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Register Number:

DATE:17-03-2022

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27**

**UG – III SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2021**

**(Exam conducted in February-March 2022)**

**BC IFA 3519: Performance Management I**

Time- 2 ½ hrs Max Marks-70

**This paper contains 3 printed pages and four parts**

**Section A**

I Answer ***any five*** of the following (**2 x 5 = 10 marks)**

1. What is performance management?
2. Clarify the term “Target Costing”.
3. State any four benefits of life cycle costing.
4. Write a short note on opportunity cost.
5. What is price elasticity of demand?
6. Distinguish between risk and uncertainty.

**Section B**

II Answer ***any three*** of the following (**5 x 3 = 15 marks)**

1. Explain the steps to ascertain cost gap.
2. Company B is developing a new product for launch in its existing market. They have forecast sales of 20,000 units and the marketing department suggest a selling price of $43/unit. The company seeks to make a mark-up of 40% product cost. It is estimated that the lifetime costs of the product will be as follows:

(1) Design and development costs $43,000.

(2) Manufacturing costs $15/unit.

(3) Plant decommissioning costs $30,000.

The company estimates that if it were to spend an additional $15,000 on design, manufacturing costs/unit could be reduced.

What is the life cycle cost per unit of the new product?

1. Explain the factors influencing pricing of a product.
2. An organization is considering launching a new product. It will do so if the expected value of the total revenue is in excess of $1,000. It is decided to set the selling price at $10. After some investigation a number of probabilities for different levels of sales revenue are predicted; these are shown in the following table:

|  |  |  |
| --- | --- | --- |
| Units sold | Revenue ($) | Probability |
| 80 | 800 | 0.15 |
| 100 | 1,000 | 0.50 |
| 120 | 1,200 | 0.35 |

Calculate Expected Value

**Section C**

III Answer ***any two*** of the following (**15 x 2 = 30 marks)**

1. XYZ Company has submitted the following data of a product it is about to launch. The product is expected to have a life of three years.

|  |  |  |  |
| --- | --- | --- | --- |
| Year | 1 | 2 | 3 |
| expected sales units | 2,000 | 5,000 | 7,000 |
| Variable production cost per unit | $ 2.30 | $ 1.80 | $ 1.20 |
| Fixed production cost per unit | $ 3,000 | $ 3,500 | $ 4,000 |
| Variable selling cost per unit | $ 0.50 | $ 0.40 | $ 0.40 |
| Fixed selling cost | $ 1,500 | $ 1,600 | $ 1,600 |
| Administrative cost | $ 700 | $ 700 | $ 700 |

Calculate Life Cycle Cost per unit.

1. (a) Find the linear relationship between price (P) and the quantity demanded (Q) in relation to the following sales and demand data:

– Selling price of $300 = sales of 500 units per month

– Selling price of $330 = sales of 400 units per month.

(b) Using the price equation in (a) and assuming the variable cost per unit is $90, calculate the optimum price and output.

(c) Calculate the maximum contribution.

1. Geoffrey runs a kitchen that provides food for various canteens throughout a large organization. A particular salad is sold to the canteen for $10 and costs $8 to prepare. Therefore, the contribution per salad is $2.

Based upon past demands, it is expected that, during the 250-day working year, the canteens will require the following daily quantities:

On 25 days of the year 40 salads

On 50 days of the year 50 salads

On 100 days of the year 60 salads

On 75 days 70 salads

Total 250 days

The kitchen must prepare the salad in batches of 10 meals. Its staff has asked you to help them decide how many salads it should supply for each day under maxi max rule.

**Section D**

**IV. Answer the following (15 marks)**

1. Following data is now available for Saturn company:

|  |  |
| --- | --- |
| Machining costs |  $5,000 |
| Component costs  | 15,000 |
| Set-up costs  | 30,000 |
| Packing costs  | 30,000 |
| Production overhead  | 80,000 |

|  |  |  |  |
| --- | --- | --- | --- |
| Cost driver data: |  |  |  |
| Particulars | SKY BAR $ | MOON EGG $ | SUN BAR$ |
| Actual production/sales units  | 5,00,000 | 1,50,000 | 2,50,000 |
| Machine hours per unit  | 0.01 | 0.04 | 0.02 |
| Number of production setups | 3 | 1 | 26 |
| Number of components  | 4 | 6 | 20 |
| Number of customer orders  | 21 | 4 | 25 |
| Direct labour cost per unit  | 0.07 | 0.14 | 0.12 |
| Direct material cost per unit  | 0.17 | 0.19 | 0.16 |

Required:

Using ABC, calculate the full production cost per unit and the profit per unit for each product.