

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA (U) EXAMINATIONS

LEVEL ONE

MANAGEMENT ACCOUNTING AND FINANCE – PAPER 6

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**, any **three** questions in Section **B** and any **one** question in Section **C**.
3. Section **A** has **twenty** compulsory multiple-choice questions each carrying 1 mark.
4. Section **B** has **four** questions and only **three** are to be attempted. Each question carries 20 marks.
5. Section **C** has **two** questions and only **one** question is to be attempted. Each question carries 20 marks.
6. Tables are provided on page 12.
7. Please read further instructions on the answer book.

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SECTION A

Question 1

- (i) The variance that occurs when actual hours worked exceed standard hours allowed is:
 - (a) favourable labour efficiency.
 - (b) favourable labour rate.
 - (c) adverse labour efficiency.
 - (d) adverse labour rate.
- (ii) The process of overhead cost apportionment is carried out so that:
 - (a) costs may be controlled.
 - (b) cost units accumulate overheads as they pass through cost centres.
 - (c) whole items of cost can be charged to cost centres.
 - (d) common costs are shared among cost centres.
- (iii) Mimi Ltd produces product mums which has a maximum demand of 4,000 units. The product requires component x which is purchased at Shs 20,000. For every unit of the finished product one unit of the component is required. The ordering cost is Shs 120,000 per order and the holding cost is 10% per annum. What is the economic order quantity?
 - (a) 2,400 units.
 - (b) 1,200 units.
 - (c) 4,800 units.
 - (d) 2,000 units.
- (iv) Which of the following statements is correct about idle time?
 - (a) It cannot be controlled because it is due to external factors.
 - (b) It is always controllable because it is due to internal factors.
 - (c) Idle time is always due to inefficient production staff.
 - (d) Idle time is not always the fault of production staff.
- (v) Which of the following methods of inventory pricing best approximates specific identification of actual flow of costs and units in most manufacturing situations?
 - (a) Average cost
 - (b) FIFO
 - (c) LIFO
 - (d) Base cost

- (vi) Which of the following is **NOT** an indirect cost?
- (a) Wages of a production department machine operator.
 - (b) Wages of a production department cleaner.
 - (c) Materials used for machine maintenance in a production department.
 - (d) Materials used to clean the production department.
- (vii) In process costing 'point of separation' is relevant to:
- (a) abnormal losses.
 - (b) joint products.
 - (c) by-products.
 - (d) abnormal gains.
- (viii) Which of the following is **NOT** part of working capital?
- (a) Accounts payable.
 - (b) Inventory.
 - (c) Computers.
 - (d) Accounts receivable.
- (ix) Which of the following is **FALSE** about activity-based costing?
- (a) Overheads are charged to products using predetermined overhead absorption rates.
 - (b) It involves identification of cost drivers.
 - (c) Costs that vary with production levels in the short term use volume related cost drivers.
 - (d) Support overheads are charged to production on the basis of usage of activity.
- (x) Which of the following actions should be taken by management when they anticipate a short term cash deficit in their organisation?
- (a) Issue of share capital.
 - (b) Shut down some production lines.
 - (c) Acquire long term loans.
 - (d) Arrange for an overdraft facility.
- (xi) Which of the following does not affect the recorded costs of closing inventory?
- (a) Abnormal wastage.
 - (b) Normal wastage.
 - (c) Seasonal wastage.
 - (d) Standard wastage.

- (xii) Within a relevant range, the amount of variable cost per unit:
- (a) differs at each production level.
 - (b) remains constant at each production level.
 - (c) increases as production increases.
 - (d) decreases as production increases.
- (xiii) In case of a limiting factor the decision maker should considerin order to maximize profit.
- (a) sales units
 - (b) contribution margin
 - (c) variable costs
 - (d) fixed costs
- (xiv) The technique of sharing out production overheads to cost centres is known as:
- (a) apportionment.
 - (b) absorption.
 - (c) contribution.
 - (d) allocation.
- (xv) The following are roles of the Uganda Securities Exchange **EXCEPT**:
- (a) providing market for shares.
 - (b) providing security to company assets.
 - (c) facilitating privatization of parastatals.
 - (d) helping people obtain stakes in privatized companies.
- (xvi) the payback period method of project appraisal is most widely used because of the following reasons **EXCEPT**:
- (a) it is used to rank projects where a firm faces liquidity constraints.
 - (b) it is appropriate where future cash flows are difficult to predict.
 - (c) it helps managers avoid risky investments.
 - (d) it leads to excessive investment in short term projects.
- (xvii) Which of the following sources of finance has characteristics of both debt and equity?
- (a) Ordinary share capital.
 - (b) Debenture capital.
 - (c) Share premium.
 - (d) Preference share capital.

- (xviii) The following are ways by which a firm can reduce its investment in debtors **EXCEPT**:
- (a) invoice discounting.
 - (b) advance against collection.
 - (c) negotiation of bills or cheques.
 - (d) use of documentary credits.
- (xix) If shs 18 million is invested now to earn 10% for three years and 8% thereafter, what would be the size of total investment at the end of 5 years?
- (a) Shs 23, 958,000
 - (b) Shs 20,995,200
 - (c) Shs 26, 447,905
 - (d) Shs 27,923,616
- (xx) Which of the following does **NOT** lengthen the operating cycle?
- (a) Long turnover periods for stocks.
 - (b) Lengthy debtors' days.
 - (c) Long creditors' period.
 - (d) Short creditors' period.

SECTION B

Question 2

Fast Track Services Ltd is involved in parcel delivery business and is evaluating a new venture in which it would use tricycles to offer courier services within a day.

To achieve this, the company has to purchase a building for Shs 2.5 million payable immediately. The building would require renovations of Shs 1.5 million to enable it become a control and distribution centre. These renovations would take a year and operations would not commence until the building was ready.

Immediately after completion of the building Fast Track Services Ltd would take delivery of 10 tricycles at Shs 400,000 each and engage riders.

Running costs are expected to be Shs 750,000 per annum and variable costs Shs 100 per parcel.

Fixed costs are expected to increase by 8% per year and variable costs by 5% per year. Shs 500,000 of working capital would need to be injected immediately before completion of the building.

A market survey was conducted at a cost of Shs 400,000 which suggested that the price per parcel would be Shs 500 or Shs 800. At these prices, the following number of parcels are forecast:

Probability	Estimated parcels per year ('000')	
	Shs 500 Price	Shs 800 Price
0.10	175	160
0.20	275	190
0.40	350	210
0.20	375	230
0.10	400	260

These are current price levels and are expected to increase by 5% at the end of each year. The company's cost of capital for the next 5 years is estimated to be 15% per annum. At the end of 5 years the venture will have a realizable value as going concern of Shs 100,000,000

Required:

- Determine, with reasons, the price for the parcels which maximizes profit.
(5 marks)
 - Calculate the expected net present value of the venture for the first five years of operations.
(15 marks)
- (Total 20 marks)**

Question 3

- A company dealing in the production of plastic products produces cups, basins, plates, and buckets. Estimated costs, sales and production data for the next period are as given below:

	Cups Shs	Plates Shs	Basins Shs	Buckets Shs
Selling price per unit	3,200	3,800	6,800	5,600
Labour (at Shs 60/hr)	(1,800)	(1,200)	(4,200)	(3,000)
Materials (at Shs 40 /kg)	<u>(600)</u>	<u>(1,800)</u>	<u>(1,000)</u>	<u>(1,200)</u>
Contribution	800	800	1,600	1,400
Resources per unit				
Labour hours	3	2	7	5
Materials (kg)	6	18	10	12
Maximum demand	5000	5000	5000	5000

Required:

Based on the above data, determine the most appropriate production mix if labour hours are limited to 50,000 in a period.

(10 marks)

- (b) Prime Manufacturing Company Ltd incurs two types of overhead costs, materials handling and quality inspection. The estimated costs for the coming year are as follows:

Materials handling	Shs 1,000,000
Quality inspection	Shs 3,000,000

The company currently charges overheads using direct labour hours and the expected actual capacity is 50,000 direct labour hours. The company has been asked to submit a bid and has assembled the following data concerning the proposed job:

Direct material cost	Shs 37,000
Direct labour costs (1000 hrs)	Shs 70,000
No of material moves	10
No. of inspections	5

The manager has, however, noted that many competitors use an activity-based costing (ABC) approach to assign overheads to jobs. He estimates that the expected number of material moves for all jobs during the year is 1,000 and expects 5,000 quality inspections. The manager would like to assess the effects of the ABC approach before submitting the bid. Assume the bid price is cost plus 25%.

Required:

- (i) Compute the bid price using absorption costing approach.
(3 marks)
- (ii) Compute the bid price using ABC approach.
(4 marks)
- (iii) What are the advantages of ABC over the traditional absorption costing approach?
(3 marks)

(Total 20 marks)

Question 4

Property Masters Ltd is in a process of preparing its master budget for the 6 months to December 2010. The statement of financial position for the year to 30 June 2010 is estimated to be as follows:

	Shs '000'	Shs '000'
Non-current assets	140,000	
Less depreciation	<u>(14,000)</u>	126,000
Current assets:		
Inventory	25,000	
Trade receivables	24,600	
Bank	<u>3,000</u>	
		52,600
Current liabilities:		
Trade payables	25,000	
Other payables	<u>9,000</u>	
		<u>(34,000)</u>
Net-current assets		<u>18,600</u>
Total assets less liabilities		<u>144,600</u>
Capital & reserves:		
Share capital		100,000
Retained earnings		<u>44,600</u>
		<u>144,600</u>

The budget committee have derived the following forecasts for the 6 months to 31 December 2010:

	Sales (units)	Purchases	Wages & salaries	Overheads excluding depreciation	Purchase of fixed assets	Issue of shares	Dividends
		Shs '000'	Shs '000'	Shs '000'	Shs '000'	Shs '000'	Shs '000'
May	4,000	12,000	8,000	7,000			
June	4,200	13,000	8,000	7,000			
July	4,500	14,000	8,000	7,000			
Aug	4,600	18,000	10,000	7,000			
Sept	4,800	16,000	10,000	7,000		20,000	
Oct	5,000	14,000	10,000	8,000			10,000
Nov	3,800	12,000	12,000	8,000	30,000		
Dec	3,800	12,000	12,000	8,000			

Additional information:

- Selling price in May 2010 was Shs 6,000 per unit and this is estimated to increase to Shs 8,000 in October. 50% of sales are for cash and 50% on credit paid for 2 months later.
- Purchases are to be paid for 2 months after purchase.

- (c) 75% of the wages and salaries are to be paid for in the month they will be incurred and 25% in the following month.
- (d) Overheads are to be paid one month after they have been incurred.
- (e) Fixed assets are to be paid for in three equal installments following the purchase.
- (f) Dividends are to be paid 3 months after they have been declared and receipts from the issue of shares are to be received in the same month as budgeted.
- (g) Fixed assets are depreciated at 10 % per annum on a straight-line basis on those assets owned at 31 December 2010.
- (h) Closing inventory at the beginning of the period under review was equal to the previous 2 months' purchases. At 31 December 2010, it is estimated to equal to 3 months' purchases.

Required:

Prepare a cash budget for the 6 months to 31 December 2010.

(20 marks)

Question 5

- (a) Banga Ltd produces cooking oil through two processes: 1 and 2. During the month of May 2010, the management accountant provided the following data from the cost accounts of the company:

Process 1:

Opening work in progress was 900 litres valued at Shs 450,000 with the following degrees of completion:

- Materials 100%.
- Labour 60%
- Overheads 60%.

Materials introduced into the process amounted to 9,100 litres valued at Shs 273,000, labour Shs 82,000 and overhead costs Shs 164,000.

1,200 litres were scrapped at the following stages of completion; materials 100% and conversion costs 70%.

7,800 litres were transferred to process 2 and at the end of process 1, 1,000 litres remained incomplete at the following completion levels; materials 100%, labour and overheads 80%.

The company provides for normal loss of 10% and scrapped units are sold for Shs 30 per litre.

Required:

Using FIFO valuation principles, prepare process 1 account.

(10 marks)

- (b) Pioneer Construction Company Ltd commenced the construction of highway on 1 January 2009. The trial balance as at 31 December 2009 showed the following balances:

	Shs '000'	Shs '000'
Paid up share capital		100,000
Cash received on account		120,000
Land & buildings	30,000	
Machinery on site at cost	40,000	
Bank	4,000	
Materials on site	40,000	
Direct labour	55,000	
Expenses at site	2,000	
Vehicles	30,000	
Furniture	1,000	
Office equipment	10,000	
Postage	500	
Office expenses	2,000	
Rates & taxes	3,000	
Fuel & power	2,500	
	<u>220,000</u>	<u>220,000</u>

The contract price is Shs 300 million and work certified is Shs 150 million. The work completed since certification is estimated at Shs 1 million. Machinery costing Shs 2 million was returned to stores at the year end. Stock of materials at site on 31 December 2009 was valued at Shs 5 million. Outstanding wages were Shs 200,000. Depreciation on machinery is at 10%.

Required:

- (i) Prepare a contract account for Pioneer Construction Company Ltd.
(7 marks)
- (ii) What would be the value of work in progress taken to the statement of financial position?

(3 marks)

(Total 20 marks)

SECTION C

Question 6

- (a) Outline the benefits of a standard costing system to an organisation.
(4 marks)
- (b) Explain whether you agree with the following statements
(i) All direct costs are variable costs.
(ii) Variable costs are controllable and fixed costs are not.
(iii) Sunk costs are irrelevant costs for decision making.
(3 marks)
- (c) Explain the major difference between continuous inventory counting and periodic inventory counting.
(3 marks)
- (d) Break-even analysis assumes that variable costs and revenues are linear and that fixed costs are fixed. Explain why these assumptions may not be realistic.
(6 marks)
- (e) Explain the causes of under/ over absorption of overheads.
(4 marks)
- (Total 20 marks)**

Question 7

- (a) (i) Outline the challenges that have been experienced by the Uganda Securities Exchange.
(5 marks)
- (ii) State any **three** listing rules of the Uganda Securities Exchange.
(4 marks)
- (b) Explain why it is important to receive money now than in future.
(4 marks)
- (c) Give reasons why cash flow problems may arise in a company.
(4 marks)
- (d) Give the advantages of using retained earnings to finance operations of a business rather than paying out dividends.
(3 marks)
- (Total 20 marks)**

Table 1: PVIF- Present Value of Shs 1 Due at the End of n Periods

Period	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	0.842	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.718	0.694
3	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.609	0.579
4	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.516	0.482
5	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.437	0.402
6	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.370	0.335
7	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.314	0.279
8	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.266	0.233
9	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.225	0.194
10	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.191	0.162
11	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.162	0.135
12	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.137	0.112
13	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.116	0.093
14	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.099	0.078
15	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.084	0.065

TABLE 2: PVAF - Present Value of an Annuity of Shs 1 per Period for n Periods

Period	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	1.759	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.566	1.528
3	2.531	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.174	2.106
4	3.240	3.170	3.102	3.037	2.974	2.914	2.855	2.798	2.690	2.589
5	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.127	2.991
6	4.486	4.355	4.231	4.111	3.998	3.889	3.784	3.685	3.498	3.326
7	5.033	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.812	3.605
8	5.535	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.078	3.837
9	5.995	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.303	4.031
10	6.418	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.494	4.192
11	6.805	6.495	6.207	5.938	5.687	5.453	5.234	5.029	4.656	4.327
12	7.161	6.814	6.492	6.194	5.918	5.660	5.421	5.197	4.793	4.439
13	7.487	7.103	6.750	6.424	6.122	5.842	5.583	5.342	4.910	4.533
14	7.786	7.367	6.982	6.628	6.302	6.002	5.724	5.468	5.008	4.611
15	8.061	7.606	7.191	6.811	6.462	6.142	5.847	5.575	5.092	4.675