

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL THREE

INTRODUCTION TO MANAGEMENT ACCOUNTING – PAPER 9

MONDAY, 20 JUNE 2005

INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours**
2. Attempt all questions in Section **A**, **two** questions in Section **B** and any **three** 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) Over which of the following is the manager of a profit centre likely to have control?
- (i) Selling prices.
 - (ii) Controllable costs.
 - (iii) Apportioned head office costs.
 - (iv) Capital investment in the centre.
- (a) (i), (ii), (iii) and (iv).
 - (b) (i), (ii) and (iii).
 - (c) (i), (ii) and (iv).
 - (d) (i) and (ii).
- (ii) Which of the following best describes a period cost?
- (a) A cost that relates to a time period which is deducted as expenses for the period and is not included in the inventory valuation.
 - (b) A cost that can be easily allocated to particular period without the need for arbitrary apportionment.
 - (c) A cost that is identified with a unit produced during the period and is included in the value of inventory. The inventory is treated as an expense for the period when it is actually sold.
 - (d) A cost that is incurred regularly every period e.g. every month or quarter.

The following information should be used to answer questions (iii) and (iv).

Product	Budgeted Units	Production Standard Machine Hours	Actual Production Units
A	15,000	3,000	12,000
B	20,000	8,000	25,000
C	14,000	7,000	16,000
D	6,000	9,000	5,000

Total machine hours worked in the period amounted to 29,000 hours.

- (iii) What is the capacity ratio in the year as a percentage?
- (a) 93%.
 - (b) 103%.
 - (c) 106%.
 - (d) 107%.

- (iv) What was the efficiency ratio in the year as a percentage?
- (a) 96%.
 - (b) 103%.
 - (c) 104%.
 - (d) 107%.
- (v) Kitara Ltd. uses the economic order quantity formula (EOQ) to establish its optimal reorder quantity for its single raw material. The following data relates to the inventory costs.
- Purchase prices Shs. 1,500 per item.
 Carriage costs Shs. 5,000 per order.
 Ordering costs Shs. 500 per order.
 Storage costs 10% of purchase price plus Shs. 20 per unit per annum.
 Annual demand is 4000 units.
- What is the EOQ?
- (a) 153 units.
 - (b) 1709 units.
 - (c) 485 units.
 - (d) 509 units.
- (vi) Which of the following statements about predetermined overhead absorption rates are true?
- (i) Using a predetermined absorption rate avoids fluctuations in unit costs caused by abnormally high or low overhead expenditure and activity levels.
 - (ii) Using a predetermined absorption rate offers the administrative convenience of being able to record full production costs sooner.
 - (iii) Using predetermined overhead absorption rate enables management to penalize poor performing staff.
- (a) (i) and (ii).
 - (b) (i) and (iii).
 - (c) (ii) and (iii).
 - (d) (i), (ii) and (iii).
- (vii) Which of the following are acceptable bases for absorbing production overheads?
- (i) Direct labour hours.
 - (ii) Machine hours.
 - (iii) As a percentage of prime cost.
 - (iv) Per unit.

- (a) (i) and (ii).
 - (b) (i) and (iv).
 - (c) (i), (ii), (iii) and (iv).
 - (d) (i) and (iii).
- (viii) Which of the following costing methods is most likely to be used by a company involved in the manufacture of paint?
- (a) Batch costing.
 - (b) Service costing.
 - (c) Job costing.
 - (d) Process costing.
- (ix) In a particular process, the input for the period was 2000 units. There were no inventories at the beginning or end of the process. Normal loss is 5% of input. In which of the following circumstances is there an abnormal gain?
- (i) Actual output = 1800 units.
 - (ii) Actual output = 1950 units.
 - (iii) Actual output = 2000 units.
- (a) (i).
 - (b) (ii).
 - (c) (i) and ii).
 - (d) (ii) and iii).
- (x) In a process account abnormal losses are valued:
- (a) At their scrap value.
 - (b) The same as good production.
 - (c) At the cost of raw materials.
 - (d) At good production cost less scrap value.
- (xi) What is an ideal standard?
- (a) A standard which can be attained if a standard unit of work is carried out efficiently.
 - (b) That which can be attained under the most favourable conditions.
 - (c) A standard that has to be established for use over a short period of time.
 - (d) A standard established for use over a long period from which a current standard is developed.

- (xii) In process costing 'point of separation' is relevant to:
- (a) Abnormal losses.
 - (b) Joint products.
 - (c) Normal losses.
 - (d) Abnormal gains.
- (xiii) The most relevant costs to be used in decision making are:
- (a) Sunk costs.
 - (b) Current costs.
 - (c) Estimated future costs.
 - (d) Notional and full costs.
- (xiv) The following alternatives describe the margin of safety in CVP analysis except that it is:
- (a) the difference in units between budgeted sales volume and breakeven sales volume.
 - (b) the difference between budgeted sales revenue and breakeven sales revenue.
 - (c) the volume of sales below which losses are made.
 - (d) equivalent to the sales revenue at breakeven point.
- (xv) A company dealing in production of shoes wishes to sell 14,000 pairs of shoes which have a variable cost of Shs. 1,500 per pair to make and sell. Fixed costs are Shs. 4,700,000 and the required profit is Shs. 2,300,000. Calculate the required contribution.
- (a) Shs. 7,000,000.
 - (b) Shs. 16,000,000.
 - (c) Shs. 2,300,000.
 - (d) Shs. 8,000,000.
- (xvi) When considering setting standards for costing, which of the following would not be considered relevant?
- (a) The normal level of activity should always be used for absorbing overheads.
 - (b) Average prices for materials should be used encompassing any discounts that are regularly available.
 - (c) The labour rate used will be the rate at which labour is paid.
 - (d) Average material usage should be established based on generally accepted working practices.

- (xvii) A principal budget factor is:
- (a) The directors' budget.
 - (b) A factor which limits the activities of an undertaking.
 - (c) A factor common to all budget centres.
 - (d) The directors' salaries.
- (xviii) is used to describe events or forces that are significant determinants of the cost of particular activities.
- (a) Cost driver.
 - (b) Basis of apportionment.
 - (c) Cost centre.
 - (d) Relevant cost.
- (xix) The objective of the is to ensure that significant cash is available at all times to meet the level of operations in the various
- (a) Budgets, cash budget.
 - (b) Master budget, cash budget.
 - (c) Cash budget, budgets.
 - (d) Cash budget, master budgets.
- (xx) Under marginal costing principles, inventory is valued based on:
- (a) Variable production costs.
 - (b) Variable and fixed production costs.
 - (c) Contribution made.
 - (d) Period costs.

SECTION B**Question 2**

- (a) Distinguish between perpetual inventory and continuous inventory taking. (3 marks)
- (b) Give four reasons why inventory holding costs occur. (4 marks)
- (c) Tristar Company Ltd is a distributor of jean trousers. At 31 December inventory on hand was 200 trousers which had a value of Shs. 840,000. Transactions for the next six months to 30 June were as follows:

Date	Purchases (Units)	Cost per Unit (Shs.)
January	200	4,600
February	500	4,940
April	1000	5,250

The purchasing manager of Tristar Company Ltd obtained a bulk purchase discount of Shs. 750 per unit on April purchases.

Date	Sales (Units)	Unit sale Price (Shs)
March	500	6,600
May	700	7,000
June	500	7,500

There were no sales in the first three months of the period.

Required:

Using FIFO method, prepare the stores ledger records including inventory valuation.

- (d) Give five costs associated with labour turnover. (8 marks)
- (e) List five types of incentive schemes used to compensate workers paid under a time based system for their inability to increase earnings by working more efficiently. (5 marks)

(5 marks)
(Total 25 marks)

Question 3

- (a) List five differences between financial accounts and management accounts. (5 marks)
- (b) Explain why it is regarded as desirable for contracting companies to include some profit on uncompleted contracts. (5 marks)

(5 marks)

- (c) A company has two production departments A and B and two service department stores and maintenance. The following information is available for the most recent period:

	Production Departments		Stores	Maintenance
	A	B		
	Shs. '000'	Shs. '000'	Shs. '000'	Shs. '000'
Overhead costs	10,030	8,970	10,000	8,000
Materials acquired	30,000	50,000	-	20,000
Maintenance hours needed	8,000	1,000	1,000	-

Required:

Apportion the overheads of the service departments to the production departments using the algebraic method.

(10 marks)

- (d) State reasons why under or over absorbed overheads occur.

(2 marks)

- (e) How are under or over absorbed overheads accounted for?

(3 marks)

(Total 25 marks)

Question 4

- (a) Distinguish between marginal and absorption costing.

(5 marks)

- (b) Nonami Ltd makes and sales one product which has the following standard production cost:

	Shs.
Direct labour 3 hours each Shs. 600 per hour.	1,800
Direct materials 4kg each 700 per kg.	2,800
Production overhead – Variable	300
- Fixed	<u>2,000</u>
Standard production cost per unit	<u>6,900</u>

Normal output is 16,000 units per annum. Variable selling, distribution and administration costs are 20% of the sales value. Fixed costs are Shs. 18,000,000. There are no units in finished goods inventory at 1 October. The fixed overhead expenditure is spread evenly throughout the year. The selling price per unit is Shs. 14,000. Production and sales budgets are as follows:

	Six months to 31 March 2005	Six months ending 30 September 2005
Production	8,500	7,000
Sales	7,000	8,000

Required:

Prepare a profit statement for each of the six monthly periods using marginal costing.

(10 marks)

- (c) How does a management accountant assist managers to achieve organizational objectives?

(5 marks)

- (d) What are the features of a relevant cost?

(3 marks)

- (e) What is the general rule for maximizing contribution in a limiting factor decision?

(2 marks)

(Total 25 marks)

SECTION C

Question 5

- (a) Distinguish between joint products and by-products.

(2 marks)

- (b) Name any three methods of accounting for by-products from a manufacturing process.

(3 marks)

- (b) Jinja Pharmaceuticals Industries produces a product Panadol by putting it through a single process. You are given the following details for May 2005.

Input costs

Material costs 25,000 kg at Shs 248 per kg

Labour costs 8,000 hours at Shs 550 per hour

Overhead costs Shs. 6,160,000.

Normal loss is 4% of input and scrap value of normal loss is Shs. 200 per kg.

Finished output amounted to 21,000 units.

There was no opening or closing work in process.

Required:

- (i) Prepare the process account for the month of May 2005.

(8 marks)

- (ii) Prepare an abnormal loss account.

(2 marks)

(Total 15 marks)

Question 6

- (a) What are the limitations of breakeven charts and CVP analysis? **(5 marks)**
- (b) Real Tyres Ltd. manufactures and sells a single type of tyres for which variable costs are as follows:

	Shs.
Direct materials	1,000
Direct labour	800
Variable production overhead	<u>600</u>
	<u>2,400</u>

The sales price is Shs. 3,000 per unit and fixed costs per annum are Shs. 6,800,000.

The Company wishes to make a profit of Shs. 1,600,000 per annum.

Required:

- (i) Calculate the required contribution. **(2 marks)**
- (ii) Calculate the sales required to attain the above profit. **(2 marks)**
- (c) Name two tasks that require the knowledge of cost behaviour. **(2 marks)**
- (d) Outline the steps involved in the high-low method of determining the fixed and variable elements of a semi variable fixed costs. **(4 marks)**
- (Total 15 marks)**

Question 7

- (a) Define the following terms:
- (i) Fixed budget.
 - (ii) Flexed budget.
 - (iii) Rolling budget.
- (3 marks)**
- (b) State the differences between budgets and standards. **(5 marks)**
- (c) The following standard costs apply to a company which manufactures a single product:

Standard weight to produce one unit	121kg
Standard price per kg	Shs. 90
Standard hours to produce one unit	100 hours
Standard rate per hour	Shs. 40

Actual production and costs for one accounting period were:

Materials used	3,770kg
Material cost	Shs. 358,150
Hours worked	27,550
Wages paid	Shs. 115,710
Actual output was	290 units.

Required:

- (i) Calculate the relevant material and labour cost variances. (4 marks)
 - (ii) Explain how standard costs for material and labour might be compiled. (3 marks)
- (Total 15 marks)**