

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## MANAGEMENT DECISION AND CONTROL - PAPER 12

**DECEMBER 2000**

### INSTRUCTIONS TO CANDIDATES:

1. Time allowed: **3 hours**
2. Attempt **two** questions in Section A; both questions are compulsory. 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:

Uga Clays Ltd. is the market leader in Uganda, producing clay products such as roofing tiles, floor tiles, facing bricks etc. It employs 40 sales staff who go around building sites, check on contractors country wide to market their products. The sales staff use their own cars for 25,000 km per annum on company business for which Uga Clays Ltd. reimburses them Shs.230/= per kilometre travelled.

Uga Clays is now considering whether or not to end this system and buy reconditioned cars from Japan for the sales staff.

Reconditioned cars of 1800cc and above manufactured between 1992 and 1994 will cost Shs.10,000,000. The cars are expected to have a four-year life and will be resold at Shs.3,000,000 each at the beginning of year 5. The costs per car per year are expected to be Shs.1,300,000 for petrol and oil and Shs.450,000 for tax and comprehensive insurance.

Repair and maintenance costs per car have been quoted by Bush Ltd. as follows:-

Year	Cost per annum Shs
1	200,000
2	900,000
3	1,250,000
4	1,400,000

Capital allowances on the original cost are 25% p.a on reducing balance and the company has adequate profits to absorb the allowances. Uga Clays Ltd. pays 33% corporation tax; this is paid one year after the profit is earned and credit for tax on capital allowances is also delayed by one year.

The company's cost of capital for this type of transaction is 19.4% Discounted cash flow (DCF) before tax.

Uga Clays Ltd. owns a subsidiary, Bush Ltd. whose business is the repair and maintenance of cars, and lorries. Bush Ltd. has undertaken to repair the sales staff vehicles at below the price the sales staff would have to pay if the vehicles were repaired elsewhere. Currently, 70% of the sales staff is using this facility. Bush Ltd. would be able to undertake all service work that Uga Clays Ltd. would require if it decides to buy its own cars.

To finance the purchase price of cars, Uga clays Ltd. has two options.

- a) To obtain an unsecured loan, repayable at the end of year 4, at 16% rate of interest payable annually.
- b) Alternatively, to accept an offer of Shs. 400,000,000/= (Shs.400million) (to be paid on signing the contract made by the management of Bush Ltd. for a buy-out of all the share capital of that company. The condition is that Bush Ltd. receives a contract for repair and maintenance of Uga Clays Ltd.'s new fleet for a period of three years on terms similar to those that now apply for the sales staff cars. At present, Bush Ltd. is just breaking even.

**Required:**

- a) Give your recommendations as to whether Uga Clays Ltd. should change to the purchase of cars for the sales staff if it raises the funds to finance the purchase price by:-
  - i) Option 1
  - ii) Option 2
- b) State briefly what other operational and administrative factors that the company would have to take into account in deciding whether:-
  - i) To change to the purchase of cars for the sales staff;
  - ii) To agree to the management buy-out of Bush Ltd. (where the management of Bush Ltd. buys Bush Ltd. from Uga Clays Ltd.)

**20 marks**

**10 marks**

**Total 30 marks**

**Question 2:**

**Zero-based Budgeting – ZBB** (also known as **Priority based budgeting**) approach to budgeting requires that all activities are justified and prioritised before decisions are taken relating to the amount of resources to be allocated to each activity.

**Required:**

- a) Outline the benefits of this method over the traditional incremental budgeting.
- b) Outline the major drawbacks of ZBB.

**5 marks**

**5 marks**

**Total 10 marks**

## SECTION B

### Question 3:

Kibe Ltd. has a cost of capital of 10% and has Shs.100,000,000 available for investment in the current period. In the future, capital is expected to be freely available. The management of Kibe Ltd. is considering the following indivisible projects:

Project	Initial Investment Shs.	NPV Per Project at 10% Shs.
H	35,000,000	17,500,000
I	40,000,000	22,500,000
J	65,000,000	38,000,000
K	48,000,000	31,500,000
L	23,000,000	9,000,000

### Required

- Calculate and recommend to the Management of Kibe Ltd. the optimal plan where there are no alternative investments available for any surplus funds. **8 marks**
  - Advise the management of Kibe Ltd. on the optimal investment plan assuming that funds can be invested to produce 12% in perpetuity. Support your advice with calculations. **12 marks**
- Total 20 marks**

### Question 4:

Prudent Ltd., a medium sized company prepares cash flow budgets on a quarterly basis, a technique that has been useful in projecting the company's profits. The opening cash balance on 1 January 2001 is expected to be Shs. 30,000,000. The sales were budgeted as follows:-

Month	Shs.
November 2000	80,000,000
December 2000	90,000,000
January 2001	75,000,000
February 2001	75,000,000
March 2001	80,000,000

Previous records indicate that debtors settle their dues to Prudent Ltd. as follows:-

- 60% within the month of sale.
- 25% in the month following the month of sale.
- 15% in the second month following the month of sale.

Prudent Ltd. purchases on credit and consistently settles 90% of the purchases in the month of purchase and the balance is settled the month after. Purchases are 70% of sales.

The following expenses are paid monthly:-

Expenses	Shs.
Wages	15,000,000
Overheads	20,000,000

Included in the overheads is a depreciation charge of Shs.5,000,000.

Taxes to URA will be settled in February 2001 and the company will receive an insurance claim of Shs. 25,000,000 in March 2001.

**Required:**

- a) Prepare a cash budget for the months of January, February and March 2001 (show your workings).

**12 marks**

- b) The Managing Director of Prudent Ltd. while reading a business journal, came across the following terms: “**Benchmarking**” and “**Business process re-engineering**”.

Write a memorandum to the MD explaining what the two terms mean.

**8 marks**

**Total 20 marks**

**Question 5:**

Large companies with divisional organisational structure around the country have main intentions of inculcating the entrepreneurial culture to modern managers so that their divisions/branches are run on a more profitable basis than would be with getting directives from the Headquarters. Experience has shown that the divisional organisations have created more problems than the companies can

solve.

**Required:**

- a) Explain the merits and demerits of divisional organisation structure in light of the above statements. **10 marks**
- b) Discuss the possible conflicts between control and decision making functions in the design of transfer pricing system for transactions between divisions. **10 marks**
- Total 20 marks**

**Question 6:**

- a) Briefly explain the meaning of the term Management Information System. **3 marks**
- b) Oundo Ltd. makes four products W,X,YandZ. The Management Information Accountant has collected data for the past week as follows:-

Product	Output units	No.of productive runs in period	Direct labour hrs per unit	Machine hrs per unit	Material cost per unit Shs.	Material components per unit
W	25	3	2	2	30,000	8
X	25	4	4	4	75,000	5
Y	250	7	2	2	30,000	8
Z	250	<u>10</u>	4	4	75,000	6
		<u>24</u>				

Direct labour costs are Shs.7,000 per hour

**Overhead costs**

Short-run variable costs	8,250,000
Long-run variable costs:	
Scheduling costs	7,680,000
Set-up Costs	3,600,000
Material handling costs	<u>7,650,000</u>
<b>Total</b>	<b><u>27,180,000</u></b>

**Required:**

- i) Find the unit production cost using conventional product costing using a labour hour or machine hour overhead absorption rate.

**7 marks**

- ii) Find the Unit Production Cost using Activity Based Costing (ABC) with the following cost drivers:-

Short-term variable costs:	Machine hours
Scheduling Costs:	No. of production runs
Set-up Costs:	No. of production runs
Material handling costs:	No. of components

**7 marks**

- iii) Compare the results from the two methods.

**3 marks**

**Total 20 marks**