

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## ATC(U) EXAMINATIONS

### LEVEL THREE

#### INTRODUCTION TO MANAGEMENT ACCOUNTING - PAPER 9

**FRIDAY, 10 DECEMBER 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, before attempting any question.

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**SECTION A**

**Question 1**

- (i) Which of the following statements is **FALSE**?
- (a) Contract costing is appropriate if each unit of production is unique and takes a considerable length of time to complete.
  - (b) Batch costing refers to a system where either job or process costing techniques are used to manufacture a product.
  - (c) Rectification costs should be charged to production overheads if the costs cannot be specifically traced to a job.
  - (d) Job costing is required when each unit of production is unique and production is of a long duration.
- (ii) In order for a company to arrive at the real material cost, the following should be adjusted for **EXCEPT**:
- (a) trade discounts.
  - (b) sales tax.
  - (c) transport charges.
  - (d) costs of selecting a supplier.
- (iii) Which of the following is an example of normal idle time?
- (a) The time taken in moving from the factory gate to the department in which a worker is engaged.
  - (b) Time lost due to breakdown of machinery.
  - (c) Time lost in waiting for tools and raw materials.
  - (d) Time lost due to accidents.
- (iv) The allotment of whole items of overhead to a cost centre is known as:
- (a) allocation.
  - (b) apportionment.
  - (c) classification.
  - (d) absorption.
- (v) Which of the following is true about job costing?
- (a) A lot of repetitive work is involved.
  - (b) The cost of each job is separately ascertained.
  - (c) Units produced are homogeneous.
  - (d) The work is done at the customer's site.

- (vi) A normal loss under process costing is a loss:
- (a) not absorbed by good production.
  - (b) transferred to profit account or loss account.
  - (c) determined as percentage of input.
  - (d) credited to the process account.

**Use the following information to answer questions (vii) and (viii).**

In the month of November 2010, a company incurred total cost amounting to Shs 3,180,000 in the manufacturing process. Units introduced in the process were 5,600. Closing work in progress at the end of the month was 1,200 units 75% complete.

- (vii) Calculate the equivalent units of production.
- (a) 5,600.
  - (b) 4,400.
  - (c) 5,300.
  - (d) 6,500.
- (viii) Calculate the cost per unit of production.
- (a) Shs 600.
  - (b) Shs 720.
  - (c) Shs 489.
  - (d) Shs 568.
- (ix) Which one of the following is **NOT** true about budgeting?
- (a) A key factor is the principal budget factor.
  - (b) In zero-base budgeting (ZBB) each item of the budget has to be justified before preparing the budget.
  - (c) A budget manual is a summary of all functional budgets.
  - (d) A flexible budget is more useful than the fixed budget.
- (x) The following are limitations of incremental budgeting **EXCEPT** it:
- (a) promotes complacency in managers.
  - (b) is not readily acceptable by staff because of the work involved.
  - (c) discourages innovation and creativity.
  - (d) increases budgetary slacks.

- (xi) Which of the following types of standards is of no practical utility in cost control?
- (a) Ideal standards.
  - (b) Expected standards.
  - (c) Current standards.
  - (d) Basic standards.

**Use the following information to answer questions (xii) and (xiii).**

The standard cost sheet for Trendy Ltd shows that production of product X requires 1 hour at Shs 2,000. During the month of October 2010, 2,500 units were produced in 2,100 hours at a total cost of Shs 3,750,000. Of the 2,100 hours taken, 100 were spent waiting for materials by the employees.

Determine the:

- (xii) labour rate variance

- (a) 630,000 adverse.
- (b) 200,000 favourable.
- (c) 630,000 favourable.
- (d) 200,000 adverse.

- (xiii) labour efficiency variance

- (a) 1,000,000 favourable.
- (b) 1,000,000 adverse.
- (c) 800,000 adverse.
- (d) 800,000 favourable

- (xiv) Which of the following is an irrelevant cost?

- (a) Opportunity cost.
- (b) Sunk cost.
- (c) Replacement cost.
- (d) Incremental cost.

- (xv) In marginal costing, selling prices in the short term are fixed on the basis of:

- (a) total cost plus profit.
- (b) variable cost plus contribution.
- (c) total cost plus contribution.
- (d) below marginal cost.

- (xvi) Which of the following statements is **FALSE**?
- (a) At break-even point, fixed cost is equal to contribution.
  - (b) Margin of safety can be improved by lowering fixed cost.
  - (c) On a break-even-chart, the angle of incidence is formed at the intersection of the sales curve and variable cost curve.
  - (d) Profit-volume ratio expresses the relation of contribution to sales.
- (xvii) Which of the following costing methods would you recommend in toy making?
- (a) Process costing.
  - (b) Contract costing.
  - (c) Batch costing.
  - (d) Activity-based costing.
- (xviii) Which of the following documents authorizes the movement of goods from stores?
- (a) Goods received note.
  - (b) Stores requisition note.
  - (c) Bill of materials.
  - (d) Materials transfer note.
- (xix) Which of the following is an example of a cost driver under activity-based costing?
- (a) Insurance
  - (b) Recreation
  - (c) Canteen
  - (d) Setting up machines.
- (xx) Which of the following methods of apportionment of joint costs gives the same cost per unit for all the joint products?
- (a) Sales revenue method.
  - (b) Reverse cost method.
  - (c) Physical units method.
  - (d) Average unit cost method.

**SECTION B****Question 2**

- (a) Naseco Ltd is a manufacturing company that uses a machine hour rate for absorbing overheads in one of its departments. This is established as a predetermined rate based on normal activity. The rate that will be used for the period commencing January 2011 is Shs 15 per machine hour.

Overhead expenditure anticipated at a range of activity levels is as follows:

Activity level (Machine hours)	Overhead Shs '000'
1,500	25,650
1,650	26,325
2,000	27,900

**Required:**

Calculate the:

- (i) variable overhead rate per machine hour.

**(2 marks)**

- (ii) total budgeted fixed overhead.

**(4 marks)**

- (b) Donna Ltd produces several products that pass through two production departments, filling and sealing. The company has two service departments; maintenance and canteen. Predetermined overhead absorption rates based on direct labour hours are established for the two production departments. The budgeted expenditure for these departments for the period ended 30 June 2010 including apportioned service department overheads was Shs 110,040,000 for filling and Shs 53,300,000 for sealing. Budgeted direct labour hours were 13,100 for filling and 10,250 for sealing. Service department overheads are apportioned as follows:

Department	Filling	Sealing	Canteen	Maintenance
Maintenance	70%	27%	3%	-
Canteen	60%	32%	-	8%

During the period ended June 2010, actual overhead cost and activity were as follows:

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Department	Shs '000'	Direct labour hours
Filling	74,260	12,820
Sealing	38,115	10,075
Maintenance	25,050	
Canteen	24,375	

**Required:**

Calculate the overheads absorbed for the period ended 30 June 2010 and the extent of under/over absorption in each of the two production departments.

**(15 marks)**

(c) Contrast the use of the following:

- (i) Blanket as opposed to departmental absorption rates.
- (ii) Predetermined overhead absorption rates as opposed to rates calculated on actual activity and expenditure.

**(4 marks)**

**(Total 25 marks)**

**Question 3**

(a) A Hengy Ltd wants to buy a machine to replace one which is having frequent breakdowns. The company has received offers for two models M1 and M2.

Details regarding the machines are as follows:

	M1	M2
Installed capacity (Units)	10,000	10,000
Fixed overhead per month (Shs '000')	2,400	1,000
Estimated profit at the above capacity (Shs '000')	1,600	1,000

The product manufactured using this type of machine shall be sold at Shs 1,000 per unit.

**Required:**

Determine the:

- (i) break even sales for each model.
- (ii) level of sales at which both models will earn the same profit.

**(6 marks)**

**(3 marks)**

(b) Ben, an employee of Jako Carpentry workshop gets the following emoluments and benefits:

- (i) Salary (per month) Shs 250,000
- (ii) Medical allowance (per month) Shs 50,000
- (iii) Employers contribution to savings fund 10% of salary & medical allowance
- (iv) Bonus 20% of one month's salary & medical allowance
- (v) Other allowances Shs 2,725,000 per annum





Ben works for 2,400 hours per annum out of which 400 hours are non-productive but treated as normal idle time. Ben worked for 18 effective hours on job No. 13 where the cost of direct materials equals Ben's earnings and the overhead applied is 100% of prime cost for the period ended 31 December 2009. The sales value of the job is quoted to earn a profit of 10% on such value.

**Required:**

Calculate the:

- (i) effective hourly rate for Ben. **(7 marks)**
  - (ii) effective sales value of Job No. 13 for the period ended 31 December 2009. **(4 marks)**
  - (c) Outline the disadvantages of overtime in an organization. **(5 marks)**
- (Total 25 marks)**

**Question 4**

- (a) Explain how you would deal with by-products in costing when the by-products:
  - (i) are of small total value
  - (ii) are of considerable total value
  - (iii) require further processing.**(6 marks)**
- (b) In the course of manufacture of the main product P, by-products X and Y also emerged. The joint costs of manufacture amounted to Shs 1,195,500 for the period ended 31 December 2009. All the three products were processed further after separation and sold as per details given below:

	Main product P	By- products X      Y	
Sales (Shs '000')	900	600	400
Post separation costs (Shs '000')	60	50	40
Profit as percentage on sales (%)	25	20	15

Total fixed selling expenses are 10% of the total cost of sales which are apportioned to the three products in the ratio of 20:40:40

**Required:**

Prepare a statement showing the apportionment of joint costs to the main product and by-products for the period ended 31 December 2009.

**(9 marks)**

- (c) A contractor, Mapesa Ltd, undertook a contract for Shs 50 million on 1 July 2009 for the construction of a school laboratory block under the Universal Secondary Education programme. On 30 June 2010 at the end of the financial year of the school, the following information was gathered about the contract.

<b>Item</b>	<b>Shs '000'</b>
Materials purchased	10,000
Wages paid	4,500
General expenses	900
Plant purchased	6,000
Materials on 30 June 2010	2,500
Wages accrued on 30 June 2010	500
Work certified	20,000
Work uncertified	1,500
Cash received	15,000
Plant depreciation	600

The contract contained an escalation clause which read "in the event of prices of materials and rates of wages increase by more than 5%, the contract price would be increased accordingly by 25% of the rise in the cost of materials and wages beyond 5% in each case".

It was found that since the signing date of the agreement, prices of materials and wage rates increased by 25%. The value of work certified does not take into consideration the effect of the escalation clause.

**Required:**

Prepare the contract account for the year ended 30 June 2010.

**(10 marks)**

**(Total 25 marks)**

**SECTION C**

**Question 5**

- (a) Outline the circumstances under which a company would allow to fix a price which is less than total cost.

**(5 marks)**

- (b) Under decision making analysis:
- (i) briefly explain the general rule for maximizing contribution in a limiting factor decision.  
**(2 marks)**
  - (ii) Give other factors in addition to cost which should be considered under a make or buy decision.  
**(3 marks)**
- (c) Outline the most important features that distinguish marginal costing from absorption costing.  
**(5 marks)**  
**(Total 15 marks)**

**Question 6**

- (a) State and explain the main differences between cost accounting and financial accounting.  
**(6 marks)**
- (b) Explain what you understand by a responsibility centre and identify the different types of responsibility centres.  
**(3 marks)**
- (c) Differentiate between the following:
- (i) Product and period costs.
  - (ii) Committed and discretionary costs.
  - (iii) Historical and predetermined costs.
- (6 marks)**  
**(Total 15 marks)**

**Question 7**

- (a) Distinguish between perpetual inventory and continuous inventory taking systems.  
**(3 marks)**
- (b) What is the significance of the following stock levels in a manufacturing firm?
- (i) Reorder level.
  - (ii) Safety stock.
  - (iii) Maximum stock level.
- (3 marks)**
- (c) Outline the disadvantages of last in first out (LIFO) method of inventory valuation.  
**(3 marks)**
- (d) Outline the fundamental functions of business budgets.  
**(6 marks)**  
**(Total 15 marks)**