kasneb

CPA PART III SECTION 5

ADVANCED MANAGEMENT ACCOUNTING

WEDNESDAY: 1 September 2021. **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

(a) Explain the term "responsibility accounting". (2 marks)

(b) Examine four advantages of responsibility accounting. (8 marks)

(c) The divisional managers of Lenga Juu Ltd., a medium-sized company are usually evaluated and those with outstanding performance rewarded on an annual basis. The divisional manager of KT division is faced with the following mutually exclusive investments:

	Project A	**Project B**
	Sh.	**Sh.**
Initial capital outlay	8,000,000	8,120,000
Net cash flows:		
Year		
2022	3,620,000	4,260,000
2023	3,620,000	3,580,000
2024	3,620,000	2,640,000
2025	3,620,000	2,100,000

Additional information:

1. The initial capital outlay is to be amortised evenly over the projects' lives.
2. The initial outlay is to be made on 1 January 2022.
3. The company's required rate of return is 18%.
4. All cash flows accrue evenly throughout the year.
5. Assets are valued at the net book value at the beginning of each year in determining the divisional returns.
6. Both projects A and B are expected to have nil residual value.
7. Ignore taxation.

Required:

(i) Using the average residual income method of project evaluation, advise the management on the project to select. (5 marks)

(ii) Determining the average return on investment, advise the management on which project to select. (5 marks)

(Total: 20 marks)

QUESTION TWO

(a) Highlight four limitations of the learning curve theory as a tool for cost estimation and forecasting. (4 marks)

(b) Safi Ltd. manufactures and markets automatic dish-washing machines. Among the components which it purchases each year from external suppliers for assembly into finished article are new window units, of which it uses 20,000 units per annum. It is considering buying in bulk in order to claim quantity discounts. This will lower the number of orders placed but raise the administrative and other costs of placing and receiving orders. The details of actual and expected ordering costs and carrying costs are given below:

	Actual	**Proposed**
Ordering costs per order (O)	Sh.31.25	Sh.120
Purchase cost per item (P)	Sh.6.25	Sh.6.0
Annual Inventory holding cost as a percentage of purchase cost (I)	20%	20%

Additional information:

1. To implement the new arrangements, re-organisation will be required of which estimated costs amount to Sh.10,000.
2. These costs can be wholly claimed as a business expense for tax purposes in the year before the system comes into operation.
3. The corporate tax rate is 30%.

Required:

(i) Determine the change in the economic order quantity (EOQ) caused by the new system. (6 marks)

(ii) Calculate the payback period for the proposal and comment on your results. (8 marks)

(iii) Outline any two limitations of the payback period method applied in (b) (ii) above. (2 marks)

(Total: 20 marks)

QUESTION THREE

Sori Ltd. is a company engaged solely in the manufacture of jumpers which are bought mainly for sporting activities. The current sales are direct to retailers, but in recent years there has been a steady decline in output because of increased competition. In the last trading year (2020), the accounting report indicated that the company reported the lowest profit for the last 10 years.

The forecast for 2021 indicates that the present deterioration in profits is likely to continue. The company considers that a profit of Sh.8 million should be achieved to provide an adequate return on capital.

The managing director has asked that a review be made of the present pricing and marketing policies. The marketing director has completed this review and passes the proposals to you for evaluation and recommendation, together with the profit and loss account for the year ended 31 December 2020.

Sori Ltd. profit and loss account for the year ended 31 December 2020

	Sh."000"	**Sh."000"**	**Sh."000"**
Sales revenue (100,000 jumpers at Sh.1,000 per jumper)			100,000
Factory cost of goods sold:			
Direct materials	10,000		
Direct labour	35,000		
Variable factory overheads	6,000		
Fixed factory overheads	22,000	73,000	
Administrative overheads		14,000	
Selling and distribution overheads:			
• Sales commission (2% of sales)	2,000		
Delivery costs:			
• Variable	5,000		
• Fixed	4,000	11,000	(98,000)
Profit			2,000

The information to be submitted to the managing director includes the following three proposals:

1. To proceed on the basis of analysis of market research studies which indicate that demand for the jumpers is such that a 10% reduction in selling price would increase demand by 40%.
2. To proceed with an inquiry that the marketing director has had from a mail order company about the possibility of purchasing 50,000 units annually if the selling price is right. The mail order company would transport the jumpers from Sori Ltd. to its own warehouse and no sales commission would be paid on these sales by Sori Ltd. However, if an acceptable price can be negotiated, Sori Ltd. would be expected to contribute Sh.6 million per annum towards the cost of producing the mail order catalogue. It would also be necessary for Sori Ltd. to provide special additional packaging at a cost of Sh.50 per jumper. The marketing director considers that in 2021, the sales from existing business would remain unchanged at 100,000 jumpers based on a selling price of Sh.1,000 per jumper if the mail order contract is undertaken.
3. To proceed on the basis of a view by the marketing director that a 10% price reduction, together with national advertising campaign costing Sh.3 million may increase sales to the maximum capacity of 160,000 jumpers.

Required:

(a) Determine the break-even sales value based on the 2020 accounts. (4 marks)

(b) A financial evaluation of proposal (1) above and computation of the number of units Sori Ltd. would require to sell to earn a target profit of Sh.8 million. (6 marks)

(c) Advise the management of Sori Ltd. on the minimum prices that would have to be quoted to the mail order company to ensure that Sori Ltd. would at least break-even on the mail order contract. (6 marks)

(d) A financial evaluation of proposal 3. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Explain three differences between "standard costing" and "target costing". (6 marks)

(b) Describe three challenges encountered in environmental management accounting. (6 marks)

(c) The following details show the direct labour requirements for the first six batches of a new product that were manufactured in the month of August 2021:

	Budget	**Actual**
Output (batches)	6	6
Labour hours	2,400	1,950
Total labour cost (Sh.)	1,680,000	1,365,000

The management accountant reported the following variances.

Total labour cost variance	-	Sh.315,000
Labour rate variance	-	Nil
Labour efficiency variance	-	Sh.315,000

The production manager has now said that he forgot to inform the management accountant that he expected a 90% learning curve to apply for at least the first 10 batches.

Required:

The planning and operational variances that analyse the actual performance taking into account the anticipated learning effect. (Learning index for 90% learning curve is – 0.1520). (8 marks)

(Total: 20 marks)

QUESTION FIVE

(a) PM Ltd. operates two divisions namely X and Y. Division X produces an intermediate product M that has no external market. The product is then transferred to Division Y where it is used as an input in the production of product N.

The following relates to the demand schedule of product N:

Quantity sold (units)	**Selling price (Sh.)**
1,000	150
2,000	140
3,000	130
4,000	120
5,000	110
6,000	100

Divisional costs are as shown in the table below:

	Division	
	X	**Y**
	Sh.	**Sh.**
Variable cost per unit	13	7
Fixed costs attributable to the product	50,000	70,000

Additional information:

1. Product N is transferred to Division Y at Sh.25 per unit.
2. Assume that production of both M and N is in batches of 1,000 units.

Required:

(i) The profit maximising output level for Division X at the current transfer price. (4 marks)

(ii) The optimal output level for the overall company given that the variable cost of Division X is Sh.5 per unit. (4 marks)

(b) The standard cost of a certain chemical mixture is:

40% material A at Sh.20 per kg.
60% material B at Sh.30 per kg.

Standard loss of 10% is expected during production.

During the month of July 2021, the actual data was as follows:

Materials used:

Material A: 90 kgs at a cost of Sh.18 per kg.
Material B: 110 kgs at a cost of Sh.34 per kg.

The weight produced was 182 kgs of good production.

Required:
Compute:

(i) Material price variance. (3 marks)

(ii) Material mix variance. (3 marks)

(iii) Material yield variance. (3 marks)

(iv) Material cost variance. (3 marks)

(Total: 20 marks)

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