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**ST JOSEPH’S UNIVERSITY, BENGALURU -27**

**B. Com IFA – 2nd SEMESTER**

**SEMESTER EXAMINATION: APRIL 2024**

**(Examination conducted in May / June 2024)**

**BCIFA 2221: Performance Management I**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 60**

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

**Section A**

**I.** Answer ***any five*** of the following (**3 x 5 = 15 marks)**

1. Explain the nature of CVP analysis.
2. What are Cost Drivers? Give two examples.
3. Expenses of $75 paid to the marketing manager. This was to reimburse the manager for the cost of travelling to meet a client with whom the company is currently negotiating a major contract. Is this cost relevant to the decision to continue negotiations? What do you understand by relevant costing?
4. Distinguish between risk & uncertainty with examples.
5. What is desk research? State any two main types of information that can be collected by desk research.
6. A product has a prime cost of $12, variable overheads of $3 per unit and fixed overheads of $6 per unit.

Examine which pricing policy gives the highest price along with suitable reasons.

1. Pime cost +80%
2. Marginal cost +60%
3. Total absorption cost+20%
4. Net margin of 14% on selling price.

**Section B**

**II.** Answer ***any two*** of the following (**5 x 2 = 10 marks)**

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.

1. MNO company manufactures three products M, N & O, the details of which are shown below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **M** | **N** | **O** |
| Selling price per unit | Rs.360 | Rs.330 | Rs.390 |
| Direct material cost per unit | Rs.180 | Rs.210 | Rs.255 |
| Variable Overhead | Rs.90 | Rs.60 | Rs.45 |
| Maximum demand ( units) | 30000 | 25000 | 40000 |
| Time required on the bottleneck resource (hours per unit) | 10 | 8 | 6 |

There are 6, 40,000 bottleneck hours available each month.

Calculate the optimum product mix based on the throughput concept.

1. Relevant costing is a valuable management accounting tool that aids firms in making informed decisions by focusing on costs and revenues that are relevant to a specific situation. Discuss the different types of decisions a firm may analyze using relevant costing.

**Section C**

**III.** Answer ***any two*** of the following (**10 x 2 = 20 marks)**

1. Glove Co, a shoe manufacturer, has developed a new product called the ‘Glove Co’ for children, which has a built-in tracking device.

The shoes are expected to have a life cycle of two years, at which point Glove Co hopes to introduce a new type of Smart Shoe with even more advanced technology.

Glove Co plans to use life cycle costing to work out the total production cost of the Smart Shoe and the total estimated profit for the two-year period.

Glove Co has spent $5·6m developing the Smart Shoe. The time spent on this development meant that the company missed out on the opportunity of earning an estimated $800,000 contribution from the sale of another product.

The company has applied for and been granted a ten-year patent for the technology, although it must be renewed each year at a cost of $100,000.

The costs of the patent application were $500,000, which included $20,000 for the salary costs of Glove Co’s lawyer, who is a permanent employee of the company and was responsible for preparing the application.

The following information is also available for the next two years:

The glove co revenue is $34.3

|  |  |  |
| --- | --- | --- |
| **Particulars** | **Year 1** | **Year 2** |
| Sales volumes (units) | 2,80,000 | 4,20,000 |
|  | $ | $ |
| Selling price per unit | 55 | 45 |
| Material cost per unit | 15 | 16 |
| Labour cost per unit | 8 | 7 |
| **Note:** A unit is a pair of shoes |  |  |

|  |  |  |
| --- | --- | --- |
| Other costs are expected to be as follows: | |  |
|  |  |  |
| **Particulars** | **Year 1** | **Year 2** |
|  | $m | $m |
| Fixed production overheads | 1.6 | 2.2 |
| Selling and distribution overheads | 0.6 | 0.9 |
| Environmental costs | 0.1 | 0.15 |

Glove Co is still negotiating with marketing companies with regard to its advertising campaign, so is uncertain as to what the total marketing costs will be each year. However, the following information is available as regards the probabilities of the range of costs which are likely to be incurred:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | |  |  | |  | |
|  | **Year 1** | | |  | |  | | **Year 2** |  |
| **Expected Revenue** | **Expected Cost** | | | **Probability** | | **Expected Revenue** | | **Expected Cost** | **Probability** |
| ($m) | ($m) | | |  | | ($m) | | ($m) |  |
| 10.1 | 2.0 | | | 0.2 | | 8.6 | | 1.7 | 0.3 |
| 9.2 | 2.6 | | | 0.5 | | 12.2 | | 2.1 | 0.4 |
| 7.6 | 2.7 | | | 0.3 | | 11 | | 2.3 | 0.3 |

Required:

1. Applying the principles of life cycle costing, calculate the total expected profit for Glove Co for the two-year period. (8 marks)
2. What is the total expected value of the marketing cost for the two years on the smart Boots range? (2 marks)
3. In the intricate landscape of business, pricing decisions emerge as a multifaceted and critical aspect in the realm of performance management. A company's pricing strategy encompasses a range of decisions that extend beyond merely setting a cost for its products or services. What do you think are the factors that influence the pricing of a product or service? Also explain in detail the different pricing strategies.
4. a) Write a short note on price elasticity of demand. ( 5 marks)

b) XYZ Ltd is a car manufacturer introducing a new type of car in a market where there is imperfect competition, so that to sell more units of output, it must reduce the sales price of all the units it sells. The following data is available for prices, and costs (all in $000)

|  |  |  |
| --- | --- | --- |
| **Price per unit** | **Demand/output units** | **Total cost** |
| 50 | 1 | 44 |
| 47 | 2 | 56 |
| 44 | 3 | 71 |
| 41 | 4 | 85 |
| 38 | 5 | 95 |
| 35 | 6 | 110 |
| 32 | 7 | 122 |
| 29 | 8 | 135 |
| 26 | 9 | 145 |

Required:

Complete the table below to determine the output level and price at which the organisation would maximise its profits. (5 marks)

**Section D**

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



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Gam Co sells electronic equipment and is about to launch a new product onto the market. It needs to prepare its budget for the coming year and is trying to decide whether to launch the product at a price of $30 or $35 per unit.  The following information has been obtained from market research:   1. Variable production costs would be $12 per unit for production volumes up to and including 100,000 units each year. However, if production exceeds 100,000 units each year, the variable production cost per unit would fall to $11 for all units produced. 2. Advertising costs would be $900,000 per annum at a selling price of $30 and $970,000 per annum at a price of $35. 3. Fixed production costs would be $450,000 per annum.  |  |  |  |  | | --- | --- | --- | --- | | **Price per unit $30** |  | **Price per unit $35** |  | | **Probability** | **Sales volume** | **Probability** | **Sales volume** | | 0.4 | 1,20,000 | 0.3 | 1,08,000 | | 0.5 | 1,10,000 | 0.3 | 1,00,000 | | 0.1 | 1,40,000 | 0.4 | 94,000 | |
| (a) Calculate each of the six possible profit outcomes which could arise for Gam Co in the coming year. (8 marks)  (b) Calculate the expected value of profit for each of the two price options and recommend, on this basis, which option Gam Co would choose. (4 marks)  (c) Briefly explain the maximin decision rule and identify which price should be chosen by management if they use this rule to decide which price should be charged. (3 marks) |

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