

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA(U) EXAMINATIONS

LEVEL THREE

MANAGEMENT DECISION AND CONTROL - PAPER 12

MONDAY, 16 DECEMBER 2002

INSTRUCTIONS TO CANDIDATES:

1. Time allowed: **3 hours**
2. Section **A** has two compulsory questions. Question **one** carries 30 marks and question **two** carries 10 marks.
3. Section **B** has **four** questions and only **three** questions are to be attempted. Each question carries 20 marks.
4. Please read further instructions on the answer book.

SECTION A

Question 1

The Managing Director of Buy Ugandan Breweries Ltd., a local company, has just come back from a seminar on World Class Manufacturing. While at the seminar one of the presenters indicated that companies could cost their products better if they adopted Activity Based Costing.

Required:

- Explain the concept of Activity Based Budgeting to the Managing Director.
(5 marks)
- Outline the merits and de-merits of ABC.
(8 marks)
- Buy Ugandan Breweries Ltd has 3 product lines: Tough, Conc and Mild. Since its creation it has been using a single labour cost percentage to assign overhead costs to products.

Available information on the 3 product lines is as indicated below:

	Tough	Conc	Mild
Production volume	150 crates	250 crates	80 crates
Direct Labour cost per crate	Shs. 40	Shs. 80	Shs. 64
Material cost per crate	Shs. 72	Shs. 100	Shs. 64
Selling price per crate	Shs. 450	Shs. 800	Shs. 680
Material movements	4	25	50
Machine hours per crate	0.50	0.50	0.20
Set ups (in total)	1	5	10
Proportion of engineering work	30%	20%	50%
Orders packed (total)	1	7	22

Activities	Overhead cost (Shs)
Materials receiving and handling	1,500,000
Machine maintenance and depreciation	3,900,000
Set up Labour	160,000
Engineering costs	1,000,000
Packing costs	600,000

Required:

- Calculate the overhead rate and the product unit costs (per crate) under the existing costing system.
(4 marks)

- (ii) Identify for each overhead activity, an appropriate cost derived from the information supplied, and then calculate the product unit costs (per crate) using a system that assigns overheads on the basis of the use of activities.
(9 marks)
 - (iii) Comment on the results of the two costing systems in (i) and (ii) above.
(4 marks)
- (Total 30 marks)

Question 2

- (a) Explain what you understand by Hard and Soft Capital Rationing (include the reasons why the two situations may arise)
(5 marks)
 - (b) Explain the use of the profitability index in capital rationing situations. Mention the problems met in using profitability index.
(5 marks)
- (Total 10 marks)

SECTION B

Question 3

- (a) Explain and illustrate (using simple numerical examples) the Accounting Rate of Return and Payback Approaches to investment appraisal, paying particular attention to the limitations of each approach.
(6 marks)
 - (b) Explain the difference between NPV and IRR as methods of Discounted Cashflow Analysis.
(6 marks)
 - (c) Briefly explain how the tax treatment of capital purchases can affect an investment decision.
(5 marks)
 - (d) Explain the relationship between Residual Income (RI) and NPV as measures of divisional performance evaluation.
(3 marks)
- (Total 20 marks)

Question 4

Write short notes on the following concepts:

- (a) Benchmarking. (4 marks)
 - (b) Business process re-engineering. (4 marks)
 - (c) Zero-based budgeting. (4 marks)
 - (d) Market skimming pricing strategy. (4 marks)
 - (e) Differential pricing strategy. (4 marks)
- (Total 20 marks)

Question 5

Rwamucucu Tukare is a limited company with a number of divisions. Division X makes a single product which it sells entirely to Division Z. There is no market for this unique product so market price cannot be used as a transfer price. Some years ago the two divisions agreed to use a full cost based transfer price, allowing a mark up of 10% on full cost as its profit. Division X has a capacity of 1,200,000 units per annum but normal output, for costing purposes has been agreed to be 100,000 units per annum.

The current transfer price is Shs. 242 calculated as follows:

	Shs
Raw materials	90
Direct Labour	60
Variable overheads	30
Fixed overheads	<u>40</u>
Full cost	220
Mark up 10%	<u>22</u>
Transfer price	<u>242</u>

Demand for the output of Division Y is estimated at:

Price	Estimates Demand
Shs. 700	100,000 Units
Shs. 650	120,000 Units
Shs. 600	130,000 Units
Shs. 550	140,000 Units

Variable costs in Division Z excluding the transferred product are Shs. 100 per unit.

Required:

- Calculate the price at which division Z will maximize its profit using the transfer price of Shs. 242 for the product from Division X. (6 marks)
 - Calculate the profit made by Division X at this level of profits. (4 marks)
 - Calculate the total contribution made by the group. (4 marks)
 - Comment on the effect of a transfer price on goal congruence. (Include cost based, market based and compromise transfer price in your comment) (6 marks)
- (Total 20 marks)

Question 6

Trinity Town Council (TTC) is a non-profit making organization. For the year 2002, it planned to operate at 80% and the expected results were as follows:

(i) Trading Licence Fees:

Type of Licence	Licence Fees per Licence Shs	No. of Licences
Hotel Operators	300,000	120
Market vendors	100,000	600
Video Halls	120,000	50
Shops	150,000	1000

(ii) Building Licences:

Type of Licence	Licence Fees per Licence Shs	No. of Licences
Residential	1,000,000	50
Commercial	1,500,000	40

(iii) Non-licence revenue was projected at Shs 70 billion.

(iv) At the end of 2002, TTC found that it in fact had operated at 75%.

(v) Other information on the performance of TTC is as follows:

	Planned	Actual results
Street lights replaced	1,000	200
Roads repaired (Kms)	700	600
Clinics restocked	3	5
Garbage collected (Trucks)	390	450

Required:

(a) Appraise the performance of TTC for the year 2002 on the following bases:

- (i) Financial performance (6 marks)
- (ii) Non-financial performance (4 marks)

(b) Briefly explain how the following measures could have been employed to measure TTC's performance:

- (i) Efficiency (2 marks)
- (ii) Effectiveness (2 marks)
- (iii) Economy (2 marks)

(c) Outline any problems that may hinder the proper performance measurement of TTC.

(4 marks)

(Total 20 marks)