the Value for Money of the school's participation in the education fair.

Match the measure to the objective:

i. Number of prospective students who visited the stall	a. Economy
ii. Ability of the teachers to communicate with the students about the courses and resolve their doubts	b. Efficiency
iii. Cost of the stall, brochures and other material	c. Effectiveness

Option

- (a) i- b, ii- a, iii- c
- (b) i- a, ii- b, iii- c
- (c) i- c, ii- b, iii- a
- (d) i- a, ii- c, iii- b

ANSWER

Option (c) i- c, ii- b, iii- a

Reason: Number of prospective students who visited the stall – Effectiveness. More the number of students who visited the stall, more effective was the school's promotion in the education fair.

Ability of the teachers to communicate with the students about the courses and resolve their doubts – Efficiency. Teachers are the resources that the school has to promote the courses it is offering. Their ability to communicate

with the students about the courses and to resolve their doubts indicates how efficiently the resource was utilized.

Cost of the stall, brochures, and other material – Economy. It is the main cost incurred in this promotional activity.

211. X Society offers accounting support to charitable organisations. Each employee works six chargeable hours a day on average, with the remaining portion of the workday being devoted to non-chargeable administrative tasks.

A primary goal of X Society is to achieve a superior standard of service and client satisfaction.

X Society has set a goal of "cutting expenditure by 5%" for the upcoming year.

Which option best assigns the aforementioned goal to the value for money performance category?

- (a) Efficacy
- (b) Efficiency
- (c) Economy
- (d) Effectiveness

ANSWER

Option (c) Economy

Reason: Economy best assigns the goal of "cutting expenditure by 5%" to the value for money performance category.

212. Which one of the following statements about internal performance reporting is true?
- (a) Always contain a mixture of financial and non-financial measurements
 - (b) Can take any form that management chooses
 - (c) Are required by an accounting standard to be based on the 'Balanced Scorecard' system
 - (d) Contain the same information as financial accounting statements, but they are produced monthly rather than annually

ANSWER**Option (b) Can take any form that management chooses**

Reason: Internal performance reports can take any form that management chooses considering the need of organisation, as these are voluntary reports not statutory required.

213. Since performance report also includes reporting on non-financial measures, you are required to identify which of the following statements correct about the non-financial performance measures?
- i. Non-financial measures do not involve the calculation or recording of any numbers
 - ii. The most appropriate non-financial measures vary, depending upon the nature of the organisation
 - iii. Non-financial measures should correspond as far as possible with the aims of the organisation as a whole
 - iv. The use of non-financial performance measures helps to address the deficiencies of measurements such as Return on Investment (ROI)

Option

- (a) i, ii, and iii
- (b) ii, iii and iv
- (c) i, iii and iv
- (d) i, ii, and iv

ANSWER**Option (b) ii, iii and iv**

Reason: Only statement (i) is incorrect rest all are correct. Non-financial qualitative information is likely to be as important as quantitative data, but it is more difficult to quantify and present in reports. Technically, qualitative information is referred to as a construct, which is an attribute that cannot be directly measured. To illustrate, Constructs include things like enthusiasm and empathy. Typically, an effort must be made to convert qualitative information into quantifiable information for communication,

assessment, and comparison purposes. The conversion of construct into variable involves the calculation or recording of any numbers.

214. What are the objectives of transfer pricing –
- i. Achieve goal congruence, maximise earnings in line with the objectives of the company
 - ii. Facilitate divisional performance
 - iii. Manipulate profits to minimise tax
 - iv. Determines the allocation of divisional resources in terms of scale of operations and investments

Option

- (a) i and iv only
- (b) ii and iii only
- (c) iii and iv only
- (d) i, ii, and iv

ANSWER

Option (d) i, ii, and iv

Reason: The correct answer is (d). Sub optimal utilization of resources can be avoided by using transfer pricing. This determines the level of output for the particular product or service. Decisions about inter divisional sales will then determine the scale of operations and investment. Transfer pricing is aimed at profit maximization for the company as a whole in line with its objectives. It helps in evaluating the performance of individual divisions.

215. Which of the following are true about cost based transfer pricing?
- i. It is based on the internal cost records of the company and is readily available
 - ii. The basis for cost based transfer pricing can be more easily understood as compared to market based transfer pricing
 - iii. Cost based transfer pricing is subjective
 - iv. Managers of supplying division may find little incentive to lower the costs, this goes against goal congruence

Option

- (a) i and ii only
- (b) i, ii and iv
- (c) i, ii and iii
- (d) All of i, ii, iii, and iv

ANSWER**Option (d) All of i, ii, iii, and iv**

Reason: Internal cost records provide the information for calculating cost based transfer pricing. Since information is available completely within, the basis for the transfer price will be more easily understood as compared to market based transfer price. The interpretation of costs can be of many types like full costing, marginal costing, standard costing etc. Hence cost based transfer pricing is subjective. Since managers of supplying divisions are allowed to recoup the divisional cost by charging other divisions it services, there is little incentive for the manager to build efficiency in the cost structure. This goes against goal congruence.

216. Division A transfers good to Division B. Division A incurs marginal cost of \$10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

If there is no external market for the intermediate product, what should be the minimum transfer price (in \$) that Division A should charge to promote goal congruence?

- (a) 10 per unit
- (b) 15 per unit
- (c) 20 per unit
- (d) Between 15 per unit and 20 per unit

ANSWER**Option (a) 10 per unit**

Reason: Division A should be able to recover its marginal cost which is \$10 per unit. Since there is no external market, there is no opportunity cost. The other figures are arbitrary.

217. Division A transfers good to Division B. Division A incurs marginal cost of ₹ 10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

If there is an external market for the intermediate product, what is the maximum price the Division B will be willing to pay to Division A for the intermediary product?

- (a) Marginal cost of Division A per unit
- (b) Net marginal revenue per unit
- (c) External buy-in price per unit
- (d) Lower of net marginal revenue per unit and the external buy in price per unit

ANSWER**Option (d) Lower of net marginal revenue per unit and the external buy in price per unit**

Reason: Where there is an external market, Division B will be willing to pay (Division A) a maximum price calculated as – lower of net marginal revenue per unit and the external buy in price per unit.

218. Division A transfers good to Division B. Division A incurs marginal cost of \$10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

What is the net marginal revenue per unit (in \$) for the intermediate product?

- (a) 10 per unit
- (b) 15 per unit

- (c) 20 per unit
- (d) Between 15 per unit and 20 per unit

ANSWER**Option (b) 15 per unit**

Reason: The net marginal revenue per unit is calculated as selling price per unit less the marginal cost of Division B = \$20 per unit - \$5 per unit = \$ 15 per unit.

219. Division A transfers good to Division B. Division A incurs marginal cost of \$10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

If Division B can procure the intermediate product at \$14 per unit, what should be the maximum price (in \$) that A can charge to remain competitive?

- (a) 15 per unit
- (b) 14 per unit
- (c) 10 per unit
- (d) 20 per unit

ANSWER**Option (b) 14 per unit**

Reason: Division B will be willing to pay (Division A) a maximum price calculated as lower of net marginal revenue per unit and the external buy in price per unit. The net marginal revenue is \$15 per unit while the external buy in price is \$14 per unit. Hence, Division B will not be ready to pay more than the external price. So, Division A can charge maximum \$14 per unit to remain competitive with the market.

220. Division A transfers good to Division B. Division A incurs marginal cost of \$10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

If Division B can procure the intermediate product at \$18 per unit, what should be the maximum price (in \$) that A can charge to remain competitive?

- (a) 15 per unit
- (b) 10 per unit
- (c) 20 per unit
- (d) 18 per unit

ANSWER

Option (a) 15 per unit

Reason: Division B will be willing to pay (Division A) a maximum price calculated as lower of net marginal revenue per unit and the external buy in price per unit.

The net marginal revenue is \$15 per unit while the external buy in price is \$18 per unit. Division B will hence be willing be ready only up to \$15 per unit. If Division B pays beyond \$15 per unit, it will result in a loss for the division.

221. Division A transfers good to Division B. Division A incurs marginal cost of \$10 per unit and Division B incurs a marginal cost of \$5 per unit. Division B sells the finished product externally at \$20 per unit.

If Division A can sell the intermediate product externally at \$12 per unit, what should be range for transfer pricing (in \$)? Assume Division A is operating at full capacity and the Division B can procure the part for \$14 per unit.

- (a) \$12 per unit to \$14 per unit
- (b) \$15 per unit to \$20 per unit
- (c) \$10 per unit to \$15 per unit
- (d) \$10 per unit to \$12 per unit

ANSWER**Option (a) \$12 per unit to \$14 per unit**

Reason: The correct answer is \$12 per unit to \$14 per unit. When there is an external market, Division A will charge the opportunity cost due to lost sales since it is operating at full capacity.

The minimum price charge by Division A will be marginal cost per unit + opportunity cost per unit. Opportunity cost per unit = external selling price less marginal cost for the intermediate product = \$12 per unit less \$10 per unit = \$2 per unit. Hence, the minimum price that Division A will charge = \$12 per unit. Division B will be ready to pay a maximum of \$14 per unit which is the lower of net marginal revenue and external market price. Therefore, the transfer price range will be from \$12 per unit to \$14 per unit.

222. A company has a division A producing three products called X, Y, Z. Each product can be sold in the open market in the following manner.

Maximum external sales are X 800 units, Y 500 units, Z 300 units.

Particulars	X	Y	Z
Selling price per unit (\$)	96	92	80
Variable Cost of production in Division A (\$)	33	24	28
Labour Hours required per unit in Division A	6	8	4

Product Y can be transferred to Division B, but the maximum quantity that might be required for transfer is 300 units of Y.

Division B could buy similar product in the open market at a price of \$45 per unit.

When Division A has capacity of 13,000 hours, which of the following statements is true regarding the transfer price charged to Division B for sale of 300 units of Product Y?

- (a) Division A has 3,000 hours surplus capacity, the transfer price range will be from \$24 per unit to \$45 per unit
- (b) Division A has 3,000 hours deficit in capacity, the transfer price range will be from \$24 per unit to \$45 per unit

- (c) The transfer price charged by Division A to Division B can be more than \$45 per unit
- (d) The transfer price charged by Division A to Division B can be less than \$24 per unit

ANSWER

Option (a) Division A has 3,000 hours surplus capacity, the transfer price range will be from \$24 per unit to \$45 per unit

Reason: Division A has 3,000 hours surplus capacity, the transfer price range will be from \$24 per unit to \$45 per unit.

Actual capacity of Division A is 13,000 hours while external sales require 10,000 hours. Hence, capacity surplus is 3,000 hours.

Due to surplus capacity, Division A can meet Division B's request without curtailing external sales. There is no opportunity cost on account of lost contribution.

Minimum transfer price = Marginal Cost of Production per unit of Y = \$24 per unit.

Maximum transfer price = Lower of Net Marginal Revenue and the External Buy-in Price. The Maximum Transfer Price would be the External Procurement Price for Division B = \$45 per unit.

Note: Additional cost information related to Division B would be needed to calculate net marginal revenue.

223. Centurion Co. is leading manufacturer of pulp, board, paper, tissues etc. It operates a Pulp Division that manufactures Wood Pulp for use in production of various paper items. The following information are available:

Selling Price	₹ 300
Less: Variable Expenses	₹ 225
Contribution	₹ 75
Less: Fixed Expenses (Allocated based on a capacity of 1,00,000 kgs per year)	₹ 40
Net Income	₹ 35

Centurion Co. has just acquired a small company that manufactures paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000 kgs of pulp per year from supplier at a cost of ₹ 300 per kg less a 10% quantity discount.

Centurion's President is anxious that the Carton Division begins purchasing its pulp from the Pulp Division if an acceptable transfer price can be worked out.

Pulp Division is operating at full capacity. It is in a position to sell all its produce to outside customers at ₹ 300 per kg. What will be the minimum acceptable transfer price (in ₹) for Pulp Division?

- (a) 225 per kg
- (b) 300 per kg
- (c) 265 per kg
- (d) 270 per kg

ANSWER

Option (b) 300 per kg

Reason: The correct answer is ₹ 300 per kg. Since Pulp division operating at full capacity and is in a position to sell its produce to outside customers it will have to factor for the contribution from lost sales. Pulp Division earns ₹ 75 per kg as contribution from each unit.

Transfer price = Variable cost + contribution lost per unit = ₹ 225 + ₹ 75 = ₹ 300 per kg

224. Centurion Co. is leading manufacturer of pulp, board, paper, tissues etc. It operates a Pulp Division that manufactures Wood Pulp for use in production of various paper items. The following information are available:

Selling Price	₹ 300
Less: Variable Expenses	₹ 225
Contribution	₹ 75

Less: Fixed Expenses (Allocated based on a capacity of 1,00,000 kgs per year)	₹ 40
Net Income	₹ 35

Centurion Co. has just acquired a small company that manufactures paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000 kgs of pulp per year from supplier at a cost of ₹ 300 per kg less a 10% quantity discount.

Centurion's President is anxious that the Carton Division begins purchasing its pulp from the Pulp Division if an acceptable transfer price can be worked out.

Pulp Division is operating at full capacity. It is in a position to sell all its produce to outside customers at ₹ 300 per kg. What will be the maximum acceptable transfer price (in ₹) for Carton Division?

- (a) 225 per kg
- (b) 300 per kg
- (c) 265 per kg
- (d) 270 per kg

ANSWER

Option (d) 270 per kg

Reason: The correct answer is ₹ 270 per kg. Carton Division can purchase its requirement from a supplier at a cost of ₹ 300 per kg less a 10% quantity discount = ₹ 270 per kg. Carton Division will not be ready to pay any more to the Pulp Division.

225. Centurion Co. is leading manufacturer of pulp, board, paper, tissues etc. It operates a Pulp Division that manufactures Wood Pulp for use in production of various paper items. The following information are available:

Selling Price	₹ 300
Less: Variable Expenses	₹ 225

Contribution	₹ 75
Less: Fixed Expenses (Allocated based on a capacity of 1,00,000 kgs per year)	₹ 40
Net Income	₹ 35

Centurion Co. has just acquired a small company that manufactures paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000 kgs of pulp per year from supplier at a cost of ₹ 300 per kg less a 10% quantity discount.

Centurion's President is anxious that the Carton Division begins purchasing its pulp from the Pulp Division if an acceptable transfer price can be worked out.

Assuming that Pulp Division is currently selling only 60,000 kg to outside customers at ₹ 300 per kg, what will be the minimum acceptable transfer price (in ₹) for Pulp Division?

- (a) 225 per kg
- (b) 300 per kg
- (c) 265 per kg
- (d) 270 per kg

ANSWER

Option (a) 225 per kg

Reason: The correct answer is ₹ 225 per kg. Pulp Division is selling only 60,000 kgs to external customers. Hence, there is excess capacity with the division that can fully cater to the requirement of 10,000 kgs of Carton Division. Hence, the minimum transfer price that should be acceptable to Pulp Division is the variable cost per unit ₹ 225 per kg. There is no contribution due to lost sales.

226. Centurion Co. is leading manufacturer of pulp, board, paper, tissues etc. It operates a Pulp Division that manufactures Wood Pulp for use in production of various paper items. The following information are available:

Selling Price	₹ 300
Less: Variable Expenses	₹ 225
Contribution	₹ 75
Less: Fixed Expenses (Allocated based on a capacity of 1,00,000 kgs per year)	₹ 40
Net Income	₹ 35

Centurion Co. has just acquired a small company that manufactures paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000 kgs of pulp per year from supplier at a cost of ₹ 300 per kg less a 10% quantity discount.

Centurion's President is anxious that the Carton Division begins purchasing its pulp from the Pulp Division if an acceptable transfer price can be worked out.

Assuming that Pulp Division is currently selling only 60,000 kg to outside customers at ₹ 300 per kg, what will be the minimum transfer price (in ₹) be acceptable to Carton Division?

- (a) less than 270 per kg
- (b) more than 270 per kg
- (c) less than 300 per kg
- (d) more than 300 per kg

ANSWER

Option (a) less than 270 per kg

Reason: The correct answer is less than ₹ 270 per kg. Minimum transfer price of Pulp Division ₹ 225 per kg and the external buy in price of Carton Division is ₹ 270 per kg.

227. Centurion Co. is leading manufacturer of pulp, board, paper, tissues etc. It operates a Pulp Division that manufactures Wood Pulp for use in production of various paper items. The following information are available:

Selling Price	₹ 300
Less: Variable Expenses	₹ 225
Contribution	₹ 75
Less: Fixed Expenses (Allocated based on a capacity of 1,00,000 kgs per year)	₹ 40
Net Income	₹ 35

Centurion Co. has just acquired a small company that manufactures paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000 kgs of pulp per year from supplier at a cost of ₹ 300 per kg less a 10% quantity discount.

Centurion's President is anxious that the Carton Division begins purchasing its pulp from the Pulp Division if an acceptable transfer price can be worked out.

Assuming that Pulp Division is currently selling only 60,000 kg to outside customers at ₹ 300 per kg. If the external supplier reduces the price to ₹ 260 per kg, will there be an agreement between Pulp and Carton Division?

Figures in ₹

- (a) Yes, transfer price range will be from 260 per kg to 300 per kg
- (b) No, Pulp Division cannot recover its full cost of 265 per kg and hence will not be ready to sell
- (c) Yes, transfer price range will be from 225 per kg to 260 per kg
- (d) No, Pulp Division has a constraint in terms of capacity and cannot accommodate the internal transfer

ANSWER

Option (c) Yes, transfer price range will be from 225 per kg to 260 per kg

Reason: Yes, transfer price range will be from ₹ 225 per kg to ₹ 260 per kg. Although, Pulp Division will not be able to recover its full cost (fixed plus variable cost) of ₹ 265 per kg. However, it will be able to recover its variable cost, at ₹ 225 per kg, fixed cost is anyway a sunk cost. Carton

Division will be ready to pay up to ₹ 260 per kg. Hence the transfer price range will be from ₹ 225 per kg to ₹ 260 per kg.

228. Division A manufactures 10,000 units of a Chemical X each month that can be sold externally at ₹ 5,000 per unit. Production of Division A is at full capacity. The demand for Chemical X exceeds the production capacity of the company. The variable cost of manufacturing Chemical X is ₹ 3,000 per unit while allocated fixed cost of production is ₹ 500 per unit. The company has opened Division B where Chemical X can be used as a raw material to produce some other finished product.

Until Division B establishes itself, the management wants to transfer 3,000 units of Chemical X internally within the company rather than sell it to the external market. If the internal transfer happens, the company can benefit from savings in packaging cost amounting to ₹ 200 per unit.

What should be the transfer price that Division A can quote?

- (a) ₹ 5,000 per unit
- (b) ₹ 3,000 per unit
- (c) ₹ 2,800 per unit
- (d) ₹ 4,800 per unit

ANSWER

Option (d) ₹ 4,800 per unit

Reason: The correct answer is ₹ 4,800 per unit of Chemical X.

Division A can sell Chemical X in the external market for ₹ 5,000 per unit. It is operating at full capacity and there is external demand for the chemical. Therefore, the transfer price that can promote goal congruence is

Minimum Transfer Price (determined by the supplying division) = Additional Outlay Cost per unit + Opportunity Cost per unit.

Additional Outlay Cost = Marginal Cost + Any Additional Incidental Costs incurred by the supplying division e.g., storage, transportation etc. In this case there is no additional incidental cost due to internal transfer, rather there is a savings due to lower packaging cost. This should be considered.

Opportunity Cost is the benefit that is foregone from selling internally rather than externally. Opportunity cost is the contribution lost from external sales which is selling price of ₹ 5,000 – ₹ 3,000 variable cost = ₹ 2,000 per unit.

Transfer price = marginal cost of ₹ 3,000 per unit - savings of ₹ 200 per unit due to lower packaging cost + ₹ 2,000 which is the lost contribution per unit (opportunity cost) = ₹ 4,800 per unit.

229. Division A manufactures 10,000 units of a Chemical X each month that can be sold externally at ₹ 2,500 per unit. Production of Division A is at full capacity. The demand for Chemical X exceeds the production capacity of the company. The variable cost of manufacturing Chemical X is ₹ 1,500 per unit while allocated fixed cost of production is ₹ 250 per unit. The company has opened Division B where Chemical X can be used as a raw material to produce some other finished product.

Until Division B establishes itself, the management wants to transfer 3,000 units of Chemical X internally within the company rather than sell it to the external market. If the internal transfer happens, the company can benefit from savings in packaging cost amounting to ₹ 100 per unit.

What should be the transfer price that Division A can quote?

- (a) ₹ 2,500 per unit
- (b) ₹ 1,500 per unit
- (c) ₹ 1,400 per unit
- (d) ₹ 2,400 per unit

ANSWER

Option (d) ₹ 2,400 per unit

Reason: The correct answer is ₹ 2,400 per unit of Chemical X.

Division A can sell Chemical X in the external market for ₹ 2,500 per unit. It is operating at full capacity and there is external demand for the chemical. Therefore, the transfer price that can promote goal congruence is-

Minimum Transfer Price (determined by the supplying division) = Additional Outlay Cost per unit + Opportunity Cost per unit.

Additional Outlay Cost = Marginal Cost + Any Additional Incidental Costs incurred by the supplying division e.g., storage, transportation etc. In this case there is no additional incidental cost due to internal transfer, rather there is a savings due to lower packaging cost. This should be considered.

Opportunity Cost is the benefit that is foregone from selling internally rather than externally. Opportunity cost is the contribution lost from external sales which is selling price of ₹ 2,500 – ₹ 1,500 variable cost = ₹ 1,000 per unit.

Transfer price = marginal cost of ₹ 1,500 per unit - savings of ₹ 100 per unit due to lower packaging cost + ₹ 1,000 which is the lost contribution per unit (opportunity cost) = ₹ 2,400 per unit.

230. If in MyGlam company the new manager wants to understand that if the variance arises solely because the actual quantity sold differs from the budgeted quantity sold is –
- (a) Static budget variance
 - (b) Master budget increment
 - (c) Sales mix variance
 - (d) Sales volume variance

ANSWER

Option (d) Sales volume variance

Reason: Sales Volume Variance arises due to difference of actual quantity sold and budgeted quantity sold.

231. The Managing Director of ACE Toy company reviewed the standard cost variance analysis, and he wants to understand the reason of unfavourable labour efficiency variance of ₹ 6,700. The most likely cause of the variance is –
- (a) The new contract with labour increased wages
 - (b) For last few weeks the machinery maintenance has been inadequate

- (c) The production department has employed highly skilled workers
- (d) None of the above

ANSWER

Option (b) For last few weeks the machinery maintenance has been inadequate

Reason: If machine will not work properly for production in such case labour efficiency variance will be unfavourable.

232. If the production levels increase in a manufacturing organization ABS Ltd within a relevant range, which of the following costs would decrease if production levels were increased within the relevant range?
- (a) Total fixed costs
 - (b) Variable costs per unit
 - (c) Total variable costs
 - (d) Fixed costs per unit

ANSWER

Option (d) Fixed costs per unit

Reason: The fixed cost per unit decreases, if production increases within a relevant range.

233. When we perform a task, as experience is gain with the task, which one of the following techniques would most likely be used –
- (a) Regression analysis
 - (b) Learning curve analysis
 - (c) Sensitivity analysis
 - (d) Normal probability analysis

ANSWER

Option (b) Learning curve analysis

Reason: A learning curve is a concept that shows how a process is improved over time due to learning and increased proficiency.

234. The manager of production department is arguing that the following point is not responsible for Material Usage Variance –

- (a) Change in method of production/ design
- (b) Increased efficiency in production can help in bringing down wastage rate
- (c) Changes made in the material mix
- (d) Purchase price of inferior quality material

ANSWER

Option (d) Purchase price of inferior quality material

Reason: Quantity of Inferior quality material is responsible for material usage variance.

235. Deciding the selling price of the new product in market is the most difficult decision. While doing the variance analysis, the manager of the sales and marketing department of the company is interested to know which of the following is not responsible for Sales Price Variance –

- (a) Higher discounts given to customers in order to encourage bulk purchases
- (b) Failure to satisfy demand due to production difficulties
- (c) Better sales price realization
- (d) Market conditions or economic conditions forcing changes in prices across the industry

ANSWER

Option (b) Failure to satisfy demand due to production difficulties

Reason: Failure to satisfy demand due to production difficulties will result in Sales volume variance and not sales price variance.

236. NEC is a multiple product manufacturer. NEC produces the unit, and all overheads are associated with the delivery of units to its customers:

Particulars	Budget	Actual
Overheads (₹)	4,000	3,900

Output (units)	2,000	2,100
Customer Deliveries (no.'s)	20	19

Efficiency Variance and Expenditure Variance by adopting ABC approach in ₹ are –

- (a) Efficiency Variance 400 (F); Expenditure Variance 100 (A)
- (b) Efficiency Variance 100 (A); Expenditure Variance 400 (F)
- (c) Efficiency Variance 100 (F); Expenditure Variance 400 (A)
- (d) Efficiency Variance 400 (A); Expenditure Variance 100 (F)

ANSWER

Option (a) Efficiency Variance 400 (F); Expenditure Variance 100 (A)

Reason: Efficiency Variance = Cost Impact of *undertaking activities* more/ less than *standard*

$$= (21 \text{ deliveries}^* - 19 \text{ deliveries}) \times ₹ 200$$

$$= ₹ 400 (F)$$

Expenditure Variance = Cost impact of paying more/ less than standard for actual activities undertaken

$$= 19 \text{ deliveries} \times ₹ 200 - ₹ 3,900$$

$$= ₹ 100 (A)$$

(*) 20 Deliveries / 2,000 units $\times$ 2,100 units

237. CNZ has identified the following variances for Oct'23:

Sales Margin Volume Variance ₹ 5,000 (A)

Sales Price Variance ₹ 2,500 (F)

Material Cost Variance ₹ 1,000 (A)

Total Cost Variance ₹ 6,000 (A)

Standard Margin on Actual Sales for the Oct'23 was ₹ 60,000.

What was the fixed budget profit for the period?

- (a) ₹ 62,500

- (b) ₹ 60,000
- (c) ₹ 65,000
- (d) ₹ 70,000

ANSWER**Option (c) ₹ 65,000**

Reason: Sales Margin Volume Variance:

(Actual Quantity – Budgeted Quantity) × Standard Margin per unit
= 5,000 (A)

Standard Margin on Actual Sales:

(Actual Quantity × Standard Margin per unit) = ₹ 60,000

Fixed Budget Profit: (₹ 60,000 + ₹ 5,000) = ₹ 65,000

238. DIVY's operating costs are 70% variable. Which of the following variances' figures would change if DIVY changed from standard marginal costing to standard absorption costing?
- i. Direct material efficiency variance
 - ii. Variable overhead price variance
 - iii. Variable overhead efficiency variance
 - iv. Sales volume variance
 - v. Fixed overhead expenditure variance

Option

- (a) i and ii
- (b) ii and iii
- (c) iv and v
- (d) iv only

ANSWER**Option (d) iv only**

Reason: Sales Volume Variance (by concept)