INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

New Fall (E) 2011, April 2012 Examinations

Monday, the 16th April 2012

STRATEGIC FINANCIAL MANAGEMENT – (S-601)
STAGE-6

(i) Attempt all questions.
(ii) Answers must be neat, relevant and brief.
(iii) In marking the question paper, the examiners take into account clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram/ chart, where appropriate.
(iv) Read the instructions printed inside the top cover of answer script CAREFULLY before attempting the paper.
(v) Use of non-programmable scientific calculators of any model is allowed.
(vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
(vii) Question No.1 – "Multiple Choice Question" printed separately, is an integral part of this question paper.
(viii) **Question Paper must be returned to invigilator before leaving the examination hall.**

Answer Script will be provided after lapse of 15 minutes Extra Reading Time (9:30 a.m. or 2:30 p.m. [PST] as the case may be).

Marks

Q. 2 Tawakkal Ltd., has recently sold 100,000 units at Rs. 37.50 each; its variable operating costs are Rs. 15 per unit and fixed operating costs are Rs. 1,250,000. Annual interest expenses are Rs. 400,000. The company is required to pay dividend on preference shares amounting to Rs. 200,000. It has 40,000 preferred shares outstanding and 100,000 ordinary shares fully paid up. Assume that the company has a 35% tax rate.

Required:

(a) What is the break-even point in units? **01**

(b) Calculate the company's earnings per share (EPS) at the current level of sales and at 120,000 units sales level. **10**

(c) Calculate the company's degree of operating leverage (DOL) using the current level of sales as a base. **01**

(d) Calculate the company's degree of financial leverage (DFL) using the earning before interest and taxes (EBIT) associated with the current level of sales as a base. **01**

(e) Using the degree of total leverage (DTL), determine the effect (in percentage) of a 50 percent increase in Tawakkal Ltd's sales from the current base level on its earnings per share. **02**

Q. 3 (a) You have recently joined, as Management Accountant, the Stylish Ltd., a company that manufactures and exports leather jackets. Due to hyper-inflation prevailing in the economy, the cost of the company's products has rapidly increased over recent years. Resultantly, company's margin has significantly slashed that caused liquidity problems.

The material costs represent 50% of the total cost of sales. CFO of the company has asked you to calculate the cash operating cycle for the coming year. You have estimated the following figures for your assignment:

	Rs. '000'
Sales	11,200
Average receivables	1,012
Gross profit margin	25% on sales
Average inventories:	
Finished goods	700
Work in progress (80% complete)	1,100
Raw materials	440
Average payables	420

Required:

(i) Calculate the cash operating cycle (assuming 365 days a year). **06**

(ii) Suggest four methods of reducing the duration of the cash operating cycle. **02**

(b) Alpha Ltd., is a merchandiser and sells product 'Zee' that has an annual demand of 255,380 units.

Product 'Zee' has a selling price of Rs. 190 per unit and it is purchased for Rs. 110 per unit from Beta Ltd. Alpha Ltd., currently places an order for 50,000 units of product 'Zee' at regular intervals throughout the year. However, due to uncertainty in demand, Alpha Ltd., maintains a safety (buffer) stock of product 'Zee' which is sufficient to meet demand for 28 working days.

The cost of placing an order is Rs. 250 and the storage cost for product 'Zee' is Re. 1 per unit per year.

Note: Alpha Ltd., uses 365 day-year for analysis purposes.

Required:

(i) Calculate the total annual cost of ordering and holding cost of current policy. **04**

(ii) Calculate the annual saving if, the economic order quantity (EOQ) model is used to determine an optimal ordering policy. **05**

(iii) Alpha Ltd., normally pays to its suppliers after 60 days but Beta Ltd., has offered a discount of 2% for cash settlement within 20 days. Determine whether the discount offered by Beta Ltd., is financially acceptable to Alpha Ltd., if its short-term cost of debt is 16%. **03**

Q. 4 The following figures have been extracted from the most recent accounts of Crescent Ltd.:

Statement of Financial Position
as on 31st December 2011

Assets	Rs. '000'	Liabilities and owner's equity	Rs. '000'
Current assets	6,850	Current liabilities	3,500
Investments	1,650	7% TFCs	6,600
Fixed assets	20,500		10,100
		Shareholders' equity:	
		600,000 ordinary shares	
		(Rs. 10 per share)	6,000
		Retained earnings	12,900
			18,900
Total	29,000	Total	29,000

Summary of five (05) years profits and dividends for the year ended 31st December:

					Rs. '000'
	2007	2008	2009	2010	2011
Profit after interest	3,582	4,308	4,000	3,846	4,492
Less 35% tax	1,254	1,508	1,400	1,346	1,572
Profit after tax	2,328	2,800	2,600	2,500	2,920
Less dividends	1,240	1,360	1,480	1,480	1,620
Added to retained earnings	1,088	1,440	1,120	1,020	1,300

The current (1st January 2012) market value of Crescent Ltd's ordinary share (cum dividend) is Rs. 32.70 per share. An annual dividend of Rs. 1,620,000 is due for payment shortly. The 7% TFCs are redeemable at par at maturity after ten years. Their current market value is 75% of recorded value. Annual interest has just been paid on the TFCs. There have been no issues or redemptions of ordinary shares and debentures during the past five years.

Required:

Calculate the WACC (weighted average cost of capital) for appraising new investment opportunities assuming no change in the tax rate during the last five years. **15**

Q. 5 **(a)** XYZ Ltd., purchased a lathe machine for trimming molded plastics 10 years ago at a cost of Rs. 1,500,000. The machine had zero salvage value at the end of the 15th year of its life. The company depreciates the lathe machine on a straight-line basis and its current book value is Rs. 500,000.

The R & D Manager reports that a new lathe machine can be purchased for Rs. 2,400,000 including freight and installation. The new lathe machine has 5-year life with Rs. 400,000 salvage value. And it will sufficiently reduce labour and raw materials usage from Rs. 700,000 to Rs. 200,000 per annum. XYZ Ltd., indents to depreciate the new lathe machine @ 20% using diminishing balance method.

If the new lathe machine were acquired, the old lathe machine would be sold to another company for Rs. 200,000. The company's net working capital requirements will also increase by Rs. 200,000 at the time of replacement. The company's tax rate is 35% and its cost of capital is 12%. XYZ Ltd., can claim tax relief for any loss incurred in a year.

Required:

(i) What will be initial investment if, the company makes the replacement decision? **01**

(ii) What would be the operating cash flow (OCF) over five years life of new lathe machine and its terminal year cash flows? **13**

(iii) Would you recommend the replacement decision? Why or why not? Substantiate your answer. **02**

(b) ABC Ltd., can invest in the following four projects. The timing and amounts of the cash flows are as under:

	Year 0	Year 1	Year 2	NPV (15%)	IRR
	Rs. '000'	Rs. '000'	Rs. '000'	Rs. '000'	%
Project A	(300)	200	210	28.44	09
Project B	(400)	300	270	56.54	14
Project C		(350)	460	43.48	12
Project D	(600)	400	440	70.02	12

Currently ABC Ltd., has a restriction of Rs. 1,050,000 for investment.

Required:

(i) What would be the maximum NPV assuming that all projects are divisible? **05**

(ii) What would be the maximum NPV if, the projects are not divisible? **01**

Q. 6 Sana Industries wishes to sell its frozen food division for Rs. 200 million. Management of the division desires to buy it and has arranged a leveraged buyout. The management will contribute Rs. 20 million in cash. A senior lender will advance Rs. 140 million secured by all the assets of the company. The rate on the loan is 2% above the prime rate, which is presently 12%. The loan is payable in equal annual principal installments over 5 years, with interest for the year payable at the end of each year.

A junior subordinated loan of Rs. 40 million has also been arranged, and this loan is due at the end of 6 years. The interest rate is fixed at 15% and interest payments are only due at the end of each of the first 5 years. Interest and entire principal are due at the end of the sixth year. In addition, the lender has received warrants exercisable for 50 % of the shares.

The frozen food division expects earnings before interest and taxes of Rs. 17 million in each of the first 3 years and Rs. 74 million in each of the last 3 years. The tax rate is 33.33%, and the company expects capital expenditures and investments in receivables and inventories to equal depreciation charges in each year. All debt servicing must come from profits. (Also assume that the warrants are not exercised and that there is no cash infusion as a result.)

Required:

(a) If the prime rate stays at 12% throughout the six years, will the enterprise be able to service the debt properly? Show your workings. **09**

(b) If the prime rate were to rise to 20% in the beginning of second year and remains unchanged for the second year to the sixth year, would the situation change? **09**

THE END

PRESENT VALUE TABLES ON PAGE 4

Table : 1

Year	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
					P R E S E N T		V A L U E		F A C T O R							
1	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065

Table : 2

Year	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
			C U M U L A T I V E		P R E S E N T		V A L U E		F A C T O R							
1	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675