

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA(U) EXAMINATIONS

LEVEL TWO

CORPORATE FINANCIAL MANAGEMENT - PAPER 12

THURSDAY, 17 JUNE 2010

INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours 15 minutes**.
The first 15 minutes of this examination have been designated for reading time. You may not start to write your answer during this time.
2. Section **A** has **one** compulsory question carrying 40 marks.
3. Section **B** has **four** questions and only **three** questions are to be attempted. Each question carries 20 marks.
4. Relevant formulae and tables are provided on pages 9 - 11.
5. Please read further instructions on the answer book.

SECTION A**Question 1**

The following information was extracted from the statement of comprehensive income and statement of financial position for Alpha Ltd, a subsidiary of Zenith Ltd.

	Shs million
Turnover	1,100
Operating costs	<u>(950)</u>
Operating profit	<u>150</u>
Non-current assets	300
Current assets	150
Current liabilities	75
Long-term debt	162.5
Ordinary share capital	110
Liquidation costs	50

The nominal value of each ordinary share is Shs 250.

A professional valuer has placed the value of non-current assets at 58% higher than their book value. 40% of the current assets relates to inventory that is almost obsolete and can only fetch Shs 10 million if sold. The redemption value of the long-term debt is estimated at Shs 150 million.

Currently, the market value of ordinary shares is Shs 680. The directors of Alpha Ltd are aware that the board of Zenith Ltd intends to dispose of Alpha Ltd and are planning to make an offer to the board for a management buyout (MBO) of Alpha Ltd. The directors expect to have to pay either a premium of 20% above the net assets value of the company (calculated on liquidation basis) or 25% over the current market capitalization, whichever is higher. The directors also intend to redeem the long-term debt of Alpha Ltd, though the liquidation costs will be incurred by the board.

The directors intend to invest a total of Shs 50 million of their own money to buy shares in the new entity and to raise the rest of the funds as follows: 50% of the remaining required sum by issue of shares to venture capitalists (at the same price that they will also pay for theirs), and the other 50% by medium term bank loan at a post tax cost of 10%. They expect to pay dividends that will provide a dividend yield of 2% in the new entity. Their aim is to increase post tax profits at a rate of 13% per annum and expect a cost of equity to be 15%.

In the directors' proposal to Equinos Bank from which they expect to raise the medium term loan, they indicated a plan to double the return on capital employed (ROCE), measured as operating profit/(total assets less current liabilities). The return on capital employed before any changes will be measured at book value, and based on up-to-date asset valuations after the changes. The directors plan to achieve the increase in the return on capital employed by selling some assets to reduce non-current assets to half of the newly valued figure, and by cutting operating costs over time. Proceeds from sale of assets will then be used to reduce bank borrowing. This cost cutting exercise is expected to reduce turnover by 10% and operating costs by 20%.

Required:

- (a) Calculate the total amount that will be needed to pay for the management buyout.
(8 marks)
 - (b) Calculate the weighted average cost of capital for the new enterprise after the MBO, but before asset disposal and cost cutting exercise.
(7 marks)
 - (c) Using calculations, show whether the planned changes will achieve the projected increase in return on capital employed.
(6 marks)
 - (d) Explain the nature and role of venture capitalists in the economy.
(5 marks)
 - (e) Explain reasons why finance managers need to be cautious when using a cost of capital figure calculated using the capital asset pricing model in discounting cash flows of investment projects.
(6 marks)
 - (f) Explain the role of an underwriter in an issue of shares.
(3 marks)
 - (g) In management of portfolio risk, a portfolio manager could employ active or passive strategies. Differentiate clearly between passive and active management strategies, giving the rationale for each.
(5 marks)
- (Total 40 marks)**

SECTION B**Question 2**

Naura Limited owns a large chain of bookshops and operates throughout the East African region. Over the past three years the company has struggled to maintain its market share in the face of fierce competition from internet retailers and from large supermarket chains. The board of directors of Naura Limited has, therefore, decided that in order to reduce risk and to secure future growth, the company must diversify its operations. To this end, the board is now negotiating with the board of directors of Muko Eats Limited, a foods manufacturer, with a view to acquiring the company.

The two boards of directors have agreed a share price but have yet to agree the form of bid consideration. The board of Naura Limited would prefer a share-for-share exchange whereas the board of Muko Eats Limited would prefer a cash offer for the shares of the company.

Required:

- (a) Using information in the text to illustrate your answer, briefly discuss whether diversification through mergers and acquisitions is an effective means of reducing risk and securing future growth.
(6 marks)
- (b) Outline the advantages and disadvantages of:
 - (i) a share-for-share exchange, and
 - (ii) a cash payment as forms of bid consideration.
(6 marks)
- (c) Clearly explain the term 'market efficiency' and its implications for the valuation of shares of public companies like Naura Limited.
(8 marks)

(Total 20 marks)

Question 3

Maragwa Consolidated Group (MCG) is a large conglomerate within the East African region and has its headquarters in Uganda. They supplied a consignment of goods to one of the European Embassies worth 120,000 Euros (€) and payment is expected in two months' time. The current spot exchange rate of the Euro against the Uganda shilling is 0.000358-0.000364 €/Shs. The foreign exchange forward rates are quoted as follows:

€/Shs

One month forward 0.002-0.003 cents premium

Two months forward 0.003-0.004 cents premium

Three months forward 0.004-0.005 cents premium

Three months put options for Euros are sold in contract sizes of 10,000 Euros per contract. Each contract has a strike price of Shs 31.9 million and a premium of Shs 2 million. MCG can earn interest at treasury bill rate on its Uganda shilling deposits, while paying 4% above treasury bill rate on its borrowings. Commercial banks in Uganda pay an average of 3% per annum on all foreign currency deposits and 6% on all foreign currency borrowings. The treasury bill rate is currently 4%.

Required:

- (a) Calculate the total Ugandan shilling receipt if MCG hedges the Euro transaction, and comment briefly on the advantages and disadvantages of each method for:
- (i) forward contract
 - (ii) put option
 - (iii) money market hedge.

(12 marks)

- (b) Explain clearly the role played by a treasurer in a corporation.

(6 marks)**(Total 20 marks)**

Question 4

Sangoma Products Limited (SPL) plans to raise Shs 5 billion in order to expand its existing chain of retail outlets. It can raise the finance by issuing 10% debentures redeemable in 2016, or an issue of shares at Shs 4,000 per share. The financial statements of SPL are as follows:

Statement of comprehensive income for period ended 31 May:

	2010	2009
	Shs million	Shs million
Sales	50,000	42,500
Cost of sales	<u>(30,000)</u>	<u>(25,500)</u>
Gross profit	20,000	17,000
Administration costs	<u>(14,000)</u>	<u>(11,900)</u>
Profit before interest and tax	6,000	5,100
Interest	<u>(300)</u>	<u>(255)</u>
Profit before tax	5,700	4,845
Taxation at 30%	<u>(1,710)</u>	<u>(1,454)</u>
Profit after tax	3,990	3,391
Dividends	<u>(2,394)</u>	<u>(2,035)</u>
Retained earnings	<u>1,596</u>	<u>1,356</u>

Statement of Financial Position as at 31 May:

	2010	2009
	Shs million	Shs million
Net fixed assets	20,100	17,085
Net current assets	4,960	4,216
12% debentures 2014	<u>(2,500)</u>	<u>(2,125)</u>
	<u>22,560</u>	<u>19,176</u>
Ordinary shares, par value 250	2,500	2,125
Retained profits	<u>20,060</u>	<u>17,051</u>
	<u>22,560</u>	<u>19,176</u>

The expansion of the business is expected to increase sales revenue by 12% in the first year. Variable costs make up 85% of cost of the sales. Administration costs will increase by 5% due to new staff appointments. SPL has a policy of paying out 60% of profit after tax as dividends and has no overdraft.

Required:

- (a) For each financing proposal, prepare the forecast statement of comprehensive income for one additional year of operation.
(5 marks)
 - (b) Evaluate and comment on the effects of each financing proposal on the following:
 - (i) financial gearing.
 - (iii) interest cover.
 - (iv) earnings per share.**(10 marks)**
 - (c) Briefly discuss the advantages and disadvantages of interest rate swaps.
(5 marks)
- (Total 20 marks)**

Question 5

Kisule Trading Company (KTC) is considering investing Shs 50 million in a new machine with an expected life of five years to boost production and sales. The machine will have no scrap value at the end of five years. It is expected that 20,000 units will be sold each year at a selling price of Shs 3,000 per unit. Variable production costs are expected to be Shs 1,650 per unit, while incremental fixed costs, mainly the wages of a maintenance engineer, are expected to be Shs 10 million per year. KTC uses a discount rate of 12% for investment appraisal purposes and expects investment projects to recover their initial investment within two years.

Required:

- (a) Explain why risk and uncertainty should be considered in the investment appraisal process.

(3 marks)

- (b) Evaluate the sensitivity of the project's net present value to a change in the sales price and discuss the use of sensitivity analysis as a way of evaluating project risk.

(8 marks)

- (c) Upon further investigation it is found that there is a significant chance that the expected sales volume of 20,000 units per year will not be achieved. The sales manager of KTC suggests that sales volumes could depend on expected economic states that could be assigned the following probabilities:

Economic state	Poor	Normal	Good
Probability	0.3	0.6	0.1
Annual sales volume (units)	17,500	20,000	22,500

Required:

Calculate and comment on the expected net present value of the project.

(3 marks)

- (d) The finance manager of KTC is concerned that the management seems to be concerned with evaluating the risks associated with the investment, and little attention is paid to the method of financing. According to her, a good investment will not add much value to the company if it's financing is not well structured. Evaluate her view, based on financial management theory.

(6 marks)**(Total 20 marks)**

You may use the following list of financial formulae:

The Capital Asset Pricing Model

$$E_i = R_f + \beta_i (E_m - R_f)$$

The asset beta formula

$$\beta_a = \left(\frac{V_e \beta_e}{(V_e + V_d(1-T))} \right) + \left(\frac{V_d (1-T) \beta_d}{(V_e + V_d(1-T))} \right)$$

The Gordon model

$$P_0 = \frac{D_0 (1+g)}{r_e - g}$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \frac{(1+i_c)}{(1+i_b)} \quad S_1 = S_0 \frac{(1+r_c)}{(1+r_b)}$$

Present value interest factor of \$1 per period at i% for n periods, PVIFA (i,n).												
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.856	0.840	0.823	0.807	0.791
3	0.971	0.942	0.915	0.888	0.861	0.835	0.810	0.785	0.761	0.737	0.714	0.691
4	0.962	0.923	0.888	0.853	0.819	0.786	0.754	0.723	0.693	0.664	0.636	0.609
5	0.952	0.903	0.861	0.820	0.780	0.741	0.703	0.666	0.631	0.597	0.565	0.534
6	0.943	0.884	0.835	0.795	0.756	0.718	0.681	0.645	0.611	0.578	0.547	0.517
7	0.935	0.876	0.819	0.770	0.732	0.695	0.659	0.624	0.591	0.559	0.529	0.500
8	0.926	0.857	0.793	0.745	0.708	0.672	0.637	0.603	0.571	0.540	0.511	0.483
9	0.917	0.838	0.766	0.719	0.683	0.648	0.614	0.581	0.550	0.519	0.491	0.464
10	0.909	0.820	0.740	0.694	0.659	0.625	0.592	0.560	0.529	0.500	0.472	0.446
11	0.893	0.803	0.725	0.680	0.646	0.613	0.581	0.550	0.520	0.491	0.464	0.438
12	0.884	0.784	0.708	0.664	0.631	0.599	0.568	0.538	0.509	0.481	0.455	0.430
13	0.876	0.776	0.692	0.649	0.616	0.585	0.555	0.526	0.497	0.470	0.445	0.420
14	0.867	0.767	0.685	0.643	0.610	0.580	0.550	0.522	0.494	0.467	0.442	0.417
15	0.860	0.759	0.678	0.637	0.604	0.575	0.546	0.518	0.491	0.465	0.440	0.415

	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806
2	0.783	0.769	0.756	0.743	0.731	0.719	0.707	0.695	0.683	0.672	0.661	0.650
3	0.693	0.675	0.658	0.642	0.626	0.610	0.594	0.578	0.563	0.548	0.533	0.518
4	0.613	0.595	0.578	0.562	0.546	0.530	0.514	0.498	0.483	0.468	0.453	0.438
5	0.544	0.526	0.509	0.493	0.477	0.461	0.445	0.430	0.415	0.400	0.385	0.370

	3	9	7	6	6	7	9	2	6	0	5	1
6	0.48 0	0.45 6	0.43 2	0.41 0	0.39 0	0.37 0	0.35 2	0.33 5	0.31 9	0.30 3	0.28 9	0.27 5
7	0.42 5	0.40 0	0.37 6	0.35 4	0.33 3	0.31 4	0.29 6	0.27 9	0.26 3	0.24 9	0.23 5	0.22 2
8	0.37 6	0.35 1	0.32 7	0.30 5	0.28 5	0.26 6	0.24 9	0.23 3	0.21 8	0.20 4	0.19 1	0.17 9
9	0.33 3	0.30 8	0.28 4	0.26 3	0.24 3	0.22 5	0.20 9	0.19 4	0.18 0	0.16 7	0.15 5	0.14 4
10	0.29 5	0.27 0	0.24 7	0.22 7	0.20 8	0.19 1	0.17 6	0.16 2	0.14 9	0.13 7	0.12 6	0.11 6
11	0.26 1	0.23 7	0.21 5	0.19 5	0.17 8	0.16 2	0.14 8	0.13 5	0.12 3	0.11 2	0.10 3	0.09 4
12	0.23 1	0.20 8	0.18 7	0.16 8	0.15 2	0.13 7	0.12 4	0.11 2	0.10 2	0.09 2	0.08 3	0.07 6
13	0.20 4	0.18 2	0.16 3	0.14 5	0.13 0	0.11 6	0.10 4	0.09 3	0.08 4	0.07 5	0.06 8	0.06 1
14	0.18 1	0.16 0	0.14 1	0.12 5	0.11 1	0.09 9	0.08 8	0.07 8	0.06 9	0.06 2	0.05 5	0.04 9
15	0.16 0	0.14 0	0.12 3	0.10 8	0.09 5	0.08 4	0.07 4	0.06 5	0.05 7	0.05 1	0.04 5	0.04 0

Present value interest factor of an (ordinary) annuity of \$1 per period at i% for n periods, PVIFA (in).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Period	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870