

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA(U) EXAMINATIONS

LEVEL THREE

MANAGEMENT DECISION AND CONTROL - PAPER 12

MONDAY, 17 DECEMBER 2001

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

Ventures Ltd is well known for its innovations in modern manufacturing. It is currently contemplating buying a new machine which would cost Shs. 120,000,000. The machine will be sold at the end of the fourth year for Shs. 8,000,000 only. The willing buyer will pay Shs. 8,000,000 in the fifth year. There will be savings of Shs. 58,000,000 per annum over the method Ventures Ltd currently uses to manufacture goods. The expected Discounted Cash flow return for Ventures Ltd is 19.4% before tax.

Ventures Ltd is currently earning good profits but does not expect the Shs. 120,000,000 to be freely available to spend on the machine over the next few years. Venture's profits are taxed at 33%. The company also receives capital allowances of 25% on reducing balance basis registering a balancing charge on disposal.

Required:

- (a) Make recommendations from an economic point of view as to whether Ventures Ltd should invest in the New Machine.

(10 marks)

- (b) From the given two options hereunder, advise Ventures Ltd which option the Company should adopt.

Option 1.

Buy the machine by borrowing Shs. 120,000,000 from the Bank. Repayment would be made annually comprising of the principal. The bank interest is 20% p.a.

Option 2.

Ventures Ltd. may lease the machine for four years under an operating lease. The annual lease amount could be equal to the annual amount it would pay the bank under option one above.

(Show all your calculations)

(16 marks)

- (c) Outline the advantages of leasing and outright purchasing.

(4 marks)

(Total 30 marks)

Question 2.

Briefly discuss the problems of performance measurement in the public sector.

(10 marks)

SECTION B

Question 3.

You have been provided with the following operating statement which represents an attempt to compare the actual performance against budgeted performance for the quarter ended 30 September 2001.

	Budget <u>1,280,000</u> Shs. million	Actual <u>1,440,000</u> Shs. million	Variance <u>160,000</u> Shs. million
No. of units sold			
Sales	<u>2,048</u>	<u>2,142</u>	<u>94</u>
Cost of sales (all variable)			
Materials	336	288	
	480	576	
	<u>64</u>	<u>72</u>	
	<u>880</u>	<u>936</u>	<u>(56)</u>
Fixed labour costs	200	188	12
Selling and distribution costs:			
Fixed	144	166	(22)
Variable	288	306	(18)
Administrative costs:			
Fixed	368	352	16
Variable	<u>96</u>	<u>108</u>	<u>(12)</u>
	<u>1096</u>	<u>1120</u>	<u>(24)</u>
Net Profit	<u>72</u>	<u>86</u>	<u>14</u>

Required:

- (a) Using Flexible budgeting method, redraft the operating statement to provide a more realistic indication of the variances and comment briefly on the possible reasons (other than inflation) as to why they have occurred.

(10 marks)

- (b) Explain why the original operating statement was of little use to management. (5 marks)
- (c) Outline the problems associated with forecasting of figures which are to be used in flexible budgeting. (5 marks)
- (Total 20 marks)**

Question 4

Mwana Group of Companies produces a variety of products for the home market and for export. Some of the products within the group are sold to other divisions as inputs at full cost transfer pricing.

The plastics division sells to the Battery division plastic sheets at full cost plus 33 1/3% and the Battery division sells externally at a similar mark-up.

The following data is available:

Plastic division		Battery division	
	Shs		Shs
Variable cost per unit	52,000	Transfer price	96,000
Fixed cost @ unit	<u>20,000</u>	Own variable costs	30,000
Total cost @ unit	<u>72,000</u>	Fixed cost @ unit	<u>18,000</u>
Mark up	<u>24,000</u>	Total cost	144,000
Transfer Price	<u>96,000</u>	Mark up	<u>48,000</u>
		Transfer Price	<u>192,000</u>

Required:

- (a) Using the above data explain why taking the full cost (or cost plus) by the buying division (Battery division) in determining external price decisions (if based on cost) may not be set at an optimal price as far as the whole firm is concerned. (6 marks)
- (b) Explain the main objectives of transfer pricing. (10 marks)
- (c) Outline the limitations of using cost plus pricing. (4 marks)
- (Total 20 marks)**

Question 5

“Budgetary planning and control systems, in varying degrees of complexity and coverage can be found in most organizations of any size in both the public and private practice sectors. There are genuine benefits to be gained from the use of such systems but these benefits do not automatically accrue. They have to be wished for and there must be continual appraisal of all aspects of the budgetary system and of its administration. An awareness of the problems which may be encountered and of the factors which prevent the most effective use of budgetary systems is also valuable in order that, where possible, these may be overcome.”

Source: Management Accounting 1996, by T. Lucey

Required

Discuss the benefits of budgeting **and** the problems associated with budgeting.

(20 marks)

Question 6.

The Learning Curve is a mathematical model but its application to management decision and control problems require careful thought.

Required:

Considering the above statement,

- (a) Explain the ‘cumulative average time’ model commonly used to represent Learning Curve effects

(6 marks)

- (b) Sketch **two** diagrams to illustrate, in regard to a new product, the relative impacts of 70%, 80% and 90% learning curve on

- (i) Cumulative average hours per unit.

(4 marks)

- (ii) Cumulative hours taken.

(4 marks)

- (c) Compare and contrast the Learning Curve with the Experience Curve; explain the circumstances when each may be most relevant.

(6 marks)

(Total 20 marks)