

CA FINAL

Self-Paced Online Module Set B

STRATEGIC COST & PERFORMANCE MANAGEMENT MCQ's Compilation.

(Also Relevant for Paper 6 – Integrated Business Solutions)

- By CA Manan Pujara (AIR-37)

Hello Future Chartered Accountants,

I hope this message finds you in great spirits and high motivation. It is with immense pleasure that I present to you this comprehensive compilation of MCQ's for the CA Final Self-Paced Online Module Set B : Strategic Cost and Performance Management.

This book is a **compilation of 500+ MCQ's** from ICAI Module, ICAI BOS Knowledge Portal, Model test papers, and more. Our aim is to provide you with an extensive resource that will not only help you test your knowledge but also build the confidence needed to excel in your exams.

In addition to this MCQ compilation, I highly recommend exploring our **160-page Concept Book** and the **Exam-Oriented Fastrack Batch**. These Concept Book and Exam oriented batch have been trusted by **more than 1,200 students**, who have taken the proactive step towards their success journey. Embrace this opportunity to enhance your preparation and move closer to achieving your dream of becoming a Chartered Accountant.

Becoming a Chartered Accountant is more than just passing an exam—it's about embracing the learning process and growing as a professional.

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To watch demo lectures visit our YouTube channel – CA Manan Pujara.

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Thank you for choosing to embark on this learning journey with us. I am confident that with dedication and the right resources, you will achieve your goals and become a successful Chartered Accountant.

Wishing you all the best in your preparation.

Warm regards,
CA Manan Pujara.

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Chapter 1 - INTRODUCTION TO STRATEGIC COST MANAGEMENT

BOS Portal MCQ's

Question - 1

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 –

Answer - 1 : Distinct, Artistic, Measurable and Profitable

Answer - 2 : Distinct, Accessible, Measurable and Profitable

Answer - 3 : Desperate, Accessible, Many, and Profitable

Answer - 4 : Distinct, Accessible, Measurable and Popular

Answer :- 2

Description: 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).

Question - 2

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

Answer - 1 : i, ii, and v

Answer - 2 : iii and iv

Answer - 3 : iii, iv, and v

Answer - 4 : None of the above

Answer :- 1

Description: 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.

Question – 3

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?

Answer - 1 : To bring healthcare of International Standards within the reach of every individual

Answer - 2 : Be the global leader in cutting-edge Robotic Surgery

Answer - 3 : Develop innovative programs and services to meet the unique needs of patients

Answer - 4 : Practice the safest, most equitable and effective medical care

Answer :- 4

Description: 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.

Question - 4 :

Which of the following is not a component of external environment? Use the STEEPLE Framework –

Answer - 1 : Ethics

Answer - 2 : Legal

Answer - 3 : Environment

Answer - 4 : Economies of scale

Answer :- 4

Description: 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.

Question - 5

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

Answer - 1 : i and ii only

Answer - 2 : i and iii only

Answer - 3 : ii and iii only

Answer - 4 : All of i, ii, and iii

Answer :- 2

Description: 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 factor 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.

Question - 6

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 –

Answer - 1 : The road of dilemma

Answer - 2 : The kiss of death

Answer - 3 : The slippery slope

Answer - 4 : The tunnel vision

Answer :- 2

Description: 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.

Question - 7

Which of the following is a question relating to value proposition?

Answer - 1 : Which of the customer's problems are we helping to solve?

Answer - 2 : For whom are we creating value?

Answer - 3 : How do we reach out to the customer and increase their awareness?

Answer - 4 : What are the customers currently paying for?

Answer :- 1

Description: 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.)

Question - 8

Using Mende low'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 |

Answer - 1 : i- d, ii- a, iii- b, iv- c
Answer - 2 : i- d, ii- c, iii- b, iv- a
Answer - 3 : i-b, ii-c, iii- d, iv- a
Answer - 4 : i- b, ii- a, iii- d, iv- c

Answer :- 3

Description:

Influential Stakeholder – High Power Low Interest

Marginal Player – Low Power Low Interest

Key Player – High Power High Interest

Affected – High Power Low Interest

Question – 9

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

Answer - 1 : i, ii and iii only
Answer - 2 : i, ii and iv only
Answer - 3 : i, iii and iv only
Answer - 4 : ii, iii and iv only

Answer :- 2

Description: 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.

Question - 10

Which of the following is not critically important for cost leadership?

Answer - 1 : importance of competitor cost analysis
Answer - 2 : Importance of product cost as an input for pricing decision
Answer - 3 : Importance of marketing cost analysis
Answer - 4 : Importance of standard costs in assessing performance

Answer :- 3

Description: 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 is the most important cost component for pricing decision and hence plays an important role in cost leadership.

Question - 11

Out of the following, which are aspects that Traditional Cost Management failed to address –

- i. Use-case of cost information
- ii. Activity Based Costing
- iii. Qualitative aspects of cost management

Answer - 1 : i and ii only

Answer - 2 : i and iii only

Answer - 3 : ii and iii only

Answer - 4 : All of i, ii, and iii

Answer :- 3

Description: Traditional Cost Management also uses cost information to make decisions but considers only quantitative information, therefore ignoring the quality aspects. Moreover, typically it assigns/apportions overhead costs to product cost based on an arbitrary average rate, rather than allocating overhead costs by assigning them to activities more precisely using ABC.

Question - 12

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 the business model canvas, hence the proposer tries to convince the board by emphasizing that the value proposition canvas is _____ to the business model canvas.

Answer - 1 : Substitute

Answer - 2 : Extension

Answer - 3 : Plugin

Answer - 4 : New Version

Answer :- 3

Description: The value proposition canvas is the tool that will help the organization to design, test, build and manage the great customer value propositions. It's like a plugin to the business model canvas.

Question – 13

Which of the following is not part of Operations activity of Porter's Value Chain Analysis?

Answer - 1 : Machining

Answer - 2 : Equipment maintenance

Answer - 3 : Assembly

Answer - 4 : Order processing and scheduling

Answer :- 4

Description: Order processing and scheduling is part of outbound logistics activity. The others relate to activities that transform inputs into outputs.

Question – 14

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 of strategies |
| iv. Strategic Cost Management | D. Containment of Cost |

Answer - 1 : i- A, ii-B, iii-C, and iv-D

Answer - 2 : i- C, ii-A, iii-B, and iv-D

Answer - 3 : i- B, ii-A, iii-D, and iv-C

Answer - 4 : i- B, ii-D, iii-A, and iv-C

Answer :- 4

Description: Cost Ascertainment - Recoding of Cost; Cost Control - Containment of Cost; Traditional Cost Management -Cost Reduction; Strategic Cost Management - Aligning costs to strategies.

Question - 15

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

Answer - 1 : i, ii and iv

Answer- 2 : I and ii only

Answer - 3 : ii and iii only

Answer - 4 : All of the above

Answer :- 4

Description: All of the above are all disadvantages of traditional cost management.

Question – 16

Out of followings which are the correct statements above Osterwalder's Business Model Canvas-

- i. Business's value propositions shall be oriented to the capabilities of business
- ii. Key activities are critical for absorbing the cost of supporting activities.
- iii. Key resources has implication in determining activity level

Answer – 1 : I and ii Only

Answer – 2: I and iii only

Answer – 3: ii and iii only

Answer – 4: All of I, ii, and iii

Answer:- 3

Description: Business's value propositions shall be oriented to customer's need and problem, not the capabilities of business. Key activities 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).

Question – 17

Value Proposition canvas is based on which of the following elements of the business model canvas?

Answer – 1: Customer Segment, Key Activities

Answer – 2: Value Proposition, Cost Structure

Answer – 3: Customer Segment, Channel

Answer – 4: Value Proposition, Customer Segment

Answer:- 4

Description: 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).

Question – 18

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

Answer – 1: I, ii and iii

Answer – 2: ii, iii and iv

Answer – 3: iii, iv and i

Answer – 4: iv, I and ii

Answer :- 4

Description: 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: In 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.

Question – 19

Which of the following statements is correct about Strategic Cost Management?

Answer – 1: Allocation of cost is based on volume (per unit produced)

Answer – 2: Has a short term focus, with the main objective being cost control and reduction.

Answer – 3: Based on analysis of internal and external factors, a proactive and dynamic approach to gain competitive advantage while containing costs

Answer – 4: Focuses reviews and investigation of variances and deviations that are only quantitative in nature

Answer:- 3

Description: The correct answer is (C). 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.

Question - 20 :

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

Answer - 1 : i and iii only

Answer - 2 : i and iv only
Answer - 3 : i, ii and iv only
Answer - 4 : all of the above

Answer: 4

Description: 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.

Question – 21:

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 –

Answer - 1 : Increased threat of new entrants
Answer - 2 : Increased threat of substitute
Answer - 3 : Increased customer power
Answer - 4 : Increased barriers to entry

Answer: 4

Description: 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 lunching app by wish-a-dish leads to increase barriers to entry.

Question – 22:

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.

Answer - 1 : i and ii
Answer - 2 : i and iii
Answer - 3 : ii and iv
Answer - 4 : ii and iii

Answer: 4

Description:

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.

Question – 23:

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.

Answer - 1 : Static, Collectively

Answer - 2 : Static, Discretely

Answer - 3 : Dynamic, Collectively

Answer - 4 : Dynamic, Discretely

Answer: 3

Description: 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.

Question - 24 :

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?

Answer - 1 : i only

Answer - 2 : iii only

Answer - 3 : i and ii only

Answer - 4 : i and iii only

Answer: 2

Description: 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.

Question - 25 :

One of the biggest pharmaceutical businesses in the world is Az. Which of the following sums up a competitive advantage's reasons the best?

Answer - 1 : Az is a big business that can outwit smaller rivals

Answer - 2 : Az makes significant investments in the research and creation of novel products

Answer - 3 : Az enjoys a good reputation because it hasn't experienced a significant product recall in more than five years

Answer - 4 : Az obtains patents on significant medication breakthroughs in order to safeguard its intellectual property

Answer: 4

Description: As a patent gives a distinct competitive advantage that keeps rivals from duplicating/ copying a product for a set amount of time.

Question - 26 :

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.

Answer - 1 : Both are correct statements but reason is not correct explanation to assertion

Answer - 2 : Both are correct statements and reason is correct explanation to assertion

Answer - 3 : Only assertion is correct

Answer - 4 : Only reason is correct

Answer: 2

Description: 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.

Question – 27 :

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 decided 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?

Answer - 1 : Critical success factors remain fixed throughout the project

Answer - 2 : Critical success factors are used as measure, if the project is either leading or lagging in performance

Answer - 3 : Critical success factors are derived from key performance indicators to measure if the project is achieving strategic goals

Answer - 4 : Critical success factors are directly aligned to both organisational and project objectives

Answer: 4

Description: 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.

Question - 28 :

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.

Answer – 1 : Low margin with stable return

Answer - 2 : Low margin with Risky return

Answer - 3 : High margin with Risky return

Answer - 4 : High margin with stable return

Answer: 3

Description: For Impact of exit and entry barriers on profitability (margin) refer exit and entry barriers matrix.

Question - 29 :

Fresh food 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 Fresh food to stock its products in its stores. Fresh food 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.

Fresh food 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 Fresh food.

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.

Answer - 1 : i and ii

Answer - 2 : i and iii

Answer - 3 : iii and iv

Answer - 4 : ii and iv

Answer: 3

Description:

Statement iii – It has high buyer bargaining power since Fresh food has alternate suppliers who produce similar good sat 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 Fresh food, 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.

Question - 30 :

Fresh food 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 Fresh food to stock its products in its stores. Fresh food 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.

Fresh food 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 Fresh food. What impact will be decision of Fresh food integrating its supply chain to produce its own brand of consumer good shave at the time of renewal of the contract with Yummy Foods?

Answer - 1 : Fresh food may order lesser quantity of consumer goods from Yummy Foods

Answer - 2 : Fresh food can bargain to lower the procurement cost of products from Yummy Foods

Answer - 3 : Fresh food can increase its profit margins by offering its own brand of consumer goods that are similar to Yummy Foods

Answer - 4 : Fresh food can offer its products at deep discounts to the customers and thereby gain market share

Answer: 2

Description:

The correct answer is – Fresh food 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 Fresh food 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 Fresh food's own brand.

Similarly, the ability of Fresh food to offer its products at deep discounts will depend on partly on its cost of production and profit margin. This information is not available.

ICAI Module MCQ's

MCQ 1

Mr. Anirban, Chief Management Accountant and advisor to CEO of Avantha Holdings considering the value proposition canvas as tool to respond to aspects highlighted by customer profile analysis. You (cost trainee) recently join Avantha Holding, Mr. Anirban asked to appraise the following statement to pick the correct statement regarding value proposition map.

Options

- 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

Key – c

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

MCQ 2

In continuation to previous MCQ

Mr. Nilanjan is hired by Avantha holding as independent consultant for drafting of value proposition map. He suggests that ranking of customer's jobs, pains, and gains is essential to respond them. Mr. Anirban is not convinced with need of rank said three elements of

customers' profile; hence he seeks your help in evaluating following two statements regarding the customer's jobs, pains, and gains.

I. Pains and Gains are controlled by Business.

II. All the pains and gains need not be responded or addressed.

Options:

- a. Both the statements are correct
- b. Both the statements are incorrect
- c. Only statement 1 is correct
- d. Only statement 2 is correct

Key – d

Reason – Pain relievers and gain creators are distinctly different from pains and gains. Business have control over the former, whereas it doesn't have control over the latter. Business decides (i.e., design) how it intend to create value by addressing specific jobs, pains, and gains. Business don't decide over which jobs, pains, and gains the customer has and no value proposition addresses all of a customer's jobs, pains, and gains. The best ones address those that matter most to customers and do so extremely well.

MCQ 3

The technique of "Management by wandering around" is concerned with which of following leadership aspects of management accountant.

I. Communication

II. Decisions Making

Options:

- a) Both of I and II
- b) Only with I
- c) Only with II
- d) None of I and II

Key – b

Reason – Management by wandering/walking around (MBWA)²⁹ 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.

MCQ 4

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

Options:

- a. III and IV only
- b. II and III only
- c. I and III only
- d. I and II only

Key – d

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

MCQ 5

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

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

Key – b

Reason – In 2008, Johnson along with Christensen & Kaggerman³⁰ 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.

MCQ 6

Shakti Bearing Ball Trading Limited is considering the proposal to enter into trading of casting iron as well. Mr. Madhu Sudan, 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. Sudan told SBBTL 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.

Options:

- a. Low margin with stable return
- b. Low margin with Risky return
- c. High margin with stable return
- d. High margin with Risky return

Key – d

Reason – Impact of exit and entry barriers on profitability (margin) are depicted below

| | | Exit Barriers | |
|----------------|------|----------------------|---------------------|
| | | Low | High |
| Entry Barriers | Low | Low, Stable Returns | Low, Risky Returns |
| | High | High, Stable Returns | High, Risky Returns |

MCQ 7

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

Options:

- a. I only
- b. III only
- c. I and II only
- d. I and III only

Key – b

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 can't. It formulated at organisation wide level. It deals with control over the layout of IT uses in organisation. Hence IM strategy is relationship oriented.

MCQ 8

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?

Options:

- a. Infrastructure
- b. Inbound Logistic
- c. Procurement
- d. Outbound Logistic

Key – c

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.

MCQ 9

Management Accountant assume the role of leader, who need to make or assist in decision making in wake of organisational strategy, make communications (of strategy, plans, vision and values) while getting such decisions executed either himself or through others; and remain ethical throughout. Which of the following statements are incorrect?

- I. An increasing number of organizations are segregating management accountants in separate managerial-accounting departments.
- II. Management accountants often are part of cross-functional teams.
- III. Management accountants make significant business decisions and resolve operating problems while support in strategic decision making.
- IV. The role of management accountants has changed considerably over the past decade.

Options:

- a. Only I
- b. Only III
- c. Both I and III
- d. Both I and II

Key – a

Reason – Management Accountant is a position that holistically addresses the various aspects, which affect the sustainability of a business's performance. The management accountant is at the crossroads of technology, financial analysis and strategy, and leadership, helping to identify what is driving the company's profits and losses, rather than simply reporting them.

MCQ 10

Tara 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 –

Options:

- a. Distinct, Artistic, Measurable and Profitable.
- b. Distinct, Accessible, Measurable and Popular.
- c. Desperate, Accessible, Many, and Profitable.
- d. Distinct, Accessible, Measurable and Profitable.

Key – d

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).

Test Your Knowledge- Case let Based MCQ's

Case-let on Strategic Fit - Value Propositions of a multinational automotive company that is engaged in designs and manufactures electric vehicles

In electronic-vehicle segment (four-wheelers), there are many players, who are trying to meet different requirements of their customers including personal mobility, regular long-distance trips, and be different from others with their offerings but an emerging multinational automotive company that is engaged in designs and manufactures electric vehicles is leading the chart.

In 2008, such multinational automotive company released its first electric car, the Speed. The Speed was the first car to use lithium-ion battery cells, and the first electric car to travel more than 320 km (200 miles) per charge. Such multinational automotive company aims to create more affordable electric car options to attract a broader customer base. Such multinational automotive company expanded its geographic footprint, with production facilities in Country C (country with cheap resources) and the Country U (a developed country), as well as 438 stores and 100 service centres in various countries.

The M10EV (e-vehicle) was launched in July 2009, and The Leaf, another e-vehicle from another rival company was introduced in December 2010. But such multinational automotive company counter them strongly with the Model S on 22 June 2012 and the first delivery to a retail customer in Europe took place on 7 August 2013, while deliveries in Country C began on 22 April 2014. The next model was the Model X launched in 2015. Then such multinational automotive company launched Model 3 in mid-2017. The sale of such Model 3 surpassed the sale of The Leaf in early 2020 to become the world's best-selling electric car ever, with more than 5,00,000 total units sold by March 2020. However, the Model Y of such multinational automotive company is the bestselling electric vehicle in terms of yearly units. Such

multinational automotive company also became the first auto manufacturer to produce 1 million electric cars in March 2020. Global sales of the Model 3 passed the 1 million milestone in June 2021, the first electric car model to do so.

While the Leaf achieved the milestone of 5,00,000 units sold globally in early December 2020, 10 years after its inception.

Country C is larger consumer of e-vehicles with total of 78,42,668 light-duty plug-in electric vehicle on road at end of 2021 and nearly 15% of new vehicle sold during 2021 were electric vehicle there. There is a clear division between the opinions of industry experts. Larger chunk of experts feels a strategic fit between value map and customer profile is the reason of superior performance by such multinational automotive company, while some other feels first mover advantage is the reason. You after qualifying chartered accountancy, recently join a consulting firm that has undertaken the task to study the value proposition of such multinational automotive company. Team of consultants, list the pains, gains, pain relievers and gain creators. List was then given to computer operator for digitisation and circulation among all consultants, who are working on this. But operator jumbled the list as–

1. Growing network of charging points
2. Brand recognition
3. Slow charging
4. 8 years battery warranty
5. Durable battery lifetime
6. Insufficient number of charging points
7. Reputable brand
8. Developed interior ergonomics
9. Self-driving option
10. Lack of luggage space
11. Interior ergonomics
12. 75 minutes to charge 100% with supercharging stations

Requirements

MCQ 1

Which of following is correct combination of Pains?

Options

- a. Item No. 3, 6 and 10
- b. Item No. 3, 5 and 10
- c. Item No. 3, 5 and 11
- d. Item No. 2, 5 and 11

Key – a i.e., Item No. 3, 6 and 10

Reason – Refer answer to first descriptive question of this case-let

MCQ 2

Which of following is correct combination of Gains?

Options

- a. Item No. 3, 6 and 10
- b. Item No. 2, 5 and 11
- c. Item No. 3, 5 and 11
- d. Item No. 3, 5 and 10

Key – b i.e., Item No. 2, 5 and 11

Reason – Refer answer to first descriptive question of this case-let

MCQ 3

Which of following is correct combination of Pain Relievers?

Options

- a. Item No. 1, 7 and 9
- b. Item No. 4, 7 and 9
- c. Item No. 1, 8 and 12
- d. Item No. 4, 8 and 12

Key – c i.e., Item No. 1, 8 and 12

Reason – Refer answer to first descriptive question of this case-let

MCQ 4

Which of following is correct combination of Gain Creators?

Options

- a. Item No. 1, 7 and 9
- b. Item No. 4, 7 and 9
- c. Item No. 1, 8 and 12
- d. Item No. 4, 8 and 12

Key – b i.e., Item No. 4, 7 and 9

Reason – Refer answer to first descriptive question of this case-let

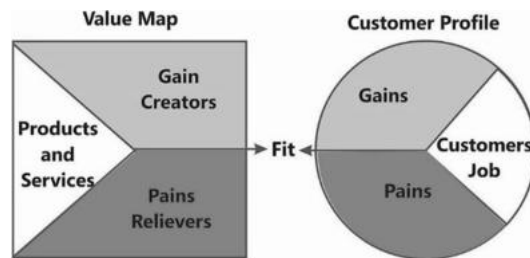
Descriptive Question 1

Do you agree to the opinion of larger chunk of industry experts or not? Justify you answer.

Answer - The opinion of larger chunk of industry expert is correct considering value proposition canvas. Value Proposition describes the benefits that customers can expect from product and the bundle of products and services that business offer to specific customer segment to create value. Therefore, value proposition canvas³¹ is the tool that will help the organisation to design, test, build and manage the great customer value propositions.

The Value Proposition Canvas has two sides. With the Customer Profile business can have clear understanding of customer character. With the Value Map business describe how it intend to create value for that customer. Business achieve Fit between the two when one meets the other.

Value Proposition Canvas



Value Proposition Canvas of multinational automotive company that is engaged in designs and manufactures electric vehicles

| Value Map | Customer Profile |
|---|--|
| Products & services Model S Model X Model 3 | Customer Jobs Personal mobility Regular long-distance trips Be different from others |
| Pain relievers Growing network of charging points Developed interior ergonomics 75 minutes to charge 100% with supercharging stations | Pains Insufficient number of charging points Lack of luggage space Slow charging |
| Gain creators 8 years battery warranty Reputable brand Self-driving option | Gains Durable battery lifetime Brand recognition Interior ergonomics |

Business is said to achieve a problem-solution fit, when the features of business’s value proposition map perfectly match the characteristics of your customer segment profile. When the market validates this match and business value proposition gets traction with real customers, business achieved the product-market fit.

The value proposition canvas drawn above shows fit (problem-solution as well as product-market) exist, hence options of larger chunk of expert is factually correct

Descriptive Question 2

How establishing manufacturing in Country C help such multinational automotive to do better in primary activities of their value chain?

Answer – Primary activities of value chain consist of the inbound logistics, operations, outbound logistics, marketing & sale, and after sale services. Automobile industry use

assemblies, which are usually procured from countries with low-cost model (because such countries are capable to produce these assemblies cheaply, substantially due to cheap labour rates). Such multinational automotive company is not an exception to this. Country C is one such country. Therefore, by establishing their operations in Country C such multinational automotive company is able to reduce inbound cost, also reduce the cost of operation due to cheap labour rate.

Moreover, Country C is largest market for E-Vehicle. This not only reduce outbound logistic cost as well as easy and large market hence marketing and sale also become easy; further the fact Country C is growing market create a great source of value.

Hence, establishing operation in Country C is beneficial to such multinational automotive company in generating same or higher value (perceived value by customer) for its customer at lower cost level (than earlier); therefore, increasing margin.

Chapter 2 - MODERN BUSINESS ENVIRONMENT

BOS Portal MCO's

Question - 1 :

H care 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?

Answer - 1 : Training hours imparted to manufacturing staff about in quality control for manufacturing process

Answer - 2 : Cost of product returns and replacement cost

Answer - 3 : Cost of inspection and testing

Answer - 4 : Quality certifications from external agencies

Answer: 2

Description:

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.

Question - 2 :

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:

Answer - 1 : Cost of External Failure

Answer - 2 : Cost of Internal Failure

Answer - 3 : Preventive Cost

Answer - 4 : Appraisal Cost

Answer: 1

Description: 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.

Question - 3 :

Which of the following is not the aim of strategic supply chain management?

Answer - 1 : Develop a supplier network that can cater to raw material requirements with minimum lead time

Answer - 2 : Focus on customers whose lifetime value is very profitable

Answer - 3 : Ensuring proper communication and information systems that will ensure robust functioning of the organization

Answer - 4 : Frequent changing of suppliers and sales dealerships

Answer: 4

Description: 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.

Question - 4 :

Which of the following best describes Total Quality Management?

Answer - 1 : Identifying the cost drivers for a company's major activities

Answer - 2 : Applying "zero-defect" philosophy aimed at embedding awareness of quality in all organizational processes

Answer - 3 : Tracking costs and revenues attributable to each product over its life cycle

Answer - 4 : Measuring how low the costs of a product need to be by reducing the desired profit margin from the expected selling price.

Answer: 2

Description: 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.

Question - 5 :

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

Answer - 1 : i, ii, and v

Answer - 2 : iii and iv

Answer - 3 : iii, iv, and v

Answer - 4 : None of the above

Answer: 1

Description: 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.

ICAI Module MCQ's**Case-let on Push-Pull Inventory System**

ABC Ltd. is a very profitable company with a high sales volume for its products. The company has been in this business for the last 20 years. The business cycles can be predicted with high accuracy. The products it manufactures can be bought off the shelf from retail stores. Demand is continuous throughout the year. Hence, its inventory turnover is high. Profit margin earned on its sales are high and generate sufficient cash flow.

Production cost is optimal when products are produced on a large scale. It is a mid-sized company that wields sufficient bargaining power over its suppliers. Factory land is owned, and it has sufficient storage area within its premises. Working capital needs of the company are sufficiently met by internal reserves.

Requirements**MCQ 1**

Given the above conditions, which type of supply chain may be more suitable for ABC Ltd. to adopt:

Options

- a. Pull model supply chain
- b. Push model supply chain

Key -b

Reason – Push model supply chain.

- The ability to keep production cost low on account of economies of scale of production,
- ability to forecast demand for its products with high accuracy,
- having sufficient working capital requirements that can help it stock up finished goods inventory.

All these factors can enable ABC Ltd. to produce its products on a large scale in anticipation of demand. Inventory of finished goods can be stocked up and sold when the demand for it arises. Therefore, production in anticipation of demand, which is the Push model of supply chain can be adopted here. In Push model of supply chain, the production is done in anticipation of demand. The manufacturers or distributors then “push” these finished goods to the customer.

MCQ 2

Where in the flow of the supply chain are the customers?

Options

- a. At the end of the supply chain (downstream)
- b. At the beginning of the supply chain (upstream)

Key – a

Reason – Customers are at the end of the flow of the supply chain. They are at the end of the downstream flow in the supply chain

MCQ 3

Implication of high inventory turnover ratio on working capital locked in finished stock is –

Options

- a. Working capital gets locked in finished stock for a shorter period of time
- b. Working capital gets locked in finished stock for a longer period of time

Key – a

Reason – High inventory turnover ratio implies that finished goods inventory is converted into sales at a faster rate. Hence working capital locked in finished stock can be recouped faster through cash flows generated from sale of products.

MCQ 4

What advantages can ABC derive from economies of scale of production on production cost and the ability to wield sufficient bargaining power over its suppliers?

Options

- a. The factors provide ABC Ltd. a competitive advantage on the ability to compete with the market based on price of the product. It can follow the low cost advantage strategy.
- b. The factors provide ABC Ltd. a competitive advantage on the ability to compete with the market based on variety of the finished product. It can follow the product differentiation advantage strategy.

Key – a

Reason – Economies of scale of production on production cost and the ability to wield sufficient bargaining power over its suppliers can help reduce the overall cost of production. This savings in cost provides a cushion to the company that can enable it to offer Its products at a discounted price to the customers. This is the low cost advantage strategy

Ability to offer product differentiation works better in industries where production is based on customer requirements (more variety). Where more variety is offered, it may not always be possible to produce on a large scale. Economies of scale may not be optimally achievable in these cases.

MCQ 5

What are the risks involved in the selected model –

Options

- a. Risk of overstocking due to variations in actual demand as compared to forecast.
- b. Inventory has working capital locked in finished stock and there is higher need for storage space for finished stock.
- c. Both (a) and (b) above
- d. Neither (a) nor (b) above

Key – c

Reason –The risks involved in using the push model is that

- Overstocking of inventory may occur when the actual demand does not follow the pattern of forecasted demand. Since production is done based on forecasted demand it might happen that inventory can pile up when there is sluggish demand that was not accounted for.
- Since production is in advance, working capital gets tied up in finished stock as part of inventory. Also, since production is in anticipation of demand, finished goods need to be stored. Hence the need for more space for storage of finished goods.

MCQ 6

Had ABC Ltd. been producing products that are highly customized in nature, based on individual customer requirements, what would be the more appropriate type of supply chain to adopt?

Options

- a. Pull model supply chain
- b. Push model supply chain

Key – a

Reason – Had ABC Ltd. been producing goods that are highly customized in nature,

production will depend on meeting the customer's requirements. Hence, a pull system of supply chain would work better where product customization is important.

Chapter 3 - LEAN SYSTEM AND INNOVATION

BOS Portal MCQ's

Question - 1 :

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?

Answer - 1 : Accuracy of demand prediction and close links with suppliers supply of raw materials

Answer - 2 : Agile production lines that are flexible to meet the change in demands

Answer - 3 : Low set up time and cost each time there is change in the production line

Answer - 4 : Have sufficient storage space to keep excess inventory

Answer: 4

Description: 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.

Question - 2 :

Which of the following is not a prerequisite for an effective JIT system?

Answer - 1 : Lesser set up time

Answer - 2 : Total quality management

Answer - 3 : Varying demand patterns

Answer - 4 : Multi skilled labour force

Answer: 3

Description:

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 reduce sidle time.

Question - 3 :

Which of the following is false about Kaizen costing?

Answer - 1 : It uses target costing to set the required planned cost of the product..

Answer - 2 : Continuous improvement is aimed at producing new products.

Answer - 3 : The purpose is to build the idea of continuous improvement in the production process.

Answer - 4 : Focuses on elimination of waste and improving productivity.

Answer: 2

Description: 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.

Question - 4 :

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 back flushing 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

Answer - 1 : i, ii and iv

Answer - 2 : i, ii and iii

Answer - 3 : i, iii and iv

Answer - 4 : i, ii, iii and iv

Answer: 2

Description:

The correct answer is (i), (ii) and (iii) are possible reasons for difference between accounting records maintained under back flush 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 recode components issued that are in work in progress.

ICAI Module MCQ's

MCQ 1

5S fits in which stage of the PDCA cycle in the context of the organization striving for continuous improvement?

Options:

- a. Plan
- b. Do
- c. Check
- d. Action

Key – b

Reason – Plan and Do are enablers for continual improvement, while Check and Action are results. 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.

MCQ 2

Which one is not a benefit of Shine?

Options:

- a. Less production downtime
- b. Happier employees
- c. Improved quality
- d. Inventory reduction

Key – d

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.

MCQ 3

Which of the following does Kaizen improvement process not focus on?

Options:

- a. 5S
- b. Poka-Yoke
- c. Just-in-time principles
- d. Improvement by innovation

Key – d

Reason – Kaizen is lean thinking and structured around the core premise of continuous improvement rather innovation hence Kaizen focuses on first three options only.

MCQ 4

Which of the following is not a tool used in the 'Define' process in the DMAIC Model of Six Sigma?

Options:

- a. Project charter and plan
- b. Check sheet

- c. Effort/ impact analysis
- d. Process mapping

Key – b

Reason – Project charter and plan, Effort/impact analysis, and process mapping are the tools used in the 'Define' process in the DMAIC Model of Six Sigma. In addition to this, tree diagram is also used.

The Check Sheet (Defect Concentration Diagram), is a structured form for collecting and analysing data. It is one among the 7 Basic Quality Tools. The check sheet is a form used to collect data in real time at the location where the data is generated. The data it captures can be quantitative or qualitative. When the information is quantitative, the check sheet is sometimes called a tally sheet. It is used in the 'Measure' process.

MCQ 5

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.

Options:

- a. 97.96%
- b. 76.35%
- c. 74.79%
- d. None of these

Key – c

Reason – Formula for calculating Overall Equipment Effectiveness (OEE) can be either of Availability × Performance × Quality or $(\text{Good Count} \times \text{Ideal Cycle Time}) / \text{Planned Production Time}$ $(18,848 \text{ units} \times 1.0 \text{ seconds}) / (420 \text{ minutes} \times 60 \text{ seconds}) = 0.7479$ (74.79%)

MCQ 6

Which principle or technique is considered as the base platform for TPM?

Options:

- a. Six sigma
- b. 5S
- c. SMED
- d. Kaizen

Key – b

Reason – The traditional approach to TPM was developed in the 1960s and consists of 5S (Sort, Set in Order, Shine, Standardize, and Sustain) as a foundation and eight supporting activities (sometimes referred to as pillars).

Chapter 4 - SPECIALIST COST MANAGEMENT

TECHNIQUES

BOS Portal MCQ's

Question - 1 :

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?

Answer - 1 : \$181.25

Answer - 2 : \$165.00

Answer - 3 : \$187.50

Answer - 4 : \$362.50

Answer: 1

Description:

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

Question - 2 :

How is target cost calculated?

Answer - 1 : Desired selling price – actual profit margin

Answer - 2 : Market price – desired profit margin

Answer - 3 : Desired selling price – desired profit margin

Answer - 4 : Market price – standard profit margin

Answer: 2

Description: The correct answer is (B) 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.

Question - 3 :

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?

Answer - 1 : Introduction

Answer - 2 : Growth

Answer - 3 : Maturity

Answer - 4 : Decline

Answer: 2

Description: 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.

Question - 4 :

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?

Answer - 1 : Strategy shifts from acquisition to retention of customers

Answer - 2 : Development of long term relationships with customers

Answer - 3 : Leverage the product's perceived differential advantage to secure a strong market position

Answer - 4 : Build selective distribution channels to target niche customers only

Answer: 4

Description: 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.

Question - 5 :

A company is about to replace an equipment that costs ₹10,00,000 with either equipment A or equipment B. Finance cost is 6% per year and other information is as below:

| | Equipment A (₹) | Equipment B (₹) |
|------------------------|-----------------|-----------------|
| Initial Cost | 28000 | 40000 |
| Annual Operating Costs | 24000 p.a. | 18000 p.a. |

The annuity factor of 6% finance cost for 20 years is 11.4699. The company expected the new system (either equipment A or equipment B) to last for 20 years.

Which equipment should the company choose using life cycle costing?

Answer - 1 : Equipment B since the life cycle cost is ₹1,72,049 which is lower as compared to equipment A having a cost of ₹2,86,748

Answer - 2 : Equipment A since the life cycle cost is ₹5,13,253 which is lower as compared to equipment B having a cost of ₹7,27,952

Answer - 3 : Equipment A since the life cycle cost is ₹8,00,000 which is lower as compared to equipment B having cost of ₹9,00,000

Answer - 4 : Equipment B since the life cycle cost is ₹10,72,049 which is lower as compared to equipment A having cost of ₹10,86,748

Answer: 4

Description: The correct answer is - Equipment B since the life cycle cost is ₹10,72,049 which is lower as compared to equipment A having cost of ₹10,86,748

| Particulars | Equipment A | Equipment B |
|---|-------------|-------------|
| Annual Operating costs p.a. | 25,000 | 15,000 |
| PVIFA @ 6% for 20 years | 11.4699 | 11.4699 |
| Initial cost | 8,00,000 | 9,00,000 |
| Add: present value of annual operating costs over the lifetime of the asset | 2,86,748 | 1,72,049 |
| Life cycle cost = Initial cost + PV of operating costs | 10,86,748 | 10,72,049 |

Question - 6 :

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

Answer - 1 : i, ii and iii

Answer - 2 : i, iii and iv

Answer - 3 : ii, iii, and iv

Answer - 4 : i, ii, iii, and iv

Answer: 2

Description:

The correct answer is (i), (iii) and (iv).

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.

Question - 7 :

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?

Answer - 1 : Introduction

Answer - 2 : Growth

Answer - 3 : Maturity

Answer - 4 : Decline

Answer: 1

Description:

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.

Question - 8 :

In the industry life cycle, which of the following best characterizes an industry in the growth stage?

Answer - 1 : New goods are being created all the time

Answer - 2 : A select few companies control the majority of the market

Answer - 3 : There is little threat from substitutes and few competitors

Answer - 4 : There is no pressing need for competitive differentiation

Answer: 4

Description:

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.

ICAI Module MCQ's

Test Your Knowledge- Case let Based MCQ's

Art Décor is a marble sculpture making company based out of Jaipur, Rajasthan. It has been making miniature figurines (small statues) for the past many years. It now plans to foray into making larger sizes statues that can be displayed in gardens, resorts or large corporate offices.

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CA Final - AIR 37

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As a trial it has asked its main designer Raj to come up with an appropriate design model that would appeal to such customers. There is already a competitive market for such larger size statues. However, the management of Art Décor has a skilled artist like Raj who can come up with attractive designs for customers. Within the month, Raj has come up with the appropriate design. Jay is the product manager who likes the design but wants to price it competitively in the market. The costing for 200 statues is as below:

| Cost | Amount (₹) |
|---------------------------------|------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |

Required

MCQ 1

The target profit required is 25% of revenue. If the sale price per statue is ₹45,000 what is the target cost per statue?

Options:

- ₹33,750 per statue
- ₹36,000 per statue
- ₹42,000 per statue
- ₹56,250 per statue

Key – a i.e., ₹33,750

Reason – Target profit per statue is 25% of ₹45,000. Therefore, target profit is ₹11,250 per statue. Hence, target cost = selling price – target profit = ₹45,000 - ₹11,250 = ₹33,750 per statue. Option (b) ₹36,000 calculates that cost by taking profit to be 25% of cost i.e. 20% of selling price. Therefore, target cost is ₹45,000 - ₹9,000 = ₹36,000 per statue. Options (c) and (d) are incorrect options

MCQ 2

What is the cost estimate per unit as per the cost information given above?

Options:

- ₹45,000 per statue
- ₹42,500 per statue
- ₹30,250 per statue
- ₹43,000 per statue

Key – b i.e., ₹42,500

Reason – Option (b) ₹42,500 per statue is the correct option. The calculation is given:

| Cost | Amount (₹) |
|------|------------|
|------|------------|

| | |
|---|-----------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |
| Total Estimated Cost | 8,50,000 |
| Estimated Cost per statue = ₹85,00,000 / 200 statues = ₹42,500 per statue. | |

MCQ 3

Given your calculations in (a) and (b) has the target cost per statue been met?

Options:

- Yes, the estimated cost is lower than the target cost per statue.
- No, the estimated cost is higher than the target cost per statue.

Key – b i.e., No

Reason – The estimated cost is higher than the target cost per statue. The estimated cost is ₹42,500 per statue (2) while the target cost price is ₹33,750 per statue (1). Hence, the company has to find ways to reduce the estimate cost through value engineering

MCQ 4

During the course of discussions, Jay the product manager found that the designer Raj plans to use high quality marble for these statues. Jay suggests that he use a much lower quality marble material for the statues. This would reduce the material cost by 60%. Skilled labour hours required will also be reduced resulting in direct manufacturing labour to reduce by 50%. Accordingly, what would the revised estimate cost per unit be if value engineering is applied?

Options:

- ₹45,000 per statue
- ₹42,500 per statue
- ₹30,250 per statue
- ₹43,000 per statue

Key – c. i.e., ₹30,250 per statue

Reason – With 60% saving in direct material cost and 50% saving in direct manufacturing labour, the revised estimate cost per statue if value engineering is adopted would be -

| Cost | Amount (₹) |
|---|------------------|
| Design cost | 5,00,000 |
| Direct materials | 8,00,000 |
| Direct manufacturing labour | 12,50,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |
| Total Estimated Cost | 60,50,000 |
| Estimated Cost per statue = ₹60,50,000 / 200 statues = ₹30,250 per statue. | |

MCQ 5

Given your calculations in (1) and (4) has the target cost per statue been met?

Options

- a. Yes, the revised estimate cost by adopting value engineering is lower than the target cost per statue.
- b. No, the revised estimate cost by adopting value engineering is higher than the target cost per statue.

Key – a. i.e., Yes

Reason – Yes, the target cost per statue is (1) is ₹33,750 per statue while the revised estimate cost per statue if value engineering is adopted as per (4) is ₹30,250 per statue. Hence, value engineering technique does lower the cost per statue

MCQ 6

Raj the designer does not agree with Jay's proposition given in (4) above. He feels that inferior quality material would affect the durability of the statue and hence would affect the demand for it in the long run. Instead of value engineering, he feels that 10% increased spending in marketing can increase the selling price per statue to ₹50,000 per statue. The target profit required is 25% of revenue. Given this scenario, what is the target cost per statue?

Options:

- a. ₹33,750 per statue
- b. ₹37,500 per statue
- c. ₹35,000 per statue
- d. ₹36,250 per statue

Key – b i.e., ₹37,500 per statue

Reason – The target profit per statue is 25% of ₹50,000. Therefore, target profit is ₹12,500 per statue. Hence, target cost = selling price – target profit = ₹50,000 - ₹12,500 = ₹37,500 per statue

MCQ 7

Given the situation in (6) what would be revised estimated cost per statue after increasing the spend on marketing?

Options:

- a. ₹45,000 per statue
- b. ₹42,500 per statue
- c. ₹30,250 per statue
- d. ₹43,000 per statue

Key – Option (d), ₹43,000 per statue

Reason – The revised estimate cost per statue would be:

| Cost | Amount (₹) |
|------|------------|
|------|------------|

| | |
|---|------------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 11,00,000 |
| Total Estimated Cost | 86,00,000 |
| Estimated Cost per statue = ₹86,00,000 / 200 statues = ₹43,000 per statue. | |

MCQ 8

Given your calculations in (6) and (7) has the target cost per statue been met?

Options:

- Yes, the estimate cost after increased spend on marketing is lower than target cost per statue.
- No, the estimate cost after increased spend on marketing is higher than target cost per statue.

Key – b i.e., No

Reason – No, the estimated cost after increased spending on marketing is higher than the target cost per statue. The estimated cost is ₹43,000 per statue (7) while the target cost price is ₹37,500 per statue (6). The 10% increase in marketing spend increases the cost per statue to ₹43,000 beyond the target cost of ₹37,500 per statue.

MCQ 9

What is the estimate profit earned per statue as per (4) (adopting value engineering) and (6) (increasing marketing spend)?

| Options | Profit per statue with value engineering as per (4) | Profit per statue after increased marketing spend as per (6) |
|---------|---|--|
| a. | ₹14,750 | ₹7,000 |
| b. | ₹2,500 | ₹7,000 |
| c. | ₹11,250 | ₹12,500 |

Key – a i.e., ₹14,750, ₹7,000

Reason – Refer below given calculations. Jay the product manager's proposal of adopting value engineering as per (4) is more profitable as compared to Raj the designer's proposal. Adopting value engineering may be encouraged. At the same time, designer Raj's opinion is also critical since it affects the durability of the product, which also impacts the long run demand for these products. Hence, the management of Art Décor has to take strategic decisions on the quality of statues it wants to launch. Pricing will also be affected by the external competitive market conditions.

| Particulars | Estimates as per value engineering (4) | Estimates as per marketing spend (6) |
|--------------------------|--|--------------------------------------|
| Selling price per statue | ₹45,000 | ₹50,000 |

| | | |
|---------------------------|---------|---------|
| Estimated cost per statue | ₹30,250 | ₹43,000 |
| Profit per statue | ₹14,750 | ₹7,000 |

MCQ 10

Which of the following techniques is not relevant to target costing?

Options

- Value Analysis
- Variance Analysis
- Functional Analysis
- Activity Analysis

Key – b

Reason – Option (b) Variance Analysis is not relevant to target costing. Variance analysis is the comparison of actual performance with standards / budgeted performance. Variance analysis helps in monitoring costs against a benchmark. Analysis is done after the cost is incurred. Target costing helps to determining the cost at which a proposed product (with specified functionality and quality) must be produced, to generate a desired level of profitability at its anticipated selling price. It uses techniques like value analysis, functional analysis, and activity analysis. Analysis is done before the cost is incurred; target is the goal to be achieved in future.

Chapter 5 - MANAGEMENT OF COST STRATEGICALLY FOR EMERGING BUSINESS MODELS

BOS Portal MCQ's

Question - 1 :

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?

Answer - 1 : Investor

Answer - 2 : Industrialist

Answer - 3 : Intrapreneur

Answer - 4 : Entrepreneur

Answer: 3

Description: 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.

Question - 2 :

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

Answer - 1 : i and iii

Answer - 2 : i and ii

Answer - 3 : i, iii and iv

Answer - 4 : i, ii and iii

Answer: 3

Description:

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.

Question - 3 :

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 angle 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

Answer - 1 : i and ii

Answer - 2 : i and iii

Answer - 3 : ii and v

Answer - 4 : i, iv and v

Answer: 2

Description:

The correct answer is i and iii are features of incumbents.

Start-ups have their innovations supported by tech behemoths or angle 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. Star ups have a dynamic, individualistic, entrepreneurial culture.

Question - 4 :

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 –

Answer - 1 : Disruption

Answer - 2 : Monopolistic Competition

Answer - 3 : Hyper Competition

Answer - 4 : Monopoly

Answer: 3

Description:

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.

Question - 5 :

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

Answer - 1 : Both i and ii

Answer - 2 : i only

Answer - 3 : ii only

Answer - 4 : None of i and ii

Answer: 4

Description: 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.

Question - 6 :

What characterizes the condition of hyper-competition in the market?

Answer - 1 : Reduced instability and increased bargaining power of buyers

Answer - 2 : Weakened bargaining power of buyers and reduced consumer demand

Answer - 3 : Intense competition leading to market stability

Answer - 4 : Intense competition causing market instability and strengthening the bargaining power of buyers

Answer: 4

Description:

Hyper-competition is a condition characterized by intense competition that creates instability in the market. In such ascenario, 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.

Question - 7 :

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 |

Answer - 1 : i- C, ii-B, and iii-A

Answer - 2 : i- C, ii-A, and iii-B

Answer - 3 : i- B, ii-C, and iii-B

Answer - 4 : i- B, ii-A, and iii-C

Answer: 2

Description: Three broad approaches to supply chain innovation have evolved in response to customer needs and desires, namely- a. Rapid supply chains that prioritize speed and efficiency. b. Agile supply chains that emphasize a company's ability to respond to changes in demand (volume and variety). c. Lean supply chains that prioritize waste elimination (including time).

Question - 8 :

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.

Answer - 1 : Automation

Answer - 2 : Transformation

Answer - 3 : Extension

Answer - 4 : Revolution

Answer: 2

Description: 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.

Question - 9 :

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

Answer - 1 : i, iv and v

Answer - 2 : i, ii and v

Answer - 3 : ii, iv and v

Answer - 4 : i, iii and iv

Answer: 1

Description: The correct answer is i, iv and v are features of start-ups.

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.

Question - 10 :

Which of following are the components of Disruptive Innovation –

- i. Enabling Technology
- ii. Innovative Business Model
- iii. Sustainability
- iv. Coherent Value Network

Answer - 1 : i, ii, and iii

Answer - 2 : ii, iii and iv

Answer - 3 : i, iii, and iv

Answer - 4 : i, ii, and iv

Answer: 4

Description: 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.

Question - 11 :

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

Answer - 1 : i, ii and iv
Answer - 2 : i, iii and iv
Answer - 3 : ii, iii and v
Answer - 4 : ii, iv and v

Answer: 4

Description:

The correct answer is – (ii), (iv) and (v).

Speed of implementation is measured and operate on complete data. Organization structure is driven based on the functions performed within the organization.

Question - 12 :

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.

Answer - 1 : Scientific hypotheses
Answer - 2 : Innovation
Answer - 3 : Creativity
Answer - 4 : Technical Solution

Answer: 2

Description: 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.

Question - 13 :

A business ecosystem is a _____ of organizations that are involved in the delivery of a specific product or service through both competition and _____.

Answer - 1 : Identical group and Co-operation
Answer - 2 : Identical group and rivalry
Answer - 3 : Network and Co-operation
Answer - 4 : Network and rivalry

Answer: 3

Description: 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.

Question - 14 :

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.

Answer - 1 : Scale Fit

Answer - 2 : Problem-Solution Fit

Answer - 3 : Scope Fit

Answer - 4 : Product-Market Fit

Answer: 3

Description: 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.

Question - 15 :

Differentiate between "transformation" and "disruption" in the business context.

Answer - 1 : Transformation occurs when a challenger offers greater value to customers, while disruption involves realigning technology and business models

Answer - 2 : Transformation involves challenging existing industry players, while disruption requires realignment of technology and business models

Answer - 3 : 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

Answer - 4 : Transformation and disruption are interchangeable terms referring to the same concept in the business context

Answer: 3

Description: 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.

Question - 16 :

Which categories describe changes in a business model due to technological advancements?

Answer - 1 : Automation, Extension, Transformation

Answer - 2 : Replacement, Enhancement, Revamping

Answer - 3 : Substitution, Expansion, Overhaul

Answer - 4 : Mechanization, Augmentation, Revolution

Answer: 1

Description: Correct Answer is Automation, Extension, Transformation.

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.

Question - 17 :

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

Answer - 1 : (i) and (v)

Answer - 2 : (ii) and (iv)

Answer - 3 : (ii) and (v)

Answer - 4 : (iii) and (v)

Answer: 3

Description: The correct answer is (ii) and (v).

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.

Question - 18 :

Which of the following statements best describes the term "business ecosystem"?

Answer - 1 : A business ecosystem is a network of organizations involved in the delivery of a specific product or service, emphasizing competition over cooperation

Answer - 2 : A business ecosystem comprises only suppliers, distributors, and customers, excluding competitors, government agencies, and other entities

Answer - 3 : 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

Answer - 4 : A business ecosystem refers to the isolated evolution of organizations, independent of external interactions and collaborations

Answer: 3

Description: 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.

Question -19 :

Which one of the following statements best describes the term "Transformation" in the context of technological advancements?

Answer - 1 : It involves the mere replacement of humans with technology, focusing on revamping products and services

Answer - 2 : It emphasizes the utilization of technology to extend and enhance tasks or processes, contributing to the overall utility of a product or service

Answer - 3 : 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

Answer - 4 : It refers to the mechanization of tasks through technology, emphasizing the complete revolution of an organizations offerings.

Answer: 3

Description: Correct Answer is transformation. 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.

Question – 20 :

Care Beauty Products Limited planning to launch Deodorant Spray 'Fresh'. It conduct 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 require to identify which of the above stated two findings correctly represent hyper-competition.

Answer - 1 : Both i and ii

Answer - 2 : Only i

Answer - 3 : Only ii

Answer - 4 : None of i and ii

Answer: 3

Description: Hyper competition witness low entry barriers, allowing new players to enter and challenge existing companies; that make competition further stiffer.

Question - 21 :

Lean start-up saves the cost and enhance efficiency because it helps entrepreneurs to navigate extreme uncertainties by testing_____.

Answer - 1 : Scientific hypotheses with a minimal viable product using waterfall development

Answer - 2 : Business plan with a minimal viable product using waterfall development

Answer - 3 : Scientific hypotheses with a minimal viable product using agile engineering

Answer – 4: Business plan with a minimal viable product using agile engineering

Answer: 3

Description: 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).

Question - 22 :

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

Answer - 1 : ii and iii

Answer - 2 : i, ii and iii

Answer - 3 : ii, iii and iv

Answer - 4 : i, ii and iv

Answer: 4

Description: The correct answer is i, ii and iv.

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 occur at a 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.

Question - 23 :

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 –

Answer - 1 : One shot of windfall advantage

Answer - 2 : Continuity of sustainable advantages

Answer - 3 : Perfect mix of short term and long term advantages

Answer - 4 : Series of short term advantages

Answer: 4

Description: 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.

Question - 24 :

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

Answer - 1 : Both i and ii

Answer - 2 : i only

Answer - 3 : ii only

Answer - 4 : None of the i and ii

Answer: 3

Description: Incubator also referred to as start up 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).

Question - 25 :

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

Answer - 1 : i only

Answer - 2 : ii only

Answer - 3 : Both of i and ii

Answer - 4 : None of the I and ii

Answer : 2

Description: 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'.

ICAI Module MCQ's

Test your knowledge- MCQ's

MCQ 1

Disruptive innovations can be classified in following categories:

Options:

- 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

Key – b

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.

MCQ 2

Which of the following category of technological advancement best describe installing passbook update kiosk at bank.

Options:

- a. Automation
- b. Extension
- c. Transformation
- d. Revolution

Key – a

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

MCQ 3

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.

Options:

- a. Automation
- b. Extension
- c. Transformation
- d. Revolution

Key – c

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.

MCQ 4

Identify the option with correct sequence out of given below-

Options:

- a. Design Thinking → Lean Start-up → Six Sigma → Agile
- b. Design Thinking Agile → Lean Start-up → Six Sigma
- c. Design Thinking → Lean Start-up → Agile → Six Sigma
- d. Agile → Lean Start-up → Six Sigma → Design Thinking

Key – c

Reason – Post-ideation phase design-thinking is critical to check/ensure product viability. The journey from design thinking to lean start-up involves the development of minimum viable product (or service), while when MVP is tested to map agile story journey advances to agile and further shift to six-sigma wherein focus shifts from product to process as product become mature.

MCQ 5

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-

Options:

- a. Free
- b. Premium
- c. Subscription
- d. None of these

Key – d

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).

Chapter 6 – STRATEGIC REVENUE MANAGEMENT

BOS Portal MCQ's

Question - 1 :

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?

Answer - 1 : discounts for quantity

Answer - 2 : discounts for price differentiation

Answer - 3 : discounts for trade

Answer - 4 : discounts for distributors

Answer: 4

Description: Discount was approved by O is - discounts for distributors.

Question - 2 :

Which of the following is not true about non-Financial factors?

Answer - 1 : Non-financial factors focus on finer more detailed analysis especially quantitative ones. This offers explanations to certain aspects of financial data too

Answer - 2 : Non-financial factors consider all aspects of organization strategy and are long term in their outlook

Answer - 3 : Non-financial factors can always be standardised and are not subject to ambiguity

Answer - 4 : Non-financial factors encourage managers not to think only about short term financial profitability

Answer: 3

Description: 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.

Question - 3 :

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?

Answer - 1 : \$20.00

Answer - 2 : \$55.00

Answer - 3 : \$50.00

Answer - 4 : \$25.00

Answer: 4

Description: $\$5 \times 550 \div 110 = \25

Question - 4 :

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

Answer - 1 : i and ii

Answer - 2 : ii and iv

Answer - 3 : ii, iii and iv

Answer - 4 : i, ii, iii and iv

Answer: 4

Description: The correct answer is (i), (ii), (iii) and (iv). 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.

Question - 5 :

Power On manufactures batteries that power medical devices like medical imaging systems, defibrillators, ventilators and monitoring devices. Power On has customers who are medical equipment manufacturers who use these while making medical devices and machines. Bataid is the latest model of battery that Power On 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. Power On 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 hours | \$ 2 per hours | \$ 1 per hours |
| Probability of battery falling | 1% | 11% |
| Price of a battery per unit | N.A. | \$ 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.

Answer - 1 : S\$ 20,000

Answer - 2 : S\$ 2,000

Answer - 3 : S\$ 23,000

Answer - 4 : S\$ 22,000

Answer: 2

Description:

The correct answer is S\$2,000 per unit of Bat aid. It is calculated as below –

| Particulars | Amount \$ |
|---|-----------|
| Difference in Operating Cost per battery (higher expense incurred by buyer) Bataid = \$2 per hour Bat 1 = \$1 per hour For 8000 hours = $8000 \times (\$2 - \$1)$ | 8,000 |
| Savings to buyer due to more stable performance of battery Cost of battery falling = \$1,00,000 Difference in probability of battery failure (1% vs 11%) = 10% Lower cost of failure to buyer = $10\% \times \$1,00,000$ | 10,000 |
| Value Differential of using Bataid (Step 2 –Step 1) | 2,000 |

Question – 6

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 –

Answer - 1 : Value pricing

Answer - 2 : Psychological Pricing

Answer - 3 : Going rate pricing

Answer - 4 : Image pricing

Answer: 3

Description: 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.

Question - 7 :

By Prof. CA Manan Pujara

CA Final - AIR 37

Keep Smiling, Be Happy, Stay Motivated, All the Best...!!

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.

Answer - 1 : i and iii

Answer - 2 : ii and iii

Answer - 3 : i, iii and iv

Answer - 4 : i, ii and iii

Answer: 3

Description: i, iii and iv

Question - 8 :

An automobile company is considering the following features in the latest model of car it wants to develop. Classify features to 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 |

Answer - 1 : i- b, ii- d, iii- a, and iv- c

Answer - 2 : i- c, ii- d, iii- a, and iv- b

Answer - 3 : i- b, ii- c, iii- a, and iv- d

Answer - 4 : i- b, ii- a, iii- d, and iv- c

Answer: 1

Description: Air bags are provided for passenger safety in crash collision - Features your product needs to be competitive (Threshold/ Basic attributes). Improve engine design that can improve fuel efficiency - More investment in these features, more satisfaction the customer gets (Performance 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). Change colour of cables used internally in the bonnet -Features that have no effect on customer satisfaction (Indifference qualities).

Question - 9 :

In which of the following scenarios will an organization not outsource its production?

Answer - 1 : When the risk of technological obsolescence of the component does not justify the capital investment it requires

Answer - 2 : When the incremental cost savings and opportunity costs if any are less than the incremental cost due to outsourcing

Answer - 3 : When it costs more to manufacture the component internally

Answer - 4 : When the process of making that component is confidential and patented by another organization.

Answer: 2

Description: 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.

Question - 10 :

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 –

Answer - 1 : 90

Answer - 2 : 110

Answer - 3 : 120

Answer - 4 : 140

Answer: 2

Description: 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 |
| Total | 110 |

Allocated Overhead is not relevant for the decision. The customer should be charged ₹ 110 per unit.

Question - 11 :

A company which has developed a new machine has observed that the time taken to manufacture the first machine is 600hours. Calculate the time which the company will take to manufacture the second machine if the actual learning curve rate is 80%.

Answer - 1 : 480 hours

Answer - 2 : 960 hours

Answer - 3 : 360 hours

Answer - 4 : 540 hours

Answer: 3

Description:

Actual learning curve rate is 80%

Time taken to produce the first machine = 600 hours

Average time taken to produce two machines = $600 \times 80\%$ hours = 480 hours.

Cumulative time taken to produce two machines = 480×2 hours = 960 hours

Time taken to produce the second machine = $(960 - 600)$ hours = 360 hours

Question - 12 :

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 |

Answer - 1 : i- a, ii- b, iii- c, iv- e, v- d

Answer - 2 : i- c, ii- a, iii- b, iv- e, v- d

Answer - 3 : i- c, ii- a, iii- b, iv- d, v- e

Answer - 4 : i- d, ii- a, iii- e, iv- b, v- c

Answer: 2

Description: 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.

Question - 13 :

Which of the following is not a drawback of cost based pricing approach?

Answer - 1 : There is no incentive for managers to operate in a cost efficient way

Answer - 2 : The pricing method does not consider the customers' value perception about the product

Answer - 3 : It ignores the structure of the market in which the firm operates

Answer - 4 : It requires market research to understand competitor's strategy

Answer: 4

Description: 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.

Question - 14 :

Why would a company want to invest in a feature that has to be classified as having an exciting or delight attribute?

Answer - 1 : Such a feature is a must have feature which is taken for granted in the product

Answer - 2 : Such a feature is expected to be present in the product, the more it is available the better the satisfaction

Answer - 3 :

Such a feature is unexpected and spurs the customer to make spot purchases or build customer loyalty for repeat sales

Answer - 4 : Such a feature is an unspoken expectation from the customer

Answer: 3

Description: 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.

Question - 15 :

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?

Answer - 1 : 8 units

Answer - 2 : 2 units

Answer - 3 : 3 units

Answer - 4 : 5 units

Answer: 3

Description:

The correct answer is 3 units.

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.

Question - 16 :

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 | ₹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%) –

Answer - 1 : 16.67

Answer - 2 : 21.25

Answer - 3 : 21.32

Answer - 4 : 23.61

Answer: 4

Description:

Return of 12% Net (after tax of 40%) on Capital Employed is equivalent to 20% (Gross) [12%, $(1 - 0.4)$] on Capital Employed.

Let Selling Price per unit to be 'K'

Since Total Sales = Total Cost + Profit

$80,000K = 14,60,000 + 20\% (12,00,000 + 0.5 \times 80,000K)$

$80,000K = 14,60,000 + 2,40,000 + 8,000K$

$72,000K = 17,00,000$

'K' = ₹23.61

Hence Selling Price per unit will be ₹23.61.

Question - 17 :

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:

Answer - 1 : ₹60,000 per unit

Answer - 2 : ₹65,000 per unit

Answer - 3 : ₹70,000 per unit

By Prof. CA Manan Pujara

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Answer - 4 : ₹75,000 per unit

Answer: 2

Description:

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.

Question - 18 :

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?

Answer - 1 : Order of priority of product features that cater to customer needs and satisfaction as determined by Kano Model are permanent

Answer - 2 : The Kano model can prevent wasted time and resources used to develop non-priority features in a product

Answer - 3 : The Kano model helps to prioritize features that can amplify customer satisfaction

Answer - 4 : Kano model helps to speed up decision making based on researched data

Answer: 1

Description:

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.

Question - 19 :

In which stage of a product life cycle will you use going rate pricing?

Answer - 1 : Introduction

Answer - 2 : Growth

Answer - 3 : Maturity

Answer - 4 : Decline

Answer: 3

Description: 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.

Question - 20 :

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 upon the point of separation per unit | \$80 |
| Processing after separation - | |
| 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?

Answer - 1 : Yes, because each unit of Product C sold contributes \$50 per unit towards recovery of joint cost

Answer - 2 : Yes, because each unit of Product C sold contributes \$70 per unit towards recovery of joint cost

Answer - 3 : No, because each unit of Product C sold yields loss of \$30

Answer - 4 : No, because each unit of Product C sold yields loss of \$10

Answer: 1

Description: 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 |
| Less: Additional variable cost after separation per unit | \$80 |
| Less: Additional fixed cost after separation per unit | \$20 |
| Contribution towards recovery of joint costs per unit | \$50 |

Question -21 :

Categorize the services based on the nature of service involved –

| | |
|--|---|
| i. Fitness Centre | Product / possession processing service |
| ii. Warehousing | Mental stimulus processing service |
| iii. Advertising | People processing service |
| iv. Knowledge Processing Offices (KPO) | Information processing service |

Answer - 1 : i- a, ii- b, iii- c, iv- d

Answer - 2 : i- b, ii- a, iii- c, iv- d

Answer - 3 : i- a, ii- b, iii- d, iv- c

Answer - 4 : i- c, ii- a, iii- b, iv- d

Answer: 4

Description: 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 no risk 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.

Question - 22 :

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?

Answer - 1 : The use of substandard material in construction is not of relevance since it is outside the domain of management accounting

Answer - 2 : 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

Answer - 3 : The information can be ignored because it does not impact the budgets adversely

Answer - 4 : The use of substandard material in construction will not have a long term consequence to the organization

Answer: 2

Description: 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.

Question - 23 :

NZ Mart is a retail chain. Competition is stiff and revolve around the price among the market player in retain 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 –

- Answer - 1 : Loss leader pricing
 Answer - 2 : Price discrimination
 Answer - 3 : Predatory pricing
 Answer - 4 : Penetration Pricing

Answer: 3

Description: 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.

Question –24 :

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.

- Answer - 1 : $P = 350 - 0.5Q$
 Answer - 2 : $Q = 350 - 0.5P$
 Answer - 3 : $P = 350 + 0.5Q$
 Answer - 4 : $Q = 350 - 0.5P$

Answer: 1

Description:

$$P = a - bQ$$

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 $P = 350 - 0.5Q$.

Question – 25 :

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 shutdown?

- 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

Answer - 1 : ii, iii, iv

Answer - 2 : i, ii, iii and iv

Answer - 3 : i, ii, iii and v

Answer - 4 : ii, iii, iv and v

Answer: 1

Description: 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.

Question - 26 :

Power On manufactures batteries that power medical devices like medical imaging systems, defibrillators, ventilators and monitoring devices. Power On has customers who are medical equipment manufacturers who use these while making medical devices and machines. Bataid is the latest model of battery that Power On 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. Power On 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 | ? | 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 Value Differential of using Bataid.

- Answer - 1 : S\$20,000
 Answer - 2 : S\$2,000
 Answer - 3 : S\$23,000
 Answer - 4 : S\$22,000

Answer: 2

Description: 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 = $8,000 \times (S\$2 - S\$1)$ 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 = $10\% \times S\$1,00,000$ 10,000 Value Differential of using Bataid (Step 2 – Step 1) 2,000

Question - 27 :

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 –

- Answer - 1 : Price- 26.00; Quantity- 9,000
 Answer - 2 : Price- 26.50; Quantity- 8,000
 Answer - 3 : Price- 26.50; Quantity- 9,000
 Answer - 4 : Price- 25.50; Quantity- 8,000

Answer: 1

Description:

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.

Question - 28 :

Power On manufactures batteries that power medical devices like medical imaging systems, defibrillators, ventilators and monitoring devices. Power On has customers who are medical equipment manufacturers who use these while making medical devices and machines. Bataid is the latest model of battery that Power On 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. Power On 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 ₹) Power On can charge the medical equipment manufacturer based on the True Economic Value method.

Answer - 1 : 38,000

Answer - 2 : 18,000

Answer - 3 : 23,000

Answer - 4 : 22,000

Answer: 4

Description:

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 × (₹2-₹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% Lower cost of failure to buyer = 10% × ₹1,00,000 | 10,000 |
| 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 Power On, 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.

Question - 29 :

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 (highly toxic) will be needed to complete the AT Industries' special job. XL Polymers purchased the R two weeks ago for ₹7,500 for a job 'A' that recently was completed. The R 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. Current replacement cost of R is ₹6,000.

Special job will require 250 hours of labour G and 100 hours of labour G. XL Polymers pays their G and G employees ₹630 and ₹336 respectively for 42 hours of work per week. XL Polymers anticipates having excess capacity of 150 [G] and 200 [G] labour hours in the coming week. XL Polymers can also hire additional G and G 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 –

Answer - 1 : 250

Answer - 2 : 500

Answer - 3 : 1,500

Answer - 4 : 1,750

Answer: 1

Description:

Opportunity Cost of Labour - The G 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 labour. This amount can be save if the special job were not there.

G 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, 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.

ICAI Module MCQ's

MCQ 1

Match the item of list I with that of list II and suggest correct code-

| List I - Pricing Strategy | List II – Explanations |
|---------------------------|---|
| A. Customary Pricing | 1. Ending price with 99 |
| B. Skimming | 2. Pricing a product based on perceived expectation of customers |
| C. Penetration Pricing | 3. Setting a high price which gradually reduces as competitors enter the market |
| D. Psychological Pricing | 4. Setting a low price for a new product during its initial offering |

Options

- a. A - 4, B - 1, C - 2, D - 3
- b. A - 3, B - 4, C - 1, D - 2
- c. A - 2, B - 3, C - 4, D - 1
- d. A - 1, B - 2, C - 3, D - 4

Key - c

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)

MCQ 2

In a product mix decision, which is most important factor to consider in order to try to maximize profit?

Options

- a. Contribution per unit of a scarce resource used to make the product
- b. Contribution per unit of the product
- c. Profit per unit of a scarce resource used to make the product
- d. Profit per unit of the product

Key – a

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 the 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.

MCQ 3

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–

Options

- a. Value pricing
- b. Going rate pricing
- c. Image pricing
- d. Psychological Pricing

Key – b

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.

MCQ 4

DM Mart is a retail chain. Competition is stiff and revolve around the price among the market player in retail chain segment. DM 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

Options

- a. Loss leader pricing
- b. Predatory pricing
- c. Price discrimination
- d. Penetration Pricing

Key – b

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.

MCQ 5

Café 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)

Options

- a. Reversal
- b. Delighter
- c. Performance
- d. Indifferent

Key – d

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

MCQ 6

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.

Options

- a. Reversal
- b. Delighter
- c. Performance
- d. Indifferent

Key – c

Reason - Most organisations focus on Kano's performance attributes on the basis that the higher the performance attributes, the higher the customer's willingness to pay.

Chapter 7 – STRATEGIC PROFIT MANAGEMENT

BOS Portal MCQ's

Question - 1 :

Which one need to be responded first –

Answer - 1 : Trivial many

Answer - 2 : Vital few

Answer - 3 : Trivial few

Answer - 4 : Vital many

Answer: 2

Description: 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.

Question - 2 :

Which of the following would you excluded while analysing customer account profitability?

Answer - 1 : Sales Revenue

Answer - 2 : Direct product costs

Answer - 3 : Delivery cost specific to the customer

Answer - 4 : Fixed overhead allocation

Answer: 4

Description: 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.

Question - 3 :

Which costing system is often used to calculate customer profitability?

Answer - 1 : Manufacturing cycle efficiency

Answer - 2 : Target costing

Answer - 3 : Activity-based costing

Answer - 4 : Delivery cycle efficiency

Answer: 3

Description: There are several methods, which can be used for this purpose, one commonly used method is activity-based costing.

ICAI Module MCQ's

MCQ 1

Pareto principle based upon the law of –

- a. Diminishing returns
- b. Variable returns
- c. Increasing returns
- d. Stable returns

Key - a

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

MCQ 2

Pareto principle can't be applied to –

- a. Inventory control
- b. Quality control
- c. Customer profitability analysis
- d. None of the above

Key – d

Reason – Pareto analysis can be applied in Inventory Control, Pricing the products, Customer profitability analysis, ABC analysis, and Quality control etc.

MCQ 3

Pareto analysis shall be performed –

- a. Periodically
- b. Continuously
- c. Occasionally
- d. Quarterly

Key – a

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.

Chapter 8 – AN INTRODUCTION TO STRATEGIC PERFORMANCE MANAGEMENT

BOS Portal MCQ's

Question - 1 :

Which of the following is true about CSF?

Answer - 1 : These factors contribute towards reducing costs

Answer - 2 : These factors are fundamental to strategic success

Answer - 3 : These factors need to be only financial factors

Answer - 4 : These factors concentrate on achieving short term goals

Answer: 2

Description: The correct answer is (B) these factors are fundamental to strategic success.

Question - 2 :

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 |

Answer - 1 : i- A, ii-B, iii-C, and iv-D

Answer - 2 : i- C, ii-A, iii-B, and iv-D

Answer - 3 : i- B, ii-A, iii-D, and iv-C

Answer - 4 : i- B, ii-D, iii-A, and iv-C

Answer: 3

Description: 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).

Question - 3 :

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

Answer - 1 : Only i

Answer - 2 : Only ii

Answer - 3 : Both i and ii only

Answer - 4 : Both i and iii only

Answer: 3

Description: 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.

Question - 4 :

Performance measures (CSFs & KPIs thereto) acts as stimuli. Therefore, what get _____, gets_____.

Answer - 1 : Established, Achieved

Answer - 2 : Targeted, Attained

Answer - 3 : Measured, Done

Answer - 4 : Reported, Improved

Answer: 3

Description: 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.

Question - 5 :

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 |

Answer - 1 : i- a, ii- b, iii- c, and iv- d

Answer - 2 : i- c, ii- a, iii- b, and iv- d

Answer - 3 : i- b, ii- a, iii- d, and iv- c

Answer - 4 : i- b, ii- d, iii- a, and iv- c

Answer: 3

Description: 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 Bottom line- framework for sustainable development.

Question - 6 :

Which of the following may involve sacrificing long term objectives?

Answer - 1 : Utilizing internal reserves to fund capital expenditures

Answer - 2 : Increasing quality control measures

Answer- 3 : Compromising on product design in rush to launch a new product in the market

Answer - 4 : Increasing skill development programs for staff

Answer: 3

Description: 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.

Question - 6 :

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

Answer - 1 : i only

Answer - 2 : ii only

Answer - 3 : both i and ii

Answer - 4 : d. None of i and ii

Answer: 2

Description: 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.

Question – 7 :

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

Answer - 1 : i only

Answer - 2 : ii only

Answer - 3 : both i and ii

Answer - 4 : None of i and ii

Answer: 2

Description: 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.

Question - 8 :

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 –

Answer - 1 : 2.0880

Answer - 2 : 2.6428

Answer - 3 : 2.7468

Answer - 4 : 3.1226

Answer: 2

Description: Calculation of Inada Group's Altman z-score: Altman z-score can be computed as $1.2 X_1 + 1.4 X_2 + 3.3 X_3 + 0.6 X_4 + 1.0 X_5$ 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 $(1.2 \times (42,000 / 5,00,000)) + (1.4 \times (47,500 / 5,00,000)) + (3.3 \times (65,000 / 5,00,000)) + (0.6 \times (7,00,000 / 5,00,000)) + (1.0 \times (5,70,000 / 5,00,000)) = 2.6428$ 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.

Question - 9 :

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.

Answer - 1 : Collected and Analysed; Collected and Analysed

Answer - 2 : Collected; Collected and Analysed

Answer - 3 : Collected and Analysed; Collected

Answer - 4 : Collected; Collected

Answer: 2

Description: 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.

Question - 10 :

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
- v. Connected virtually

Answer - 1 : i, ii, iii, and iv

Answer - 2 : ii, iii, iv, and v

Answer - 3 : i, iii, iv, and v

Answer - 4 : i, ii, iv, and v

Answer: 2

Description: 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.

Question - 11 :

Business Integration can be attained thought 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

Answer - 1 : i only

Answer - 2 : i and iii only

Answer - 3 : ii and iii only

Answer - 4 : iii only

Answer: 3

Description: Business integration can overcome the problem of sub-optimisation, because through it processes a reviewed 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.

Question - 12 :

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.

Answer - 1 : Both are correct statements but reason is correct explanation to assertion

Answer - 2 : Both are correct statements and reason is not correct explanation to assertion

Answer - 3 : Only assertion is correct

Answer - 4 : Only reason is correct

Answer: 2

Description: 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.

Question - 13 :

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 eliminate edeventually (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 |

Answer - 1 : i- A, ii-B, iii-C, and iv-D

Answer - 2 : i- C, ii-A, iii-B, and iv-D

Answer - 3 : i- B, ii-A, iii-D, and iv-C

Answer - 4 : i- B, ii-D, iii-A, and iv-C

Answer: 4

Description: Classification of activities is helpful in devising appropriate strategy. Consider following points to decide course of action after classification. ----Necessary (essential) activity - cannot be improved upon at this time - None ----Necessary (essential) activity - can be

changed to improve the process - Modify the process to improve value ----Unnecessary (non-essential) activity - can be eliminated eventually (but not now) by changing the process – Eventually eliminate the unnecessary activity ----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.

Question - 14 :

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.

Answer - 1 : i only

Answer - 2 : ii only

Answer - 3 : both i and iii

Answer - 4 : None of i, ii and iii

Answer: 4

Description: 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 al so 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 maybe 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.

ICAI Module MCQ's

MCQ 1

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?

Options

- a. Strategy
- b. Structure
- c. System
- d. Style

Key – d

Reason – There are three hard S, Namely Strategy, Structure and System

MCQ 2

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

Options

- a. Finances
- b. Logistics
- c. Technology
- d. Knowledge

Key – c

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.

MCQ 3

'A' Motors directed 'A' Steels to deliver a specific metal material for its upcoming e-vehicle considering the design. Engineers from Production and Operation division of 'A' Motors visited to 'A' Steel to explain the needs after deliberation decided some of process need to be performed in such metal while in process at 'A' Steel's plant only (even prior to bring to 'A' Motors' Plant). One of engineer from 'A' Motors placed at 'A' Steel till such metal prepared and deliver to keep check at specifications. Above facts highlights the concept of –

Options

- a. Value Chain
- b. Value System
- c. Value Specification
- d. Value Set

Key – b

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 firm's value chain is connected to what, Porter calls a value system.

MCQ 4

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 DJK Co?

Options

- a. Shared values
- b. Strategy
- c. Structure
- d. Systems

Key – c

Reason - The Jim-jam in past used to have centralized structure but sudden change in structure from centralized to decentralized make it difficult for staff to mend their ways. Nothing regarding Shared Values, Strategy and System is specified in facts of case.

MCQ 5

Which of following is not a limitation of complex business structure in measuring and evaluating performance?

Options

- a. Lack of information
- b. Disagreement on objectives
- c. Legal aspects
- d. Cultural conflicts

Key – c

Reason – The generic issues in complex business structure are -

- Establishing objective in is never easy, because the parties involved in complex business structures may have different values, vision, risk appetites and timescales.
- Approaches and attitude of parties towards factors that are critical for performance such as quality, control and risk, etc. may be different.
- Since different sets of resources, skills and knowledge contributed by parties, assigning accountability for performance is a key issue.
- Lack of trust is a critical aspect, because for performance measurement and evaluation

detailed information is required, whereas parties of complex business structures may be hesitant to share information freely if they lack trust in each other.

- Cultural conflicts may result in poor performance

MCQ 6

Which among the following is not a category of control mechanism that can be used as part of management control system.

Options

- a. Behavioural Control
- b. Reporting Control
- c. Physical Control
- d. Cultural Control

Key – 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 are Behavioural control, Personnel and cultural control, and Reporting control.

MCQ 7

Based upon the Z score the companies are classified into different zone of discriminations, which of following is not a Zone of discrimination?

Options

- a. Distress
- b. Grey
- c. Safe
- d. Warning

Key – d

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.

MCQ 8

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.

Options

- a. Distress
- b. Grey

- c. Safe
- d. Warning

Key – b Reason – The classification criteria (into zones of discrimination) applicable to non-manufacturing entities, as per Z-score are-

| 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 - 2.6 | Grey | Companies with scores 1.1 to 2.6 need further investigation. |
| 2.6 above | Safe | Companies with a score of 2.6 above are financially sound. |

Mind-it, Skyway Airline Limited (SAL) is an international carrier, a non-manufacturing entity.

MCQ 9

Which of following statements are incorrect in regard to Argenti's A score model.

1. Mistakes and defects not inter-related.
2. Threshold is Kept at score of 45.
3. There are three underlying groups (dimensions) i.e., Mistakes, Defects and Symptoms of failure.

Options

- a. Only 1
- b. Only 1
- c. Both 1 and 2 only
- d. Both 1 and 3 only

Key – c

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.

MCQ 10

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 |
|------|---------|---------|---------------------|
| 1 | 10 | 0 | 4 |
| 2 | 2 | 15 | 0 |
| 3 | 10 | 15 | 0 |
| 4 | 15 | 0 | 0 |
| 5 | 0 | 30 | 0 |

Options

- a. Only firm 1, 2, 3, and 4
- b. Only firm 1 and 4
- c. Only firm 2 and 3
- d. Only firm 2, 3, 4, and 5

Key – c

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 firm Symptoms of trouble score is 4, while in case 4th firm Defects score is more than 10 whereas in case of 5th firm Mistake scores are 30, which more than acceptable limit of 15, hence Firm 1, 4 and 5 are at risk. On contrary firm 2 and 3 are healthy.

MCQ 11

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?

Options

- a. I
- b. I and II
- c. II and III
- d. I, II, III and IV

Key – d

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.

Case-Lets Based MCQ

Nova Automobile Limited (NAL) is a bike manufacturer that specializes in environmentally friendly 'hybrid' bikes. Its bikes are powered by both electric batteries and CNG. Despite being in its initial years, NAL has already earned a good reputation for the quality and dependability of its bikes. NAL has made significant investments in the development of hybrid engines and is now looking to expand its market reach to nearby countries. The majority of shares in NAL

are held by two venture capital firms that are supporting the company's growth plans
.....**continue**.....

MCQ 1 –

Which of the following option allow the Nova to expand its market reach without sparing any of its resources, rather it will be generating cash inflows –

Options

- a. Joint venture
- b. Strategic Alliance
- c. Setting-up plant in those countries
- d. Licensing

Key – d

Reason – Licensing involves obtaining permission from an entity (licensor) to manufacture and sell one or more of its products (or even rendering services on behalf of said licensor) within a defined market area for a set period in return for a royalty.

Hence if Nova decides to be licensor of their hybrid-bikes by allowing other automobile manufacturers to manufacture and sell its bikes, may expand its market reach without sparing any of its resources. Instead, they will get royalty payment (undoubtedly there will no control on quality directly and technology is also transferred to licensees).

MCQ 2 –

Since brand is big resource to attain and sustain competitive advantage, hence Nova don't want to compromise with quality that may harm the reput which it earns; therefore, intended to keep control over quality through active participation while preserving its independence in addition to least possible resource application, then which form is best for Nova.

Options

- a. Joint venture
- b. Strategic Alliance
- c. Setting-up plant in other countries
- d. Licensing

Key – b

Reason - A strategic alliance is an arrangement between two or more enterprises to undertake a mutually beneficial project while each retains its independence.

A Strategic Alliance agreement is less complex and less binding than a joint venture. In joint venture two businesses pool resources to create a separate business entity, whereas in case strategic alliance they retain their independence. So, NAL through strategic alliance can control the quality while.

On the other hand, setting up plants in other countries would require huge capital outlay, whereas licensing lead not control of NAL over quality.

Note - Since independence is retained under the Strategic Alliance, hence it become difficult to put common performance measures in place and to collect and analyse management information for same because security of confidential information is a concern.

.... **continue**..... NAL's board of directors is considering a joint venture with Country B's Anumaj Automobiles Limited (AAL), because Country B, which is a neighbouring country has

a rapidly growing market for environmentally friendly bikes. Though AAL does not currently produce hybrid vehicles, but it does have excess capacity in its factory.

AAL is also interested in proposal because their sale during proceeding three years has been declining due to the safety issued in their bikes. Even couple of blast issues report in their bike in recent past, engine caught fire in both the cases; resultantly petrol tank bust results in blast.

MCQ 3 –

Managing performance of Joint-venture is difficult due to which of the following limitations.

- I. Difference in Culture and management styles in both the companies (JV partners)
- II. Difference in financial reporting framework in both the countries
- III. Difference in attitude towards risk and quality in both the companies (JV partners)

Options

- a. I and II only
- b. I and III only
- c. II and III only
- d. All I, II and III

Key – b

Reason – Limitations that become root cause of problems in measuring and managing the performance of JV.

- Establishing objective in is never easy, because the parties involved in complex business structures may have different values, vision, risk appetites and timescales. This shortcoming highlights the inevitable need of goal congruence.
- The approaches and attitude of parties towards factors that are critical for performance such as quality, control and risk, etc. may be different, hence a common minimum program needs to be devised.
- Since different sets of resources, skills and knowledge contributed by parties, hence assigning accountability for performance is key issue. Accountability shall be clearly established and communicated at the outset.
- Lack of trust is a critical aspect, because for performance measurement and evaluation detailed information is required, whereas parties of complex business structures may be hesitant to share information freely if they lack trust in each other. Control and reporting framework shall be mutually decided and climate of trust shall be foster by opting compatible management style.
- Cultural conflicts may result in poor performance, hence shared values shall be redefined so that they may be more liberal and serve the purpose.

MCQ 4 –

Which of the following primary activity shall be substantial source of enlarged value for proposed JV of Nova and AAL.

Options

- a. Inbound logistics

- b. Outbound logistics
- c. Marketing and sales
- d. After sale services

Key – c

Reason – Country B has a rapidly growing market for environmentally friendly bikes, hence managing marketing mix to drive higher margin (through high perceived value) will be easy for JV of PAL and AAL; therefore, marketing and sales activities shall be substantial source of enlarged value.

Descriptive Question

How can information technology breakthrough help Nova and AAL to overcome the limitation of complex business structure in managing performance of JV they are going to form?

Answer –

Joint Venture is considered to be complex business structure; it faces a variety of issues in measuring and managing performance. Information Technology breakthroughs can be game-changer for such complex business structure though ensuring accurate, reliable and timely information.

All the JV parties must agree to use one uniform system for information exchange pertaining to shared interest. If such information system is separate from their core individual information system, then plug-in between common system and respective information systems of JV partner shall be used for real-time information sharing to ensure seamless flow of information.

Having one common system used by all partners' means that everyone is using the same data. This will also result in less difficulty collecting information about the performance of partners since the information will all be stored on one system.

Chapter 9 - STRATEGIC PERFORMANCE MEASURES IN PRIVATE SECTORS

BOS Portal MCQ's

Question - 1 :

Which of the following is NOT a key dimension of the balanced scorecard model?

Answer - 1 : Financial

Answer - 2 : Customer

Answer - 3 : Internal processes

Answer - 4 : Rewards

Answer: 4

Description: Rewards is not a key dimension of the balanced scorecard model.

Question - 2 :

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

Answer - 1 : i and iii

Answer - 2 : i and ii

Answer - 3 : ii and iii

Answer - 4 : i, ii, and iii

Answer: 2

Description: Statement (iii) is incorrect because only 2 stakeholders, shareholders and customers are focussed upon.

Question - 3 :

How can EVA of a company be improved?

Answer - 1 : Operating profits can be improved without investing more capital

Answer - 2 : Choose projects where additional infusion of capital gives a return that is less than the cost of obtaining this additional capital

Answer - 3 : Discontinue projects where the return on investments yields more than the cost of capital

Answer - 4 : Change the cost of capital to reflect EVA that is favourable

Answer: 1

Description: 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.

Question - 4 :

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 |

Answer - 1 : i- (a), ii-(b), and iii-(c)

Answer - 2 : i- (c), ii-(a), and iii-(b)

Answer - 3 : i- (b), ii-(a), and iii-(c)

Answer - 4 : i- (b), ii-(c), and iii-(a)

Answer: 3

Description: Standards- Defines the characteristics of the performance measures, Dimensions- Goals of the business, Rewards- Schemes that should motivate employees to achieve the standards.

Question - 5 :

A company wishes to collect 95% of its accounts receivables within 60 days of sale. This is an example of:

Answer - 1 : A Mission

Answer - 2 : A Critical Success Factor

Answer - 3 : A Key Performance Indicator

Answer - 4 : A Vision

Answer: 3

Description:

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.

Question - 6 :

In which of the four perspectives of a balanced scorecard is the objective 'reduce staff turnover' mostly likely to be?

Answer - 1 : Financial

Answer - 2 : Customer

Answer - 3 : Internal processes

Answer - 4 : Learning and growth

Answer: 4

Description: Reduce staff turnover is likely to be most relevant to the Internal Processes perspective.

Question - 7 :

Which of the following is a benefit of using Triple Bottom Line (TBL) reporting?

Answer - 1 : Reporting can result in cost saving by identifying areas where wastage can be reduced

Answer - 2 : Reporting is based on objective cash flows, rather than subjective accounting profits

Answer - 3 : Reporting aims at maximizing shareholder wealth

Answer - 4 : Identification and measurement of targets and actuals is well defined and easily tracked

Answer: 1

Description: 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.

Question - 8 :

Which of the following is false regarding the Rewards used in the Building Block model?

Answer - 1 : Reward schemes should be linked to performance, achievement of standards

Answer - 2 : Employees should have clarity of the targets to achieve and corresponding reward system

Answer - 3 : Employees should be made responsible for all the outcomes of revenue and cost, whether controllable or not

Answer - 4 : Covers a range of financial and non-financial rewards and benefits

Answer: 3

Description: 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.

Question - 9 :

Which of the following is not indicative of measure for “innovation and learning” in the Balanced Scorecard?

Answer - 1 : Ideas generated from employee participation

Answer - 2 : Sale of new products in proportion to total sales

Answer - 3 : Number of patents

Answer - 4 : Sales refunds for products returned

Answer: 4

Description: 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.

Question - 10 :

Which of the following statements is false?

Answer - 1 : Residual Income is subject to the scale of operations while Return on Investment is not subject to scale of operations

Answer - 2 : 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)

Answer - 3 : Residual Income is an absolute measure while Return on Investment is a relative measure

Answer - 4 : Residual Income is adjusted for price level changes while Return on Investment is measured at current price levels

Answer: 4

Description: 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.

Question - 11 :

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 |

Answer - 1 : i- a, ii- b, iii- c, and iv- d

Answer - 2 : i- c, ii- a, iii- b, and iv- d

Answer - 3 : i- c, ii- a, iii- d, and iv- b

Answer - 4 : i- b, ii- d, iii- a, and iv- c

Answer: 3

Description:

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.

Question - 12 :

In which of the four perspectives of a balanced scorecard would ROI be likely to appear?

Answer - 1 : Financial

Answer - 2 : Customer

Answer - 3 : Internal processes

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Answer - 4 : Learning and growth

Answer: 1

Description: ROI relates to Financial Perspective.

Question - 13 :

In a highly competitive airline industry, the top management of Go fly 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) |

Answer - 1 : i- c, ii- d, iii- a and iv- b

Answer - 2 : i- b, ii- d, iii- c and iv- a

Answer - 3 : i- d, ii- c, iii- a and iv- b

Answer - 4 : i- b, ii- c, iii- a and iv- d

Answer: 1

Description:

Ensure on-time arrival and on-time departure to within 15 minutes of scheduled time will determine how the customer perceives Go fly 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 Go Fly 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 Go Fly’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 Go Fly would be interested in.

Question - 14 :

Which of the following is not a measure of Competitiveness?

Answer - 1 : Promptness in responding to customer requests

Answer - 2 : Growth in sales

Answer - 3 : Capturing market share

Answer - 4 : Customer retention rate

Answer: 1

Description: 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. in sales, market share and customer retention rate all reflect the company's performance with respect to its competitors.

Question - 15 :

Which of the following is a key step in how you develop a balanced scorecard?

Answer - 1 : Identify industry growth

Answer - 2 : Establish the four categories of perspectives

Answer - 3 : Identify the strategic capabilities and resources

Answer - 4 : Link the vision and objectives to individual performance

Answer: 4

Description: Link the vision and objectives to individual performance is a key step in developing a balanced scorecard.

Question - 16 :

How is Performance Pyramid superior to Balanced Scorecard?

Answer - 1 : Performance Pyramid combines financial and non-financial measures

Answer - 2 : Performance Pyramid considers internal as well as external issues

Answer - 3 : Performance Pyramid focuses on customers and shareholders only

Answer - 4 : Performance Pyramid due to its hierarchical approach forces senior managers to set objectives along with performance indicators for each level of the organization

Answer: 4

Description: 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.

Question - 17 :

Tax aid 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 Tax aid 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. Tax aid 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, Tax aid 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. Tax aid 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.

Answer - 1 : i and ii

Answer - 2 : ii and iv

Answer - 3 : i, ii and iv

Answer - 4 : i, ii and iii

Answer: 3

Description:

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.

Question - 18 :

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?

- i. Manager of Division A rejects the project proposal because current divisional ROI of 25% is higher than the 20% ROI from the project.
- ii. 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.
- iii. 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.
- iv. Manager of Division B accepts the project proposal because the current divisional ROI of 15% is lower than the 16% ROI from the project.

Answer - 1 : i and iv

Answer - 2 : ii and iii

Answer - 3 : i and iii

Answer - 4 : ii and iv

Answer: 1

Description: 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.

Question - 19 :

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?

Answer - 1 : Ability to handle ad hoc surge in parcels

Answer - 2 : Cost of delivery per consignment

Answer - 3 : Number of customer complaints

Answer - 4 : Client feedback review

Answer: 2

Description: 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.

ICAI Module MCQ's

MCQ 1

ROI is _____ measures and leads to _____

Options

- a. Relative, optimisation
- b. Relative, sub-optimisation
- c. Absolute, optimisation
- d. Absolute, sub-optimisation

Key – b

Reason – ROI is a relative measure; it discourages investment because this can decrease ROI in the short term, hence leads to sub-optimisation.

MCQ 2

RI is _____ measures, hence best applicable to compare performance of division of _____ size.

Options

- a. Relative, Same
- b. Relative, Different
- c. Absolute, Same
- d. Absolute, Different

Key – c

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.

MCQ 3

The number of inpatient hospital deaths decreased 8%, from 776 in 2021 to 715 in 2022.

Options

- a. Economic (Profit)
- b. Social (People)
- c. Environmental (Planet)
- d. Need not to be reported

Key – b

Reason – Social bottom line, since hospital mortality rate measures the clinical quality.

MCQ 4

Key Performance Indicator is the _____ of Critical Success Factor

- a. Target Measure
- b. Source
- c. Extension
- d. Substitute

Key – a

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.

MCQ 5

Critical Success Factors are true _____ of Competitive Advantage

- a. Target Measure
- b. Source
- c. Extension
- d. Substitute

Key – b

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.

Chapter 10 - STRATEGIC PERFORMANCE MEASURES IN NOT-FOR-PROFIT ORGANISATIONS

BOS Portal MCQ's

Question - 1 :

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 |

Answer - 1 : i- b, ii- a, iii- c

Answer - 2 : i- c, ii- b, iii- a

Answer - 3 : i- a, ii- b, iii- c

Answer - 4 : i- a, ii- c, iii- b

Answer: 2

Description:

Effectiveness - An output approach, the goal approach; Efficiency - Link between input and output, the process approach; Economy - An input measure, the resource approach.

Question - 2 :

Which of the following measures has ABC Healthcare implemented to ensure 'economy'?

Answer - 1 : Established a team of highly qualified medical professionals

Answer - 2 : Negotiated discounted rates with suppliers for medical equipment and supplies

Answer - 3 : Conducted community outreach programs

Answer - 4 : Implemented a code of conduct for employees

Answer: 2

Description: 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.

Question - 3 :

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?

Answer - 1 : Efficacy

Answer - 2 : Efficiency

Answer - 3 : Economy

Answer - 4 : Effectiveness

Answer: 3

Description: Economy best assigns the goal of "cutting expenditure by 5%" to the value for money performance category.

Question - 4 :

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?

Answer - 1 : 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

Answer - 2 : Performance measures can be both financial and non-financial in nature

Answer - 3 : It is easy to measure the cost and benefit of activities of not for profit organizations

Answer - 4 : At times external factors beyond the control of the organization can affect its performance

Answer: 3

Description: 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.

Question - 5 :

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 | Economy |
| ii. Ability of the teachers to communicate with the students about the courses and resolve their doubts | Efficiency |
| iii. Cost of the stall, brochures and other material | Effectiveness |

Answer - 1 : i- b, ii- a, iii- c

Answer - 2 : i- a, ii- b, iii- c

Answer - 3 : i- c, ii- b, iii- a

Answer - 4 : i- a, ii- c, iii- b

Answer: 3

Description: 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.

Question - 6 :

Which of the following is not a characteristic of Not for Profit Organization?

Answer - 1 : Their principal operation is for charitable, welfare, social, environmental and mutual co-operation

Answer - 2 : Sources of funds are from contributions from members or external contributions

Answer - 3 : Wealth creation for shareholders is not the objective of the Not for Profit Organization

Answer - 4 : Surplus do not form part of corpus

Answer: 4

Description:

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.

ICAI Module MCQ's

Case let Based MCQ's

ABC Healthcare is a non-profit organization that provides medical services to the underprivileged population of a developing country. The organization was established 10 years ago and has been successful in providing quality healthcare services to thousands of people who cannot afford private healthcare. ABC Healthcare places great importance on value for money, which is reflected in the efficient use of resources and effective delivery of healthcare services. The organization implemented several measures to ensure that it is providing value for money, including:

- ABC Healthcare implemented a cost-effective model for healthcare delivery, which allowed it to keep the costs of medical services low. In addition, ABC negotiated discounted rates with the suppliers for medical equipment and supplies, enabling it to reduce its operating costs.
- ABC Healthcare created a streamlined healthcare delivery process to reduce wait time and ensure that patients receive prompt and efficient medical attention. Further, ABC introduced a digital medical records system to reduce paperwork & administrative cost.
- ABC Healthcare appointed a team of highly qualified and experienced medical professionals, ensuring that patients receive quality medical care. Further, ABC was also engaged in various preventive healthcare programs to reduce the incidence of diseases. Recently, ABC has entered into various agreements with several international organizations, enabling it to provide specialized medical services to patients with complex medical conditions.
- ABC Healthcare provided scholarships to 100 medical students in the past year, ensuring that there is a pipeline of highly qualified medical professionals to serve the population in the future. In the same year, ABC Healthcare served more than 50,000 patients.
- ABC Healthcare operates with the highest ethical standards, ensuring that patient privacy

is protected and that medical procedures are conducted in a safe and responsible manner. For this, ABC Healthcare established a code of conduct for all employees, ensuring that they uphold ethical principles in all aspects of their work.

- ABC Healthcare provides medical services to all patients, regardless of their ability to pay, ensuring that everyone has access to quality healthcare services. In last year, ABC conducted several community outreach programs, to provide medical services to underserved populations in rural areas.

Required

MCQ 1

What is an example of an “efficiency” measure in ABC Healthcare?

Options

- a. Streamlining healthcare delivery processes
- b. Hiring highly qualified medical professionals
- c. Establishing partnerships with international organizations
- d. Providing medical services to all patients, regardless of ability to pay

Key – a

Reason – Streamlining healthcare delivery processes relates to ‘efficiency’ measure. It relates to high productivity.

MCQ 2

What is an example of an ‘economy and efficiency’ measure in ABC Healthcare?

Options

- a. Specializing in complex medical conditions
- b. Hiring highly qualified medical professionals
- c. Implementing a digital medical records system
- d. Providing medical services to all patients, regardless of ability to pay

Key – c

Reason – Implementing the digital medical records system will not only reduce paperwork (i.e., increase in efficiency), but also administrative costs (i.e., bring economy).

MCQ 3

Which of the following is NOT related to ‘effectiveness’ measure in ABC Healthcare?

Options

- a. Programs to reduce the incidence of diseases
- b. Specializing in complex medical conditions
- c. Hiring highly qualified medical professionals
- d. Streamlining healthcare delivery processes

Key – d

Reason – Streamlining healthcare delivery processes relates to ‘efficiency’ measure. It relates to high productivity. All others relate to the valued outcomes

MCQ 4

Which of the following measures has ABC Healthcare implemented to ensure ‘economy’?

Options

- 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

Key – b

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.

MCQ 5

How has ABC Healthcare established ‘ethics’ in its operations?

- a. By providing medical services to underserved populations in rural areas
- b. By implementing community outreach programs
- c. By establishing a code of conduct for all employees
- d. By implementing preventive healthcare programs

Key – c

Reason – ABC Healthcare established a code of conduct for all employees, ensuring that they uphold ethical principles in all aspects of their work.

Chapter 11 – PREPARATION OF PERFORMANCE REPORTS

BOS Portal MCQ's / ICAI Module MCQ's

MCQ 1

Which one of the following statements about internal performance reporting is true?

Options

- 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.

Key – b

Reason - Internal performance reports can take any form that management chooses considering the need of organisation, as these are voluntary reports not statutory required.

MCQ 2 –

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).

Options

- a. i, ii, and iii
- b. ii, iii and iv
- c. iii, iv and i
- d. iv, i, and ii

Key – b

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.

Chapter 12 - DIVISIONAL TRANSFER PRICING

BOS Portal MCQ's

Question - 1 :

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?

Answer - 1 : 10 per unit

Answer - 2 : 15 per unit

Answer - 3 : 20 per unit

Answer - 4 : Between 15 per unit and 20 per unit

Answer: 1

Description: 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.

Question - 2 :

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?

Answer - 1 : ₹2,500 per unit

Answer - 2 : ₹1,500 per unit

Answer - 3 : ₹1,400 per unit

Answer - 4 : ₹2,400 per unit

Answer: 4

Description: 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.

Question - 3 :

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

Answer - 1 : i and iv only

Answer - 2 : ii and iii only

Answer - 3 : iii and iv only

Answer - 4 : i, ii, and iv

Answer: 4

Description: 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.

Question - 4 :

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 10,000kgs 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?

- Answer - 1 : less than 270 per kg
 Answer - 2 : more than 270 per kg
 Answer - 3 : less than 300 per kg
 Answer - 4 : more than 300 per kg

Answer: 1

Description: 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.

Question - 5 :

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.

- Answer - 1 : \$12 per unit to \$14 per unit
 Answer - 2 : \$15 per unit to \$20 per unit
 Answer - 3 : \$10 per unit to \$15 per unit
 Answer - 4 : \$10 per unit to \$12 per unit

Answer: 1

Description: 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.

Question - 6 :

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?

Answer - 1 : Marginal cost of Division A per unit

Answer - 2 : Net marginal revenue per unit

Answer - 3 : External buy-in price per unit

Answer - 4 : Lower of net marginal revenue per unit and the external buy in price per unit

Answer: 4

Description: 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 external buy in price per unit.

Question - 7 :

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 10,000kgs 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 ?

Answer - 1 : 225 per kg

Answer - 2 : 300 per kg

Answer - 3 : 265 per kg

Answer - 4 : 270 per kg

Answer: 2

Description:

The correct answer is ₹300 per kg. Since Pulp division operating at full capacity and is in a position to see 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

Question - 8 :

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

Answer - 1 : i and ii only

Answer - 2 : i, ii and iv

Answer - 3 : i, ii and iii

Answer - 4 : All of i, ii, iii, and iv

Answer: 4

Description: 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.

Question - 9 :

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?

Answer - 1 : ₹5,000 per unit

Answer - 2 : ₹3,000 per unit

Answer - 3 : ₹2,800 per unit

Answer - 4 : ₹4,800 per unit

Answer: 4

Description: 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.

Question - 10 :

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 10,000kgs 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?

Answer - 1 : 225 per kg

Answer - 2 : 300 per kg

Answer - 3 : 265 per kg

Answer - 4 : 270 per kg

Answer: 1

Description:

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.

Question - 11 :

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?

Answer - 1 : Division A has 3,000 hours surplus capacity, the transfer price range will be from \$24 per unit to \$45 per unit.

Answer - 2 : Division A has 3,000 hours deficit in capacity, the transfer price range will be from \$24 per unit to \$45 per unit.

Answer - 3 : Transfer price charged by Division A to Division B can be more than \$45 per unit.

Answer - 4 : Transfer price charged by Division A to Division B can be less than \$24 per unit.

Answer: 1

Description: 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.

Question - 12 :

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?

Answer - 1 : 10 per unit

Answer - 2 : 15 per unit

Answer - 3 : 20 per unit

Answer - 4 : Between 15 per unit and 20 per unit

Answer: 2

Description:

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.

Question - 13 :

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?

Answer - 1 : 15 per unit

Answer - 2 : 14 per unit

Answer - 3 : 10 per unit

Answer - 4 : 20 per unit

Answer: 2

Description: 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 \$14per unit to remain competitive with the market.

Question - 14 :

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 manufacturers paper cartons. This company will be treated as a division of Centurion with full profit responsibility. The newly formed Carton Division is currently purchasing 10,000kgs 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?

Answer - 1 : 225 per kg

Answer - 2 : 300 per kg

Answer - 3 : 265 per kg

Answer - 4 : 270 per kg

Answer: 4

Description: 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.

Question - 15 :

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?

Answer - 1 : 15 per unit

Answer - 2 : 10 per unit

Answer - 3 : 20 per unit

Answer - 4 : 18 per unit

Answer: 1

Description: 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.

Question - 16 :

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 10,000kgs 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 ₹

Answer - 1 : Yes, transfer price range will be from 260 per kg to 300 per kg

Answer - 2 : No, Pulp Division cannot recover its full cost of 265 per kg and hence will not be ready to sell

Answer - 3 : Yes, transfer price range will be from 225 per kg to 260 per kg

Answer: 3

Description: 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.

ICAI Module MCQ's

Case let Based MCQ's - Case-let on International Transfer Pricing

Quick link manufactures mobile phones at its plant in Karnataka, India. The company also has marketing divisions worldwide, one of which is in Paris, France. The division in France imports 50,000 mobile phones annually from the manufacturing plant in India. Given below is some information about the divisions in India and France:

| | |
|---|------------------|
| Number of mobile phones sold by Indian division to French division | 50,000 units |
| Indian income tax rate on the Indian division's operating income | 35% |
| French income tax rate on the French division's operating income | 40% |
| Import duty rate paid by French division | 15% |
| Full manufacturing cost per unit | ₹12,000 per unit |
| Selling price (net of marketing and distribution costs) in France (in equivalent Indian Rupees) | ₹18,000 per unit |
| Comparable market price based on similar imports in France (in equivalent Indian Rupees) | ₹15,000 per unit |

The Indian and French tax authorities allow for transfer prices only that between full manufacturing cost ₹12,000 per unit and comparable market price ₹15,000 per unit based on similar imports of mobile phones in France. Import duty paid by the French division is based on the price at which the phones are transferred i.e., the transfer price. Import duty paid is a deductible expense for calculating income tax in France.

Requirements

MCQ 1

Calculate the after-tax operating income of the Indian division when the transfer price is set at full manufacturing cost.

Options

- a. ₹60 crores
- b. ₹9.75 crores
- c. Nil (no taxable income)
- d. ₹12.60 crores

Key – c

Reason – Refer working– Step A5 of Method A. Option (a) ₹60 crore is the revenue of the Indian division under full manufacturing cost method. Option (b) ₹9.75 crore is the profit as per Method B Option (d) ₹12.60 crores is the overall profit of Quick link as per Method A.

MCQ 2

Calculate the after-tax operating income of the French division when the transfer price is set at full manufacturing cost.

Options

- a. ₹9 crores
- b. ₹21 crores
- c. Nil (no taxable income)
- d. ₹12.60 crores

Key – d

Reason – Refer working – Step B7 of Method A. Option (a) ₹9 crore is the import duty paid by the French division under Method A. Option (b) ₹21 crores is the operating profit before taxes of the French Division under Method A. Option (c) is the after tax Operating profit of the Indian division under Method A.

MCQ 3

Calculate the after-tax operating income of the Indian division when the transfer price is set at market price of comparable imports in France.

Options

- a. ₹15 crores
- b. ₹9.75 crores
- c. ₹ Nil (no taxable income)
- d. ₹2.25 crores

Key – b

Reason – Refer working– Step A5 of Method B. Option (a) ₹15 crores is the operating profit of the Indian division before taxes under Method B. Option (c) Nil is the operating profit of the Indian division under Method A. Option (d) ₹2.25 crore is the operating profit after tax of the French division under Method B.

MCQ 4

Calculate the after-tax operating income of the French division when the transfer price is set at market price of comparable imports in France.

Options

- a. ₹9.75 crores
- b. ₹3.75 crores
- c. ₹ 11.25 crores
- d. ₹2.25 crores

Key – d

Reason – Refer working– Step B7 of Method B. Option (a) ₹9.75 crores is the operating income after tax of the Indian division under Method B. Option (b) ₹3.75 crores is the operating income before tax of the French division under Method B. Option (c) ₹11.25 crores paid by the French division under Method B.

MCQ 5

Which method of transfer pricing is more beneficial for the company as a whole?

Options

- a. Transfer price at full manufacturing cost.
- b. Transfer price at market price of comparable imports in France.

Key – a

Reason – Refer to Step C of working. When transfer price is charged as per Method A at the full manufacturing cost, the operating income (after taxes) is ₹12.60 crores. When the transfer price is charged as per Method B at the market price of comparative imports in France, the operating income (after taxes) is 12 crores. Hence, it is more beneficial for Quciklink to set the transfer price at full manufacturing cost of ₹12,000 per unit (Method A).

MCQ 6

Assume that the Indian division is charging the French division full manufacturing cost of ₹12,000 per unit. If the manager of the Indian division wants to increase the transfer price to ₹12,001 per unit, that is transfer price is proposed to be increased by ₹1, what will be the impact on the income tax to be paid by the Indian division in India?

Options

- a. Increase in income tax payable in India by ₹0.35 per ₹1 increase in transfer price.
- b. Decrease in income tax payable in India by ₹0.35 per ₹1 increase in transfer price.
- c. No impact in income tax payable in India.

Key – a

Reason – Increase in income tax payable in India by ₹0.35 per ₹1 increase in transfer price. Refer to Step 1 in the explanation table.

MCQ 7

Assume that the Indian division is charging the French division full manufacturing cost of ₹12,000 per unit. If the manager of the Indian division wants to increase the transfer price to

₹12,001 per unit, that is transfer price is increased by ₹1, what will be the impact on the income tax and import duty to be paid by the French division in France?

Options

- Increase in income tax payable in France by ₹0.46 and increase in import duty payable in France by ₹0.15 per ₹1 increase in transfer price.
- Decrease in income tax payable in France by ₹0.46 and increase in import duty payable in France by ₹0.15 per ₹1 increase in transfer price.
- Increase in income tax payable in France by ₹0.46 and decrease in import duty payable in France by ₹0.15 per ₹1 increase in transfer price.
- Decrease in income tax payable in France by ₹0.46 and decrease in import duty payable in France by ₹0.15 per ₹1 increase in transfer price.

Key – b

Reason – Decrease in income tax payable in France by ₹0.46 and increase in import duty payable in France by ₹0.15 per ₹1 increase in transfer price. Refer to Step 2 and 3 in the explanation table.

MCQ 8

Assume that the Indian division is charging the French division full manufacturing cost of ₹12,000 per unit. If the manager of the Indian division wants to increase the transfer price to ₹12,001 per unit, that is transfer price is proposed to be increased by ₹1. What will be the impact on the overall profits of Quicklink per ₹1 increase in transfer price?

Options

- Decrease in overall profits by ₹0.04 per ₹1 increase in transfer price.
- Increase in overall profits by ₹0.04 per ₹1 increase in transfer price.
- Increase in overall profits by ₹1 per ₹1 increase in transfer price.
- No impact on the overall profits of Quicklink.

Key – a

Reason – Decrease in overall profits by ₹0.04 per ₹1 increase in transfer price. Refer to Step 4 in the explanation table.

MCQ 9

Assume that the Indian division is charging the French division full manufacturing cost of ₹12,000 per unit. The manager of the Indian division wants to increase the transfer price to ₹13,000 per unit, that is transfer price is proposed to be increased by ₹1,000 per unit. What will be the impact on the overall profits of Quicklink for the 50,000 mobile phones transferred from India to France? Please use your answers to Questions 6, 7 and 8 for your analysis.

Options

- Decrease in overall profits by ₹20,00,000
- Increase in overall profits by ₹20,00,000
- Increase in overall profits by ₹50,00,000
- No impact on the overall profits of the Quicklink

Key – a

Reason – Decrease in overall profits by ₹20,00,000. Refer to Step 5 in the explanation table

MCQ 10

Based on your analysis of questions 6 to 9, should the Indian division increase the transfer price to ₹13,000 per unit that is ₹1,000 p.u. above the full manufacturing cost of ₹12,000 p.u.?

Options

- a. Yes
- b. No

Key – b

Reason – If the Indian division increases the the transfer price from ₹12,000 per unit to ₹13,000 per unit and transfers 50,000 units to the French division, the overall profits will decrease by ₹20,00,000. Refer to Step 5 in the explanation table. Therefore, the Indian division should not increase the transfer pricing rate.

Descriptive Question 1**Advise on behavioural consequences based on your findings in Questions 6 to 9.**

Answer- Observation: The income tax rate in India is 35% as compared to the income tax rate in France at 40%. Hence, on first glance it might seem attractive to increase the transfer price from ₹12,000 per unit to ₹13,000 per unit. In India this increase in transfer price of ₹1,000 per unit is taxed at 35%. In France the procurement cost increases by ₹1,000. While it might seem beneficial at first glance, the impact of import duty of 15% on this additional procurement cost of ₹1,000 negates the benefit. The most optimal transfer price in the above case of Quicklink is the full manufacturing cost of ₹12,000 per unit where the overall company profit is maximum at ₹12.60 crores.

Behavioural Consequence: When the transfer price is at full manufacturing cost of ₹12,000 per unit, the Indian division does not show any profit in its financials. The net operating income after taxes is nil. The manager of the Indian division may want to charge above the full manufacturing cost of ₹12,000 per unit in order to start reflecting profits in the financials of the Indian division. However, the management should discourage this as the overall impact is negative. Performance evaluation of the Indian division may have to be done of a different basis other than financials

Conclusion- Multinationals have to carefully understand the tax structure while they determine the transfer pricing models and the transfer price rate to be charged between two divisions in different countries.

Workings**All figures in ₹**

| Sr. No. | Particulars | Method A Internal Transfer at Full | Method B Internal Transfer at comparable |
|------------|-------------|---|---|
|------------|-------------|---|---|

| | | manufacturing costs | market price of similar imports |
|-----------|---|---------------------|---------------------------------|
| A | Indian Division | | |
| A1 | Revenue Method A: 50,000 units × ₹12,000 per unit Method B: 50,000 units × ₹15,000 per unit | 60,00,00,000 | 75,00,00,000 |
| A2 | Full manufacturing costs Method A and B: 50,000 units × 12,000 per unit | 60,00,00,000 | 60,00,00,000 |
| A3 | Division operating income (Step A3 = Step A1 - Step A2) | - | 15,00,00,000 |
| A4 | Division income tax (Step A3 × 35% income tax rate) | - | 5,25,00,000 |
| A5 | Division after tax operating income (Step A5 = Step A3 - Step A4) | - | 9,75,00,000 |
| B | French Division | | |
| B1 | Revenues Method A and B: 50,000 units × ₹18,000 per unit | 90,00,00,000 | 90,00,00,000 |
| B2 | Transferred in costs (refer Step A2 above) | 60,00,00,000 | 75,00,00,000 |
| B3 | Import duty @15% of transferred in price (Step B2 × 15%) | 9,00,00,000 | 11,25,00,000 |
| B4 | Total division costs (Step B4 = Step B2 + Step B3) | 69,00,00,000 | 86,25,00,000 |
| B5 | Division operating income (Step B5 = Step B1 - Step B4) | 21,00,00,000 | 3,75,00,000 |
| B6 | Division income tax (Step B6= Step B5 × 40% income tax rate) | 8,40,00,000 | 1,50,00,000 |
| B7 | Division after tax operating income (Step B5 - Step B6) | 12,60,00,000 | 2,25,00,000 |
| C | Total (Overall) after tax income of the company (Step A5 + Step B7) | 12,60,00,000 | 12,00,00,000 |

Explanations for MCQs 6 to 10

When the transfer price is increased by ₹1 per unit (from full manufacturing cost of ₹12,000 per unit to the proposed rate of ₹12,001 per unit)

| Sr. No. | Particulars | Impact per ₹1 increase in transfer price |
|---------|--|--|
| 1. | Increase in transfer price by ₹1 will increase revenue in India by ₹ 1. Indian income tax will increase as revenue increases by ₹1. Increase in Indian income tax per ₹1 increase in transfer price = ₹1×Indian income tax rate of 35% | ₹0.35 |

| | | |
|----|---|---|
| 2. | Increase in transfer price by ₹1 will increase the French import duty as procurement cost for the French division will increase. Increase in French import duty = ₹1 × 15% duty rate | ₹0.15 |
| 3 | Increase in transfer price by ₹1 will decrease French income tax (i) there will be an increase in procurement cost of ₹1 and (ii) consequently import duty will increase by ₹0.15 as explained in Step 2 above. Totally additional expense of ₹1.15 can be claimed against taxable profits. Decrease in French income tax = ₹1.15 × 40% income tax rate. | ₹0.46 |
| 4 | Impact on overall profit of Quicklink on account of increase in transfer price by ₹1: Step 1 – Increase in Indian income tax decreases profit by ₹0.35. Step 2 – Increase in French import duty decreases profit by ₹0.15. Step 3 – Decrease in French income tax increases profit by ₹0.46. Step 4 – Impact on overall profit for every ₹1 increase in transfer price = Step 1 + Step 2 – Step 3 = ₹0.35 + ₹0.15 – ₹0.46 = ₹0.04 decrease in overall profit. | ₹0.04 decrease in overall profit |
| 5 | As per question 9, transfer price increased by ₹1,000 per unit for 50,000 units. Transfer price between the divisions will increase by ₹1,000 per unit × 50,000 units = ₹50,00,000 Net impact on overall profits of Quicklink = Step 4 × ₹50,00,000 = ₹0.04 × ₹50,00,000 = ₹20,00,000 decrease in overall profit | ₹20,00,000 decrease in overall profit |

Chapter 13 – STANDARD COSTING

BOS Portal MCQ's

Question - 1 :

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 –

Answer - 1 : Efficiency Variance 400 (F); Expenditure Variance 100 (A)

Answer - 2 : Efficiency Variance 100 (A); Expenditure Variance 400 (F)

Answer - 3 : Efficiency Variance 100 (F); Expenditure Variance 400 (A)

Answer - 4 : Efficiency Variance 400 (A); Expenditure Variance 100 (F)

Answer: 1

Description:

Efficiency Variance = Cost Impact of undertaking activities more/ less than standard
= (21 deliveries* – 19 deliveries) × ₹ 200

= ₹400 (F)

(*) 20 Deliveries / 2,000 units × 2,100 units

Expenditure Variance = Cost impact of paying more/ less than standard for actual activities undertaken

= 19 deliveries × ₹ 200 – ₹3,900

= ₹100 (A)

Question - 2 :

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?

Answer - 1 : ₹62,500

Answer - 2 : ₹60,000

Answer - 3 : ₹65,000

Answer - 4 : ₹70,000

Answer: 3

Description:

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

Question - 3 :

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

Answer - 1 : i and ii

Answer - 2 : ii and iii

Answer - 3 : iv and v

Answer - 4 : iv only

Answer: 4

Description:

Sales Volume Variance (by concept)

Question - 4 :

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?

Answer - 1 : Total fixed costs

Answer - 2 : Variable costs per unit

Answer - 3 : Total variable costs

Answer - 4 : Fixed costs per unit

Answer: 4

Description: The fixed cost per unit decreases, if production increases within a relevant range.

Question - 5 :

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 –

Answer - 1 : Static budget variance

Answer - 2 : Master budget increment

Answer - 3 : Sales mix variance

Answer - 4 : Sales volume variance

Answer: 4

Description: Sales Volume Variance arises due to difference of actual quantity sold and budgeted quantity sold.

Question - 6 :

The manager of production department is arguing that the following point is not responsible for Material Usage Variance –

Answer - 1 : Change in method of production/ design

Answer - 2 : Increased efficiency in production can help in bringing down wastage rate

Answer - 3 : Changes made in the material mix

Answer - 4 : Purchase price of inferior quality material

Answer: 4

Description: Quantity of Inferior quality material is responsible for material usage variance.

Question - 7 :

When we perform a task, as experience is gain with the task, which one of the following techniques would most likely be used–

Answer - 1 : Regression analysis

Answer - 2 : Learning curve analysis

Answer - 3 : Sensitivity analysis

Answer - 4 : Normal probability analysis.

Answer: 2

Description: A learning curve is a concept that shows how a process is improved over time due to learning and increased proficiency.

Question - 8 :

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 –

Answer - 1 : Higher discounts given to customers in order to encourage bulk purchases

Answer - 2 : Failure to satisfy demand due to production difficulties

Answer - 3 : Better sales price realization

Answer - 4 : Market conditions or economic conditions forcing changes in prices across the industry

Answer: 2

Description: Failure to satisfy demand due to production difficulties will result in Sales volume variance and not sales price variance.

Question - 9 :

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 –

Answer - 1 : The new contract with labour increased wages

Answer - 2 : For last few weeks the machinery maintenance has been inadequate

Answer - 3 : The production department has employed highly skilled workers

Answer - 4 : None of the above

Answer: 2

Description: If machine will not work properly for production in such case labour efficiency variance will be unfavourable.

ICAI Module MCQ's

MCQ 1

Variance which arises because of inaccurate or faulty standards, it is not in control of management, and they should not be held responsible. This variance is –

Options

- a. Planning variance
- b. Operational variance
- c. Labour variance
- d. Efficiency variance

Key – a

Reason – Planning variance arises because of inaccurate or faulty standards; it is not in control of management, and they should not be held responsible.

MCQ 2

Variances which arise due to inefficiency of a cost centre /department is –

Options

- a. Controllable variance
- b. Uncontrollable variance
- c. Under controllable variance
- d. Planning variance

Key – a

Reason – Variances which arise due to inefficiency of a cost centre /department is Controllable variance. It is in the control of the management of the organization.

MCQ 3

If in My Glam 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 –

Options

- a. Static budget variance.
- b. Master budget increment.
- c. Sales mix variance.
- d. Sales volume variance.

Key – d

Reason – Sales Volume Variance arises due to difference of actual quantity sold and budgeted quantity sold.

MCQ 4

The total fixed overhead variance is the –

Options

- a. Measure of the lack of production volume
- b. Amount of the under-applied or over-applied fixed overhead costs.
- c. Cost Reduction achieved from difference in productions.
- d. Measure of production inefficiency.

Key – b

Reason – The total fixed overhead variance is the difference between the actual total fixed overhead cost incurred and the applied fixed overhead.

MCQ 5

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 –

Options

- 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.

Key - b

Reason – If machine will not work properly for production in such case labour efficiency variance will be unfavourable.

MCQ 6

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?

Options

- a. Total fixed costs
- b. Variable costs per unit
- c. Total variable costs
- d. Fixed costs per unit

Key – d

Reason – The fixed cost per unit decreases, if production increases within a relevant range.

MCQ 7

When we perform a task, as experience is gain with the task, which one of the following techniques would most likely be used –

Options

- a. Regression analysis
- b. Learning curve analysis
- c. Sensitivity analysis
- d. Normal probability analysis

Key – b

Reason – A learning curve is a concept that shows how a process is improved over time due to learning and increased proficiency.

MCQ 8

The manager of production department is arguing that the following point is not responsible for Material Usage Variance –

Options

- 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

Key – d

Reason – Quantity of Inferior quality material is responsible for material usage variance.

MCQ 9

A newly appointed manager of HR Department interested to know which of the following is not responsible for Labour Rate Variance.

Options

- a. unexpected increase in the pay rate of labour
- b. Level of experience of the labour can impact the direct cost of labour
- c. Poor supervision of workforce
- d. Change in the composition of the workforce can impact direct labour costs

Key – c

Reason – Poor supervision of workforce will be responsible for labour efficiency variance.

MCQ 10

The manager who has just implemented JIT in the company is stating that the following point is not responsible for Labour Efficiency Variance.

Options

- a. Poor supervision of the workforce
- b. Learning curve effect upon the labour efficiency levels
- c. Using inferior quality of material
- d. Salary paid to female employees

Key – d

Reason –The salary paid to female employee will not impact the labour efficiency variance.

MCQ 11

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 –

Options

- 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

Key – b

Reason – Failure to satisfy demand due to production difficulties will result in Sales volume variance and not sales price variance.

Chapter 1 - INTRODUCTION TO STRATEGIC COST MANAGEMENT

Case Scenario – 1

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 Mende low's Matrix, answer the following questions –

Question: 1

Which of the following stakeholders are in the high interest and high power group?

Answer - 1 : Customers and Government regulators

Answer - 2 : Customers and Board of Directors

Answer - 3 : Government Regulators and Current Suppliers of key components

Answer - 4 : Suppliers of key components and Employees at assembly line operations

Answer: 2

Description: 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.

Question - 2 :

Which of the following stakeholders are in the high interest and low power group?

Answer - 1 : Current suppliers of key components and Environment activist groups

Answer - 2 : Government regulators and Environment activist groups

Answer - 3 : Employees at the assembly line and Current suppliers of key components

Answer - 4 : Customers and Environment activist groups

Answer: 1

Description: 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.

Question - 3 :

Which of the following stakeholders are in the high power and low interest group?

Answer - 1 : Employees at the assembly line

Answer - 2 : Customers

Answer - 3 : Current suppliers of key components

Answer - 4 : Government regulators

Answer: 4

Description: 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.

Question - 4 :

Which of the following stakeholders are in the low power and low interest group?

Answer - 1 : Employees at the assembly line

Answer - 2 : Customers

Answer - 3 : Current suppliers of key components

Answer - 4 : Government regulators

Answer: 1

Description: 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.

Question - 5 :

With which group should the company actively engage in order while implementing the change?

Answer - 1 : High power and low interest group

Answer - 2 : Low power and high interest group

Answer - 3 : High power and high interest group

Answer - 4 : Low power and low interest group

Answer: 3

Description: 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.

Question - 6 :

With which stakeholders should the company keep informed while implementing the change?

Answer - 1 : High power and low interest group, because they can be impacted by the decision

Answer - 2 : Low power and high interest group, because they can join forces with a more powerful stakeholder to influence the decision

Answer - 3 : High power and high interest group, because cannot influence the decision

Answer - 4 : Low power and low interest group, because it is very relevant decision for them

Answer: 2

Description: 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.

Question - 7 :

With which stakeholder should company ensure that they are satisfied while implementing the change?

- Answer - 1 : High power and low interest group
 Answer - 2 : Low power and high interest group
 Answer - 3 : High power and high interest group
 Answer - 4 : Low power and low interest group

Answer: 1

Description: 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.

Question - 8 :

With which stakeholder is minimum effort to be taken while implementing the change?

- Answer - 1 : High power and low interest group
 Answer - 2 : Low power and high interest group
 Answer - 3 : High power and high interest group
 Answer - 4 : Low power and low interest group

Answer: 4

Description: 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-2

Buy more 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 Buy more 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 Buy more 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 Buy more website are in more localized markets concentrated in mainly in the big cities. Buy more 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, Buy more 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.

Question - 1 :

What type of business model does Buy more follow?

Answer - 1 : Hypermarket model

Answer - 2 : Digital Platform model

Answer - 3 : Freemium model

Answer - 4 : Service Ecosystem model

Answer: 2

Description: The correct answer is Digital Platform model. More specifically Buy more follows the Business to connects business to retail consumers.

Question - 2 :

Who are the customers of Buy more?

Answer - 1 : The sellers who register on their website

Answer - 2 : The buyers who register on their website

Answer - 3 : The sellers and buyers who register on their website

Answer - 4 : The sellers and buyers who do not register on their website

Answer: 3

Description: The correct answer is – the sellers and buyers who register on their website. There are two revenue streams for Buy more, the seller fee collected on sales made through the website and the yearly subscription fees that the buyers pay to access the services.

Question - 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?

Answer - 1 : Customer Jobs

Answer - 2 : Customer Pains

Answer - 3 : Customer Gains

Answer - 4 : Gain Creators

Answer: 1

Description: 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 work space. 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.

Question - 4 :

Inability of sellers to invest in warehousing and storage facilities represents which of the following represents in the Value Proposition Canvas?

Answer - 1 : Customer Jobs

Answer - 2 : Customer Pains

Answer - 3 : Customer Gains

Answer - 4 : Pain Relivers

Answer: 2

Description: 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.

Question - 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

Answer - 1 : i and ii

Answer - 2 : ii and iv

Answer - 3 : i and iii

Answer - 4 : i and iv

Answer: 2

Description: 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-3

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 Incentives, 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, Spin brush etc. This created a sustainable innovation model for the company.

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 |

Answer - 1 : i- a, ii- b, iii- c, iv- d

Answer - 2 : i- c, ii- a, iii- d, iv- b

Answer - 3 : i- c, ii- b, iii- a, iv- d

Answer - 4 : i- b, ii- c, iii- d, iv- a

Answer: 2

Description:

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

Question - 2 :

Which type of approach has DG taken for developing a sustainable business model?

Answer - 1 : Open innovation

Answer - 2 : Sharing economy

Answer - 3 : Closed loop production

Answer - 4 : Social enterprises and benefit corporations

Answer: 1

Description: 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-4

A company follows Cost Volume Profit (CVP) analysis to arrive at 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, 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 machine to produce product B. The company wants to increase 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 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 |

Question - 1 :

What is the current monthly Breakeven point of Product A in terms of units?

Answer - 1 : 1,000 units

Answer - 2 : 800 units

Answer - 3 : 900 units

Answer - 4 : 975 units

Answer: 1

The correct answer is 1,000 units is the current BEP of product A each month. Refer working in subsequent part.

Question - 2 :

What is the expected monthly profitability of Product A after proposed change in batch size ?

Answer - 1 : ₹1,00,00,000

Answer - 2 : ₹ 90,00,000

Answer - 3 : ₹ 90,25,000

Answer - 4 : ₹95,00,000

Answer: 3

Description: Rs.90,25,000 is the expected monthly profitability of product A each month after the proposed change in batch size.

| | Activity Based CVP Analysis (Current) | Activity Based CVP Analysis (Proposed) |
|---|--|--|
| Selling Price per unit | 5000 | 5000 |
| Variable Cost per unit | 4000 | 4000 |
| Contribution per unit | 1000 | 1000 |
| Fixed Cost per month (per Activity Based method) | 800000 | 875000 |
| {Fixed Cost p.m. + (number of set-ups x set-up)}/ Contribution p.u. | = {8,00,000 + (400 x Rs.500 per set-up)} / Rs.1,000 per unit | = {8,75,000 + (200 x Rs.500 per setup)} / Rs. 1,000 per unit |
| Or, Break-even Point (per month in units) | 1000 | 975 |
| Monthly Demand (units) | 10000 | 10000 |
| Profit per month = {Monthly demand (unit Contribution per unit) - (Fixed Cost per r Set-up cost per month)} | 9000000 | 9025000 |

Question - 3 :

What type of inventory management system is the company following?

Answer - 1 : Pull system of inventory management

Answer - 2 : Push system of inventory management

Answer - 3 : Just in time production inventory

Answer - 4 : Batch level inventory management

Answer: 2

Description: 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.

Question - 4 :

Which of the following should not be included as labour cost while calculating set up cost?

Answer - 1 : Cost of temporary labour hired for set up

Answer - 2 : Cost of permanent labour who are otherwise idle

Answer - 3 : Overtime cost paid to labour for set up activities

Answer - 4 : Opportunity cost of permanent labour who are otherwise engaged in some other revenue generating production activity

Answer: 2

Description: 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.

Question - 5 :

What is the monthly Breakeven point of Product A in terms of units after proposed change in batch size?

Answer - 1 : 1,000 units

Answer - 2 : 800 units

Answer - 3 : 900 units

Answer - 4 : 975 units

Answer: 4

Description: BEP is 975 units of product A after the proposed change in batch size. Refer working in subsequent part.

Question - 6 :

What is the current monthly profitability of Product A?

Answer - 1 : Rs. 1,00,00,000

Answer - 2 : Rs. 90,00,000

Answer - 3 : Rs. 90,25,000

Answer - 4 : Rs. 95,00,000

Answer: 2

Description: ₹90,00,000 is the current monthly profitability of Product A.

Question - 7 :

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

Answer - 1 : i only

Answer - 2 : iv only

Answer - 3 : i and ii

Answer - 4 : iii and iv

Answer: 3

Description: 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.

Case Scenario-5

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.

Question - 1 :

Which of the following would best describe the acquisition of NFC of SDC?

- Answer - 1 : Backward organic integration
- Answer - 2 : Backward inorganic integration
- Answer - 3 : Forward organic integration
- Answer - 4 : Forward inorganic integration

Answer: 4

Description: The correct answer is forward inorganic 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 inorganic 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 inorganic integration.

Question - 2 :

What would be the competitive advantage (from SDC’s business model) that NFC would gain by acquiring SDC?

- Answer - 1 : Broad Target with Differentiation
 Answer - 2 : Narrow Target with Differentiation Focus
 Answer - 3 : Broad Target with Cost Leadership
 Answer - 4 : Narrow Target with Cost Focus

Answer: 2

Description: 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.

Case Scenario - 6

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.

Question - 1 :

Which would best describe NFC's acquisition of SDC?

Answer - 1 : Backward organic integration

Answer - 2 : Backward inorganic integration

Answer - 3 : Forward organic integration

Answer - 4 : Forward inorganic integration

Answer: 3

Description: 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.

Question - 2 :

What would be the competitive advantage that NFC would gain by acquiring SDC?

Answer - 1 : Broad Target with Differentiation

Answer - 2 : Narrow Target with Differentiation focus

Answer - 3 : Broad Target with Cost Leadership

Answer - 4 : Narrow Target with Cost Focus

Answer: 1

Description: 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.

Question - 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:

Answer - 1 : Cellular Manufacturing

Answer - 2 : Principle of Kaizen

Answer - 3 : Principle of Six Sigma

Answer - 4 : Just in Time procurement of raw materials

Answer: 1

Description: 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.

Question - 4 :

Which of the following maybe a point of concern in end to end production of fashion apparel?

Answer - 1 : Access to customer specifications and customer related data

Answer - 2 : Control over production, pricing and marketing

Answer - 3 : Complexity of value system

Answer - 4 : Improves profitability

Answer: 3

Description: 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.

Question - 5 :

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?

Answer - 1 : Broad Target with Differentiation

Answer - 2 : Narrow Target with Differentiation focus

Answer - 3 : Broad Target with Cost Leadership

Answer - 4 : Narrow Target with Cost Focus

Answer: 4

Description: 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.

Chapter 2 – MODERN BUSINESS ENVIRONMENT

Case Scenario – 7

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.

Question - 1 :

From the viewpoint of A1, procurement of good quality milk from dairy farmers best describes which of the following situations?

Answer - 1 : Value chain management

Answer - 2 : Upstream supply chain management

Answer - 3 : Downstream supply chain management

Answer - 4 : Triple bottom line

Answer: 2

Description: 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.

Question - 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?

Answer - 1 : Value chain management

Answer - 2 : Upstream supply chain management

Answer - 3 : Downstream supply chain management

Answer - 4 : Triple bottom line

Answer: 3

Description: 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.

Question - 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?

Answer - 1 : Value chain management

Answer - 2 : Upstream supply chain management

Answer - 3 : Downstream supply chain management

Answer - 4 : Triple bottom line

Answer: 1

Description: 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.

Question - 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?

Answer - 1 : Value chain management

Answer - 2 : Upstream supply chain management

Answer - 3 : Downstream supply chain management

Answer - 4 : Triple bottom line

Answer: 4

Description: 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 – 8

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.

Question - 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

Answer - 1 : Only i

Answer - 2 : Only iii

Answer - 3 : iii and iv

Answer - 4 : i, ii, and iii above

Answer: 4

Description: 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.

Question - 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

Answer - 1 : Only i

Answer - 2 : Only ii

Answer - 3 : Only ii and iii

Answer - 4 : All of the i, ii, and iii above

Answer: 2

Description: 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.

Question - 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 –

Answer - 1 : Net effect

Answer - 2 : Bullwhip effect

Answer - 3 : Chain effect

Answer - 4 : Reverse effect

Answer: 2

Description: 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.

Question - 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

Answer - 1 : Only statement i

Answer - 2 : Only statement ii

Answer - 3 : Both of the statements

Answer - 4 : None of the statements

Answer: 4

Description: 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.

Question - 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

Answer - 1 : Only statement i

Answer - 2 : Only statement ii

Answer - 3 : Both of the statements

Answer - 4 : None of the statements

Answer: 4

Description: 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 – 9

| | |
|------------------------------|----------------|
| 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 |

| | |
|--|-------------|
| 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. |

Volume and Activity Data

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

Question - 1 :

Prevention Costs _____.

Answer - 1 : 1,25,000

Answer - 2 : 28,800

Answer - 3 : 7,70,000

Answer - 4 : 7,29,600

Answer: 1

Description:

Statement Showing "Total Quality Cost"

| Particulars of Costs | Rs |
|---|-----------|
| Prevention Costs | |
| Supplier Review | 1,25,000 |
| Appraisal Costs | |
| Equipment Testing (Rs.18 × 1,600 hrs.) | 28,800 |
| Internal Failure Costs | |
| Down Time | 7,70,000 |
| Manufacturing Rework (Rs.228 × 3,200 bikes) | 7,29,600 |
| External Failure Costs | |
| Customer Support (Rs.35 × 2,000 hrs.) | 70,000 |
| Warranty Repair (Rs.1,560 × 2,600 bikes) | 40,56,000 |
| Total Quality Costs | 57,79,400 |

Question - 2 :

Appraisal Costs _____.

Answer - 1 : 1,25,000

Answer - 2 : 28,800

Answer - 3 : 7,29,000

Answer - 4 : 40,56,000

Answer: 2

Description: Refer Answer 1.

Question - 3 :

Internal Failure Costs _____; External Failure Costs _____.

Answer - 1 : 7,29,000; 7,70,000

Answer - 2 : 28,800; 70,000

Answer - 3 : 14,99,000; 41,26,000

Answer - 4 : 40,56,000; 7,19,600

Answer: 3

Description: Refer Answer 1.

Question - 4 :

Total Quality Costs _____.

Answer - 1 : 14,29,000

Answer - 2 : 40,56,000

Answer - 3 : 56,40,000

Answer - 4 : 57,79,400

Answer: 4

Description: Refer Answer 1.

Case Scenario – 10

7 Star Sports Co. (7SSC) is engaged in the manufacture of cricket bats. Following table shows the budgeted figures for the coming year:

| Particulars | Rs. 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%).

Question - 1 :

What is the total quality non-conformance cost for the coming year?

Answer - 1 : Rs.72,16,000

Answer - 2 : Rs.27,55,000

Answer - 3 : Rs.12,10,000

Answer - 4 : Rs.35,40,000

Answer: 1

Description:

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 × 3/97 = 928 units

Cost of 928 units that are replaced free of charge = 928 × Rs.4,000 =Rs.37,12,000 (A)

Contribution Lost (Market Share) due to faulty bats = Rs.35,04,000 (B)

So, Total Quality Non-Conformance Cost [(A) + (B)] = Rs.72,16,000

Statement Showing "Contribution Lost (Market Share) due to faulty bats"

| Particulars | Rs.000 |
|---|--------|
| Sales (5,000 units × Rs.4,800) | 24,000 |
| Less: Variable Cost [(Rs.1,200 units +Rs.2,000 + Rs.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 (5000x 3/97)

Question - 2 :

What is the additional contribution expected due to the increase in market share after implementing the inspection process?

Answer - 1 : Rs. 24,00,000

Answer - 2 : Rs. 30,00,000

Answer - 3 : Rs. 35,04,000

Answer - 4 : Rs. 40,00,000

Answer: 3

Description: Additional Contribution due to increase in market share =Rs.35,04,000

Question - 3 :

How much will 7SSC save in delivery costs on the 928 faulty bats if the inspection process is implemented?

Answer - 1 : Rs. 7,42,400

Answer - 2 : Rs. 5,16,000

Answer - 3 : Rs. 6,20,000

Answer - 4 : Rs. 7,26,000

Answer: 1

Description: Saving in the Delivery Cost on 928 faulty bats = 928 units × Rs.800 = Rs. 7,42,400

Question - 4 :

What is the total increase in profit expected due to the implementation of the inspection process?

Answer - 1 : Rs. 35,04,400

Answer - 2 : Rs. 7,46,500

Answer - 3 : Rs. 46,05,000

Answer - 4 : Rs. 42,46,400

Answer: 4

Description: Additional Contribution due to increase in market share = Rs.35,04,000

Saving in the Delivery Cost on 928 faulty bats = 928 units × Rs.800 = Rs.7,42,400

Total Increase in Profit = Rs. 42,46,400.

Chapter 3 - LEAN SYSTEM AND INNOVATION

Case Scenario – 11

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.

Question - 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

Answer - 1 : i, ii, and iii only

Answer - 2 : i, ii, and iv only

Answer - 3 : i, iii, and iv only

Answer - 4 : ii, iii, and iv only

Answer: 1

Description: 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.

Question - 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

Answer - 1 : Statement i only

Answer - 2 : Statement ii only

Answer - 3 : Both Statements

Answer - 4 : None of the Statements

Answer: 2

Description: 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.

Question - 3 :

Which pillar of TPM focuses on routine maintenance?

Answer - 1 : Quality maintenance

Answer - 2 : Early management

Answer - 3 : Planned maintenance

Answer - 4 : Autonomous maintenance

Answer: 4

Description:

Autonomous maintenance focuses on routine maintenance. Routine maintenance includes cleaning, lubricating, and inspection operations performed by the operators.

Question - 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

Answer - 1 : i, iv, and v only

Answer - 2 : i, iii, and v only

Answer - 3 : ii, iii, and iv only

Answer - 4 : i, ii, iii, iv, and v

Answer: 1

Description: 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.

Question - 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

Answer - 1 : i, ii, and iii only

Answer - 2 : i, ii, iii, and iv only

Answer - 3 : ii, iii, iv and v only

Answer - 4 : i, iii, iv, and v only

Answer: 4

Description: Makes comfortable with 5S procedures relates to Standardize.

Question - 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

Answer - 1 : Statement i only

Answer - 2 : Statement ii only

Answer - 3 : Both Statements

Answer - 4 : None of the Statements

Answer: 2

Description: 5S shall be implemented across organization by all, simultaneously because 5S is more than ensuring that a work space 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 work flow smooth and easy. Hence changing the area's layout included in set-in-order.

Case Scenario – 12

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. Suzuki, 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.

Question - 1 :

Under Kaizen Costing, what is emphasized?

Answer - 1 : Large one-time improvements

Answer - 2 : Radical changes in the process

Answer - 3 : Sporadic improvements

Answer - 4 : Small but continuous improvements

Answer: 4

Description: Small but continuous improvements.

Question - 2 :

What is one key change required to implement Kaizen Costing at MIL?

Answer - 1 : From Standard Cost Control System to Cost Reduction System

Answer - 2 : From Cost Reduction System to Standard Cost Control System

Answer - 3 : From Activity-Based Costing to Job Order Costing

Answer - 4 : Value Engineering in the current costing system

Answer: 1

Description: From Standard Cost Control System to Cost Reduction System.

Question - 3 :

How frequently should cost reduction targets be set under the Kaizen Costing system?

Answer - 1 : Annually

Answer - 2 : Semi-annually

Answer - 3 : Quarterly

Answer - 4 : Monthly or weekly

Answer: 4

Description: Monthly or weekly

Question - 4 :

Who should participate in setting standards under the Kaizen Costing system?

Answer - 1 : Only the Finance Department

Answer - 2 : Only the Board of Directors

Answer - 3 : External consultants

Answer - 4 : Workers and executives involved in the manufacturing process

Answer: 4

Description: Workers and executives involved in the manufacturing process.

Question - 5 :

Which of the following key changes is vital for MIL's planning and control system to support the adoption of Kaizen Costing Concepts?

Answer - 1 : Transition from a Cost Reduction System to a Standard Cost Control System

Answer - 2 : Increase the periodicity of setting standards from semi-annually to annually

Answer - 3 : Include participation of workers and executives in setting standards

Answer - 4 : Eliminate variance reports from the review process

Answer: 3

Description: 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.

Chapter 4 - SPECIALIST COST MANAGEMENT TECHNIQUES

Case Scenario – 13

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'.

Question - 1 :

Which of the following is true regarding ranking of product as per product return per minute?

Answer - 1 : Rank 1 - Product X, Rank 2 - Product Y, and Rank 3 - Product Z

Answer - 2 : Rank 1 - Product Y, Rank 2 - Product X, and Rank 3 - Product Z

Answer - 3 : Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X

Answer - 4 : Rank 1 - Product X, Rank 2 - Product Z, and Rank 3 - Product Y

Answer: 3

| 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 |

Description:

The correct answer is Rank 1 - Product Y, Rank 2 - Product Z and Rank 3 - Product X

Question - 2 :

Which of the following is true regarding ranking of product as per Throughput Accounting Ratio?

Answer - 1 : Rank 1 - Product X, Rank 2 - Product Y, and Rank 3 - Product Z

Answer - 2 : Rank 1 - Product Y, Rank 2 - Product X, and Rank 3 - Product Z

Answer - 3 : Rank 1 - Product Y, Rank 2 - Product Z, and Rank 3 - Product X

Answer - 4 : Rank 1 - Product X, Rank 2 - Product Z, and Rank 3 - Product Y

Answer: 3

Description:

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 / | 1.25 | 2.5 | 1.875 |

| | | | |
|--------------------------|-----|---|----|
| Factory Cost per minute) | | | |
| Ranking | III | I | II |

Question - 3 :

Which of the following is not true regarding theory of constraints?

Answer - 1 : The optimum production of bottleneck activity should determine the production schedule of the non-bottleneck activities

Answer - 2 : The workers of non-bottleneck machines should be motivated to improve their productivity

Answer - 3 : Constraint can be removed by elevating system bottlenecks

Answer - 4 : Constraint can be removed by increasing bottleneck efficiency and capacity

Answer: 2

Description: 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.

Question - 4 :

Which of the following is not true regarding Theory of constraints / Throughput Accounting (TOC/ TA) based approach for product mix decisions?

Answer - 1 : The TOC/ TA approach focuses on push approach to production management as opposed to pull approach of Just in Time Management.

Answer - 2 : One of the disadvantages of the TOC/ TA approach is that there may be circumstances when operating expenses cannot be classified definitively as fixed.

Answer - 3 : Where the TA ratio is greater than 1 the product in question is profitable .

Answer - 4 : TOC/ TA approach has its main emphasis on quality of production .

Answer: 4

Description:

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 – 14

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:

| | Per unit of toy |
|---------------------------------|-----------------|
| Component H ₁ | 90 |
| Component H ₂ | 70 |
| Labour: 0.40 hr. @ ₹200 per hr. | 80 |
| 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.

Question - 1 :

Calculate the target cost for per unit of Toy "H".

Answer - 1 : ₹400 per unit

Answer - 2 : ₹375 per unit

Answer - 3 : ₹500 per unit

Answer - 4 : 275 per unit

Answer: 4

Description:

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 |

Question - 2 :

Calculate the total cost of manufacturing of Toy "H".

Answer - 1 : ₹285 per unit

Answer - 2 : ₹286 per unit

Answer - 3 : ₹280 per unit

Answer - 4 : ₹290 per unit

Answer: 1

Description:

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 k g / 96% ×₹40) | 25 |
| Total Cost of Manufacturing | 285 |

Question - 3 :

What should be the cost reduction to meet the target cost of Toy "H"?

Answer - 1 : ₹11 per unit

Answer - 2 : ₹12 per unit

Answer - 3 : ₹10 per unit

Answer - 4 : ₹15 per unit

Answer: 3

Description: 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.

Question - 4 :

Which of the following statements is false?

Answer - 1 : Target costing takes a market driven approach towards cost by shifting focus on creation of values that tend to the needs of the customers

Answer - 2 : Target costing is capable to take into account initial design and engineering costs, as well as cost of manufacturing, distribution, sales, and services

Answer - 3 : Strategy of using target costing may affect the quality of the product negatively

Answer - 4 : Cost reduction through target costing is temporary in nature

Answer: 4

Description: 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.

Question - 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

Answer - 1 : i and iv

Answer - 2 : ii and iv

Answer - 3 : i, ii and iii

Answer - 4 : i, ii, iii, iv

Answer: 2

Description: 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 – 15

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.....Rs.5,000 per unit
 Direct Material Cost.....Rs.1,850 per unit
 Direct Labour Cost.....Rs.80 per hour
 Variable Overhead Cost.....Rs.1,000 per unit

Packing Machine Cost (specially to be purchased for this product), Rs.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 250 unit.

Question - 1 :

What is the total time required for producing 250 units?

Answer - 1 : 1,268.25 hours
 Answer - 2 : 5.073 hours
 Answer - 3 : 1,264.67 hours
 Answer - 4 : 3.58 hours

Answer: 1

Description: The average time per unit for 250 units is

$$Y_x = ax^b$$

$$Y_{250} = 30 \times 250^{-0.3219}$$

$$Y_{250} = 30 \times 0.1691$$

$$Y_{250} = 5.073 \text{ hours}$$

$$\text{Total time for 250 units} = 5.073 \text{ hours} \times 250 \text{ units} = 1,268.25 \text{ hours} .$$

Question - 2 :

What is the time required for producing 250th unit?

Answer - 1 : 5.073 hours
 Answer - 2 : 8.073 hours
 Answer - 3 : 7.073 hours
 Answer - 4 : 3.58 hours

Answer: 4

Description: The average time per unit for 249 units is

$$Y_{249} = 30 \times 249^{-0.3219}$$

$$Y_{249} = 30 \times 0.1693$$

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$Y_{249} = 5.079$ hours

Total time for 249 units = 5.079 hours \times 249 units = 1,264.67 hours

Time for 250th unit = 1,268.25 hours – 1,264.67 hours = 3.58 hours

Question - 3 :

What is the profitability of the product 'Kitchen Care' that GEAL will earn over its lifetime?

Answer - 1 : 31,66,260

Answer - 2 : 13,33,740

Answer - 3 : 42,00,000

Answer - 4 : 18,33,740

Answer: 2

Description:

Profit ability of the Product 'Kitchen Care'

| Particulars | Amount (Rs.) | Amount (Rs.) |
|--|--------------|--------------|
| Sales (1,000 units) | | 50,00,000 |
| Less: Direct Material | 18,50,000 | |
| Direct Labour (3,953.25 hours \times Rs. 80) | 3,16,260 | |
| Variable Overheads (1,000 units \times Rs.1,000) | 10,00,000 | 31,66,260 |
| Contribution | | 18,33,740 |
| Less: Packing Machine Cost | | 5,00,000 |
| Profit | | 13,33,740 |

Question - 4 :

What is the average target labor cost per unit over the lifetime of the product if requires an average profit of Rs. 800 per unit to achieve its long-term objectives?

Answer - 1 : 1,000

Answer - 2 : 1,850

Answer - 3 : 800

Answer - 4 : 850

Answer: 4

Description:

Average 'Target Labour Cost' per unit

| Particulars | Amount(Rs.) |
|--|-------------|
| Expected Sales Value | 50,00,000 |
| Less: Desired Profit (1,000 units \times Rs. 800) | 8,00,000 |
| Target Cost | 42,00,000 |
| Less: Direct Material (1,000 units \times Rs. 1,850) | 18,50,000 |
| Variable Cost (1,000 units \times Rs. 1,000) | 10,00,000 |
| Packing Machine Cost | 5,00,000 |
| Target Labour Cost | 8,50,000 |

| | |
|--|-----|
| Average Target Labour Cost per unit (Rs8,50,000 ÷ 1,000 units) | 850 |
|--|-----|

Case Scenario – 16

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 Cost | | | |
| 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 lakh | 14.10 lakh |

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.

Question - 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:

Answer - 1 : P- ₹87.00; Q- ₹146.74

Answer - 2 : P- ₹146.74; Q- ₹87.00

Answer - 3 : P- ₹78.00; Q- ₹146.47

Answer - 4 : P- ₹90.00; Q- ₹87.74

Answer: 1

Description:

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 TestingTime(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 | | |

Question - 2 :

Mark -up on full cost per unit of P:

Answer - 1 : 10%

Answer - 2 : 15%

Answer - 3 : 20%

Answer - 4 : 25%

Answer: 2

Description: Statement Showing " Mark -up (full cost basis) - Product P "

| Particulars | Per unit |
|--|----------|
| Selling Price | 100.05 |
| Less: Full Cost | 87.00 |
| Mark up | 13.05 |
| Percentage of Mark up on Full Cost [13.05/ 87.00 x100] | 15% |

Question - 3 :

The Target Cost per unit in ₹ for new design to maintain the same mark-up percentage on full cost per unit as it had earlier:

(Assume cost per unit of cost drives for the new design remains unchanged)

Answer - 1 : 86.25

Answer - 2 : 11.25

Answer - 3 : 75.00

Answer - 4 : 15.25

Answer: 3

Description: Statement Showing "Target Cost of Prod. P" (After New Design is Implemented).

| Particulars | (₹) |
|----------------------------|-------|
| Target Price (given) | 86.25 |
| Mark -up (86.25/ 115 × 15) | 11.25 |
| Target Cost per unit | 75.00 |

Question - 4 :

Which of the following statement is correct?

Answer-1 : 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.

Answer-2 : 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.

Answer-3 : 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.

Answer-4 : 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.

Answer: 1

Description:

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 × 28 hrs. × ₹70 | 1.96 | 1,96,000 |
| Testing Cost | 1,00,000 units × ₹2.50 × 4hrs. | 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.

Question - 5:

Which of the following is NOT a possible management action that NEC Ltd. should take regarding the new design?

Answer - 1: Value engineering and value analysis to reduce the direct material costs.

Answer - 2: Exploring possibility of cost reduction in direct machining cost by using appropriate techniques.

Answer - 3: 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.

Answer - 4: Identification of non-value added activities and eliminating them in order to reduce overheads

Answer: 3

Description: The expected selling price based on estimated cost of ₹77.36 per unit is (₹77.36+15%) ₹88.96. Introduce sensitivity analysis after implementation of new design to study the sales quantity changes in the price range of ₹86.25 to ₹88.96.

Chapter 5 - MANAGEMENT OF COST STRATEGICALLY FOR EMERGING BUSINESS MODELS

Case Scenario – 17

“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 adored 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.

Question - 1:

Identify the business model that is followed for the print edition of "Be Informed".

Answer - 1 : Freemium model

Answer - 2 : Subscription model

Answer - 3 : Advertising model (Hidden Revenue model)

Answer - 4 : Cross Subsidization model

Answer: 2

Description: The correct answer is Subscription model. The readers of the print edition have to pay an annual fee (subscription) to receive their magazine.

Question - 2 :

Identify the business model that is followed for the online edition of "Be Informed".

Answer - 1 : Freemium model

Answer - 2 : Subscription model

Answer - 3 : Advertising model (Hidden Revenue model)

Answer - 4 : Cross Subsidization model

Answer: 1

Description:

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.

Question - 3 :

What would be an appropriate Key Performance Indicator to determine if the business model of the online version of "Be Informed" is successful?

Answer - 1 : Number of readers creating their user account on the website

Answer - 2 : Number of readers reading the 5 articles each month free of cost

Answer - 3 : Number of users upgrading their account to access further online articles

Answer - 4 : Advertisement revenue increase for the online version of the magazine Your

Answer: 3

Description:

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.

Question - 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 popularize and increase the readership of the magazine

Answer - 1 : i, ii and iv

Answer - 2 : iii and iv

Answer - 3 : i and iv

Answer - 4 : i, iii and iv

Answer: 4

Description:

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.

Question - 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?

Answer - 1 : Threshold Attribute

Answer - 2 : Excitement Attribute

Answer - 3 : Reverse Quality

Answer - 4 : Indifferent Quality

Answer: 1

Description: 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 – 18

VServerU 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 VServerU'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 dispatched 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, VServerU 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. VServerU 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.

Question - 1 :

Which is the business model that VServerU follows?

Answer - 1 : Experience model

Answer - 2 : Service ecosystem model

Answer - 3 : Subscription model

Answer - 4 : On Demand model

Answer: 4

Description:

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. VServerU earns a commission for matching the customer with the service provider.

Question - 2 :

Who form the customer segment of VServerU on the business model canvas?

Answer - 1 : Customers who need the service

Answer - 2 : Service providers who provide the service

Answer - 3 : Both customers and service providers

Answer - 4 : All current and future customers

Answer: 3

Description:

The correct answer is both customers and service providers form the customer segment for VServerU. 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.

Question - 3 :

Which of the following are the value propositions for VServerU as per business model canvas?

- i. Providing quality home services on demand to customers conveniently at their doorstep.
- iii. Expanding the service reach of the service provider
- iv. iii. Getting access to training and tools to provide the service effectively
- v. iv. Providing service at cost efficient rates

Answer - 1 : only i

Answer - 2 : i and ii

Answer - 3 : i, ii and iii

Answer - 4 : i, ii and iv

Answer:3

Description:

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.

Question - 4 :

Which is the key resource for VServerU as per the business model canvas?

Answer - 1 : The digital platform operating on applications

Answer - 2 : The service providers

Answer - 3 : The customers

Answer - 4 : Both customers and service providers

Answer: 1

Description:

The correct answer is the digital platform operating on applications is the key resource of VServerU. 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 – 19

VServerU 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 matches users to service providers in the required locality. The working of the business model is relatively

simple. The consumer in need of services, uses VServerU'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 dispatched to the customer's home for providing the service. In order to make the business more profitable, VServerU 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, VServerU wants to on board 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, VServerU helps the agency connect with customers who need their services. The agency benefits from this since its business reach expands exponentially using VServerU's platform. On the other hand, customers would prefer VServerU'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 VServerU 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 VServerU to charge a premium from agencies to advertise on its application platform. This makes the model more profitable for VServerU. Once the assignment is complete, the customer can, using the VServerU application, rate the service agency on certain other parameters like cost, quality, punctuality etc. and as also rate the digital platform provided by VServerU in terms of whether the customer expectations have been met, reliability etc.

Question - 1 :

Which is the business model that VServerU follows?

- Answer - 1 : Experience model
- Answer - 2 : On Demand model
- Answer - 3 : Subscription model
- Answer - 4 : Service ecosystem model

Answer: 2

Description:

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. VServerU earns a commission for matching the customer with the service provider.

Question - 2 :

Which business model VServerU is planning to follow?

- Answer - 1 : Hidden Revenue model
- Answer - 2 : Razor Blade model
- Answer - 3 : Subscription model
- Answer - 4 : On Demand model

Answer: 1

Description: 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.

Question - 3 :

Which element of the business model canvas does the activity of customer rating and feedback represent?

Answer - 1 : Customer relationship

Answer - 2 : Key activity

Answer - 3 : Channel

Answer - 4 : Customer segment

Answer: 1

Description: The answer is Customer relationship, where the company engages with the customer regarding the service. VServerU uses the feedback and ratings to improve its services that will help it develop a loyal customer base.

Question - 4 :

VServerU 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?

Answer - 1 : Transformation innovation

Answer - 2 : Disruptive innovation

Answer - 3 : Basic research

Answer - 4 : Incremental innovation

Answer: 2

Description: 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.

Question - 5 :

Which is the key resource for VServerU as per the business model canvas?

Answer - 1 : The digital platform operating on applications

Answer - 2 : Service providers

Answer - 3 : Customers

Answer - 4 : Both customers and service providers

Answer: 1

Description: The correct answer is the Digital platform operating on applications is the key resource of VServerU. 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 – 20

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 centers, hydrogen fuel storage and distribution centers 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 electrolysis splits water into hydrogen and oxygen and is hence a very useful component in the production of Green Hydrogen. Eco power is a company (Global Rank 110) that manufactures hydrogen electrolysis. Eco power has been a supplier of electrolysis to H-Power for its Hydrogen fuel cell business.

Recently, H-Power has been in talks with Eco power 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.

Question - 1 :

Acquisition of Eco power by H-Power would be an example of:

Answer - 1 : Horizontal Integration

Answer - 2 : Backward Vertical Integration

Answer - 3 : Forward Integration

Answer - 4 : Cost Integration

Answer: 2

Description: The correct answer is Backward Vertical Integration. Eco power 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.

Question - 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

Answer - 1 : i and ii

Answer - 2 : i and iii

Answer - 3 : ii and iii

Answer - 4 : iii and iv

Answer: 3

Description: 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.

Question - 3 :

The transition that H-Power is adopting by foraying Green Hydrogen fuel cells affects which aspect of Triple Bottom Line concept of business?

Answer - 1 : Planet

Answer - 2 : Profit

Answer - 3 : People

Answer - 4 : Investment

Answer: 1

Description: 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.

Question - 4 :

Assuming that H-Power is able to develop commercially viable Green Hydrogen fuel cells for buses and truck s, with not much change in cost of production from current levels, this technology will represent which of the following business factor:

Answer - 1 : Critical Success Factor leading to cost leadership

Answer - 2 : Key Performance Indicator leading to product differentiation

Answer - 3 : Commercial Business Factor leading to cost leadership

Answer - 4 : Core Competency leading to product differentiation

Answer: 4

Description: The correct answer is Core Competency leading to product differentiation. Core Competency is a unique proposition 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 organization regarding a particular Critical Success Factor.

Question - 5 :

Which of the following parameters is not a test for core competency?

Answer - 1 : Cost advantage

Answer - 2 : Difficulty in imitation by competitors

Answer - 3 : Relevance to the customer

Answer - 4 : Breadth of application in terms of the potential markets it can open up

Answer: 1

Description: The correct answer is Cost advantage is not a test of core competency.

Question - 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 Eco power, customers like manufacturers of buses and truck s, other infrastructure providers like service centers, hydrogen fuel storage and distribution centers 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 |

Answer - 1 : i- b, ii- c, and iii- a

Answer - 2 : i- c, ii- b, and iii- a

Answer - 3 : i- a, ii- c, and iii- b

Answer - 4 : i- c, ii- b and iii- a

Answer: 1

Description:

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 – 21

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: . High staffing requirements for validating data across different applications, scanned documents, worksheets, and other paper documents. . 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. . 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. 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: . High staffing requirements for validating data across different applications, scanned documents, worksheets, and other paper documents. . 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. . 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.

Question - 1 :

Given that Robotic Process Automation (RPA) can handle routine repetitive task s, which of the following task s cannot be handled by RPA?

Answer - 1 : Generation of Tax Deduction at Source (TDS) Certificates like 15G/ 15H

Answer - 2 : New product development that requires engagement with clients

Answer - 3 : Automated Teller Machine (ATM) transaction reconciliation

Answer - 4 : Loan origination process involving data entry, document routing, email notification, etc.

Answer: 2

Description: The correct answer is new product development that requires engagement with clients. These are not repetitive routine task s that can be automated and hence cannot be handled by RPA. These would require bank personnel (who would now be freed of routine task s) to engage with clients to develop new products based on changing customer demands.

Question - 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

Answer - 1 : i and ii

Answer - 2 : ii and iv

Answer - 3 : ii and iii

Answer - 4 : i, ii, iii, and iv

Answer: 4

Description: The correct answer is i, ii, iii and iv. 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 work force requirement for routine task s, and this can then be used for more creative and innovative work for the company.

Question - 3 :

Successful implementation of RPA would free up the availability of work force. The bank plans to engage few of its talented work force to create or unlock value in terms of enhanced revenue, either by cutting costs and/or by creating new processes, products, and services. The work force will be working with the organization and will not have any ownership rights over innovations and other initiatives. This will promote innovation in organization to attain cost efficiency and will give impetus to growth. Such a team of work force would be known as:

Answer - 1 : Entrepreneurship

Answer - 2 : Entrepreneurship

Answer - 3 : Innovators

Answer - 4 : Task force

Answer: 2

Description: The correct answer is Entrepreneurship. Entrepreneurship 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 Entrepreneur). Hence, Entrepreneurship is a restorative action taken to counter stagnation within a large organization.

Question - 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?

Answer - 1 : Withdraw

Answer - 2 : Milking the cash cow

Answer - 3 : Invest and counter invest

Answer - 4 : Restrict presence and shift focus to the core

Answer: 3

Description: 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.

Question - 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 work force available with the department. With the introduction of RPA, all this can be digitalize and automated. Which of the cost management techniques has the bank implemented?

Answer - 1 : Target costing

Answer - 2 : Life cycle costing

Answer - 3 : Theory of constraints

Answer - 4 : Standard costing

Answer: 3

Description: The correct answer is theory of constraints. The loan origination department has a process that requires manual inter venation and is subject to the capacity of the available work force. This problem can be addressed with the introduction of RPA since the entire process can be digitalize and automated at the department. Due to this, the constraint of work force 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.

Chapter 6 - STRATEGIC REVENUE MANAGEMENT

Case Scenario – 22

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 | 1000 | 2000 |
| 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 analyzed. There are changes as proposed above for the next production period for the same volume of output.

Question - 1 :

Given the information above, compute the number of setups (which will also be the number of production runs) after the proposed change.

Answer - 1 : 20 production runs

Answer - 2 : 18 production runs

Answer - 3 : 24 production runs

Answer - 4 : 22 production runs

Answer: 1

Description: The correct answer is 20 production runs.

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Total number of units produced currently = Production units per run \times Number of setups (which is also the number of production runs) = 1,000 units \times 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 (batches / setups).

Question - 2 :

Based on the calculation in (i) above, what is the total set up cost?

Answer - 1 : ₹5,400

Answer - 2 : ₹4,860

Answer - 3 : ₹4,680

Answer - 4 : ₹5,940

Answer: 1

Description: The correct answer is ₹5,400. Total set up costs = 20 set ups \times ₹270 per set up.

Question - 3 :

What is the break -even point in the current scenario?

Answer - 1 : 19,200 units

Answer - 2 : 19,320 units

Answer - 3 : 19,400 units

Answer - 4 : 19,420 units

Answer: 3

Description: 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

Question - 4 :

What is the break -even point in the proposed scenario?

Answer - 1 : 16,900 units

Answer - 2 : 16,000 units

Answer - 3 : 17,200 units

Answer - 4 : 17,000 units

Answer: 4

Description: 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.

Question - 5 :

The break -even point in the proposed scenario will be achieved in _____ production run.

Answer - 1 : 8th

Answer - 2 : 9th
Answer - 3 : 10th
Answer - 4 : 11th

Answer: 2

Description: The break -even point will be achieved in 9 production run (BEP 17,000 units / 2,000 units per batch) = 8.5 batch which is basically the 9 batch being produced.

Question - 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. Analyzing 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

Answer - 1 : i and ii
Answer - 2 : i, ii and iv
Answer - 3 : i, ii and iii
Answer - 4 : i, ii, iii and iv

Answer: 4

Description: The correct answer is all the statements are true.

Question - 7 :

Given the above case scenario, if the management implements that proposed change in production, which among these will be a concern that management needs to pay attention to?

Answer - 1 : Set up time for production runs reduces due to the proposed change in production
Answer - 2 : Doubling the batch size can lead to the risk of machine downtime and more repairs and maintenance
Answer - 3 : Break even point has reduced due to the proposed change in production
Answer - 4 : Engineering hours required for production run reduces due to proposed change in production.

Answer: 2

Description: 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 – 23

Given data about Price (P) & quantity demanded (Q) given following sales & demand data –

| Selling Price per unit (P) | Number of units sold (Q) |
|----------------------------|--------------------------|
| ₹100 | 500 |
| ₹90 | 480 |

Question - 1 :

Find the linear relationship between P and Q.

Answer - 1 : $P = 350 + 0.5Q$

Answer - 2 : $Q = 350 + 0.5P$

Answer - 3 : $P = 350 + 0.5Q$

Answer - 4 : $Q = 350 + 0.5P$

Answer: 1

Description:

$$P = a - bQ$$

Where 'P' is the selling price per unit, a is the price at which demand is zero, Q is the quantity demanded.

$$-b = -0.5 \text{ (change in price / change in quantity demanded = } (100-90) / (500-480) \text{ units = -0.5)}$$

Therefore, the equation is $P = a - 0.5Q$.

Substitute P and Q in the above equation to find 'a' $100 = a - (0.5 \times 500)$. Therefore, $a = 350$ units.

Therefore, the linear relationship between Price (P) and quantity demanded (Q) can be written as $P = 350 - 0.5Q$.

Question - 2 :

Find the equation for the Marginal Revenue based on your calculations above.

Answer - 1 : $MR = 350 + Q$

Answer - 2 : $MR = 350 + P$

Answer - 3 : $MR = 350 + Q$

Answer - 4 : $MR = 350 + P$

Answer: 1

Description:

Marginal Revenue = $a - 2bQ$ whereas calculated in (i) $a = 350$ units and $b = -0.5$

Therefore, the Marginal Revenue equation is $MR = 350 - 2(0.5)Q$; $MR = 350 - Q$

Question - 3 :

What is the volume of sales / production (Q) when it is given that profit is maximum when marginal cost is ₹150 per unit?

Answer - 1 : 210 units

Answer - 2 : 200 units

Answer - 3 : 190 units

Answer - 4 : 220 units

Answer: 2

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Description: 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.

Question - 4 :

Based on your calculation in (iii) above, at what selling price (P) is the profit maximum.

Answer - 1 : ₹220 per unit

Answer - 2 : ₹240 per unit

Answer - 3 : ₹230 per unit

Answer - 4 : ₹250 per unit

Answer: 4

Description:

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 $P = 350 - 0.5Q$.

Substituting Q to be 250 units $P = 350 - 0.5(200) = 350 - 100 = ₹250$

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.

Question - 5 :

The condition for profit maximization is –

Answer - 1 : MC Curve cuts MR Curve from below

Answer - 2 : MC Curve cuts MR Curve from above

Answer - 3 : Slope of MC > Slope of MR

Answer - 4 : Slope of MC = Slope of MR

Answer: 1

Description: 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 – 24

Rabi Ltd. Manufactures its product from Divisions X and Y. Rabi Ltd. is considering the 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.

Question - 1 :

If Division Y is discontinued, what will the increase in Variable cost be for Rabi Ltd?

Answer - 1 : ₹3,60,000

Answer - 2 : ₹4 ,00,000

Answer - 3 : ₹4,44,444

Answer - 4 : ₹4,20,000

Answer: 2

Description: 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

Question - 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?

Answer - 1 : Savings Rs.5,00,000; Increase in cost Rs.7,00,000; net loss Rs.2,00,000

Answer - 2 : Savings Rs.5,00,000; Increase in cost Rs.4,00,000; net benefit Rs.1,00,000

Answer - 3 : Savings Rs.7,00,000; Increase in cost Rs.7,00,000; no loss or benefit

Answer - 4 : Savings Rs.7,00,000; Increase in cost Rs.4,00,000; net benefit Rs.3,00,000

Answer: 1

Description: The correct answer is Savings Rs.5,00,000 Increase in cost Rs.7,00,000 therefore net loss Rs.2,00,000.

| Particulars | Amount (Rs.) |
|--|--------------|
| 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 Variable Cost | 4,00,000 |
| Total...(B) | 7,00,000 |
| Excess of Loss Over Savings...(B) – (A) | 2 ,00,000 |

Question - 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?

Answer - 1 : Relevant cost consideration

Answer - 2 : Financial consideration

Answer - 3 : Ethical consideration

Answer - 4 : Non-financial consideration

Answer: 4

Description:

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.

Question - 4 :

Which of the following is not a limitation of non-financial consideration?

Answer - 1 : Subjective measurement that could be subject to bias and interpretation

Answer - 2 : Improper measures will lead the companies to draw attention on wrong objectives

Answer - 3 : Focuses on factors that can aid sustainability of the organization in the long run

Answer - 4 : Possibility of error due to lack of statistical reliability

Answer: 3

Description: 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 – 25

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 Rs. 2,00,00,000 per annum due to lower staffing requirements. This benefit is considering the savings across all airports that KG airlines operate in. To incentive's 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.

Question - 1 :

Calculate the net benefit to KG airlines by incentivising passengers to arrive early at the airport?

Answer - 1 : ₹90,00,000

Answer - 2 : ₹1,00,00,000

Answer - 3 : ₹1,10,00,000

Answer - 4 : ₹80,00,000

Answer: 2

Description: 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).

Question - 2 :

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 |

Answer - 1 : i- a, ii- b, iii- c and iv- d

Answer - 2 : i- c, ii- a, iii- b and iv- d

Answer - 3 : i- c, ii- d, iii- a and iv- b

Answer - 4 : i- d, ii- a, iii- c and iv- b

Answer: 3

Description: The correct answer is i- c, ii- d, iii- a and iv- b

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.

Question - 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 |

Answer - 1 : i- b, ii- a, iii- c and iv- d

Answer - 2 : i- a, ii- b, iii- c and iv- d

Answer - 3 : i- c, ii- d, iii- a and iv- b

Answer - 4 : i- b, ii- a, iii- d and iv- c

Answer: 4

Description: The correct answer is i- b, ii- a, iii- d and iv- c

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.

Question - 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 minimize the time a plane is parked at the hanger?

- Answer - 1 : Kaizen improvement
- Answer - 2 : Quality management
- Answer - 3 : Theory of constraints
- Answer - 4 : Preventive maintenance

Answer: 3

Description: 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.

Question - 5 :

If KG wants to analyse its revenue generation based on various segments, which analysis should it undertake?

- Answer - 1 : Value chain analysis
- Answer - 2 : Customer profitability analysis
- Answer - 3 : Supply chain analysis
- Answer - 4 : Balanced scorecard

Answer: 2

Description: The correct answer is customer profitability analysis.

Case Scenario – 26

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 1 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 started 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.

Question - 1 :

How would you best describe the offering by Payfast of application to make payments through mobile phone?

Answer - 1 : Performance attribute

Answer - 2 : Delighted

Answer - 3 : Indifferent

Answer - 4 : Delighted when introduced, currently threshold attribute

Answer: 4

Description: Delighted when introduced, currently threshold attribute as currently all competitors are providing this feature.

Question - 2 :

Which would be most appropriate description for Payfast's offering of security improvement for user data?

Answer - 1 : Delighted

Answer - 2 : Performance attribute

Answer - 3 : Indifferent

Answer - 4 : Reverse

Answer: 2

Description: Performance attribute as non-maintaining security will cause customer dissatisfaction.

Question - 3 :

Should Kano spend huge amount on logo designing to improve customer satisfaction?

Answer - 1 : Yes, as customers love great logo

Answer - 2 : No, as customers would be indifferent

Answer - 3 : Yes, as competitors had better logo

Answer - 4 : No, as companies change logo frequently

Answer: 2

Description: No as customer would be indifferent as logo does not add any satisfaction to customer.

Question - 4 :

Is giving cashback s by Payfast a justified cost?

Answer - 1 : Yes, as customers would be delighted

Answer - 2 : No, as customers would be indifferent

Answer - 3 : No, as it would affect profitability

Answer - 4 : No, as competitors would eventually catch up

Answer: 1

Description: Yes, as customers would be delighted as this is completely new way and customer satisfaction will increase.

Question - 5 :

Adding different features by the competitors can be termed as below?

Answer - 1 : Indifferent

Answer - 2 : Performance Attributes

Answer - 3 : Threshold

Answer - 4 : Reversal

Answer: 4

Description: Reversal, as complexity, has led to customers not liking it.

Case Scenario – 27

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%

Question - 1 :

Average time taken to produce two machines:

Answer - 1 : 600 hours

Answer - 2 : 480 hours

Answer - 3 : 960 hours

Answer - 4 : 360 hours

Answer: 2

Description: Average time taken to produce two machines = $600 \times 80\%$ hours = 480 hours.

Question - 2 :

Cumulative time taken to produce two machines:

Answer - 1 : 600 hours

Answer - 2 : 480 hours

Answer - 3 : 960 hours

Answer - 4 : 360 hours

Answer: 3

Description: Cumulative time taken to produce two machines = 480×2 hours = 960 hours

Question - 3 :

Time taken to produce the second machine:

Answer - 1 : 600 hours

Answer - 2 : 480 hours

Answer - 3 : 960 hours

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Answer - 4 : 360 hours

Answer :4

Description: Time taken to produce the second machine = (960 - 600) hours = 360 hours

Question - 4 :

What is NOT a primary application of the learning curve?

Answer - 1 : Budgeting and profit planning

Answer - 2 : Pricing

Answer - 3 : Setting standards

Answer - 4 : Kanos performance attributes

Answer: 4

Description: 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 summarized below:

- Helps to analyze CVP relationship during familiarization phase: Learning curve is useful to analyse cost-volume-profit relationship during familiarization 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.

Question - 5 :

Time which the company will take to manufacture the second machine if the actual learning curve rate is 90% :

Answer - 1 : 600 hours

Answer - 2 : 540 hours

Answer - 3 : 1080 hours

Answer - 4 : 480 hours

Answer: 4

Description:

Average time taken to produce two machines = $600 \times 90\%$ hours = 540 hours

Cumulative time taken to produce two machines = 540×2 hours = 1,080 hours

Time taken to produce the second machine = (1,080 - 600)

Case Scenario – 28

B-Parts Inc., USA based firm, has just invented a new part 'B-20'. New part has a budgeted total profit of Rs. 75,000 from the first 256 parts. The time taken to produce the first part was 112.50 hours. The labour rate is Rs.20 per hour. A 90% learning curve is expected to apply indefinitely.

Question - 1 :

What is the revised labor cost (Rs.) required to achieve zero profit?

Answer - 1 : 3,22,961.60

Answer - 2 : 2,47,961.60

Answer - 3 : 3,22,960.61

Answer - 4 : 2,47,960.61

Answer: 1

Description: Cumulative Average Time for 256 parts = 48.43 hrs. $[112.50 \times (0.90)]$

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 $[2,47,961.60 + 75,000]$

Question - 2 :

What is the cumulative average time (Revised) required per part for producing 256 parts based on MCQ-1?

Answer - 1 : 48.43 hrs.

Answer - 2 : 63.80 hrs.

Answer - 3 : 63.08 hrs.

Answer - 4 : 43.48 hrs.

Answer: 3

Description: 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. $[16,148.08 / 256]$

Question - 3 :

The sensitivity of the budgeted total profit from the first 256 parts to changes in the learning rate_____.

Answer - 1 : 93.02%

Answer - 2 : 3.36%

Answer - 3 : 7.76%

Answer - 4 : 56.07%

Answer: 2

Description:

$$63.08 = 112.50 \times (256)^b$$

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$$0.5607 = 2^{8b}$$

$$\log 0.5607 = \log 2^{8b}$$

$$\log 0.5607 = 8 \times b \times \log 2$$

$$\log 0.5607 = \log r^8$$

$$0.5607 = r^8$$

Learning Rate (r) = 93.02% .

Sensitivity = $3.02/90 = 3.36\%$

Case Scenario – 29

Computer Tech 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 Tech 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 Tech will procure the balance of materials in India.

(iii) Comp Inc will provide to Computer Tech with designs and drawings in regard to the materials and supplies to be procured in India. For this, Computer Tech will pay Comp Inc. a technology fee of Rs. 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

(v) Computer Tech will furnish to Comp Inc. detailed quarterly returns.

(vi) Other information available:

- FOB price agreed \$2,040. Exchange rate to be adopted \$1 = Rs. 55.00

- Insurance and freight – Rs. 2,000 per imported kit;

- Customs duty liveable is 200% of the CIF prices; but as a concession, the actual rate liveable 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 Rs.8,000 per Super Computer.

Question - 1 :

What will be the FOB price of the dismantled kit in Rs.?

Answer - 1 : 1,12,200

Answer - 2 : 67,320

Answer - 3 : 89,760

Answer - 4 : 58,100

Answer: 1

Description: FOB Price of Dismantled led Kit:

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FOB Price of Dismantled Kit - \$2,040

FOB Price of dismantled Kit [$\$2,040 \times 55$] - Rs.1,12,200

Question - 2 :

What is the cost of a dismantled kit to Company Income in Rs.?

Answer - 1 : 1,12,200

Answer - 2 : 67,320

Answer - 3 : 56,100

Answer - 4 : 89,760

Answer: 4

Description: Cost of Dismantled Kit to Comp Inc. ($100 / 125 \times 1,12,200$) = Rs. 89,760

Question - 3 :

What is the landed cost of a dismantled kit in Rs.?

Answer - 1 : 56,100

Answer - 2 : 58,100

Answer - 3 : 23,240

Answer - 4 : 81,340

Answer: 4

Description:

| | (Rs) |
|---|--------|
| FOB Price ($50\% \times 1,12,200$)(Refer to Working Note-1) | 56,100 |
| Landed Cost of a Dismantled Kit | 2,000 |
| Add: Insurance & Freight | 58,100 |
| CIF Price | 23,240 |
| Add: Customs Duty ($40\% \times 58,100$) | 81,340 |

Question - 4 :

What is the royalty payment per computer in Rs.?

Answer - 1 : 81,340

Answer - 2 : 2,07,514

Answer - 3 : 9,251

Answer - 4 : 23,240

Answer: 3

Description:

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:

$$X = 2,07,514 \text{ (Approx)}$$

$$Y = 9,251 \text{ (Approx)}$$

Question - 5 :

Calculate the selling price, of a personal computer in India bearing in mind that Computer Tech Ltd has targeted a profit of 20% to itself on the selling price.

Answer - 1 : 1,56,600

Answer - 2 : 1,56,660

Answer - 3 : 1,66,011

Answer - 4 : 2,07,514

Answer: 4

Description:

Statement Showing " Selling Price of a Super Computer in India"

| | (Rs) |
|--|----------|
| A . Landed Cost of a Dismantled Kit | 81,340 |
| B . Cost of Local Procurement | 67,320 |
| C. Cost of Assembly and Other Overheads per computer | 8,000 |
| D. Total Cost of Manufacture (A + B + C) | 1,56,660 |
| E. Technology Fee per computer (8,00,00,000 / 8,00,000 Computer) | 100 |
| F. Royalty Payment per unit | 9,251 |
| G. Total Cost (D + E+ F) | 166,001 |
| H. Profit (20% on Selling Price of 25% of Total Cost) | 41,503 |
| I. Selling Price per computer | 207,514 |

Chapter 7 - STRATEGIC PROFIT MANAGEMENT

Case Scenario – 30

A and B are two customers of XYZ Electronics Ltd., a manufacturer of audio players. Selling price per unit is Rs.5,400. Its cost of production per unit is Rs.4,420. Additional costs are:

Order Processing Cost..... Rs.2,000 per order

Delivery Costs..... Rs.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 of collect the order. Assume that production levels are not altered by these orders.

Question - 1 :

What is the net selling price per unit for Customer B after discounts?

Answer - 1 : Rs. 4,420

Answer - 2 : Rs. 4,698

Answer - 3 : Rs. 5,400

Answer - 4 : Rs. 5,020

Answer: 2

Description:

| Particulars | Customer- A | Customer- B |
|---|--------------------|--------------------|
| Sales (units) | 350 | 500 |
| | (Rs.) | (Rs.) |
| Selling Price per unit | 5,400 | 5,400 |
| Less: Discount (Quantity) | 270(Rs.5,400 × 5%) | 270(Rs.5,400 × 5%) |
| Less: Discount (Delivery) | --- | 432(Rs.5,400 × 8%) |
| Selling Price (Net of Discounts) per unit | 5,130 | 4,698 |

Question - 2 :

What is the total profit for Customer A after additional overheads?

Answer - 1 : Rs. 1,19,000

Answer - 2 : Rs. 1,20,000

Answer - 3 : Rs. 2,21,000

Answer - 4 : Rs. 1,39,000

Answer: 3

Description:

| Particulars | Customer- A | Customer- B |
|---|------------------------|------------------------|
| Sales (units) | 350 | 500 |
| | (Rs.) | (Rs.) |
| Selling Price per unit | 5,400 | 5,400 |
| Less: Discount (Quantity) | 270 (Rs.5,400 × 5%) | 270 (Rs.5,400 × 5%) |
| Less: Discount (Delivery) | --- | 432 (Rs.5,400 × 8%) |
| 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 | 1,39,000 |

| | (Rs.710 × 350 units) | (Rs.278 × 500 units) |
|------------------------------|--------------------------|---------------------------|
| Less: Additional Overheads | | |
| Delivery Cost | 17,500 (5 × Rs.3,500) | --- |
| Order Processing Cost | 10,000 (5 × Rs.2,000) | 20,000 (10 × Rs.2,000) |
| Profit per customer* | 2,21,000 | 1,19,000 |
| Profit per customer per unit | 631.43 | 238.00 |

Question - 3 :

What is the profit per unit for Customer A?

Answer - 1 : Rs. 278

Answer - 2 : Rs. 207

Answer - 3 : Rs. 631

Answer - 4 : Rs. 525

Answer: 3

Description: Refer Question 2

Question - 4 :

What is the profit per unit for Customer B?

Answer - 1 : 632

Answer - 2 : 238

Answer - 3 : 271

Answer - 4 : 710

Answer: 2

Description: Refer Question 2

Question - 5 :

How much is the delivery discount per unit for Customer B ?

Answer - 1 : Rs. 432

Answer - 2 : Rs. 504

Answer - 3 : Rs. 234

Answer - 4 : Rs. 405

Answer: 1

Description: = Correct answer is Rs. 432 (Rs. 5,400 × 8%)

Case Scenario – 31

Oxford Medical Care Co. (OMCC) is a pharmaceutical firm, operating its entire business through its four customers O_{x1}, O_{x2}, O_{x3}, and O_{x4}. O_{x1} and O_{x2} are small pharmaceutical stores

while O_{x3} and O_{x4} 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 |
|-----------------------------|-----------------------|-----------------|-----------------------|-----------------|---------------|
| | O _{x1} | O _{x2} | O _{x3} | O _{x4} | |
| Number of Orders | 4 | 9 | 6 | 3 | Rs.750 |
| Order Size | Rs.40,000 | Rs.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 | Rs.375 |
| Expedited Deliveries | 2 | 0 | 2 | 0 | Rs.1,250 |
| General Administration Cost | Rs.20,250 | | Rs.48,375 | | |

Question - 1 :

What is the total customer profit for large pharmaceuticals (O_{x3} + O_{x4}) ?

Answer - 1 : Rs. 63,750

Answer - 2 : Rs. 75,630

Answer - 3 : Rs. 36,550

Answer - 4 : Rs. 1,53,125

Answer: 4

Description:

| Particulars | O _{x1} | O _{x2} | Channel Total | O _{x3} | O _{x4} | 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 |

Question - 2 :

What is the channel profit for small pharmaceuticals?

Answer - 1 : Rs. 6,325

Answer - 2 : Rs. 5326

Answer - 3 : Rs. 88,425

Answer - 4 : Rs. 48,375

Answer: 1

Description: Refer Question 1

Question - 3 :

What is the recommendation for improving the profit from O_{x2} ?

Answer - 1 : Increase the order size and reduce the discount

Answer - 2 : Decrease the variable costs

Answer - 3 : Increase expedited deliveries

Answer - 4 : Increase the discount and reduce the order size

Answer: 1

Description: Small Pharmaceuticals Even though O_{x1} has lower sales volume (11% lesser from O_{x2}), 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 break even point with small pharmaceuticals. To improve profit OMCC should: Coordinate with O_{x2} to increase order size and try to negotiate a smaller discount. Try to work with O_{x1} to reduce expedited deliveries.

Question - 4 :

What is the recommendation for reducing the costs for O_{x1} ?

Answer - 1 : Increase the discount

Answer - 2 : Reduce expedited deliveries

Answer - 3 : Increase the order size

Answer - 4 : Increase the discount and reduce the order size

Answer: 2

Description: Small Pharmaceuticals Even though O_{x1} has lower sales volume (11% lesser from O_{x2}), 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 break even point with small pharmaceuticals. To improve profit OMCC should: Coordinate with O_{x2} to increase order size and try to negotiate a smaller discount. Try to work with O_{x1} to reduce expedited deliveries.

Chapter 8 - AN INTRODUCTION TO STRATEGIC PERFORMANCE MANAGEMENT

Case Scenario – 32

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 (Elon Musk for Tesla vis-a-vis Akio Toyoda of Toyota vis-a-vis Anand Mahindra for Mahindra & Mahindra), 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 Roll Royce vis-a-vis Tesla vis-a-vis Tata Motors 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.

Question - 1 :

The McKinsey 7-S Framework highlights the _____ of the seven hard and soft elements.

Answer - 1 : Interchangeability

Answer - 2 : Independence

Answer - 3 : Interconnection

Answer - 4 : Intermittence

Answer: 3

Description: 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 interconnection.

Question - 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

Answer - 1 : Only statement i and iii are correct

Answer - 2 : Only statements ii and iii are correct

Answer - 3 : Only statement i and iv are correct

Answer - 4 : Only statements ii and iv are correct

Answer: 2

Description:

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 interconnections, 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.

Question - 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 –

Answer - 1 : Strategy

Answer - 2 : Structure

Answer - 3 : System

Answer - 4 : Style

Answer: 4

Description: 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.

Question - 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

Answer - 1 : i and iii only

Answer - 2 : i and iv only

Answer - 3 : i, ii and iii only

Answer - 4 : i, iii and iv only

Answer: 4

Description: 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.

Question - 5 :

Which of the following S element signify the superordinate goals?

Answer - 1 : Staff

Answer - 2 : Shared Value

Answer - 3 : Strategy

Answer - 4 : Not covered by any of S element of 7-S

Answer: 2

Description: 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.

Question - 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?

Answer - 1 : Skill

Answer - 2 : Style

Answer - 3 : Staff

Answer - 4 : Not covered by any of S element of 7-S

Answer: 2

Description: 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.

Question - 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 –

Answer - 1 : Skills

Answer - 2 : Shared values

Answer - 3 : Systems

Answer - 4 : Style

Answer: 3

Description: 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.

Question - 8 :

Pick the most appropriate option that depict the correct match of the item listed in the following set of lists (List I and List II) –

| List I (Company) | List II (Generic Strategy) |
|------------------|----------------------------|
| i. Roll Royce | a. Low-Cost Leadership |
| ii. Tesla | b. Differentiation Focus |
| iii. Tata Motors | c. Differentiation |

Answer - 1 : i- b, ii- a, iii- c

Answer - 2 : i- a, ii- c, iii- b

Answer - 3 : i- b, ii- c, iii- a

Answer - 4 : i- a, ii- b, iii- c

Answer: 3

Description: Low-Cost Leadership - The strategy is to produce (or purchase) comparable value goods or services at a lower cost than its competitors. The lower cost will attract the majority of customers and allow it to profit by the volume of goods sold. Tata Motors falls in this category.

Differentiation - In a differentiation strategy a firm seeks to be unique in its industry along some dimensions that are widely valued by buyers. It selects one or more attributes that many buyers in an industry perceive as important, and uniquely positions itself to meet those needs. Tesla falls in this category.

Differentiation Focus - An approach to competitive advantage in which a company attempts to outperform its rivals by offering a product that is perceived by consumers to be superior to that of competitors even though its price is higher; in adopting a differentiation focus strategy, the company focuses on narrow market coverage, seeking only to attract a small, specialized segment. Roll Royce falls in this category.

Question - 9 :

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. Organization should identify internal change agents or hire change consultants best suited to implement your changes

Answer - 1 : Statement i only

Answer - 2 : Statement ii only

Answer - 3 : Both of the statement i and ii

Answer - 4 : None of the statement i and ii

Answer: 4

Description: 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 organization 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.

Question - 10 :

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

Answer - 1 : i and ii

Answer - 2 : ii and iii

Answer - 3 : i and iii

Answer - 4 : None of the i, ii and iii

Answer: 3

Description:

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.

Chapter 9 - STRATEGIC PERFORMANCE MEASURES IN PRIVATE SECTOR

Case Scenario – 33

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% |

Question - 1 :

What is the Return on Investment for Division A and Division B?

Answer - 1 : Division A 12%; Division B 15%

Answer - 2 : Division A 10% ; Division B 15%

Answer - 3 : Division A 8%; Division B 8%

Answer - 4 : Division A 2%; Division B 7%

Answer: 2

Description: 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% |

Question - 2 :

What is the Residual Income for Division A and Division B?

Answer - 1 : Division A ₹50,00,000; Division B ₹12,00,000

Answer - 2 : Division A ₹40,00,000; Division B ₹6,40,000

Answer - 3 : Division A ₹10,00,000; Division B ₹5,60,000

Answer - 4 : Division A ₹90,00,000; Division B ₹18,40,000

Answer: 3

Description:

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 |

Question - 3 :

Which of the following summarizes the performance of Division A and Division B correctly

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Answer - 1 : 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

Answer - 2 : 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

Answer - 3 : 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

Answer - 4 : 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

Answer: 1

Description: 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).

Question - 4 :

Based on the conclusion in above, which of the following are correct?

- i. Higher the residual income of the division necessarily means better the performance of the division
- ii. Residual income alone is the best measure of evaluating the performance of managers of Division A and B
- iii. It is not appropriate to use residual income as the only basis for evaluating the performance of managers of Division A and B
- iv. Return on investment along with residual income should be considered for evaluating the performance of managers of Division A and B

Answer - 1 : i only

Answer - 2 : ii only

Answer - 3 : i and iv

Answer - 4 : iii and iv

Answer: 4

Description: 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 – 34

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 centers 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 then 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.

Question - 1 :

What are the objectives of performance management indicators?

- i. Evaluating the achievements of organization 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 benchmark s only

Answer - 1 : ii and iii

Answer - 2 : i, ii and iii

Answer - 3 : i, ii and iv

Answer - 4 : i, ii, iii and iv

Answer: 2

Description: 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.

Question - 2 :

Which are the non-financial performance indicators mentioned in the case scenario?

- i. Skill, Attrition and Job Satisfaction of Human Resource
- ii. Quality of Product
- iii. Brand Equity
- iv. Reduction in Delivery Cycle Time

Answer - 1 : i, ii and iii

Answer - 2 : i, iii and iv

Answer - 3 : ii, iii and iv

Answer - 4 : i, ii, iii and iv

Answer: 1

Description: 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.

Question - 3 :

At present is Marcus Neo-Fashion Limited (MNFL) tracking any non-financial performance indicator at all?

Answer - 1 : Yes, MNFL in addition to capital employed and revenue and earnings is tracking output performance indicators in terms of quantity and per employee productivity

Answer - 2 : Yes, MNFL in addition to capital employed and revenue and earnings is tracking customer retention and expansion of market share

Answer - 3 : No, MNFL is tracking only financial indicators since output performance and market share eventually relate to financial profits

Answer - 4 : 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)

Answer: 4

Description: 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).

Question - 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 |

Answer - 1 : i- c, ii- a, and iii- b

Answer - 2 : i- c, ii- b, and iii- a

Answer - 3 : i- b, ii- a, and iii- c

Answer - 4 : i- b, ii- c, and iii- a

Answer: 1

Description:

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.

Question - 5 :

Which of the following is not true regarding the role of quality in performance measurement systems?

Answer - 1 : 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

Answer - 2 : There is an inverse relation between the rigor of Quality Management System and the cost of non-conformance

Answer - 3 : Lean production system aims at reducing production activities to the minimum in order to improve quality performance

Answer - 4 : Good quality information practices improve the reliability, accuracy, timeliness, objectivity of Management Information Systems (MIS) that is used for performance measurement

Answer: 3

Description: 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, leans production results in improvement in performance thought.

Chapter 12 - DIVISIONAL TRANSFER PRICING

Case Scenario – 35

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.

Question - 1 :

The number of hours needed for external sales are _____.

Answer - 1 : 9,000

Answer - 2 : 10,000

Answer - 3 : 12,000

Answer - 4 : 11,000

Answer: 2

Description: 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 |

Question - 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. The constraining factor is labour hours, which needs to be utilized optimally
- ii. Contribution per hour of X is \$10.50, Y is \$8.50 and Z is \$13
- iii. Due to limited capacity Division A will incur an opportunity cost due to lost sales if it caters to the request of Division B.

Answer - 1 : i and ii

Answer - 2 : ii, iii and iv

Answer - 3 : i, iii and iv

Answer - 4 : All of the above

Answer: 4

Description: The correct answer is all of the above 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 |

Question - 3 :

When Division A has capacity of 8,000 hours, what will be optimum mix of production for external sales?

Answer - 1 : X - 800 units, Y - 500 units and Z - 300 units

Answer - 2 : X - 800 units, Y - 600 units and Z - 300 units

Answer - 3 : X - 800 units, Y - 250 units and Z - 300 units

Answer - 4 : X - 733 units, Y - 500 units and Z - 300 units

Answer: 3

Description: 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. 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.

Question - 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?

Answer - 1 : Contribution lost from reduced sales of X - \$8,400 and Z - \$3,900

Answer - 2 : Contribution lost from reduced sales of Y - \$17,000 and Z - \$3,900

Answer - 3 : Contribution lost from reduced sales of Y - \$17,000 and X - \$8,400

Answer - 4 : Contribution lost from reduced sales of Y - \$17,000 and X - \$4,200

Answer: 4

Description: 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 = Product Y (2,000 hours × contribution per hour of \$8.5) + Product X (400 hours × contribution per hour of \$10.5) = \$17,000 + \$4,200 = \$21,200

Question - 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?

Answer - 1 : \$24 per unit

Answer - 2 : \$45 per unit

Answer - 3 : \$94.66 per unit

Answer - 4 : \$92 per unit

Answer: 3

Description: 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.

Question - 6 :

In continuation of previous part..... Should Division B purchase Y from Division A?

Answer - 1 : Yes, purchasing from Division A promotes goal congruence

Answer - 2 : No, the product Y is cheaper in the external market and hence Division B should purchase it from outside

Answer - 3 : 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

Answer - 4 : No, the product Y is costlier in the external market and hence Division B should not purchase it from outside

Answer: 2

Description: 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 in \$45 per unit. Hence it would be cheaper to purchase from outside.

Case Scenario – 36

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.

Question - 1 :

The number of hours needed for external sales are _____.

Answer - 1 : 11,500

Answer - 2 : 11,000

Answer - 3 : 10,000

Answer - 4 : 10,500

Answer: 3

Description:

| The number of hours needed for external sales are 10,000. | 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 |

Question - 2 :

When Division A has capacity of 12,000 hours, which of the following statements are true?

- Contribution per hour of X is \$10.50, Y is \$8.50 and Z is \$13
- The constraining factor is labour hours, which needs to be utilized optimally
- There is a shortfall 400 hours, to meet both external production and the request of 300 units of Y from Division B
- Due to limited capacity Division A will incur an opportunity cost due to lost sales if it caters to the request of Division B.

Answer - 1 : i and ii

Answer - 2 : ii, iii and iv

Answer - 3 : i, iii and iv

Answer - 4 : All of the above

Answer: 4

Description:

All of the above statements 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 |

Question - 3 :

When Division A has capacity of 12,000 hours, what will be optimum mix of production for external sales?

Answer - 1 : X - 800 units, Y - 500 units and Z - 300 units

Answer - 2 : X - 800 units, Y - 600 units and Z - 300 units

Answer - 3 : X - 800 units, Y - 250 units and Z - 300 units

Answer - 4 : X - 800 units, Y - 800 units and Z - 300 units

Answer: 1

Description:

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).

Question - 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?

Answer - 1 : Contribution lost from reduced sales of X - \$3,400

Answer - 2 : Contribution lost from reduced sales of Y - \$ 3,400

Answer - 3 : Contribution lost from reduced sales of Y - \$2,550

Answer - 4 : Contribution lost from reduced sales of Y - \$4,250

Answer: 2

Description: 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

Question - 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?

Answer - 1 : \$24 per unit

Answer - 2 : \$45 per unit

Answer - 3 : \$35.33 per unit

Answer - 4 : \$92 per unit

Answer: 3

Description: The correct answer is \$35.33 per unit.

On a per unit basis, lost contribution = 3,400 / 300 units = 11.33 per unit Therefore, Transfer Price = Marginal Cost p.u. + Contribution Lost from Reduced External Sales

= 24 + 11.33

= \$35.33 per unit

Question - 6 :

Given that Division A has a capacity of 12,000 hrs. If Division A accepts to produce 300 units of Y for Division B, what should be transfer price range that should be charged to Division B?

Answer - 1 : \$24 per unit - \$45 per unit

Answer - 2 : \$45 per unit - \$92 per unit

Answer - 3 : \$35.33 per unit - \$45 per unit

Answer - 4 : \$92 per unit

Answer: 3

Description: 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 – 37

'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 Rs. 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 | Rs. 60 per component |
| Fixed Costs | Rs. 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 | Rs. 36 per unit the cost of Component A |
| Fixed Costs | Rs. 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 (Rs.) |
|-------------|------------------------------|
| 1,000 units | 480 |
| 2,000 units | 440 |
| 3,000 units | 400 |
| 4,000 units | 360 |
| 5,000 units | 320 |
| 6,000 units | 268 |

Question - 1 :

At the transfer price of Rs. 180 per Component A, how many units of Product B will be produced?

- Answer - 1 : 6,000 units
 Answer - 2 : 4,000 units
 Answer - 3 : 8,000 units
 Answer - 4 : 5,000 units

Answer: 2

Description: Based on a transfer price of Rs. 180 per component, the total variable cost per unit of Product B will be Rs. 216

| Demand | Selling Price (Rs.) | Variable Cost (Rs.) | Contribution (Rs.) | Total Contribution (Rs.'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'.

Question - 2 :

What is the profit for the 'Xu' division when 4,000 units of Component A are sold to the 'Yu' division?

- Answer - 1 : Rs. 2,80,000
 Answer - 2 : Rs. 2,76,000
 Answer - 3 : Rs. 5,56,000
 Answer - 4 : Rs. 3,76,000

Answer: 1

Description:

| Particulars | Xu (R s.'000) | Yu (R s.'000) | Group (R s.'000) |
|----------------------|------------------|------------------|---------------------|
| Revenue | 720 | 1,440 | 1,440 |
| Less: Variable Costs | 240 | 864 | 384 |
| Less: Fixed Costs | 200 | 300 | 500 |
| Profit | 280 | 276 | 556 |

Question - 3 :

What is the maximum monthly profit for the Shenzhen group based on the total marginal costs of the divisions?

- Answer - 1 : Rs. 11,20,000
 Answer - 2 : Rs. 11,56,000
 Answer - 3 : Rs. 6,20,000

Answer - 4 : Rs. 9,99,000

Answer: 3

Description:

Using the total marginal costs of the divisions: Variable cost per Product B is Rs. 96.

| Demand | Selling Price (Rs.) | Variable Cost (Rs.) | Contribution (Rs.) | Total Contribution (Rs.'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 maximizing output is 5,000 units of Product B. This will earn a total monthly profit for the Shenzhen Group of Rs. 6,20,000 (Rs.11,20,000 - Rs. 5,00,000).

Question - 4 :

What is the selling price per unit of Product B when the maximum output is produced for the highest profit?

Answer - 1 : Rs. 400

Answer - 2 : Rs. 360

Answer - 3 : Rs. 320

Answer - 4 : Rs. 440

Answer: 3

Description: Refer Question 3

Chapter 13 - STANDARD COSTING

Case Scenario – 38

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 ₹ 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 |

Question - 1 :

By Prof. CA Manan Pujara

CA Final - AIR 37

Keep Smiling, Be Happy, Stay Motivated, All the Best...!!

Traditional Variances for 'Ice' are as under:

Answer - 1 : Usage Variance Rs.2,750 (F); Price Variance Rs.13,612.50 (F)

Answer - 2 : Usage Variance Rs.13,750 (A); Price Variance Rs.16,362.50 (F)

Answer - 3 : Usage Variance Rs.2,750 (F); Price Variance Rs.13,612.50 (A)

Answer - 4 : Usage Variance Rs.10,670 (A); Price Variance Rs.5,554 (A)

Answer: 1

Description: Traditional Variances

Usage Variance = (27,500 Kgs. – 27,225 Kgs.) × ₹10 = ₹2,750 (F)

Price Variance = (₹10 – ₹9.50) × 27,225 Kgs. = ₹13,612.50 (F)

Question - 2 :

Operational Variances for 'Ice' are as under:

Answer - 1 : Usage Variance Rs.10,670 (F); Price Variance Rs.5,225 (A)

Answer - 2 : Usage Variance Rs.13,750 (A); Price Variance Rs.5,225 (F)

Answer - 3 : Usage Variance Rs.10,670 (A); Price Variance Rs.5,445 (F)

Answer - 4 : Usage Variance Rs.10,760 (F); Price Variance Rs.5,445 (A)

Answer: 3

Description: Operational Variances

Usage Variance = (26,125 Kgs. – 27,225 Kgs.) × ₹9.70 = ₹10,670 (A)

Price Variance = (₹9.70 – ₹9.50) × 27,225 Kgs. = ₹5,445 (F)

Question - 3 :

Planning Variances for 'Ice' are as under:

Answer - 1 : Usage Variance Rs.13,750 (F); Price Variance Rs.8,737.50 (A)

Answer - 2 : Usage Variance Rs.13,570 (A); Price Variance Rs.7,837.50 (F)

Answer - 3 : Usage Variance Rs.21,587 (A); Price Variance Rs.8,737.50 (A)

Answer - 4 : Usage Variance Rs.13,750 (F); Price Variance Rs.7,837.50 (F)

Answer: 4

Description: Planning Variances

Usage Variance = (27,500 Kgs. – 26,125 Kgs.) × Rs.10 = Rs.13,750 (F)

Price Variance = (Rs.10 – Rs.9.70) × 26,125 Kgs. = Rs.7,837.50 (F)

Question - 4 :

The better negotiation of a price should be recognized as an _____ matter.

Answer - 1 : Operational

Answer - 2 : Financial

Answer - 3 : Planning

Answer - 4 : Marketing

Answer: 1

Description: The better negotiation of a price should be recognized 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.

Question - 5 :

An innovation in technology is _____ the control of Ski Slope and is, by nature, a _____ 'error'.

Answer - 1 : Under, Operational

Answer - 2 : Outside, Technological

Answer - 3 : Outside, Planning

Answer - 4 : Outside, Marketing

Answer: 3

Description: 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 – 39

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 (Rs.in Lacs) | 100.00 | 240.00 | 340.00 | 119.70 | 246.96 | 366.66 |

In late 2022, marketing research, estimated industrial volume for industrial and domestic flooring at 80 Lacs Rolls. Actual industry volume for 2023 was 70 Lacs Rolls.

Question - 1 :

What is the sales mix variance for Domestic flooring rolls?

Answer - 1 : Rs. 16,80,000 (A)

Answer - 2 : Rs. 12,00,000 (A)

Answer - 3 : Rs. 13,00,000 (A)

Answer - 4 : Rs. 14,00,000 (A)

Answer: 1

Description:

Domestic = Rs. 40 × (5,88,000 – 6,30,000) = Rs. 16,80,000 (A)

Question - 2 :

What is the sales quantity variance for Industrial flooring rolls?

Answer - 1 : Rs. 6,00,000 (F)

Answer - 2 : Rs. 5,00,000 (F)

Answer - 3 : Rs. 7,00,000 (F)

Answer - 4 : Rs. 5,00,000 (A)

Answer: 2

Description: Industrial = Rs. 50 × (2,10,000 – 2,00,000) = Rs. 5,00,000 (F)

Question - 3 :

What is the market size variance?

Answer - 1 : 21,50,000 (A)

Answer - 2 : 50,50,000 (A)

Answer - 3 : 42,50,000 (A)

Answer - 4 : 42,50,000 (F)

Answer: 3

Description: = 10% × (70,00,000 Rolls – 80,00,000 Rolls) × Rs. 42.50 = 42,50,000 (A)

Question - 4 :

What is the market share variance?

Answer - 1 : 40,10,000 (F)

Answer - 2 : 19,50,000 (A)

Answer - 3 : 59,50,000 (A)

Answer - 4 : 59,50,000 (F)

Answer: 4

Description: = (12% – 10 %) × 70,00,000 Rolls × Rs. 42.50 = 59,50,000 (F)

Case Scenario – 40

The following figures are available. Find out the missing figures, giving appropriate formulae:

| | Rs. |
|--------------------------------|--------|
| Budgeted profit | 15,000 |
| Less: Adverse variances: | |
| Contribution price variance | 10,600 |
| Direct materials variance | 1,000 |
| Fixed overhead variance | 600 |
| Add: 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 | Rs. 18 / unit |
| Standard variable cost | Rs. 15 / unit |
| Budgeted sales | 10,000 units |
| Actual selling price | Rs. 17 / unit |

Standard material cost per unit..... Rs. 1 (which is 5 kg. @ Rs. 20Paise/kg.)

Material usage variance..... Rs. 400 (A)

Actual labour hours @ actual rate..... Rs. 63,000

Actual labour hours @ standard rate.....Rs. 61,950

Variable overhead standard rate.....Rs. 2

Standard hours of production.....4 per unit

Variable overhead at standard rate..... Rs. 84,800

Variable overhead expenditure variance..... Rs. 400 (A)

Budgeted fixed overhead.....Rs. 15,000

Question - 1 :

What are the actual sales units?

Answer - 1 : 12,400

Answer - 2 : 11,500

Answer - 3 : 10,600

Answer - 4 : 10,700

Answer: 3

Description: Computation of Actual Sales (units)

Budgeted Contribution (Rs.15,000 + Rs.15,000)Rs. 30,000

Add: Contribution Quantity VarianceRs. 1,800

Total Standard ContributionRs. 31,800

Standard Contribution per unit.....Rs. 3

Actual Sales Volume (Rs. 31,800 / Rs. 3).....10,600 units

Question - 2 :

What is the actual quantity of raw materials used?

Answer - 1 : 50,000 kg

Answer - 2 : 51,000 kg

Answer - 3 : 55,000 kg

Answer - 4 : 57,000 kg

Answer: 3

Description: 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) / Rs. 0.20] 2,000 kgs.

Actual Consumption 55,000 kgs.

Question - 3 :

What is the actual variable overhead in rupees?

Answer - 1 : Rs. 85,400

Answer - 2 : Rs. 84,400

Answer - 3 : Rs. 83,000

Answer - 4 : Rs. 84,400

Answer: 3

Description: Computation of Actual Variable Overhead (Rs.)

Standard Variable Overheads for Output Rs. 84,800

Less: Variable Overhead Variance Rs.1,800

Actual Variable Overhead Rs. 83,000

Question - 4 :

What are the actual fixed overheads?

Answer - 1 : Rs. 15,700

Answer - 2 : Rs. 16,700

Answer - 3 : Rs. 15,800

Answer - 4 : Rs. 15,600

Answer: 4

Description: Actual Fixed Overheads (Rs.15,000 + Rs.600) = 15,600

Question - 5 :

What is the operating profit variance? If budgeted profit is considered

Answer - 1 : Rs. 8,000 (A)

Answer - 2 : Rs. 10,000 (A)

Answer - 3 : Rs. 8,000 (A)

Answer - 4 : Rs. 11,000 (A)

Answer: 3

Description: Operating Profit Variance:

If budgeted profit is considered (Rs.15,000 – Rs. 7,000)

Rs. 8,000 (A)

Question - 6 :

What is the operating profit variance? If standard profit is considered:

Answer - 1 : Rs. 7,000 (A)

Answer - 2 : Rs. 8,000 (A)

Answer - 3 : Rs. 5,200 (A)

Answer - 4 : Rs. 9,800 (A)

Answer: 4

Description: Operating Profit Variance:

If standard profit is considered (Rs.16,800 – Rs. 7,000) Rs. 9,800 (A)

Case Scenario – 41

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 (Rs.) | 6,000 | 6,784 |
| Materials (Rs.) | 960 | 1,080 |
| Labour (Rs.) | 1,440 | 1,664 |
| Variable overheads (Rs.) | 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 Rs.) | Actual (In Rs.) |
|------------------------|-------------------|-----------------|
| Material price per kg. | 8.00 | 7.50 |
| Labour rate per hour | 6.00 | 6.40 |

Question - 1 :

What is the sales contribution price variance for Young Chin Limited?

Answer - 1 : Rs. 160 (F)

Answer - 2 : Rs. 384 (F)

Answer - 3 : Rs. 384 (A)

Answer - 4 : Rs. 160 (A)

Answer: 2

Description: Sales Contribution Price Variance = Sales Price Variance = 384 (F)

Question - 2 :

What is the budgeted (profit volume ratio) for Young Chin Limited?

Answer - 1 : 0.05

Answer - 2 : 0.20

Answer - 3 : 0.17

Answer - 4 : 0.08

Answer: 2

Description: Budgeted Profit Volume Ratio = $1,200/6,000 \times 100 = 20\% = 0.20$

Question - 3 :

What is the market size variance for Young Chin Limited?

- Answer - 1 : Rs. 160 (A)
 Answer - 2 : Rs. 240 (F)
 Answer - 3 : Rs. 240 (A)
 Answer - 4 : Rs. 160 (F)

Answer: 2

Description: Market Size Variance = (Required Sales Quantity in units – Total Budgeted Quantity in units) × Average Budgeted Contribution per unit = (28,800 units – 24,000 units) × Rs. 0.05 = Rs.240 (F)

Question - 4 :

What is the market share variance for Young Chin Limited?

- Answer - 1 : Rs. 160 (A)
 Answer - 2 : Rs. 240 (F)
 Answer - 3 : Rs. 210 (A)
 Answer - 4 : Rs. 100 (A)

Answer: 1

Description: Market S hare Variance = (Total Actual Quantity in units – Required Sales Quantity in units) × Average Budgeted Contribution per unit = (25,600 units – 28,800 units) × Rs. 0.05 = Rs.160 (A)

Case Scenario – 42

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 (Rs.) | 21,00,000 | 16,92,900 | (4,07,100) |
| Less: Variable Costs (Rs.) | 12,66,000 | 10,74,150 | 1,91,850 |
| Less: Fixed Costs (Rs.) | 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.

Question - 1 :

What is the Sales Volume Contribution Planning Variance?

- Answer - 1 : 52,125 (A)
 Answer - 2 : 22,125 (A)
 Answer - 3 : 52,215 (F)
 Answer - 4 : 52,152 (F)

Answer: 1

Description:

Volume Contribution Planning

= Budgeted Market Share % × (Actual Industry Sales Quantity in units – Budgeted Industry Sales Quantity in units) × (Average Budgeted Contribution per unit)

= 50% × (3,75,000 units – 4,00,000 units) × Rs.4.17

= 52,125 (A)

Question - 2 :

What is the Sales Volume Contribution Operational Variance?

Answer - 1 : 93,825 (F)

Answer - 2 : 93,825 (A)

Answer - 3 : 82,582 (A)

Answer - 4 : 82,582 (F)

Answer: 2

Description:

Volume Contribution Operational = (Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity in units) × (Average Budgeted Contribution per unit) = (44% – 50 %) × 3,75,000 units × Rs.4.17

= 93,825 (A)

Question - 3 :

What is the Fixed Cost Expenditure Variance?

Answer - 1 : Rs.16,000 (A)

Answer - 2 : Rs.15,000 (F)

Answer - 3 : Rs.17,000 (A)

Answer - 4 : Rs.15,000 (A)

Answer: 4

Description:

Fixed Cost Expenditure Variance : = Budgeted Fixed Cost – Actual Fixed Cost

= Rs.3,15,000 – Rs.3,30,000 = Rs.15,000 (A)

Question - 4 :

What is the Variable Cost Variance?

Answer - 1 : Rs.79,700(A)

Answer - 2 : Rs.79,700(F)

Answer - 3 : Rs.29,700(A)

Answer - 4 : Rs.29,700(F)

Answer: 3

Description:

Variable Cost Variance: = Standard Cost for Production – Actual Cost

= Actual Production × (Standard Cost per unit – Actual Cost per unit)
 = 1,65,000 units × (Rs.6.33 – Rs.6.51) = Rs.29,700(A)

Model Test Paper – Case Scenarios

(All repeated questions of Model Test Paper which are already covered above are not taken here again.)

Case Scenario – 43

Art Décor is a marble sculpture making company based out of Jaipur, Rajasthan. It has been making miniature figurines (small statues) for the past many years. It now plans to foray into making larger sizes statues that can be displayed in gardens, resorts or large corporate offices. As a trial it has asked its main designer Raj to come up with an appropriate design model that would appeal to such customers. There is already a competitive market for such larger size statues. However, the management of Art Décor has a skilled artist like Raj who can come up with attractive designs for customers. Within the month, Raj has come up with the appropriate design. Jay is the product manager who likes the design but wants to price it competitively in the market. The costing for 200 statues is as below:

| Cost | Amount (₹) |
|---------------------------------|------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |

MCQ 1

The target profit required is 25% of revenue. If the sale price per statue is ₹45,000 what is the target cost per statue?

Options

- (a) ₹33,750 per statue
- (b) ₹36,000 per statue
- (c) ₹42,000 per statue
- (d) ₹56,250 per statue

Answer: (a)

Reason – Target profit per statue is 25% of ₹45,000. Therefore, target profit is ₹11,250 per statue. Hence, target cost = selling price – target profit = ₹45,000 - ₹11,250 = ₹33,750 per statue. Option (b) ₹36,000 calculates that cost by taking profit to be 25% of cost i.e. 20% of selling price. Therefore, target cost is ₹45,000 - ₹9,000 = ₹36,000 per statue. Options (c) and (d) are incorrect options.

MCQ 2

What is the cost estimate per unit as per the cost information given above?

Options

- a) ₹45,000 per statue
- b) ₹42,500 per statue
- c) ₹30,250 per statue
- d) ₹43,000 per statue

Answer: (b)

Reason – Option (b) ₹42,500 per statue is the correct option. The calculation is given:

| Cost | Amount (₹) |
|---------------------------------|------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |
| Total Estimated Cost | 8,50,000 |

Estimated Cost per statue = ₹85,00,000 / 200 statues = ₹42,500 per statue.

MCQ 3

During the course of discussions, Jay the product manager found that the designer Raj plans to use high quality marble for these statues. Jay suggests that he use a much lower quality marble material for statues. This would reduce the material cost by 60%. Skilled labour hours required will also be reduced resulting in direct manufacturing labour to reduce by 50%. Accordingly, what would revised estimate cost per unit be if value engineering is applied?

Options

- (a) ₹45,000 per statue
- (b) ₹42,500 per statue
- (c) ₹30,250 per statue
- (d) ₹43,000 per statue

Answer: (c)

Reason – With 60% saving in direct material cost and 50% saving in direct manufacturing labour, the revised estimate cost per statue if value engineering is adopted would be:

| Cost | Amount (₹) |
|---------------------------------|------------|
| Design cost | 5,00,000 |
| Direct materials | 8,00,000 |
| Direct manufacturing labour | 12,50,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 10,00,000 |
| Total Estimated Cost | 60,50,000 |

Estimated Cost per statue = ₹60,50,000 / 200 statues = ₹30,250 per statue.

MCQ 4

Raj the designer does not agree with Jay's proposition given in (3) above. He feels that inferior quality material would affect the durability of the statue and hence would affect the demand

for it in the long run. Instead of value engineering, he feels that 10% increased spending in marketing can increase the selling price per statue to ₹50,000 per statue. The target profit required is 25% of revenue. Given this scenario, what is the target cost per statue?

Options

- (a) ₹33,750 per statue
- (b) ₹37,500 per statue
- (c) ₹35,000 per statue
- (d) ₹36,250 per statue

Answer: (b)

Reason – The target profit per statue is 25% of ₹50,000. Therefore, target profit is ₹12,500 per statue. Hence, target cost = selling price – target profit = ₹50,000 - ₹12,500 = ₹37,500 per statue.

MCQ 5

Given the situation in (4) what would be revised estimated cost per statue after increasing the spend on marketing?

Options

- (a) ₹45,000 per statue
- (b) ₹42,500 per statue
- (c) ₹30,250 per statue
- (d) ₹43,000 per statue

Answer: (d)

Reason – The revised estimate cost per statue would be:

| Cost | Amount (₹) |
|---------------------------------|------------|
| Design cost | 5,00,000 |
| Direct materials | 20,00,000 |
| Direct manufacturing labour | 25,00,000 |
| Variable manufacturing overhead | 20,00,000 |
| Fixed manufacturing overhead | 5,00,000 |
| Marketing | 11,00,000 |
| Total Estimated Cost | 86,00,000 |

Estimated Cost per statue = ₹86,00,000 / 200 statues = ₹43,000 per statue.

MCQ 6

What is the estimate profit earned per statue as per (3) (adopting value engineering) and (4) (increasing marketing spend)?

| Options | Profit per statue with value engineering as per (3) | Profit per statue after increased marketing spend as per (4) |
|---------|---|--|
| (a) | ₹14,750 | ₹7,000 |
| (b) | ₹2,500 | ₹7,000 |
| (c) | ₹11,250 | ₹12,500 |

Answer: (a)

Reason – Refer below given calculations. Jay the product manager’s proposal of adopting value engineering as per (4) is more profitable as compared to Raj the designer’s proposal. Adopting value engineering may be encouraged. At the same time, designer Raj’s opinion is also critical since it affects the durability of the product, which also impacts the long run demand for these products. Hence, the management of Art Décor has to take strategic decisions on the quality of statues it wants to launch. Pricing will also be affected by the external competitive market conditions.

| Particulars | Estimates as per value engineering (3) | Estimates as per marketing spend (4) |
|---------------------------|--|--------------------------------------|
| Selling price per statue | ₹45,000 | ₹50,000 |
| Estimated cost per statue | ₹30,250 | ₹43,000 |
| Profit per statue | ₹14,750 | ₹7,000 |

Case Scenario – 44

Fix It is a company that provides home services to clients within few urban cities like Mumbai, Delhi and Kolkata. These services include (1) home repairs like plumbing, electrical etc. and (2) appliance repair services.

The company receives enquiries at its call centre for the specific service required. The call centre assistants log the enquiry and provide a quote for the specific service. If acceptable to the customer, the enquiry is then converted into a service request (sales) and is attended to by professionals employed by the company for these various services. A request can have multiple requirements included, for example a single request can include both plumbing and electrical work. The company has a huge turnover due to the high demand for such services in urban areas. The company has been in operation for the last 2 years. The management wishes to assess current performance in order to set targets and benchmarks for future use. They wish to concentrate on both financial and non-financial information. The Building Block model suggested by Fitzgerald and Moon has been identified as the framework that will be used to prepare a performance evaluation report.

Given below are certain financial and non-financial information for the current year.

| Enquiries received from customers | Current year numbers |
|--|----------------------|
| From existing customers | 12,000 |
| From new customers | 8,000 |
| Number of services requested lodged from these enquiries | |
| From existing customers | 10,000 |
| From new customers | 7,500 |
| Total clients serviced last year (both existing and new) | 11,000 |
| Volume of activity | |
| Home repairs | 14,000 |
| Appliance repair | 5,000 |
| Number of Employees | |
| Home repairs | 200 |
| Appliance repair | 50 |

| | |
|---|-------|
| Complaints | |
| Number of complaints received (Last year 1,600 complaints were received) | 2,000 |
| Number of complaints resolved (Last year 1,520 complaints were resolved) | 1,900 |
| Gross profit on annual sales | 30% |

MCQ 1

Which of the following is true regarding conversion rate of inquiries into service requests?

- i. Conversion rate of existing customers is more than that of new customers
- ii. Conversion rate of existing customers is less than that of new customers
- iii. Conversion rate is calculated as [service requests lodged / enquiries received] × 100
- iv. Conversion rate is calculated as [enquiries received / service requests lodged] ×100

Options

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

Answer: (b)

The correct answer is statements ii and iii are true.

Conversion rate is calculated as [service requests lodged / enquiries received] * 100

| Conversion rate of enquiries into requests | Existing | New | Existing plus new customers |
|--|----------|--------|-----------------------------|
| Enquiries | 12,000 | 8,000 | 20,000 |
| Requests | 10,000 | 7,500 | 17,500 |
| Conversion rate of enquiries into requests | 83.33% | 93.75% | 87.50% |

MCQ 2

To which dimension do conversion rate of inquiries into service requests and retention of existing customers fall into?

Options

- (a) Flexibility
- (b) Resource utilization
- (c) Quality control
- (d) Competitiveness

Answer: (d)

The correct answer is the conversion rate of inquiries into service requests and retention of existing customers fall into the Competitiveness dimension.

MCQ 3

Which of the following is true regarding complaints received?

- i. Complaints received is a measure of quality-of-service dimension

- ii. Complaints received is a measure of flexibility dimension
- iii. The complaints received have increased by 25% over last year
- iv. Complaints received can be a reason for the lower retention of existing customers this year

Options

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

Answer: (b)

The correct answer is statements i, iii and iv are true regarding customer complaints. The number of complaints received is a measure of quality of service, higher the complaints lower the quality of service. The company received 2,000 complaints this year as against 1,600 last year. This is a 25% ($400/1,600$) increase. It is possible that lower quality of service resulted in a lower retention due to which the number of existing customers fell by 1,000 this year.

MCQ 4

Which of the following is true regarding complaints resolved?

- i. Complaints resolved is a measure of quality of service dimension
- ii. Complaints resolved is a measure of flexibility dimension
- iii. The ratio of complaints resolved to complaints received has remained the same as last year
- iv. Inability to resolve complaints can affect competitiveness of business

Options

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

Answer: (d)

The correct answer is statements ii, iii and iv are true regarding resolution of customer complaints. Resolution of customer complaints is a measure of flexibility in the operations of the company. Ability to handle and resolve multiple complaints builds flexibility. The ratio of complaints resolved to total complaints has remained 95% (this year $1,900/2,000$ complaints and last year $1,520/1,600$ complaints).

MCQ 5

Which of the following is true about average service performed by an employee?

- i. Average service performed by an employee is a measure of resource utilization
- ii. Average service performed by an employee is a measure of flexibility
- iii. Average service performed for home services is more than that for appliance repair
- iv. Average service performed for home services is less than that for appliance repair

Options

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

Answer: (a)

The correct answer is i and iv. Average service performed by an employee is a measure of resource utilization. It shows efficiently the human resource is being used. The average service performed for home repairs is 70 per employee (14,000 activities / 200 employees) while the average service performed for appliance repair is 100 per employee (5,000 activities / 50 employees).

MCQ 6

Which dimension does gross profit on annual sales indicate?

Options

- (a) Competitiveness
- (b) Financial
- (c) Resource utilization
- (d) Quality of service

Answer: (b)

The correct answer is the gross profit over annual sales is measure for financial dimension.

Case Scenario – 45

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.

Note- True economic value/ Objective value to be determined in this scenario from the point of view of PowerOn, the battery manufacturer.

MCQ 1

Calculate the difference in operating cost (in ₹) per battery.

Options

- (a) 2,000
- (b) 4,000
- (c) 6,000
- (d) 8,000

Answer: (d)

| Particular | Amount |
|---|--------|
| Difference in Operating Cost per battery (higher expense incurred by buyer) | 8000 |
| Bataid = ₹ 2 per hour | |
| Bat = ₹ 1 per hour | |
| For 8,000 hours = 8,000 × (₹2 - ₹1) | |

MCQ 2

Calculate the savings (in ₹) to buyer due to more stable performance of battery.

Options

- (a) 4,000
- (b) 6,000
- (c) 8,000
- (d) 10,000

Answer: (d)

| Particular | Amount ₹ |
|--|----------|
| Savings to buyer due to more stable performance of battery | 10,000 |
| Cost of battery failing = ₹1,00,000 | |
| Difference in probability of battery failure (1% vs 11%) = 10% | |
| Lower cost of failure to buyer = 10% × ₹1,00,000 | |

MCQ 3

Calculate the value differential (in ₹) of using Bataid.

Options

- (a) 1,000
- (b) 2,000
- (c) 4,000
- (d) 6,000

Answer: (b)

| Particular | Amount ₹ |
|---|----------|
| Value Differential of using Bataid (MCQ 2 – MCQ 1) | 2,000 |

MCQ 4

Calculate the probable price (in ₹) PowerOn can charge the medical equipment manufacturer based on the True Economic Value method.

Options

- (a) 38,000
- (b) 18,000
- (c) 23,000
- (d) 22,000

Answer: (d)

| Particular | 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% Lower cost of failure to buyer = $10\% \times \text{₹}1,00,000$ | 10,000 |
| 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 |

Case Scenario – 46

Following are the scores of six firms as per Argenti's A score model.

| 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 |

MCQ 1

You are required to identify healthy firms –

Options

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

Answer: (c)

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.

MCQ 2

You are required to identify firms at Risk –

Options

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

Answer: (d)

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.

MCQ 3

Argenti's A score model has following dimensions or group –

- i. Defects
- ii. Mistakes
- iii. Warning
- iv. symptoms of failure

Options

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

Answer: (c) by definition. Warning is not a dimension of this model.

Case Scenario – 47

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.

MCQ 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”?

Options

- (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.

Answer: (b)

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.

MCQ 2

Which of the following scenarios has a less chance of happening if Nutty Bites does not take any action?

Options

- (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

Answer: (d)

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.

MCQ 3

Which is not a non-financial consideration while considering any potential responses to address the health and safety issue?

Options

- (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.

Answer: (c)

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 – 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.”

MCQ 1

Which of the following would be a Key Performance Indicator that directly relates the “zero defective sale “CSF identified above?

Options

- (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: (b)

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.

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