

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## ATC(U) EXAMINATIONS

### LEVEL THREE

#### INTRODUCTION TO MANAGEMENT ACCOUNTING – PAPER 9

**FRIDAY, 18 JUNE 2010**

#### INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours 15 minutes**.  
The first 15 minutes of this examination have been designated for reading time. You may not start to write your answer during this time.
2. Attempt **all** questions in Section **A**, **two** questions in Section **B** and any **two** in Section **C**.
3. Section **A** has **twenty** compulsory multiple choice questions each carrying 1 mark.
4. Section **B** has **three** questions and only **two** questions are to be attempted. Each question carries 25 marks.
5. Section **C** has **three** questions and only **two** questions are to be attempted. Each question carries 15 marks.
6. Please read further instructions on the answer book.

**SECTION A:****Question 1**

- (i) Fixed cost per unit decreases when:
- (a) production increases.
  - (b) production decreases.
  - (c) variable cost per unit decreases.
  - (d) prime cost per unit decreases.
- (ii) The economic order quantity (EOQ) model is used by a business to minimise the:
- (a) cost of placing orders.
  - (b) unit purchase price of inventory.
  - (c) combined costs of placing orders and carrying inventory.
  - (d) required amount of safety stock.
- (iii) Nasaku Ltd had an opening inventory value of shs 2,640,000 (300 units valued at Shs 8,800 each) on 1 April. The following transactions were recorded during April:
- 10 April receipt 1,000 units Shs 8,600 per unit  
 25 April receipt 600 units Shs 9,000 per unit  
 29 April issues 1,700 units
- Using LIFO, determine the total value of issues on 29 April.
- (a) Shs 14,840,000.
  - (b) Shs 14,880,000.
  - (c) Shs 14,888,000.
  - (d) Shs 15,300,000.
- (iv) A company has recorded the following distribution costs during the last three months.

Month	Volume units	Total cost (Shs '000')
1	32,000	100,000
2	40,000	120,000
3	50,000	145,000

What will be the distribution costs in 4<sup>th</sup> month when expected activity level is 42,500 units?

- (a) Shs 126,250,000
- (b) Shs 127,500,000
- (c) Shs 129,861,000
- (d) Shs 132,813,000

- (v) Activity-based costing is a method of costing which:
  - (a) attributes costs to cost units using cost drivers.
  - (b) is used to recognize the effect of changes in output activity and their effect on total costs.
  - (c) is used to calculate the cost per unit in organisations which have only a single activity.
  - (d) derives unit costs according to planned outputs.
- (vi) A master budget comprises the:
  - (a) budgeted profit and loss account, budgeted balance sheet and budgeted cash flow.
  - (b) budgeted profit and loss account and budgeted balance sheet.
  - (c) budgeted profit and loss account.
  - (d) budgeted cash flow.
- (vii) A flexible budget is a budget:
  - (a) of semi-variable costs only.
  - (b) for a defined period of time.
  - (c) for a period of one year that is reviewed monthly, and each time actual results are reported and a further forecast period added and intermediate forecasts updated.
  - (d) that recognizes different cost behaviour patterns and changes with level of activity.
- (viii) In the context of budget preparation, goal congruence is the:
  - (a) alignment of budgets with objectives used in feed forward control.
  - (b) setting of a budget which does not include budget bias.
  - (c) alignment of corporate objectives with personal objectives of a manager.
  - (d) use of aspiration levels to set efficiency targets.

**Use the information to answer questions (ix) and (x):**

A company had budgeted to produce and sell 6,000 units of a single product. The standard cost per unit was as follows:

	<b>Shs</b>
Direct material	20
Direct labour	15
Variable overhead	10
Fixed production overhead	5

In the period covered by the budget, the following actual results were recorded:

Production and sales                7,000 units  
Fixed production overheads    Shs 28,000

- (ix) Calculate the fixed production overhead expenditure variance.
- (a) Shs 2,000 (F).
  - (b) Shs 2,000 (A).
  - (c) Shs 7,000 (F).
  - (d) Shs 7,000 (A).
- (x) Calculate the fixed production overhead volume variance
- (a) Shs 2,000 (F).
  - (b) Shs 2,000 (A).
  - (c) Shs 5,000 (F).
  - (d) Shs 5,000 (A).
- (xi) In job order costing, the basic document to accumulate and ascertain the cost of each order is the:
- (a) purchase order.
  - (b) requisition sheet.
  - (c) invoice.
  - (d) job cost sheet.
- (xii) Which of the following is **NOT** true about normal losses?
- (a) They are expected in the production process.
  - (b) They are uncontrollable.
  - (c) They are usually provided for at the start of the process.
  - (d) The cost of normal losses is absorbed by abnormal losses.
- (xiii) Which of the following is **FALSE** about joint products?
- (a) They are produced from the same production process.
  - (b) They have a low sales value.
  - (c) They are indistinguishable before the split off point.
  - (d) They are the main targets the firm intends to produce.
- (xiv) Which of the following characteristics applies to process costing but **NOT** to job order costing?
- (a) Identifiable batches of production.
  - (b) Equivalent units of production.
  - (c) Averaging process.
  - (d) Use of standard costs.

- (xv) The most useful information derived from a break-even chart is the:
- (a) amount of sales revenue needed to cover variable costs.
  - (b) amounts of sales revenue needed to cover fixed costs.
  - (c) relationship among revenue, variable costs and fixed costs at various levels of activity.
  - (d) volume or output level at which the enterprise breaks even.
- (xvi) The measurable value of an alternative use of resources is referred to as:
- (a) an opportunity cost.
  - (b) an imputed cost.
  - (c) a differential cost.
  - (d) a sunk cost.
- (xvii) Which of the following formulas is **NOT** used to calculate labour turnover?
- (a)  $\frac{\text{All employees leaving}}{\text{Average number employed}} \times 100$
  - (b)  $\frac{\text{No. of replacements in the period}}{\text{Average number employed}} \times 100$
  - (c)  $\frac{\text{All employee leaving plus new employees}}{\text{Average number employed}} \times 100$
  - (d)  $\frac{\text{No.of employees on leave}}{\text{Total number of employees}} \times 100$
- (xviii) A responsibility centre is:
- (a) part of a business whose manager has personal responsibility for its performance.
  - (b) a profit centre with additional responsibility for capital investment.
  - (c) part of an organisation responsible for generating sales revenue.
  - (d) part of an organisation that accounts for both revenue and costs.
- (xix) A company has just completed a three year contract of constructing a twelve storey building, but has not received its final payment from its client. In such cases the client usually retains a percentage of the final payment so as to ensure that:
- (a) builders are paid.
  - (b) builders correct any faults that develop.
  - (c) any insurance costs are covered.
  - (d) inspection work can be completed and paid for.

- (xx) The cost of insurance for buildings is best apportioned to cost centres by the:
- (a) floor area.
  - (b) number of employees.
  - (c) replacement value of machinery and equipment.
  - (d) number of kilowatt hours.

## SECTION B

### Question 2

- (a) Explain the major differences between the accountants' and economists' views of cost-volume-profit (CVP) analysis. **(5 marks)**
- (b) A marketing specialist of a publishing company suggested to his managing director that only if he is allowed to reduce the selling price of a book 'The African Child' by 20%, would he be able to achieve a 30% increase in sales volume. The managing director, on realizing that the sales volume increase exceeds, in percentage, the extent of the reduction in price requested, agreed to the suggestion.

You are provided with the following additional information:

Present selling price per book	Shs 750
Present volume of sales	2,000 books
Total variable costs	Shs 1,050,000
Total fixed costs	Shs 360,000

Assume no changes in the cost pattern in the coming period.

#### Required:

Show the consequences of the managing director's decision, assuming that a 30% increase in sales is realized.

**10 Marks**

- (c) Murungi Creameries Ltd manufactures and sells three products: ghee, ice cream and butter. The company's income statement for the period ending 30 June 2010 is as below:

	<b>Ghee</b>	<b>Ice cream</b>	<b>Butter</b>	<b>Total</b>
	<b>Shs '000'</b>	<b>Shs '000'</b>	<b>Shs '000'</b>	<b>Shs '000'</b>
Sales	150	180	160	490
Variable costs	<u>(90)</u>	<u>(172)</u>	<u>(110)</u>	<u>(372)</u>
Contribution	60	8	50	118
Fixed cost	<u>(17)</u>	<u>(18)</u>	<u>(20)</u>	<u>(55)</u>
Profit / (loss)	<u><u>43</u></u>	<u><u>(10)</u></u>	<u><u>30</u></u>	<u><u>63</u></u>

The company is considering whether or not to cease the production of ice cream because it is making losses. If the production of ice cream is suspended Shs 6,000 of fixed costs will be avoided. Assume ice cream cannot be substituted by any other product and that investment in assets cannot be reduced if the product is dropped.

**Required:**

Advise management whether to proceed with the production of ice cream.

**(10 marks)**

**(Total 25 marks)**

**Question 3**

- (a) Arwani Ltd manufactures a single product in two successive processes.

The following information relates to the month ended 31 May 2010.

Process 1:

- Direct materials 10,000 kg at Shs 1,800 per kg.
- Direct labour Shs 7,200,000.
- Factory overheads are absorbed at 21.25% of material cost.

Out put:

- 8,500 kg were transferred to process 2.
- The company provides for a normal loss of 10% of materials input.
- There were no closing or opening stocks in process 1.

Process 2:

- Added materials were valued at Shs 2,125,000.
- Direct labour was Shs 290,500.
- Factory overheads were Shs 365,200.
- 8,000 kg were transferred to finished goods stock.
- At the end of May 2010, 500 units remained in process and were complete with respect to materials and 60% complete in respect to conversion costs.

**Required:**

Prepare process 1 and process 2 accounts for the month ended 31 May 2010.

**(15 marks)**

- (b) A company manufactures several products which uses the mineral copper. At the end of May 2010 the inventory account showed stock of copper of 2,760 kg. However, a physical count at the end of the month reported 2,705kg of copper in stock. Opening stock of copper at the beginning of May was 2,630 kg at Shs 312 per kg.

920 kg of copper were purchased on credit on 10 May for Shs 290,720 and a further purchase of 970 kg was made on 26 May. 40kg of copper purchased on 10 May were of poor quality and were returned to the supplier. All the other stock was issued from stores during the month for production.

At the beginning of May 2010, Shs 565,030 was owed to the supplier for copper purchases. During May Shs 576,070 was paid to the supplier and at the end of the month Shs 582,290 remained outstanding for copper purchases.

**Required:**

Record the transactions for the month of May 2010 in a copper stock account showing both quantities and value, clearly indicating the account in which the corresponding entry would be made. Assume stock issues are made on FIFO basis.

**(10 marks)**  
**(Total 25 marks)**

**Question 4**

- (a) ABC Ltd produces a single product and has provided you with the following data based on a budgeted level of output of 60,000 litres:

	Cost per litre (Shs)
Material	8
Direct labour	6
Variable overheads	10
Selling & distribution cost	4
Fixed manufacturing overheads	<u>8</u>
Total	<u>36</u>

At the beginning of the first quarter of 2009, ABC Ltd had opening inventory amounting to 20,000 litres. The budgeted selling and administration overhead amount to shs 200,000 per quarter. The company sells the product at Shs 50 per litre.

Production and sales for three quarters were:

	QR 1	QR 2	QR3
Production (litres)	45,000	60,000	40,000
Sales (litres)	50,000	55,000	60,000



**Required:**

Prepare profit statements per quarter based on marginal costing.

**(12 marks)**

- (b) A process produces three products A,B and C. The total joint costs are Shs 44 million. Details about the products are given below:
- A: 4,000 kg sold at Shs 5,000 per kg yielding sales revenue of Shs 20 million.
- B: 8,000 kg sold at Shs 3,000 per kg yielding sales revenue of Shs 24 million.
- C: 3,000 kg sold at Shs 6,000 per kg yielding sales revenue of Shs 18 million.

**Required:**

- (i) Apportion the joint costs on the basis of the physical units and sales value.

**(6 marks)**

- (ii) Calculate the profit percentage in each case in (b) (i) above.

**(7 marks)**

**(Total 25 marks)**

**SECTION C**

**Question 5**

- (a) (i) Explain what you understand by the term 'budgetary control'.  
**(2 marks)**
- (ii) Give **three** limitations of budgetary control.  
**(3 marks)**
- (b) (ii) define the term 'zero-based budgeting'.  
**(1 mark)**
- (ii) Explain **three** ways in which zero-based budgeting differs from other traditional forms of budgeting.  
**(3 marks)**
- (c) Distinguish between:
- (i) Cost control and cost reduction.
- (ii) Controllable cost and uncontrollable cost.
- (iii) Direct material and indirect material.

**(6 marks)**

**(Total 15 marks)**

**Question 6**

- (a) Explain **four** limitations of standard costing. (4 marks)
- (b) Define the following variances:  
(i) Material price.  
(ii) labour efficiency.  
(iii) Labour rate. (3 marks)
- (c) Explain **five** responsibilities of a management accountant. (5 marks)
- (d) Outline **six** reasons why the coding of materials is important to an organisation. (3 marks)
- (Total 15 marks)

**Question 7**

- (a) (i) List any **three** desirable characteristics for an incentive wage plan. (3 marks)  
(ii) Explain what is meant by the term 'group bonus'. (1 mark)  
(iii) State **four** objectives of introducing a group bonus scheme. (4 marks)
- (b) Define the following terms in relation to overhead expenses:  
(i) Allocation.  
(ii) Apportionment.  
(iii) Absorption rate. (3 marks)
- (c) (i) Identify **four** causes of over/under absorption of factory overheads (2 marks)  
(ii) Outline **four** characteristics of contract costing. (2 marks)
- (Total 15 marks)