

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA (U) EXAMINATIONS

LEVEL TWO

INTRODUCTION TO MANAGEMENT ACCOUNTING – PAPER 7

MONDAY, 15 DECEMBER 2003

INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours**
2. Attempt all questions in Section **A**, **one** question in Section **B** and any **three** questions in Section **C**.
3. Section **A** has **twenty** compulsory multiple-choice questions each carrying 1 mark.
4. Section **B** has **two** questions and only **one** is to be attempted. Each question carries 20 marks.
5. Section **C** has **four** questions and only **three** questions are to be attempted. Each question carries 20 marks.
6. Please read further instructions on the answer book.

SECTION A**Question 1**

Use the following information to answer questions (i) – (iv)

The data below relates to Herbs Limited for the year ended 31 December 2003.

No. of units sold		10,000
	Per unit	Total
	(Shs)	(Shs 000s)
Sales	30	300
Less: Variable costs	<u>18</u>	<u>180</u>
Contribution	<u>12</u>	120
Less: Fixed costs		<u>24</u>
Profit		<u>96</u>

- (i) Calculate the Break Even Point (B.E.P) in value terms.
 - (a) Shs 30,000.
 - (b) Shs 60,000.
 - (c) Shs 10,000.
 - (d) Shs 40,000.
- (ii) Calculate the B.E.P. in units.
 - (a) 1,000.
 - (b) 4,000.
 - (c) 2,000.
 - (d) 2,500.
- (iii) Calculate the margin of safety in value terms.
 - (a) Shs. 300,000.
 - (b) Shs. 400,000.
 - (c) Shs. 450,000.
 - (d) Shs. 240,000.
- (iv) Calculate the margin of safety in units.
 - (a) 8,000.
 - (b) 6,000.
 - (c) 7,000.
 - (d) 10,000.
- (v) The continuous comparison of actual with budgeted results is known as:
 - (a) budgetary control.
 - (b) Master budget.
 - (c) Management by objectives.
 - (d) Variance.

- (vi) What is the main determinant of a local authority's budget?
- (a) Estimate of total revenue grants.
 - (b) Estimate of total expenditure.
 - (c) Surpluses.
 - (d) Qualified accountants.
- (vii) The following are the main steps in setting up a standard costing system except:
- (a) Set up a unit responsible for implementing it.
 - (b) Select an appropriate standard costing period.
 - (c) Determine the number of industries using standard costing.
 - (d) Determine the type of standard to be adopted.
- (viii) Which of the following statements is false?
- (a) Prime cost is the best method to use in absorbing overheads in a machine department.
 - (b) Some costs can be both a direct departmental cost and an indirect unit cost.
 - (c) All service costs are indirect as far as units are concerned.
 - (d) Some service costs are included in unit costs.
- (ix) The following are stages of implementing a cost accounting system except:
- (a) Choose a cost control method.
 - (b) Determine the treatment of fixed production overheads.
 - (c) Adopt a documentary coding system.
 - (d) Prepare a master budget.
- (x) Which of the following is not a method of charging the cost of direct materials to production?
- (a) Absorption costing.
 - (b) LIFO.
 - (c) FIFO.
 - (d) Weighted average.
- (xi) What is the term used to describe indirect costs?
- (a) Variances
 - (b) Overheads.
 - (c) Budget.
 - (d) Prime cost.
- (xii)include employee's wages and salaries, bonuses, employer's contributions and pension fund contributions.
- (a) Overhead costs.
 - (b) Labour costs.
 - (c) Works costs.
 - (d) Factory costs.

- (xiii) Which of the following is odd?
- (a) $\frac{\text{Total cost center overhead}}{\text{Cost center total direct labour cost}} \times 100$
 - (b) $\frac{\text{Total cost center overhead}}{\text{Cost center total machine hours}} \times 100$
 - (c) $\frac{\text{Total cost center overhead}}{\text{Prime cost}} \times 100$
 - (d) $\frac{\text{Total administrative overheads}}{\text{Total sales revenue}} \times 100$
- (xiv) Which of the following is correct?
- (a) Strategic management accounting incorporates external information into the reporting system.
 - (b) Abnormal gains should be absorbed into process costs.
 - (c) A contract must be completed before any profit can be taken.
 - (d) Activity based costing does not trace resource consumption.
- (xv) The technique of calculating cost during the product's life and the pre-production stage is called:
- (a) Absorption costing.
 - (b) Marginal costing.
 - (c) Standard costing.
 - (d) Life cycle costing.
- (xvi) Which of the following is not a performance measure used in standard costing?
- (a) Absorption ratio.
 - (b) Production volume ratio.
 - (c) Capacity ratio.
 - (d) Efficiency ratio.
- (xvii) The cost of acquiring, producing or enhancing fixed assets is called:
- (a) Revenue expenditure.
 - (b) Investment.
 - (c) Capital expenditure.
 - (d) Total quality management (TQM).
- (xviii) The following are the main sources of finance available to a Limited company in financing a capital investment except:
- (a) Retained profits.
 - (b) Issue of shares.
 - (c) Buy outs.
 - (d) Leasing.

- (xix) Which are of the following statements is false?
- (a) The cost of one process may be transferred to the next process at cost or at market value.
 - (b) Job costing and process costing cannot be used simultaneously in the same industry.
 - (c) Two of the special problems that arise in process costing are valuation of work in progress and process losses.
 - (d) The cost of abnormal process loss is not included in the cost of the process.
- (xx) Which of the following is true about budgetary control?
- (a) The budget relating to the key factor should be prepared first.
 - (b) For control purposes, long-term budgets should be prepared.
 - (c) Limiting factor is a major constraint on all the operational activities of the entity.
 - (d) Estimate of the sales given in the sales budget is a mere guess.

SECTION B

Question 2

- (a) Define and give an example of a cost driver. **(2 marks)**
- (b) Explain each of the following as used by Cost Accountants in overhead analysis:
 - (i) cost apportionment. **(2 marks)**
 - (ii) cost absorption. **(2 marks)**
- (c) (i) Outline the principles of Activity Based Costing (ABC). **(3 marks)**
 - (ii) Why is ABC becoming popular as a costing system? **(2 marks)**
- (d) (i) Distinguish between perpetual inventory and continuous stock taking as methods of inventory management. **(4 marks)**
 - (ii) What is Economic Order Quantity (EOQ). Outline four types of costs that a company will avoid by adopting an EOQ model in its management of inventory? **(5 marks)**

(5 marks)
(Total 20 marks)

Question 3

- (a) (i) Explain how a Just in Time (JIT) production system operates. **(2 marks)**
- (ii) Briefly explain four factors that are crucial for the success of a JIT production system. **(4 marks)**
- (b) (i) Distinguish between Job Costing and Process costing. **(2 marks)**
- (ii) Define equivalent units and show how they are determined in a process costing environment. **(2 marks)**
- (c) (i) Explain and illustrate with an example how opening inventory affects the computation of unit costs when using the Weighted Average Method in process costing. **(5 marks)**
- (ii) Explain and illustrate the use of First in First out (FIFO) method as applied in process costing where there is opening inventory. **(5 marks)**
- (Total 20 marks)**

SECTION B**Question 4**

- (a) Distinguish between a flexible budget and a fixed budget. **(5 marks)**
- (b) The monthly budgets for manufacturing overhead of a company for two levels of activity in 2002 were as follows:

CAPACITY	60%	100%
Budgeted Production (units)	600	1000
	Shs (000's)	Shs (000's)
Wages	1,200	2,000
Consumable Stores	900	1,500
Maintenance	1,100	1,500
Depreciation	4,000	4,000
Insurance	1,000	1,000
Power and Fuel	<u>1,600</u>	<u>2,000</u>
	<u>9,800</u>	<u>12,000</u>

Required:

- (i) Classify the costs into semi-variable, variable and fixed?
- (ii) Prepare a budget for 80% capacity.
- (iii) Find the total cost for the variable items per unit of output at 80% and 100% capacity.

(15 marks)
(Total 20 marks)

Question 5

- (a) (i) Distinguish between net present value and internal rate of return (IRR). **(4 marks)**
- (ii) Give four merits and three demerits of IRR. **(7 marks)**
- (b) Mango Ltd has investigated the possibility of investing in a new machine. The following data have been extracted from the report relating to the project:

Cost of machine on 1 January 2003: Shs 500,000.

Life: 4 years to 31 December 2006.

Estimated scrap value: Nil

Depreciation method: Straight line.

Year	Accounting Profit after Tax (Shs 000)	Net Cash Flows (Shs 000)
1	100	50 (excluding initial cost)
2	250	200
3	250	225
4	250	225
5	-	100

The company's required rate of return is 15%.

Required:

Calculate the return the machine would make using the IRR appraisal method.

(9 marks)
(Total 20 marks)

Question 6

- (a) (i) What is a standard? **(1 mark)**
- (ii) List four main steps in setting up a standard costing system. **(4 marks)**
- (b) The following overhead budget has been prepared for Athina Ltd:

Actual fixed overheads: Shs 150,000

Budgeted fixed overheads: Shs 135,000

Fixed overheads absorption rate per hour: Shs 15

Actual hours worked: 10,000

Standard hours of production: 800

Required:

Calculate the following fixed overhead variances:

- (i) Fixed production overhead variance.
- (ii) Expenditure variance.
- (iii) Volume variance.
- (iv) Capacity variance.

- (v) Productivity variance.

(15 marks)
(Total 20 marks)

Question 7

- (a) Maruti Ltd has the following budgeted data for the year ending 31 December 2003:

	Shs '000
Budgeted sales (20,000 units @ 25,000)	50,000
Budgeted variable costs (20,000 units @ 1,500)	30,000
Budgeted fixed costs	10,000

Required:

- (i) Compute the break-even point in units. **(2 marks)**
 (ii) Compute the break-even point in shillings. **(2 marks)**
 (iii) Compute the margin of safety. **(2 marks)**
- (b) Maruti Ltd has a contribution ratio of 40% but desires to earn an after tax profit of 9,000,000 and that the income tax rate is 30%.

Required:

Compute the target sales value in shillings given that the firm's actual fixed costs are the same as those budgeted.

(4 marks)

- (c) Suppose you are preparing for your retirement in ten years' time and you decided to buy an annuity of Shs 1,728,500 now with a pension fund that is paying 12% interest per annum, how much would you have to deposit in order to qualify for the annuity sum when it matures.

(2 marks)

- (d) A company has created a sinking fund to retire its redeemable debenture stock on maturity. The interest rate is 6% per year and the value of debenture stock on redemption four years from now is Shs 21,850,000.

Required:

Compute the annual fixed payments that must be paid to the sinking fund.

(3 marks)

- (e) You have asked your bank to give you a loan to enable you buy a car from Rambo Motors for Shs 10,000,000. The bank has agreed to extend the loan facility to you at an interest rate of 9% payable over a period of 3 years from your annual salaries.

Required:

Prepare a loan amortization/repayment schedule over the 3 year period.

(5 marks)

(Total 20 marks)