

# KASNEB

## CPA PART III SECTION 5

### ADVANCED MANAGEMENT ACCOUNTING

WEDNESDAY: 25 November 2015.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

#### QUESTION ONE

Zomau Ltd. is in the process of setting a selling price for one of its products.

Three prices are under consideration; Sh.40, Sh.43 and Sh.44 per unit.

The following information is also provided about future demand for the product under different market conditions:

| Market condition | Demand (in units) under the three prices |        |        |
|------------------|--|--------|--------|
|                  | Sh.40                                    | Sh.43  | Sh.44  |
| Best possible    | 18,000                                   | 16,000 | 14,500 |
| Most likely      | 16,000                                   | 14,500 | 14,000 |
| Worst possible   | 12,000                                   | 10,000 | 8,000  |

Fixed costs are estimated to be Sh.240,000 and the variable cost per unit is Sh.20.

#### Required:

Advise the company on the best possible price to set for the product on the basis of the following decision making criteria:

- (a) Maximax decision rule. (4 marks)
- (b) Maximin decision rule. (4 marks)
- (c) Laplace criterion of rationality. (4 marks)
- (d) Minimax criterion. (4 marks)
- (e) Advise Zomau Ltd. whether it is worth acquiring perfect information, assuming that the cost of obtaining the information is Sh.3,167. (4 marks)

(Total: 20 marks)

#### QUESTION TWO

- (a) Describe four advantages of activity based budgeting (ABB). (8 marks)
- (b) The following data relate to Mambo Leo Ltd's estimated usage of raw materials for the month of December 2015.

| Usage (units) | Probability |
|---------------|-------------|
| 1,440         | 0.06        |
| 1,520         | 0.14        |
| 1,600         | 0.30        |
| 1,680         | 0.16        |
| 1,760         | 0.13        |
| 1,840         | 0.10        |
| 1,920         | 0.07        |
| 2,000         | 0.04        |

#### Additional information:

- 1. Stock outs will cost the company Sh.80 per unit.
- 2. Average monthly holding cost is estimated at Sh.10 per unit.
- 3. A lead time of four days is required for ordering raw materials.
- 4. The economic order quantity for the raw materials is 1,600 units every 30 days.

#### Required:

- (i) The optimal safety stock. (10 marks)
- (ii) The probability of being out of stock. (2 marks)

(Total: 20 marks)

#### QUESTION FOUR

- (a) Transfer prices are of critical importance in evaluating performance because they influence both revenues of the selling division and costs of the buying division.

In reference to the above statement, explain five transfer pricing policies that could be adopted and their implications. (10 marks)

- (b) The following data relate to the operations of division X of Pendo Ltd.:

|                        | Sh.       |
|------------------------|-----------|
| Selling price per unit | 90        |
| Variable cost per unit | 54        |
| Fixed costs per year   | 900,000   |
| Investments            | 2,700,000 |

#### Additional information:

1. Y Ltd. has placed a special order for 10,000 units per year from Pendo Ltd. The firm has requested for a special price.
2. The current volume of production is 43,000 units.
3. Accepting the special order will increase fixed costs by Sh.90,000 and investment by Sh.240,000.

#### Required:

- (i) The number of units to be sold to achieve a return on investment of 25% without the special order. (2 marks)
- (ii) The return on investment without the special order. (2 marks)
- (iii) The lowest price at which Pendo Ltd. could sell the additional 10,000 units without reducing the return on investment in (b) (ii) above. (6 marks)

(Total: 20 marks)

#### QUESTION FIVE

- (a) Citing three reasons, explain the purpose of cost estimation. (6 marks)

- (b) Wood Ltd. makes quality wooden benches for both indoor and outdoor use. Results have been disappointing in recent years and a new managing director, Mr. P. Rono was appointed to raise production volumes.

After an initial assessment, Mr. P. Rono considered that budgets had been set at low levels which were easily achieved by employees. He argued that employees would be better motivated by setting budgets which challenge them more in terms of higher expected output.

Other than changing the overall budgeted output, Mr. P. Rono has not altered any part of the standard cost card. Thus, the budgeted output and sales for the month of October 2015 was 4,000 benches. The standard cost card below was prepared on this basis.

|  | Sh.        |
|--|------------|
| Wood: 25 kilogrammes at Sh.3.20 per kilogramme | 80         |
| Labour: 4 hours at Sh.8 per hour               | 32         |
| Variable overheads: 4 hours at Sh.4 per hour   | 16         |
| Fixed overheads: 4 hours at Sh.16 per hour     | <u>64</u>  |
| Total cost                                     | 192        |
| Standard profit                                | <u>28</u>  |
| Standard selling price                         | <u>220</u> |

#### Additional information:

1. Overheads are absorbed on the basis of labour hours. The company uses absorption costing system.
2. There were no stocks at the beginning of October 2015.
3. Stocks are valued at standard cost.
4. Actual results for the month of October 2015 were as follows:

|  | Sh.            |
|--|----------------|
| Wood: 80,000 kilogrammes at Sh.3.50 per kilogramme | 280,000        |
| Labour: 16,000 hours at Sh.7 per hour              | 112,000        |
| Variable overheads                                 | 60,000         |
| Fixed overheads                                    | <u>196,000</u> |
| Total production cost (3,600 benches)              | 648,000        |

**QUESTION THREE**

- (a) (i) In the context of management accounting, explain the term “life cycle costing”. (2 marks)
- (ii) Kipevu Ltd. is considering launching a new product branded “KV”. The product is estimated to have a life of three years.

The following costs are estimated to be incurred at different phases of the product’s lifecycle:

|                                      | Sh.“000”   | Sh.“000” |
|--------------------------------------|------------|----------|
| Research and development             |            | 1,500    |
| Product design                       |            | 600      |
| Operating costs: Year 1              | 360        |          |
| Year 2                               | 420        |          |
| Year 3                               | <u>432</u> | 1,212    |
| Disposal cost (at the end of year 3) |            | 60       |

**Additional information:**

1. The company’s target revenues for the three years are as follows:

| Year | Revenue (Sh.“000”) |
|------|--------------------|
| 1    | 900                |
| 2    | 1,800              |
| 3    | 2,400              |

2. The present value factors are estimated as follows:

| Year | Present value factor |
|------|----------------------|
| 1    | 0.9100               |
| 2    | 0.8300               |
| 3    | 0.7500               |

**Required:**

Advise the management of Kipevu Ltd. on whether the product should be launched. (8 marks)

- (b) Tamu Catering Services seized a market opportunity to supply ready meals to XYZ Airlines. The meals are served to passengers as part of inflight services under two categories namely; economy class and business class. An analysis of results for the financial year ended 31 October 2015 for each category are shown below:

|                           | Economy class | Business class |
|---------------------------|---------------|----------------|
| Number of meals (million) | 3.5           | 7              |
|                           | Sh.“million”  | Sh.“million”   |
| Sales                     | <u>350</u>    | <u>980</u>     |
| <b>Costs:</b>             |               |                |
| Ingredients (variable)    | 175           | 560            |
| Labour (fixed)            | 70            | 140            |
| Administrative (fixed)    | <u>110</u>    | <u>220</u>     |
| Total costs               | <u>355</u>    | <u>920</u>     |
| Profit/(loss)             | <u>(5)</u>    | <u>60</u>      |

**Additional information:**

- The unit costs and prices applicable to this business have been stable and are expected to remain as such for the foreseeable future.
- The cost of ingredients are identifiable directly to each category.
- Other costs (labour and administrative) are common to both categories and have been allocated to the two categories in proportion to the total number of meals sold each year.
- The business could expand beyond its present volume without incurring any increase in fixed costs. The fixed costs would also not change if either of the categories was abandoned.

**Required:**

- (i) The total sales required to break-even. (6 marks)
- (ii) The total sales required to earn a revenue of Sh.300 million. (4 marks)

(Total: 20 marks)

|  | Sh.             |
|--|-----------------|
| Closing stock (400 benches at Sh.192 each) | <u>(76,800)</u> |
| Cost of sales                              | 571,200         |
| Sales (3,200 benches at Sh.225 each)       | <u>720,000</u>  |
| Actual profit                              | <u>148,800</u>  |

5. The average monthly production and sales prior to October 2015 had been 3,400 units and budgets had previously been set at this level. Very few variances had historically been generated by the standard costs used.
6. Mr. P. Rono has made some significant changes to the operations of the company. However, the other directors are now concerned that Mr. P. Rono has been too ambitious in raising production targets.

**Required:**

Prepare an operating statement for the month of October 2015 showing all operating variances and reconciling budgeted and actual profits. (14 marks)

**(Total: 20 marks)**

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