



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

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AUGUST - DECEMBER 2015 TRIMESTER

FACULTY OF COMMERCE

MBA EVENING PROGRAMME

CAC 610: MANAGERIAL ACCOUNTING

Date: DECEMBER 2015

Duration: 3 Hours

INSTRUCTIONS: Answer ALL FOUR Questions

Q1. BDU Co is a manufacturer of baby equipment and is planning to launch a revolutionary new style of sporty push chair. The company has commissioned market research to establish possible demand for the pushchair and the following information has been obtained. If the price is set at \$ 425 demand is expected to be 1000 pushchairs, at \$500 it will be 730 pushchairs and at \$600 it will be 420 pushchairs. Variable costs are estimated at either \$170, \$210 or \$260. A decision needs to be made on what price to charge. A table showing the expected contribution for each of the nine possible outcomes has been prepared as follows

Price

| | | \$425 | \$500 | \$600 |
|---------------|-------|-------------|-------------|--------|
| Variable cost | \$170 | 255000(w1) | 240900 (w3) | 180600 |
| | \$210 | 215000 (w2) | 211700 | 163800 |
| | \$260 | 165000 | 175200 | 142800 |

Workings

1. $(425 - 170) \times 1000 = \$ 255,000$
2. $(425 - 210) \times 1000 = \$ 215,000$
3. $(500 - 170) \times 730 = \$ 240,900$

Required:

- a) Explain what is meant by maximax, maximin and minimax regret decisions rules using the information in the scenario to illustrate your explanations. **(15 marks)**
- b) Explain the use of expected values and sensitivity analysis and suggest how BOU could make use of such techniques. **(10 marks)**

Q2. Hair Co manufactures three types of electrical goods for hair; curlers (c) straightening irons (s) and dryers (D) The budgeted sales prices and volumes for the next year are as follows

| | C | S | D |
|---------------|-------|-------|-------|
| Selling price | \$110 | \$160 | \$120 |
| Units | 20000 | 22000 | 26000 |

Each product is made using a different mix of the same materials and labour. The budgeted sales volume for all the products have been calculated by adding 10% to last year's sales. The standard cost card for each product is shown below

| | C | S | D |
|-----------|----|----|----|
| Maerials | | | |
| Materials | 20 | 50 | 42 |
| Labour | 30 | 54 | 50 |

Labour costs are variable. The general fixed overheads are expected to be \$ 640,000 for the next year.

Required:

- a) Calculate the weighted average contribution average to sales ratio for Hair Co. **(10 marks)**
- b) Calculate the total break-even point in
i Units. **(1 ½ marks)**
ii Sales **(1 ½ marks)**
- c) Sketch the total break even points in a graph.
- d) Calculate the break-even point for each product
i Units. **(3 marks)**

ii Sales

(3 marks)

e) Sketch the break-even points in a graph for each product. **(6 marks)**

Q3. Gym Bunnies (GB) is a health club. It currently has 6000 members with each member paying a subscription fee of \$720 per annum. The club is comprised of a gym, a swimming pool and a small exercise studio. A competitor company is opening a new gym in GB's local area and this is expected to cause a fall in GB's membership members unless GB can improve its own facilities. Consequently GB is considering whether or not to expand its exercise studio in a hope to improve its membership numbers. Any improvements are expected to last for three years.

Option one

No expansion in this case, membership numbers would be expected to fall to \$5250 per annum for the next three years. Operational costs would stay at their current level of \$80 per member per annum.

Option two

Expand the exercise studio. The capital cost of this would be \$ 360,000. The expected effect on membership numbers for the next three years is as follows. Probability effect on membership numbers 0.4 remain at their current level of 6000 members per annum. 0.6 increase to 6500 members per annum. The effect on operational costs for the next three years is expected to be

| Probability | Effect on operational cost |
|-------------|--|
| 0.5 | Increase to \$120 per member per annum |
| 0.5 | Increase to \$180 per member per annum |

Required:

- Using the criterion of expected value, prepare and fully label a decision tree that shows the two options available to G.B recommend the decision that GB should make. **(15 marks)**
- Calculate the maximum price that GN should pay for perfect information about the expansions exact effect on membership numbers. **(10 marks)**

- Q4. Management accountants play a great role in the management of organization. Discuss challenges that management accountants face (encounter) when executing their role on the management of organizations. **(25 marks)**

END