

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## CPA (U) EXAMINATIONS

### LEVEL THREE

#### FINANCE – PAPER 14

**TUESDAY, 11 DECEMBER 2007**

#### INSTRUCTIONS TO CANDIDATES

1. Time allowed is **3 hours**.
2. Section **A** has **one** compulsory question carrying 40 marks.
3. Section **B** has **three** questions and only **two** questions are to be attempted.  
Each question carries 20 marks.
4. Section **C** has **two** questions and only **one** question is to be attempted. Each question carries 20 marks.
5. Tables are provided on page 9.
6. Please read further instructions on the answer book.

## SECTION A

## Question 1

- (a) (i) Discuss the possible conflicts that might exist between managers and shareholders over the use of free cash flows.

(6 marks)

- (ii) Explain the actions shareholders might take to reduce such conflicts.

(3 marks)

- (b) Describe the efficient market hypothesis, clearly showing the differences between the **three** forms of the hypothesis.

(6 marks)

- (c) Max Impex Ltd has a chain of hotels in East and Central Africa. The company has an office block in Kampala which it intends to sell in three years' time after the CHOGM conference. However, it needs to replace the heating system in the building and is considering three alternatives, namely; oil, gas and electricity. Each of these alternatives will add Shs 200 million to the selling price of the building. The following information is given regarding the costs of the alternative systems.

- (i) Installation costs, payable immediately;

**Shs million**

Oil	300
Gas	340
Electricity	280

- (ii) Annual running costs: These are payable at the end of each year and will depend upon two factors; – the price of fuel and the severity of the rainy seasons. At the fuel prices expected for the next year the costs will be:

	<b>Severe Weather</b>	<b>Normal Weather</b>	<b>Mild Weather</b>
	<b>Shs million</b>	<b>Shs million</b>	<b>Shs million</b>
Oil	100	90	70
Gas	80	60	50
Electricity	90	80	70

In each of the next three years there is a 20% chance of severe weather, a 50% chance of normal weather and a 30% chance of mild weather. Fuel prices during the second and third years are expected to increase by either 10% (with a 60% probability) or 20% (with a 40% probability). Whichever rate occurs in the second year will also apply in the third.

- (iii) Maintenance costs: These are also payable at the end of each year, but are fixed in amount at:

	Shs million
Oil	4
Gas	5
Electricity	10

The director of the company believes that each of the systems being considered offer exactly the same quality of heating. The company's cost of capital is 20% in monetary terms.

**Required:**

- (i) Advise management on which of the three alternative heating systems should be installed.  
(15 marks)
- (ii) Outline the reasons that should be taken into account in arriving at the decision in (i) above.  
(5 marks)
- (d) An unlisted company seeking new share capital of Shs 15 million is considering an issue of shares on the Uganda Securities Exchange Market. What different kinds of share issues are possible, and which type would you recommend?  
(5 marks)

**(Total 40 marks)**

**SECTION B**

**Question 2**

- (a) Oscar Kapere is a newly qualified Certified Public Accountant of Uganda. He was recently appointed to the position of Finance Director of Chicken Feeds Ltd. During his first week in office, he was asked by the board to provide financial advice on the possible merger of Chicken Feeds Ltd and Dog Feeds Ltd. Below are the extracts of the financial information on the two companies:

The total values (equity plus debt) of the two companies are expected to fluctuate according to the state of the economy.

	Economic State		
	Recession	Slow Growth	Rapid Growth
Probability	0.15	0.65	0.20
Total Values:			
Chicken Feeds Ltd (Shs million)	42	55	75
Dog Feeds Ltd (Shs million)	63	80	120

Chicken Feeds Ltd currently has Shs 45 million of debt, and Dogs Feeds Ltd Shs 10 million of debt.

**Required:**

- (i) Advise the board whether or not the merger is viable, clearly giving reasons for your answer.

**(10 marks)**

- (ii) Explain why synergy might exist when one company merges with or takes over another company.

**(5 marks)**

- (b) Assume you are a portfolio manager; with the help of the following details, find out the securities that are overpriced and under-priced in terms of the security market line.

Security	Expected Return	$\beta$	$\delta$
A	0.33	1.70	0.50
B	0.13	1.40	0.35
C	0.26	1.10	0.40
D	0.12	0.95	0.24
E	0.21	1.05	0.28
F	0.14	0.70	0.18
Nifty Index	0.13	1.00	0.20
T- Bills	0.09	0.00	0.00

**(5 marks)**

**(Total 20 marks)**

**Question 3**

Progressive Motor Spares Ltd is experiencing financial distress currently affecting the industry and is now contemplating hiring the services of a Financial Consultant.

The trial balance of Progressive Motors Spares Ltd as at 31 December 2006 is as follows:

	<b>Dr</b>	<b>Cr</b>
	<b>Shs '000'</b>	<b>Shs '000'</b>
Ordinary shares of Shs 1 per share		3,600
10% cumulative preference shares of Shs 1 per share		1,000
Accumulated profits as at 1 January 2006		4,070
8% loan notes		500
Profits for 2006		3,780
Loan notes Redemption Reserve		290
Payables		4,130
Tax payable 1 January 2007		700
Deferred taxation 1 January 2006		1,655
Investment income		14
Premises	7,200	
Equipment	3,800	
Investment	251	
Inventory	6,580	
Receivables	1,480	
Bank	<u>428</u>	
	<u>19,739</u>	<u>19,739</u>

**Additional information:**

1. Profits accrue evenly throughout the year.
2. Provision is to be made for;
  - (a) tax of Shs 1,900,000 on the profit of the current year, payable in 2008.
  - (b) the preference dividend.
  - (c) a proposed ordinary dividend of 10% declared before the balance sheet date.
3. Sales for the year totalled Shs 21,000,000 of which Shs 1,000,000 was VAT.

One of the directors had recently read an article on methods of predicting company failure. One of the methods combined five variables and calculated a Z score by multiplying each variable by a discriminant coefficient.

The five variables (labeled  $X_1$   $X_2$   $X_3$   $X_4$   $X_5$ ) were as follows:

$X_1$	Net working capital/total assets	(%)
$X_2$	Retained earnings/total assets	(%)
$X_3$	Earnings before interest and taxes/total assets	(%)
$X_4$	Market value of equity/book value of total debt securities	(%)
$X_5$	Sales/total assets	(times)

The Z score was calculated using the following formula:

$$Z \text{ score} = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$$

The score was interpreted on the basis that all companies with a score less than 1.81 were likely to become bankrupt, all companies with a score greater than 2.99 were unlikely to become bankrupt; companies with score between 1.81 and 2.99 were likely to consist of companies that may become bankrupt.

The market value of equity is calculated using a PE ratio of 5:1 applied to earnings before tax and investment income, but after loan note interest.

The directors of Progressive Motor Spares Ltd have now asked the Financial Consultant to provide advice on the following issues:

**Required:**

- (a) Explain possible reasons for selecting each of the five variables that have been included in the formula above. **(5 marks)**
- (b) Advise management on the position of Progressive Motors Spares Ltd using a Z score.

**N.B. show all relevant workings.**

**(11 marks)**

- (c) The stock of Progressive Motor Spares Ltd is selling for Shs 150 per share. The company proposes to issue rights to subscribe for one additional share of stock at Shs 125 per share for every nine shares held.

**Required:**

Compute the theoretical value of:

- (i) a right when the stock is selling cum- rights. **(2 marks)**
- (ii) one share of stock when it goes ex- rights. **(2 marks)**

**(Total 20 marks)**

**Question 4**

- (a) Describe briefly the factors that affect the dividend decision. **(5 marks)**
- (b) KM Enterprises Ltd expects with some degree of certainty to generate the following net income and to have the following capital expenditure during the next 5 years:

<b>Years</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Net Income (Shs '000)	2,000	1,500	2,500	2,300	1,800
Capital expenditure (Shs '000)	1,000	1,500	2,000	1,500	2,000

The enterprise currently has 1 million ordinary shares outstanding and pays dividends of Shs 1 per share.

**Required:**

- (i) Determine the dividend per share and the external financing required in each year if dividend policy is treated a residual decision. **(3 marks)**
- (ii) Determine the amounts of external financing in each year that will be necessary if the present dividend per share is maintained. **(3 marks)**
- (c) Owino Traders Ltd is examining its trade credit policies. It has projected sales of Shs 1 million; the fixed manufacturing costs are Shs 50,000 and variable costs of production are 75% of sales. Sales commissions and bad debts represent 10% and 5% of sales respectively. The present period of credit given to customers is 30 days and the Sales Director is arguing that if this period was increased to 60 days sales would increase by 20%. The company has a cost of capital of 12%.

**Required:**

Determine whether the credit period should be increased to 60 days.  
Ignore Taxation.

**(9 mark)****(Total 20 marks)****SECTION C****Question 5**

- (a) You have been summoned to a meeting with your new Managing Director. He states that as maximization of the company's share price depends upon the level of earnings per share that is achieved, it is vital to improve profits next year. He gives you a list of suggested ways to achieve this. This list includes the following:

- (i) Minimise capital investment to reduce depreciation charges.
- (ii) Increase wages and salaries by less than the level of inflation and sell the land that is currently used as a staff sports field.
- (iii) Reduce overdraft charges by delaying payments to creditors.
- (iv) Delay expenditure on new equipment that will reduce pollution levels from the company's factory.

**Required:**

Prepare a memo to the managing director discussing the possible effects on relevant stakeholders of the managing director's suggestions and whether or not they are likely to result in an increased share price.

**(10 marks)**

- (b) Explain briefly the benefits of financial forecasting.

**(6 marks)**

- (c) Define the following terms:

- (i) Systematic Risk
- (ii) Unsystematic Risk

**(4 marks)**

**(Total 20 marks)**

**Question 6**

During a recent seminar organized by the Institute of Certified Public Accountants of Uganda, a leading scholar delivered a keynote address on the theme "Factors to be considered by investors in making investment decisions". Below is an extract of his speech.

"The number of stocks, which has remained inactive increased steadily over the past few years, irrespective of the overall market levels. Indifferent usage of funds, vanishing companies, lack of transparency, the notion that equity is a cheap source of funds and the permitted free pricing of the issues are leading to the prevailing primary market conditions. In this context, the investor has to be alert and careful in his investment. He has to analyse several factors".

The Managing Director of Mzalendo Ltd, Mr. Zumao, has come out of the seminar more confused than ever. He now asks you, the Financial Analyst of Mzalendo Ltd, to step in.

**Required:**

Prepare a report, for the Managing Director, explaining the factors he should consider in making investment decisions.

**(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