

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## CPA (U) EXAMINATIONS

### LEVEL ONE

#### MANAGEMENT ACCOUNTING AND FINANCE – PAPER 6

**FRIDAY, 17 JUNE 2011**

#### 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 11.
7. Please read further instructions on the answer book, before attempting any question.

## SECTION A

### Question 1

- (i) Which of the following is **NOT** an objective of cost accounting?
  - (a) Showing the overall performance of an organization.
  - (b) Ascertainment of cost.
  - (c) It acts as a guide to business policy.
  - (d) Determination of selling price.
- (ii) Which of the following is **NOT** a characteristic of variable costs?
  - (a) Can be controlled by functional managers
  - (b) Represent a reasonably accurate allocation and apportionment of costs to departments.
  - (c) Variability with volume of output.
  - (d) Apportionment on arbitrary basis to departments.
- (iii) Which of the following statements is true?
  - (a) Under activity-based-costing(ABC), A items are those which are used in largest quantities.
  - (b) The value of closing inventory under first in first out and last in last out methods is the same.
  - (c) Reorder level is normally fixed between minimum and maximum levels.
  - (d) Perpetual inventory system means continuous inventory counting.
- (iv) Which one of the following documents is used to record materials issued to production?
  - (a) Bill of materials.
  - (b) Stores requisition note.
  - (c) Materials return note.
  - (d) Materials transfer note.
- (v) Idle time can be controlled by:
  - (a) regular repairs and maintenance of plant and machinery.
  - (b) increased strikes and lockout.
  - (c) loose supervision control.
  - (d) working overtime.

- (vi) When absorbed overheads are Shs 235,400 and actual overheads are Shs 224,000, there is an:
- (a) under absorption of Shs 11,400.
  - (b) over absorption of Shs 11,400.
  - (c) under absorption of Shs 459,000.
  - (d) over absorption of Shs 459,000.
- (vii) Computation of overhead absorption rates should be based on .... capacity.
- (a) maximum
  - (b) practical
  - (c) normal
  - (d) idle
- (viii) Which of the following is **NOT** a feature of job costing?
- (a) Production is against customer's orders and not for stocks.
  - (b) Each job has its own characteristics.
  - (c) Flow of production from one department to another is not uniform.
  - (d) Production consists of limited repetitive work.
- (ix) In contract costing the escalation clause is used to:
- (a) show part of work that has been approved by the Architect for payment.
  - (b) safeguard the interests of the contractor by upward revision of the contract price.
  - (c) show work-in-progress not approved for payment.
  - (d) show part of work-in-progress that has been contracted.

**Use the following information to answer questions (x) and (xi):**

Product P1 passes through 3 processes to completion. In period 3 the costs of production were as follows:

	Total costs	Process 1	Process 2	Process 3
Additional materials (Shs)	8,432	2,000	3,020	3,462
Direct labour (Shs)	12,000	3,000	4,000	5,000
Direct expenses (Shs)	726	500	226	0
Normal loss (%)	10	5	10	
Scrap value (Shs per unit)	3	5	6	

Production overheads are Shs 6,000. 1,000 units at Shs 5 per unit were issued to process 1 and output from process 1 was 920 units.

- (x) Calculate the actual loss in process 1:
- (a) 100 kg.
  - (b) 80 kg.
  - (c) 50 kg.
  - (d) 150 kg.
- (xi) Calculate the cost per unit in process 1:
- (a) Shs 13.3 per kg.
  - (b) Shs 12 per kg.
  - (c) Shs 13 per kg.
  - (d) Shs 12.6 per kg.
- (xii) The major weakness of the physical units method of accounting for joint products is that it:
- (a) assumes that all products are equal in terms of value.
  - (b) is not easy to verify the units of joint products.
  - (c) does not indicate which units are to be processed further.
  - (d) ignores the split off point.
- (xiii) The following points highlight differences between marginal costing and absorption costing **EXCEPT**:
- (a) inventory valuation.
  - (b) recovery of overheads.
  - (c) enhancement of external reporting.
  - (d) calculation of sales revenue.
- (xiv) Profit reported under absorption costing is the same as that reported under marginal costing when:
- (a) production exceeds sales.
  - (b) production equals sales.
  - (c) when production is less than sales.
  - (d) fixed costs are high.
- (xv) Which of the following statements is **NOT** true about margin of safety?
- (a) It represents the difference between current operating activity level and break-even sales or quantity.
  - (b) It measures how far the company is above the break-even point.
  - (c) The larger the margin of safety the safer the company is from making losses.
  - (d) It shows the rate at which profits are being earned once break-even has been reached.

- (xvi) According to marginal costing, selling prices in the short term are normally fixed on the basis of:
- (a) total cost plus profit.
  - (b) variable cost plus contribution.
  - (c) total cost plus contribution.
  - (d) below marginal cost.
- (xvii) Transactions cost drivers are those which:
- (a) represents the amount of time required to perform an activity
  - (b) consider the resources used each time an activity is performed.
  - (c) consider the number of times an activity is performed
  - (d) consider the volume of output from a department
- (xviii) Which one of the following statements is true about budgets?
- (a) A budget manual is a summary of all functional budgets.
  - (b) A fixed budget is more useful than a flexible budget.
  - (c) A cash budget is usually a long term budget.
  - (d) A key factor is the principal budget factor.
- (xix) Cost of capital refers to the:
- (a) minimum return that a company expects to make from its investment.
  - (b) rate of return at which the net present value is nil.
  - (c) cost of buying fixed assets.
  - (d) interest rate on borrowed funds.
- (xx) Which of the following costs is not associated with the issue of shares?
- (a) Underwriting costs.
  - (b) Stock exchange listing fees.
  - (c) Advertising in news papers.
  - (d) Directors' remuneration.

**SECTION B**

**Question 2**

- (a) Cornerstone Corporation presently gives a credit period of 30 days to customers who do not take early payment discounts. It has Shs 60 million in credit sales and its average collection period is 45 days. To stimulate demand the company may give a credit period of 60 days to customers that do not take early payment discounts. If the new terms are implemented sales are expected to increase by 15%. After the change the average collection period is expected to be 75 days with no difference in payment habits between the old and new customers.

Variable costs are Shs 8 million for every Shs 1 million of sales and the company's before tax rate of return on investment in receivables is 20%.

**Required:**

Should the company extend the credit period? (Assume a 360 day-year)

**(12 marks)**

- (b) Leemo Ltd faces a fixed cost of Shs 4 million in order to obtain new funds. There is a requirement of Shs 24 million of cash over each period of one year for the foreseeable future. The interest cost of new funds is 12% per year, the interest earned on short term securities is 9% per annum.

**Required:**

- (i) How much finance should Leemo Ltd raise at a time?

**(4 marks)**

- (ii) What procedures can be employed by any company to ease the problem of cash shortages?

**(4 marks)**

**(Total 20 marks)**

### Question 3

Gatsby Ltd is a highly geared company but wishes to expand its operations. Six possible capital investments have been identified, but the company has only access to Shs 620 million. The projects are not divisible and may not be postponed until a future period. After the projects end its unlikely that similar investments will occur.

Project	Expected net cashflows					Initial outlay
	Year 1	Year 2	Year 3	Year 4	Year 5	
	Shs '000'	Shs '000'	Shs '000'	Shs '000'	Shs '000'	Shs '000'
A	70,000	70,000	70,000	70,000	70,000	246,000
B	75,000	87,000	64,000			180,000
C	48,000	48,000	63,000	73,000		175,000
D	62,000	62,000	62,000	62,000		180,000
E	40,000	50,000	60,000	70,000	40,000	180,000
F	35,000	82,000	82,000			150,000

Projects A & E are mutually exclusive. All projects are believed to be of similar risk to the company's existing capital investments. Any surplus funds may be invested in the money market to earn a return of 9% per year. Gatsby Ltd's cost of capital is 12% per year.

#### Required:

- Calculate the expected net present value of the projects.  
(6 marks)
  - Calculate the profitability index associated with each project.  
(6 marks)
  - Rank the projects according to the two methods.  
(3 marks)
  - Giving reasons, advise Gatsby Ltd as to which projects it should select.  
(5 marks)
- (Total 20 marks)**

### Question 4

- Cereal Plus Ltd deals in the sale and distribution of different cereals. The company was not maintaining a perpetual inventory system for its inventory units recently. Only physical inventory was counted at the end of each month. The physical inventory at the end of December 2010 showed 200 bags of super rice valued at Shs 212,000 per bag. The following purchases were made in January 2011:

January 3	400 bags at Shs 218,000 per bag
January 10	900 bags at Shs 223,000 per bag
January 15	400 bags at Shs 220,000 per bag
January 28	700 bags at Shs 213,000 per bag
January 30	300 bags at Shs 224,000 per bag.

On 31 January 2011 the physical stock was 1,200 bags.

**Required:**

Calculate the value of inventory on 31 January 2011 using the first in first-out method.

**(10 marks)**

- (b) The following information relates to a manufacturing department of Horizontal Ltd for a period of one month to 31 May 2011:

	Budget	Actual
	Shs	Shs
Direct material (Shs '000')	1,000	1,000
Direct labour (Shs '000')	2,000	2,500
Production overhead (Shs '000')	2,000	2,300
Direct labour hours	50,000	62,500
Machine hours	40,000	50,000

Job ZX was one of the jobs worked on during the period. The actual data relating to the job were direct material Shs 60,000, direct labour 30,000, direct labour hours 750 and machine hours 750.

**Required:**

- (i) Calculate the production overhead rate predetermined for the period based on direct material cost and machine hours.  
**(4 marks)**
- (ii) Calculate the production overhead cost to be charged to job ZX based on the rates calculated in (b) (i) above.  
**(2 marks)**
- (iii) Assuming that a machine hour rate of absorption is used, calculate the under/over absorption of production overheads.  
**(2 marks)**
- (iv) State **two** factors which influence over/under absorption of overheads.  
**(2 marks)**

**(Total 20 marks)**



**Question 5**

- (a) Kamu Kamu Furniture Ltd manufactures office chairs for different clients. The company has provided you with the following data:

Standard/budgeted data

Unit variable costs	Shs
Direct Material 6 metres at Shs 5000 per metre	30,000
Direct Labour 2 hours at Shs 8000 per hour	16,000
Variable overhead Shs 6,000 per direct labour hour	<u>12,000</u>
	<u>58,000</u>

Budgeted fixed overhead for the year was Shs 2.5 million and the standard selling price is Shs 70,000 per chair. Kamu Kamu Ltd plans to produce 5,000 chairs and the company's budgeted operating statement is shown below:

	Shs '000'
Sales (5000 x 70,000)	350,000
Less cost of sales	
Variable production costs (5,000 x 58,000)	<u>(290,000)</u>
Budgeted contribution	60,000
Less fixed factory overheads	<u>(25,000)</u>
Budgeted profit	35,000

Kamu Kamu's actual operating statement is presented below: Shs 000

Sales (5500 x 68,000)	374,000
Less cost of sales:	
Direct materials (32,000 x 4,500)	144,000
Direct labour cost (12,000 x 7,500)	90,000
Variable overhead	78,000
	<u>(312,000)</u>
Actual contribution	62,000
Less fixed factory costs	<u>(23,000)</u>
Actual profit	39,000

**Required:**

Prepare an operating statement reconciling the budgeted profit to actual profit.

**(13 marks)**

- (b) In a purely competitive market, 10,000 bottles of mineral water can be manufactured and sold in a week and a profit generated. It is estimated that 2000 bottles of mineral water need to be manufactured and sold in a monopoly market to earn the same profit. Profit under both conditions is targeted at Shs 2 million. The variable cost per bottle is Shs 1,000 and total fixed cost is Shs 370,000.

**Required:**

Calculate the unit selling prices under both monopoly and competitive conditions.

**(7 marks)**

**(Total 20 marks)**

**SECTION C**

**Question 6**

- (a) Outline the conditions that are essential for effective budgeting.  
**(5 marks)**
- (c) Identify factors that should be considered in a decision to temporarily close a production line.  
**(5 marks)**
- (d) State reasons why a company may seek to be listed on a stock exchange.  
**(5 marks)**
- (e) Identify the potential benefits that a company enjoys due to the introduction of the just-in-time inventory policy.  
**(5 marks)**

**(Total 20 marks)**

**Question 7**

- (a) Explain the fundamental differences between time basis and piece work methods of labour remuneration.  
**(4 marks)**
- (b) What is the accounting treatment of the following in process costing?
  - (i) Abnormal loss **(1 mark)**
  - (ii) Abnormal gain **(1 mark)**
  - (iii) Scrap value of normal loss **(1 mark)**
- (c) State **three** features that distinguish joint products from by-products.  
**(3 marks)**
- (f) Briefly explain why the pay back method is still the most widely used investment appraisal technique in practice.  
**(5 marks)**
- (g) (i) Differentiate between risk and uncertainty.  
**(2 marks)**
- (ii) Explain why the problem of risk is more acute with capital investment decisions than other decisions.  
**(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