

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL THREE

INTRODUCTION TO MANAGEMENT ACCOUNTING – PAPER 9

THURSDAY, 12 DECEMBER 2002

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**

Use the following production plan (in units) to answer questions (i) to (iii):

Period	1	2	3	4
Opening inventory (units)	100	?	?	?
Production (units)	?	100	?	60
Closing inventory (units)	<u>20</u>	<u>?</u>	<u>50</u>	<u>30</u>
Sales	<u>200</u>	<u>80</u>	<u>150</u>	<u>?</u>

- (i) The sum of opening inventories for periods 1 to 4 amounts to units.
- (a) 210.
(b) 250.
(c) 190.
(d) 230.
- (ii) Production in period 3 amounts to units.
- (a) 200.
(b) 160.
(c) 140.
(d) 100.
- (iii) Sales in period 4 amount to units.
- (a) 100.
(b) 80.
(c) 140.
(d) 190.

Use the following information to answer questions (iv) to (vi).

The proprietor of AGOA Girls Factory prices his products on the basis of either full cost plus or marginal cost plus. In a particular period the cost structure of their product was as follows:

	Shs
Material cost per unit	5,000
Labour cost at Shs. 1,000 per hour	4,000
Variable overheads per unit	1,500
Fixed overheads per unit	10,000

- (iv) What is the selling price under full cost plus 10% policy?
- (a) Shs 20,500.
(b) Shs 22,550.
(c) Shs 17,550.
(d) Shs 21,750.

- (v) What would the selling price be if the policy was to fetch a gross margin of 10%?
- (a) Shs 21,750.
 - (b) Shs 22,550.
 - (c) Shs 22,778.
 - (d) Shs 31,550.
- (vi) What is the selling price under marginal cost plus 15% policy?
- (a) Shs 11,550.
 - (b) Shs 10,500.
 - (c) Shs 21,750.
 - (d) Shs 22,778.
- (vii) Which of the following is false about idle time labour variances?
- (a) They are always adverse variances.
 - (b) They arise due to reasons such as machine breakdowns, poor supervision and other time wasting activities.
 - (c) It could be caused by a favourable material price variance.
 - (d) They are sometimes favourable variances if expected idle time is greater than actual idle time.
- (viii) Prime cost is:
- (a) All costs incurred in manufacturing a product.
 - (b) The total of direct costs.
 - (c) The material and overhead costs of a product.
 - (d) The variable costs of operating a department.

Use the following information to answer questions (ix) and (x)

Process A:

- Input material 2,000kg costing Shs. 5,000
- Normal loss is 10% of input.
- Actual output is 1,900 kg.
- Total product cost is Shs. 150,000.
- Scrap can be sold for Shs. 500 per kg.

- (ix) The above situation results in:
- (a) Abnormal loss of 200 kg.
 - (b) Abnormal loss of 100 kg.
 - (c) Abnormal gain of 100 kg.
 - (d) Neither a loss nor a gain.

- (x) The cost per unit is
- (a) Shs. 78.95
 - (b) Shs. 26.32
 - (c) Shs. 30.56
 - (d) Shs. 27.78
- (xi) Which of the following is false about contract costing?
- (a) The prudence concept is followed in estimating contract profit.
 - (b) Losses once recognised should be attributed to particular years and matched with revenues for the period.
 - (c) Overtime payments are likely to be treated as direct costs.
 - (d) Costs incurred and future estimated costs are considered in determining profit or loss on a contract.
- (xii) A principal budget factor refers to:
- (a) The factor that limits an organisation's performance for a given period.
 - (b) That part of an organisation that is allocated the largest amount in the budget.
 - (c) The key budget person.
 - (d) The principal revenue source.
- (xiii) Types of standards include:
- (a) Basic standards.
 - (b) Good standards.
 - (c) Idle standards.
 - (d) Hard standards.
- (xiv) Overhead apportionment bases exclude:
- (a) Floor space for rent and rates.
 - (b) Number of employees for canteen costs.
 - (c) Labour hours for personnel office costs.
 - (d) Percentage of prime cost.
- (xv) Which of the following is not a characteristic of relevant costs for decision-making purposes?
- (a) They involve future cashflows.
 - (b) They include opportunity costs.
 - (c) They include obligations incurred but not yet paid.
 - (d) They include incremental fixed costs.

Use the following information to answer questions (xvi) to (xviii)

	Shs
Labour efficiency variance	150,000
Labour idle time variance	100,000
Total labour cost variance	400,000
Fixed production overhead volume variance	170,000
Fixed production overhead efficiency variance	75,000
Sales total variance	350,000
Sales mix variance	120,000
Sales quantity variance	110,000

- (xvi) The labour rate variance is equal to:
- (a) Shs. 250,000.
 - (b) Shs. 150,000.
 - (c) Shs. 100,000.
 - (d) Shs. 400,000.
- (xvii) Fixed production overhead capacity variance plus labour idle time variance amounts to:
- (a) Shs. 100,000.
 - (b) Shs. 245,000.
 - (c) Shs. 195,000.
 - (d) Shs. 345,000.
- (xviii) The sales price variance amounts to:
- (a) Shs. 230,000.
 - (b) Shs. 240,000.
 - (c) Shs. 120,000.
 - (d) Shs. 360,000.
- (xix) is concerned with the provision of information to people within the organisation to help them make better decisions.
- (a) Cost accounting.
 - (b) Financial accounting.
 - (c) Management accounting.
 - (d) Financial management.
- (xx) Which of the following would not appear in a cash budget.
- (a) Government grants.
 - (b) Dividends received or paid.
 - (c) Absorbed overheads.
 - (d) Overheads incurred.

SECTION B**Question 2**

A company is considering a new production line to meet the increased demand for its products. The new production line is expected to result in an increase in revenue to the tune of Shs. 26,000,000 per month for 8 months in a year. The idea came up last year and management decided to spend Shs. 210,000,000 on a feasibility study though only Shs. 150,000,000 has been paid so far.

To install and operationalise the production line requires the following:

- (i) Office space: The space available had been booked by a tenant for Shs. 15,000,000 per annum.
- (ii) Labour: Further labour will be recruited for Shs. 8,000,000 per annum. Labour is in short supply and if the production line is not operationalised after installation the workforce would be switched to another production line which earns Shs. 15,800,000 in revenue and incurs direct costs of Shs. 1,800,000 per annum.
- (iii) Materials: Materials were bought last year for Shs. 25,850,000 but are yet to be paid for. They have no other use and if the production line is not operationalised they would be sold for scrap for Shs. 11,600,000.
- (iv) A consultant will be hired for 6 months at Shs. 1,000,000 per month. If the production line is not operationalised the consultant's contract will be terminated at a cost of Shs. 5,000,000.
- (v) Attributable overheads to the production line amount to Shs. 10,000,000 though general overheads are Shs. 55,000,000.

Required:

- (a) Is it worthwhile to install and operationalise the new production line?
(15 marks)
 - (b) Explain what you understand by the terms relevant and irrelevant costs.
(Use examples to illustrate your answer).
(5 marks)
 - (c) List the assumptions of relevant costing.
(5 marks)
- (Total 25 marks)**

Question 3

(a) Write short notes on:

- (i) Flexible Budgets. **(2 marks)**
- (ii) Fixed Budgets. **(2 marks)**
- (iii) Make or Buy decisions. **(3 marks)**
- (iv) Pricing special orders or contracts. **(3 marks)**

(b) The Managing Director of Heaven is the Limit Ltd, has received a plan from the budget committee but thinks a cash budget would be more useful.

You are the Management Accounting Trainee and have been directed to handle that assignment. The plan is as follows

November 2002 - June 2003, Figures in shillings thousands (Shs '000s)

	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Sales	50,000	60,000	65,000	75,000	80,000	85,000	90,000	100,000
Purchases	30,000	50,000	70,000	80,000	30,000	35,000	20,000	40,000
Wages	2,000	2,000	2,500	2,500	3,000	3,000	3,000	4,000
Dividends		20,000						
Capital Expenditure			30,000			40,000		

You are also informed that:

- Sales are 60% cash and 40% credit. Credit sales are paid two months after the month of sale.
- Purchases are paid in the month following purchase.
- 85% of wages are paid in the current month and 15% the following month.
- Dividends are paid 3 months after they are declared.
- Capital expenditure is paid two months after it is incurred.
- The cash balance at the end of October 2002 was Shs 2,000,000 only.

Required:

- (i) Prepare a cash budget for the 6 months to June 2003.
- (ii) Comment on your answer in (i) above outlining possible courses of action in periods where there is a cash shortage.

(15 marks)**(Total 25 marks)**

Question 4

Turbo Ltd. manufactures 4 products A,B,C and D. Output data for the period is as follows:

Product	No. of set ups	No. of Inspectors	Stores requisitions	Output (units)
A	5	5	40	10
B	3	2	25	20
C	7	3	15	50
D	10	10	20	200

Overhead costs amount to Shs. 100,000,000 for the period. They are as follows:

Description	Amount (Shs)
Set up costs	50,000,000
Material handling costs	10,000,000
Inspection costs	5,000,000
Short-run variable costs	35,000,000

Other data are as follows:

Direct Labour Cost per unit is Shs. 1,000 per hour.

Product	Material cost per unit (Shs)	Labour hours per unit
A	10,000	1
B	30,000	2
C	10,000	1
D	50,000	3

Required:

- Using Activity Based Costing (ABC) determine the total cost per unit for each product.
(15 marks)
 - Determine the cost per unit for each product using absorption costing.
(5 marks)
 - List the advantages of ABC over traditional costing systems.
(5 marks)
- (Total 25 marks)**

SECTION C**Question 5**

A Company is planning to purchase 250,000 units of a sub-component in the coming year. The sub-component is purchased in containers each containing 10 units of the item at a price of Shs. 10,000 per container. A safety stock of 5,000 containers is kept.

The cost of holding an item of stock for a year is 20% of the purchase price. The cost of placing and receiving orders is to be estimated from cost data collected relating to similar orders where costs of Shs. 6,500,000 were incurred on 5,000 orders. It should be assumed that ordering costs change in proportion to the number of orders placed. 5% should be added to the above ordering costs to allow for inflation.

Required:

- (a) Calculate the order quantity that would minimise the cost of the above item and determine the required frequency of placing orders, assuming that usage of the item will be even over the year.
- (b) Other than the economic order quantity model, give and briefly explain other stock control techniques you know.

(10 marks)**(5 marks)****(Total 15 marks)****Question 6**

- (a) Prepare a table similar to the one given below and fill in the possible causes of the variances.

	Variance	Possible causes	
		Favourable	Adverse
(i)	Material Price		
(ii)	Material Usage		
(iii)	Labour rate		
(iv)	Idle time		
(v)	Overhead Expenditure		

(10 marks)

- (b) Explain five factors you would consider before investigating variances.

(5 marks)**(Total 15 marks)**

Question 7

No Beer in Hell Ltd has a factory located in Nakapiripit for production of a drink called Gine. The factory operates two production processes. Normal loss in each process is 10% of input. Scrapped units of Process 1 fetch Shs. 200 per unit whereas scrapped units from Process 2 fetch Shs. 600.

Output from Process 1 is transferred to Process 2.

Output from Process 2 is finished output ready for sale.

Relevant information about costs for period 5 is as follows:

	Process 1		Process 2	
	Units	Shs	Units	Shs
Input materials	1,500	8,000,000		
Transferred to Process 2	1,300			
Materials from Process 1			1,300	
Added materials			1,200	14,400,000
Labour & overheads		9,000,000		15,000,000
Output to finished goods			2,250	

Required:

(a) Prepare the following accounts

- | | | |
|-------|----------------|-----------|
| (i) | Process 1 | (3 marks) |
| (ii) | Process 2 | (3 marks) |
| (iii) | Abnormal loss. | (2 marks) |
| (iv) | Abnormal gain | (2 marks) |

(b) Explain the possible causes of process losses and suggest how they can be minimised.

(5 marks)
(Total 15 marks)