

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## FINANCIAL ANALYSIS – PAPER 9

### CPA (U) EXAMINATIONS

**JUNE 2001**

#### INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours**
2. Attempt all questions in Section **A**, any three questions from Section **B** and **one** question from Section **C**.
3. Section **A** has **ten** compulsory questions; each carrying 2 marks.
4. Section **B** has **four** questions and only **three** questions 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. Please read further instructions on the answer book

## **SECTION A**

### **Question 1:**

- (i) Which of the following is statements is true?
  - (a) Most firms use only NPV for project selection.
  - (b) The approval of a capital budget allows managers to go ahead with any project included in the budget.
  - (c) Time value of money reflects the opportunity cost of investing at a risk-free rate.
  - (d) Unsystematic risks are those which affect all firms in the economy.
- (ii) The difference between stock dividend and stock split is that:-
  - (a) In stock dividend, the increase in shares is substantial, while in stock split; the increase in shares is low.
  - (b) In stock split, the increase in shares is substantial while in stock dividend the increase in shares is low.
  - (c) The objective of stock dividend is to make a company's shares more attractive and the objective of stock split is to solve the liquidity problem.
  - (d) The objective of stock dividend is to solve a company's liquidity while the objective of stock split is to make a company's shares more attractive.
- (iii) Which of the following is the most appropriate option in regard to turnover ratios?
  - (a) They indicate how active management is.
  - (b) They indicate how resources turn over.
  - (c) They are most important to shareholders.
  - (d) They indicate how efficiently management uses its resources to generate revenue.
- (iv) The Institute of Certified Public Accountants of Uganda (ICPAU) is committed to the improvement of the accountancy profession in the country. As one of the strategies to achieve this goal, ICPAU is considering the establishment of various examinations centres in the country. As a Pilot Project ICPAU plans to establish six examinations centres.

ICPAU has a maximum of Shs 20 million to invest in the Pilot Project. The six examinations centres have been evaluated as follows:-

<b>Proposed Centre</b>	<b>Outlay</b>	<b>Net Present Value NPV</b>	<b>Profitability Index</b>
	<b>Shs m</b>	<b>Shs m</b>	<b>Shs m</b>
Gulu	10	20	1.22
Mbarara	3	(15)	0.95
Mbale	7	14	1.20
Jinja	9	16.2	1.18
Kisoro	4	7.6	1.19
Masindi	8	4	1.05

Which is the best combination that ICPAU should opt for?

- (a) Jinja, Gulu.
  - (b) Gulu, Mbarara, Mbale.
  - (c) Jinja, Mbale, Kisoro.
  - (d) Mbale, Jinja and Kisoro.
- (v) Which of the following is a mismatch?
- (a) Open Market Operations (OMO).
  - (b) Selective credit control.
  - (c) Re-discount rate.
  - (d) Control of commercial banks.
- (vi) Which of the following is the most appropriate option in regard to privatization in Uganda?
- (a) Uganda will lose its sovereignty and accelerated development of private sector, which, with private initiative can lead to overall development.
  - (b) It is intended to spearhead and accelerate the development of the private sector, which, with private initiative can lead to overall development.
  - (c) Privatisation leads to loss of jobs and should be discouraged.
  - (d) Uganda's economy will become capitalistic.
- (vii) Manchester United, one of the world's wealthiest football clubs is considering the purchase of a five-year bond of £10,000 par value bearing a nominal rate of interest of 7%. The opportunity cost of Manchester United is 8%.

How much is Manchester United willing to pay now to purchase the bond if it matures in 5 years at par.

- (a) £27,950.
- (b) £68,100.
- (c) £13,620.
- (d) £9,601

- (viii) Which of the following is the least correct about bulls in relation to the Uganda Securities Exchange (USE)?
- (a) A bull is a speculator on the Uganda Securities Exchange who buys securities when prices are low and expects to sell them when prices rise.
  - (b) A bull is a speculator who sells securities when prices are high and expects to buy when the prices fall.
  - (c) Both (a) and (b) are equally correct.
  - (d) Neither (a) nor (b) is correct.
- (ix) Which of the following is true?
- (a) A bank re-discount rate is the rate of interest at which Bank of Uganda lends money to commercial banks.
  - (b) A bank rate is the rate that Bank of Uganda recommends to commercial banks as the maximum interest rate they should charge.
  - (c) The required reserve ratio is the proportion of current assets and non-current assets that commercial banks should retain.
  - (d) None of the above.
- (x) Which of the following is true about the Modigliani Miller theory?
- (a) There is an optimal capital structure.
  - (b) Payment of dividends is irrelevant.
  - (c) The theory stresses that one bird in the hand is worth two in the bush.
  - (d) Payment of dividends is relevant.

**SECTION B**

**Question 2:**

- (a) Give and explain four reasons why businesses give trade credit. **(4 marks)**
- (b) Give and explain the costs associated with trade credit. **(6 marks)**
- (c) Coterpin (U) Ltd, is a newly formed company whose annual turnover is Ushs 15,000,000. It currently offers a 30 days' credit period to its clients. In an effort to out compete its rivals and to advise on actions that can be taken to attract more customers through its credit policy, the following alternatives have been identified by a consultant:
  - (i) Increase credit period by 10 days, which will increase sales by 12.5% and bad debts to 2%.
  - (ii) Increase credit period by 15 days, which will lead to an increase in sales by 18% and bad debts to 4%.
  - (iii) Increase credit period by 30 days, which will lead to an increase in sales by 25% and bad debts to 6%.
  - (iv) Increase in credit by 45 days leading to an increase in sales by 35% and bad debts to 8%.

The firm sells its products at Shs.200 each. The average cost of production is Shs.150 and the variable cost is Shs.120 each. Currently, the bad debts are 1% of sales and the business requires 20% return (**Assume 360 days in a year and ignore tax**).

**Required:**

Advise the management on which option it should choose. (All necessary workings should be shown). **(10 marks)**

**(Total 20 marks)**

**Question 3:**

Caroline Limited is a small-scale industry located in Nakawa Industrial Area. It was incorporated in 1993. Its management is reviewing the performance of the company for the last three years i.e 1998 - 2000. The Finance Director has submitted the draft financial statements to the management team. They are not convinced that a company with such turnover can fail to pay its creditors. Management has approached ICPAU to recommend to them a competent Financial Analyst. ICPAU has recommended you for the job.

**Required:**

Carefully study the draft financial statements provided below. Using key performance areas carry out a financial analysis of Caroline Ltd. and make suggestions to management on how to improve the performance of the company.

**(20 marks)**

**Note: Working and layout: 8 marks, interpretation: 9 marks and advice: 3 marks**

**DRAFT INCOME STATEMENTS**

	<b>2000</b>	<b>1999</b>	<b>1998</b>
	<b>Shs. m</b>	<b>Shs. m</b>	<b>Shs. m</b>
Sales	50	30	20
Cost of sales	<u>(25)</u>	<u>(20)</u>	<u>(15)</u>
Gross Profit	25	10	5
Operating Expenses	<u>17.5</u>	<u>6</u>	<u>3</u>
Net Profit	7.5	4	2
Retained Profit b/d	<u>4</u>	<u>2</u>	<u>-</u>
Retained Profit c/f	<u>11.5</u>	<u>6</u>	<u>2</u>

Cost of sales include credit purchases of Shs.10 million, Shs.15 million, and Shs. 20 million for the yearS 1998, 1999 and 2000 respectively.

**DRAFT BALANCE SHEETS**

	<b>2000</b>	<b>1999</b>	<b>1998</b>
	<b>Shs m</b>	<b>Shs m</b>	<b>Shs m</b>
<b>Non Current Assets</b>			
Net of depreciation	11.5	13	5
<b>Current Assets</b>			
Stock	5	4	3
Debtors	10	5	3
Cash	<u>3</u>	<u>2</u>	<u>1</u>
Total Current Assets	<u>18</u>	<u>11</u>	<u>7</u>
Total Assets	<u>29.5</u>	<u>24</u>	<u>12</u>
<b>Equity and Liabilities</b>			
<b>Share Capital</b>			
Ordinary Share Capital (Shs.500 per share)	10	9	6
Retained Earnings	<u>11.5</u>	<u>6</u>	<u>2</u>
Total Equity	<u>21.5</u>	<u>15</u>	<u>8</u>
<b>Liabilities</b>			
<b>Long Term Liabilities</b>			
10% Loan	<u>4</u>	<u>0</u>	<u>2</u>
<b>Current Liabilities</b>			
Trade Creditors	3	2	1
Accruals	<u>1</u>	<u>7</u>	<u>1</u>
<b>Total Current Liabilities</b>	<u>4</u>	<u>9</u>	<u>2</u>
Total liabilities	<u>8</u>	<u>9</u>	<u>4</u>
Total Capital Employed	<u>29.5</u>	<u>24</u>	<u>12</u>

The industry averages for 2000 for the Industry that Caroline Ltd. belongs are as follows:

Gross Profit Margin	40%
Net Profit Margin	20%
Return on Investment	30%
Current Ratio	2.1
Quick Ratio	1.5:1
Stock Turnover rate	8 times
Debtors collection period	30 days
Creditors payment period	35 days
Debt Equity Ratio	40 days
EPS	60 per share (Assume 360 days in a year)

**Question 4**

Hellocel Ltd. is considering investing in a project aimed at adding a new product to its existing portfolio as a strategy of safeguarding its market share which is being threatened by the entry of Treecel Ltd.

Relevant data extracted from the project proposal are as follows:-

- (1) The machine is expected to cost Shs 120,000,000.
- (2) Revenue, which is currently at Shs.100,000,000 per year, will increase to Shs.350,000,000 in the first year, Shs.700,000,000 in the second year and to Shs.1,200,000,000 in the third year. The project is to last three years with terminal cash flows of Shs.20,000,000.
- (3) Variable operating costs are estimated to be 60% of each year's revenue. Currently, fixed overheads amount to Shs.400,000,000 per year and will remain constant for the next three years.
- (4) Working Capital funds will be required as follows:

Year	Shs
0	20,000,000
1	30,000,000
2	50,000,000
3	80,000,000

The project paid Shs 25,000,000 for the recently concluded market survey.

- (5) The risk free rate (equivalent to the discount rate on Treasury Bills is 8%). The expected return on the market as a whole is 14%. The beta ( $\beta$ ) of the project is 2. (Ignore tax).

**Required:-**

- (a) Using Capital Assets Pricing Model determine the appropriate discounting rate that should be used to evaluate the project. **(2 marks)**
  - (b) Using the rate calculated in (a) above, compute the project's Net Present Value and advise the management of Hellocel Ltd on viability of the project. **(18 marks)**
- (Total 20 marks)**



**Question 5**

Pure Ltd. has Ushs 200 million to invest. Two projects have been identified and the probabilities of their cash flows under different leadership styles have been estimated as follows:-

**Project A**

Expected Leadership	Probability	Net Cash Flows	
		Year 1 Shs m	Year 2 Shs m
Coterpin	0.3	500	600
Hammer	0.5	300	400
Jeema	0.2	100	200

**Project B**

Coterpin	0.3	800	300
Hammer	0.5	500	200
Jeema	0.2	200	100

The risk free rate is 10%. The expected return on the market as a whole is 24%. The beta factor is 4.0 for both projects (Ignore Taxation).

**Required:**

- (a) Using Capital Asset Pricing Model, determine the appropriate discounting rate. **(2 marks)**
  - (b) Determine the expected cash flows for each project in each year. **(8 marks)**
  - (c) Compute each project's NPV using the rate calculated in (a) above. **(8 marks)**
  - (d) Which of the two projects should Pure Ltd undertake? **(2 marks)**
- (Total 20 marks)**

**SECTION C**

**Question 6:**

Discuss the sources of financing for short term and long-term purposes. Give the associated costs, advantages and disadvantages of each source of financing.

***(20 marks)***

**Question 7:**

Explain the functions and roles of Bank of Uganda in the economic development of this country.

***(20 marks)***