



CPA ADVANCED LEVEL

ADVANCED MANAGEMENT ACCOUNTING

WEDNESDAY: 26 April 2023. Afternoon Paper. Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

(a) TWO Explain advantages of each of the following policies as used in management accounting:

- (i) Transfer pricing policy. (4 marks)
- (ii) Economic value added (EVA). (4 marks)

(b) The following information applies to the planned operations of Venus Division of Planet Group for the next financial year:

Sh. "000"

Sales revenue (100,000 units at Sh.120) 12,000

Variable costs (100,000 units at Sh.80) (8,000) _____

Contribution 4,000

Fixed costs including depreciation (2,500) _____

Net operating profit 1,500 _____

Venus Division investment (at initial cost) 5,000

Additional information:

1. The target rate of return on investment is expected to be 20% per year on written down values (WDVs). 2. Planet Group is organised into profit centres and each centre manager is delegated substantial autonomy to review its operations.

3. As part of planned review operations, two scenarios are being considered for Venus division as follows:

Scenario A:

Venus Division to accept a special order of 20,000 units at Sh.100 from Simba Ltd, an external customer. Variable costs per unit will be the same as budgeted, but to enable capacity to increase by 20,000 units, additional investment in form of an extra special purpose equipment will be acquired at a cost of Sh.800,000. The equipment will have a four-year life and the Planet Group depreciates assets on a straight-line basis. No extra fixed cost will be incurred.

Scenario B:

Included in the current plan of operations of Venus Division is the sale of 20,000 units to Pluto Division of Planet Group. A competitor of Venus Division from external market has offered to supply Pluto Division at Sh.110 per unit. Venus Division intends to adopt a strategy of matching the price quoted from outside Planet Group in order to retain the order.

Required:

Calculate the annual residual income of Venus Division based on:

- (i) The original planned operation. (4 marks)
- (ii) Only scenario A added to the original plan. (4 marks)
- (iii) Only scenario B added to the original plan. (4 marks)

(Total: 20 marks)

QUESTION TWO

(a) The Management Accountant of Floratec Ltd. has attended a brainstorming seminar on Environmental Management Accounting (EMA) organised to sensitise the management team on strategic goals and policies to put in place to address various environmental costs.

Required:

For each of the environmental costs below, identify THREE costs to be addressed by the management team:

(i) Environmental internal failure costs. (3 marks)

(ii) Environmental external failure costs. (3 marks)

(b) Wangwana Growers Ltd., is a large-scale maize growing firm in Western region growing maize for both domestic and export market. Fred Juma, the Management Accountant, has established that there is a probability of getting a high, medium or low harvest. Fred Juma has to decide on the optimum selling price for one bag of maize and three prices are under consideration.

The selling price per bag of 90 kilograms for different types of customers is as follows:

Sh.

Wholesale price 5,000

Retail price 5,500

Export price 6,000

The expected number of bags of maize to sell at three price levels for each of the above states of harvest is as shown below:

Decision alternative

Selling price per bag Sh.5,000 Sh.5,500 Sh.6,000



Conditions	Number of bags to be sold		
High harvest	13,000	12,500	8,500
Medium harvest	10,000	9,000	8,500
Low harvest	6,000	6,000	3,500

Additional information:

1. From past experience, there is a 10% probability that the harvest will be low, a 30% probability that the harvest will be medium and a 60 % probability that the harvest will be high.
2. The estimated variable cost is Sh.3,000 per bag of 90 kilograms of maize.
3. The fixed cost at each selling price level is Sh.15 million.
4. Fred Juma can engage an agricultural expert to carry out a survey on the productivity of the land, which will cost him Sh.1 million.

Required:

(i) A payoff matrix table showing the net profit. (8 marks)

(ii) The price to set to maximise the expected monetary value. (2 marks)

(iii) Advise Fred Juma whether it is worthwhile to acquire the perfect information from the agricultural expert. (4 marks)
(Total: 20 marks)

QUESTION THREE

(a) Evaluate the objectives of internalised transfer pricing mechanism. (6 marks)

(b) Rapsy Stores Ltd. is open 300 days each year. The store outsources and sells a single product branded “Sola”. There is variability in lead time of each new order placed with the manufacturer, which sometimes lead to stock outs.

The following data about Sola is available:

1. Annual demand is 15,000 pairs of Sola.
2. The cost price of Sola averages Sh.200 per pair.
3. The fixed ordering cost of requisition is estimated to be Sh.80.
4. For each pair of Sola, annual inventory holding opportunity cost of capital is 13.33% of its cost price.
5. The management has determined economic order quantity based on data given above which should be used as reorder quantity.

- 6 The initial inventory available is 180 pairs of Sola while the reorder level is set at 50 pairs of Sola. The out of stock costs amount to Sh.100 per pair of Sola units that are out of stock.
- 7 The customer demand is unknown. However, the total usage of Sola over the four days lead time is expected to be as follows:

Annual demand (Pairs of Sola)	Probability	Lead time (days)	Probability
30	0.2	1	0.15
60	0.3	2	0.30
90	0.4	3	0.45
120	0.1	4	0.10

9. The random numbers generated by the computer software are as follows:

Annual demand:	4	8	6	1	7	1	9	0	3	8
Lead time:	2	1	0	5	6					

Required:

- (i) The economic order quantity (EOQ). (2 marks)
- (ii) Simulate the inventory operation for a period of 10 days. (10 marks)
- (iii) Using the information in (b) (ii) above, estimate the average daily stockholding costs. (2 marks)
- (Total: 20 marks)

QUESTION FOUR

- (a) Explain how each of the following objectives of a balanced scorecard could be measured:

(i) Competitive performance. (2 marks) (ii) Flexibility. (2 marks) (iii) Innovation. (2 marks)

Fixit Fabricators Ltd. has been facing a lean financial spell for the past two years. The profit has been declining steadily and the results of the preceding year showed a loss of Sh.2,000,000. This is the first time the company has reported a loss in its 10-year history.

- (b) The chairman and the board of directors have been deliberating on the remedial steps to implement to arrest the situation. Three competing proposals have been suggested by a taskforce set up some months back aimed at boosting sales and improving efficiency of operations in the current year. As a member of the taskforce, you have been invited to attend the next board meeting to deliberate on the proposals.

The following information is available:

- The target profit for the current year is Sh.4,000,000 regardless of the proposal that will be adopted.
- The company's fixed costs currently amount to Sh.20,000,000 per year.
- The company can sell up to a maximum of 12,000 units of its product in the local market and unlimited quantities in a neighbouring country. For the sales in the local market, unit variable costs amount to Sh.5,000, while for the sales in the neighbouring country, an extra Sh.500 per unit is incurred in transportation expenses.
- The same transfer price of Sh.10,000 normally prevails both in the local market and neighbouring country.
- Sales for the past year amounted to 9,000 units, all in the local market.

The main requirements of the three competing proposals are as follows:

Proposal A: The Company should improve the quality of packaging of its products at a cost of Sh.500 per unit.

The company should spend Sh.2,000,000 on an advertising campaign.

The Company should reduce the selling price by Sh.500 per unit.

Proposal B:

Proposal C:

Required:

- (i) For proposals A, B, and C, determine the break-even point in the neighbouring country in order to achieve the target profit. (9 marks)
- (ii) Summarise FIVE financial factors to consider for proposal C. (5 marks)

(Total: 20 marks)



QUESTION FIVE

(a) Orion Ltd. manufactures three products namely; P, Q and R using broadly the same production methods. A conventional product costing system is used at present to allocate all overhead costs using total direct labour hours, although an activity-based budgeting (ABB) system is being considered.

1. Details of the three products for the period is as follows:

Product	P	Q	R
Annual output (units)	2,000	1,600	400
Annual direct labour hours	200,000	220,000	80,000
Selling price per unit (Sh.)	4,000	6,000	8,000
Raw material cost per unit (Sh.)	400	600	900



2. The annual cost driver volumes relating to each activity and for each type of product are as follows:

	Product	Number of deliveries to retailers	Number of set-ups	Number of purchase orders
P	100	35	400	
Q	80	40	300	
R	70	25	100	
	250	100	800	

3. The annual costs relating to these activities and their cost drivers are as follows:

Sh.	Cost driver
Deliveries to retailers 2,400,000	Number of deliveries to retailers
Set-up costs 6,000,000	Number of set-ups
Purchase orders 3,600,000	Number of orders

4. All direct labour is paid at a rate of Sh.5 per hour. The company operates on a just in time (JIT) production policy.

Required:

(i) Prepare activity based budget statement for the period. (6 marks)

(ii) Compute the profit or loss per unit for each product. (4 marks)

(b) Sofaset Ltd. makes and sells executive leather chairs. The production manager is considering a new design of sofa set chair to launch into the competitive market in which they operate:

Additional information:

- The production manager has carried out investigation in the market and using target costing system, he has targeted a competitive selling price of Sh.120,000 for the chair.
- Sofaset Ltd. targets a profit margin on selling price of 20%.
- The design frame will be bought for Sh.51,000 per chair and Sofaset Ltd. will beautify it in leather and assemble it ready for dispatch.
- Leather costs Sh.10,000 per meter and two metres are needed for a complete chair although 20% of all leather is wasted in the beautification process.
- The beautification and assembly process will be subjected to a learning effect as the workers get used to the new design. Sofaset Ltd. estimates that the first chair will take two hours to prepare but this will be subject to learning curve rate of 95%.
- The learning improvement will stop once 128 chairs have been made and the time for the 128th chair will be the time for all subsequent chairs. The production manager believes that the target cost will be achieved from 128 chairs.
- The cost of labour is Sh.15,000 per direct labour hour.
- The learning curve index for 95% is -0.074.

Required:

(i) The average cost for the first 128 chairs made and identify any cost gap that may be present at that stage. (5 marks)

(ii) The cost of the 128th chair made and state whether the target cost is being achieved on the 128th chair. (5 marks)

(Total: 20 marks)

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