

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA (U) EXAMINATIONS

LEVEL ONE

MANAGEMENT ACCOUNTING AND FINANCE – PAPER 6

WEDNESDAY, 9 DECEMBER 2009

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.

SECTION A

Question 1

- (i) An inventory control system that updates inventory after every inventory movement to calculate the balance on hand is referred to as:
 - (a) the bin card system.
 - (b) continuous inventory counting system.
 - (c) perpetual inventory system.
 - (d) weighted average system.
- (ii) The type of budget designed to remain unchanged irrespective of the volume of output or turnover attained is referred to as:
 - (a) flexible budget.
 - (b) target budget.
 - (c) fixed budget.
 - (d) master budget.
- (iii) When preparing a production budget, the quantity to be produced equals:
 - (a) sales quantity + opening stock + closing stock.
 - (b) sales quantity - opening stock + closing stock.
 - (c) sales quantity - opening stock - closing stock.
 - (d) sales quantity + opening stock - closing stock.
- (iv) A labour incentive scheme that assumes a progressive rate for various production levels is referred to as:
 - (a) premium bonus system.
 - (b) straight piecework.
 - (c) individual incentive scheme.
 - (d) differential piecework.
- (v) When absorbed overheads are less than actual overheads, there is an:
 - (a) under absorption.
 - (b) over absorption.
 - (c) over apportionment.
 - (d) under apportionment.
- (vi) The accounting entries for the issue of direct materials for use in production in an integrated cost system would be to debit:
 - (a) work in progress account and credit stores control account.
 - (b) stores control account and credit work in progress account.
 - (c) production overhead account and credit stores control account.
 - (d) stores control account and credit finished goods account.

- (vii) An ideal standard can best be described as that which:
- (a) can be attained based on the current conditions.
 - (b) can be attained under perfect operating conditions.
 - (c) remains unchanged over the years.
 - (d) can be attained if production is carried out efficiently.
- (viii) The budgeting system in which every item of expenditure has to be justified before inclusion in an organisation's budget is budgeting.
- (a) incremental
 - (b) zero-based
 - (c) activity-based
 - (d) continuous
- (ix) Which of the following statements describes a scrip dividend?
- (a) A dividend paid at a fixed percentage rate on the market value of the shares on the date that the dividend is declared.
 - (b) A dividend payment that takes the form of new shares instead of cash.
 - (c) An issue of new shares to existing shareholders at less than the nominal value of the shares.
 - (d) An issue of new shares to existing shareholders by converting equity reserves into issued share capital.
- (x) Which of the following statements about convertible securities is **FALSE**?
- (a) They must be converted into shares before the redemption date.
 - (b) The price at which they are convertible into shares is predetermined.
 - (c) Issue costs are lower than equity.
 - (d) They are fixed return securities.
- (xi) Which of the following refers to the time taken for the cash inflows from a capital investment project to equal the cash outflows?
- (a) Present value period.
 - (b) Payback period.
 - (c) Time value of money.
 - (d) Capital investment period.

- (xii) Which of the following is **NOT** a cash flow timing convention used in discounted cash flows?
- (a) A cash outlay to be incurred at the beginning of an investment project occurs in year zero.
 - (b) A cash outlay, savings or inflows which occur during the course of a time period is assumed to occur all at once at the end of the time period.
 - (c) All cash outlays and receipts are uniformly distributed throughout the investment period.
 - (d) A cash outlay or receipt that occurs at the beginning of a time period is taken to occur at the end of the previous year.
- (xiii) Which of the following does **NOT** affect the market value of a company's shares?
- (a) The rate of growth of dividends.
 - (b) The rate of return which shareholders require.
 - (c) The amount in dividends that a company pays.
 - (d) The retention policy.
- (xiv) Which of the following is **NOT** a benefit of the just-in-time (JIT) manufacturing method?
- (a) Reduced manufacturing lead time.
 - (b) Reduced labour productivity.
 - (c) Reduction in inventory holding costs.
 - (d) Reduction in the number of accounting transactions.
- (xv) The following are reasons for having a lengthy cash float **EXCEPT**:
- (a) delays in cash remittances.
 - (b) delays in banking the cash payments received.
 - (c) time required by banks to clear cheques.
 - (d) delays in withdrawing cash from the bank.
- (xvi) Which of the following is the most likely symptom of overtrading?
- (a) Rapid increase in sales.
 - (b) Increase in the level of the current ratio.
 - (c) Rapid increase in profits.
 - (d) Static levels of inventory turnover.

- (xvii) Which of the following costs is **NOT** associated with the issue of shares?
- (a) Underwriting costs.
 - (b) Stock exchange listing fees.
 - (c) Advertising in national newspapers.
 - (d) Directors' remuneration.
- (xviii) Which of the following is **NOT** true about split-off point in joint products processing?
- (a) Up to the split-off point all costs are joint costs.
 - (b) Subsequent costs after split-off pose costing problems.
 - (c) Subsequent to the split-off point any costs incurred can be identified.
 - (d) Various products become identifiable.
- (xix) Which of the following is **NOT** true about activity-based costing (ABC)?
- (a) Uses several cost drivers to trace overheads to activities.
 - (b) Assumes that activities are responsible for the incurrence of costs.
 - (c) Involves first tracing cost to activities and later to products.
 - (d) Uses only labour hours and machine hours to trace overheads to products.
- (xx) A cost centre may take any of the following forms **EXCEPT**:
- (a) a department.
 - (b) a machine.
 - (c) an area.
 - (d) an output.

SECTION C

Question 2

- (a) Vessels Ltd is under a 4-year contract to build a ship on Lake Victoria. The building works started on 1 July 2008. The contract is still in its early stages of completion. When work has been certified, the company that issued the contract is sent an invoice for progress payments. The following information relates to the year ended 30 June 2009:

| | Shs million |
|--|-------------|
| Contract price | 17,000 |
| Materials issued to site from stores | 150 |
| Materials returned to stores | 100 |
| Materials remaining on site at 30 June 2009 | 30 |
| Wages paid | 60 |
| Wages accrued at 30 June 2009 | 20 |
| Sub-contractors' charges | 30 |
| Plant purchased at cost | 90 |
| Value of plant on site at 30 June 2009 | 80 |
| Overheads allocated to contract | 35 |
| Value of work certified at 30 June 2009 | 300 |
| Progress payment received as at 30 June 2009 | 80 |

All costs to-date form cost of work certified.

Required:

Prepare Vessel Ltd's contract account clearly showing the profit / loss attributable, if any, for the year ended 30 June 2009:

(12 marks)

- (b) Wax Ltd deals in the manufacture of wax products, which undergo a process that produces three joint products (P, Q and R) all in unrefined condition. The operating results for the process for the period ended 30 September 2009 are shown below:

| | Output produced (units) | Closing inventory (units) |
|-----------|----------------------------|------------------------------|
| Product P | 150 | 30 |
| Product Q | 120 | 22 |
| Product R | 120 | 10 |

The related operating costs for the period were Shs 58.5 million.

The value of closing inventory is obtained by apportioning costs according to the weight of output. There were no opening inventories and the balance of the output was sold to a refining company at the following prices per unit:

Product P Shs 200,000
 Product Q Shs 180,000
 Product R Shs 210,000

Required:

Prepare an operating statement showing the relevant trading results for the period ended 30 September 2009.

(8 marks)
(Total 20 marks)

Question 3

- (a) Brandy Ltd manufactures a single product with a standard cost of shs 250,000 per unit made up as follows:

| | Shs '000' |
|---|------------|
| Direct materials (10kg at shs 20,000 per kg) | 200 |
| Direct labour (5 hours at shs 6,000 per hour) | 30 |
| Fixed overheads (10 hours at shs 2000 per hour) | <u>20</u> |
| | <u>250</u> |

The monthly budget estimate for production and sales was 10,000 units. Actual data for the month of October 2009 was as follows:

Production 8,000 units.
 Direct materials 78,000kg at Shs 18,000 per kg.
 Direct wages 42,000 hours at Shs 10,000.
 Fixed overheads Shs 220 million.

Required:

Calculate the following variances for the period ended 31 October 2009:

- | | | |
|-------|---------------------------------|------------------|
| (i) | Materials price variance. | (1 mark) |
| (ii) | Materials quantity variance. | (2 marks) |
| (iii) | Labour rate variance. | (1 mark) |
| (iv) | Labour efficiency variance. | (2 marks) |
| (v) | Fixed overhead expenditure. | (2 marks) |
| (vi) | Fixed overhead volume variance. | (2 marks) |

- (b) Rezzy Limited manufactures two products: A and B. The following information has been provided for the month of November 2009:

| Sales: | Product | Quantity units | Price Shs |
|--------|---------|-------------------|--------------|
| | A | 2,000 | 20,000 |
| | B | 4,000 | 24,000 |

Two types of materials: M1 and M2 are used in the manufacture of the products. The details for November 2009 are as follows:

| Material | M1 | M2 |
|-----------------------|----|----|
| Quantity (units) | | |
| Product A | 40 | 20 |
| Product B | 30 | 30 |
| Unit cost (Shs '000') | 4 | 6 |

| Finished stocks: | Product A units | Product B units |
|------------------|--------------------|--------------------|
| 1 November | 2,000 | 3,000 |
| 30 November | 2,200 | 3,200 |

Required:

Prepare the following budgets for the month of November 2009:

- (i) Sales. **2 marks**
- (ii) Production quantities. **4 marks**
- (iii) Material usage in quantities. **4 marks**

(Total 20 marks)

Question 4

- (a) Pix Limited is considering whether to invest in Project X or Project Y, but only one project can be undertaken. The estimated sales demand from each project is uncertain. A detailed investigation of the possible sales demand for each project gives the following probability distribution of the profits for each project:

| Project X Outcome (profits) Shs'000' | Estimated Probability | Project Y Outcome (profits) Shs '000' | Estimated Probability |
|--|--------------------------|---|--------------------------|
| 12,000 | 0.10 | 8,000 | 0.05 |
| 14,000 | 0.20 | 12,000 | 0.10 |
| 16,000 | 0.40 | 16,000 | 0.40 |
| 18,000 | 0.20 | 20,000 | 0.25 |
| 20,000 | <u>0.10</u> | 24,000 | <u>0.20</u> |
| | <u>1.00</u> | | <u>1.00</u> |

Required:

(i) Advise Pix Limited on which project to undertake based on expected values.

(7 marks)

(ii) Explain the problems encountered when evaluating a project using expected values.

(3 marks)

(b) Mega United Limited deals in the production of two major products: W and X. Data for the month of September 2009 has been summarised as follows:

| | Product W | Product X |
|---------------------------|------------------|------------------|
| | Shs '000' | Shs '000' |
| Sales per unit | 15 | 100 |
| Direct materials per unit | 6 | 5 |
| Direct wages per unit | 3 | 2 |

Variable overheads are 100% of direct wages and the fixed overheads are Shs 3 million.

You are further advised that the sales manager is faced with two alternative sales mix options:

Option I 1,000 units of W and 800 units of X
 Option II 800 units of W and 1,000 units of X

Required:

Advise the sales manager on the optimum sales mix to adopt.

(10 marks)

(Total 20 marks)

Question 5

- (a) Kambe Ltd makes two products, P and Q. Unit variable costs are as follows:

| | Product P Shs '000' | Product Q Shs '000' |
|-----------------------------------|------------------------|------------------------|
| Sales price per unit | <u>56</u> | <u>44</u> |
| Direct materials | 4 | 12 |
| Direct labour (shs 6000 per hour) | 24 | 12 |
| Variable overheads | 4 | 4 |

For the month of September 2009, the availability of direct labour is limited to 18000 hours. Sales demand in September 2009 is expected to be 3000 units for product P and 5000 units for product Q.

Required:

Determine the profit maximising production levels and the budgeted profits, assuming that the monthly fixed costs are Shs 40 million and that opening stocks of finished goods and work in progress are nil.

(12 marks)

- (b) Zambi Ltd expects to sale 10,000 units of one of its products Jolly Jus. The variable cost per unit of Jolly Jus is Shs 1,000 and the company has annual fixed costs Shs 20 million.

Required:

- (i) What price should be charged in order to break-even at the given level of activity?

(2 marks)

- (ii) How many units should be sold in order to yield a desired profit of Shs 1 million?

(2 marks)

- (iii) The accountants' model to CVP analysis is based on several assumptions. To what extent are the assumptions valid?

(4 marks)

(Total 20 marks)

SECTION C

Question 6

- (a) Explain the term 'factoring' as used in the management of debtors.
(2 marks)
- (b) Briefly explain the benefits of factoring.
(6 marks)
- (c) Mande Enterprises Limited has been experiencing problems in financing its business during the recent economic crisis caused by global financial factors. You have been contracted to write a report to the board identifying the possible problems that could have affected the cash flow position and suggest methods of easing cash shortages.
(12 marks)
- (Total 20 marks)**

Question 7

- (a) Faxon Ltd has been in the production of construction materials. For the last two consecutive years the company has faced funding problems. The Board of directors have approached you as a consultant to advise on the options of financing the company. You have been advised further that the Board is divided as to whether to issue preference shares or a debenture.
- Required:**
- Prepare a report to the board of directors of Faxon Ltd explaining the difference between the two methods of financing.
(13 marks)
- (b) What advantages would Faxon Ltd have if it decided to use retained earnings to finance its operations rather than paying it out as dividends.
(4 marks)
- (c) Briefly explain why Faxon Ltd would still have to pay dividends despite the need to reinvest its retained earnings.
(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 |