INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

Fall (Winter) 2009 Examinations

Monday, the 16th November 2009

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

Time Allowed – 2 Hours 45 Minutes | **Maximum Marks – 90**

(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 on 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.

Marks

Q. 2 Daewoo Limited produces air conditioning system for dying unit in textile mills and sells for Rs.500,000 each. The firm's fixed costs are Rs.10 million. The other data is as under:

- 50 air conditioning systems are produced and sold each year. The firm is earning annual profit of Rs.2,500,000 and its assets (all equity financed) are Rs.25 million.
- The firm estimates that it can change its production process requiring Rs.20 million as additional investment and Rs.2,500,000 as additional fixed operating cost. This change will:
  - (i) reduce variable cost per unit by Rs.50,000
  - (ii) increase output by 20 units
  - (iii) have to lower the sales price on all units to Rs.475,000 to ensure sales of the additional outputs;
- The firm has assessed tax loss carry-forward that cause its tax rate to be zero.
- Daewoo Limited's cost of equity is 15%, and it uses no debt.

Required:

(a) Should Daewoo Limited make the above change? Why and why not, substantiate your answer with reasoning. 07

(b) Would operating leverage increase or decrease, if Daewoo Limited made the change? What will be the breakeven point of the firm? 04

(c) Would the new situation expose the firm to more or less business risk than the old one? Enumerate. 01

Q. 3 **(a)** Quality Sports Company sells and installs ski lifts. It has received an order from Welcome Ski Resort for installation of a chair lift system at a sales price of Rs.138 million. The production and installation costs of this system amount to 69.6% of the total selling price. Welcome Ski Resort wishes to go through a full season before paying for the system, it has asked for credit terms of one (1) year. Quality Sports Company estimates that there is an 80% probability that Welcome Ski Resort will pay in full and a 20% chance that it will go bankrupt and pay nothing at the end of the year. It is confirmed that there will be no prospects for repeat orders from Welcome Ski Resort. Quality Sports Company's opportunity cost of carrying the receivable at its stated value of Rs.138 million is 15% per annum.

Required:

(i) Should the Quality Sports Company accept the order? Show your working. 04

(ii) Would the order be accepted if: 02
- its production and installation cost were 74% of the selling price?
- the costs were 65% of the selling price?

PTO

Marks

(b) Novelty Limited uses inventory turnover as one of performance measures to evaluate its production manager. Currently, its inventory turnover (CGS/ inventory) is ten times per year compared with an industry average of four. Average sales are Rs.2,250,000 per year. Variable cost of inventory have consistently remained at 70% of sales, and fixed cost of Rs.50,000. Carrying cost of inventory (excluding financing cost) are 5% per annum. Sale force complained that sales are lost due lower inventory levels and stock outs. Sales manager has made an estimate based on stock out reports as indicated below:

Inventory Policy	Inventory Turnover	Sales (Rs.000)
Current	10	2,250
A	8	2,500
B	6	2,700
C	4	2,825

Required:

Assuming 35% tax rate and after tax required rate of return 16% on investment in inventory, would you recommend change in inventory policy? Show your calculations. 12

(c) The Rehber Company is renowned name in the manufacturing of household electronic goods. The company had sales of Rs.17.5 million last year and it earned a 5% after tax return on sales. Recently, the company has fallen behind in its accounts payable. Although its terms of purchase are net 30 days, its accounts payable represent 60 days purchases. The company's Director Finance is seeking to increase bank borrowings in order to have 30 days payables outstanding. The company's balance sheet is as follows:

			Rs. '000'
Cash	500	Account payable	3,000
Accounts receivable	1,500	Bank loans	3,500
Inventory	7,000	Accruals	1,000
Current assets	9,000	Current liabilities	7,500
Land and buildings	3,000	Mortgage on real estate	3,500
Equipment	3,000	Ordinary share (Rs.10 par)	1,500
		Retained earnings	2,500
Total assets	15,000	Total liabilities and equity	15,000

Required:

(i) How much bank financing is required by Rehber Company to eliminate the past-due accounts payable? 02

(ii) Suppose you are a bank loan officer in one of the leading banks of the country in private sector. The Rehber Company has applied for said loan. Would you grant the loan? Give reasons in support to your answer. 05

Q. 4 (a) Mehroz Publishing Company is a leading publishing house of the country based at Lahore. The company is evaluating the proposed acquisition of a new printing machine. The machine's base price is Rs.1,820,000 and it would cost another Rs.187,500 to modify it for special use by the firm. The machine will only last for 4 years due to rapid changes in technology advancement and it would be sold after 4 years for Rs.1,400,000. The firm has been allowed by tax authorities to charge 10% depreciation on the machine on reducing balance method.

The machine would require an increase in net working capital (inventory) of Rs.82,500. The printing machine would have no effect on revenues but it is expected to save the firm Rs.660,000 per year in before-tax operating cost, mainly labour. Mehroz Publishing Company's tax rate is 35% including capital gain if any.

Marks

Required:

(i)	What is the net cost of the machine for capital budgeting purpose? (i.e., what is net cash flow at year-0)?	01
(ii)	What is the net operating cash flow in years 1, 2, 3 and 4?	04
(iii)	What is the terminal year cash flow?	03
(iv)	Should the machine be purchased, if the project's cost of capital is 12%?	04

(b) The ABC Company is considering an average-risk investment in a mineral water spring project that has a cost of Rs.2,250,000. The project will produce 1,000 containers of mineral water per year indefinitely. The current sales price is Rs.2,070 per container and the current cost per container (all variable) is Rs.1,575. The firm is taxed at the rate of 35%. Both prices and costs are expected to rise at a rate of 6% per year. The firm has a cost of capital of 15%. Assume that cash flows consist only of after-tax profit, since the spring has an indefinite life and will not be depreciated.

Required:

(i)	Should ABC Company accept the project if it does not consider the inflation?	03
(ii)	Should ABC Company accept the project if it considers the inflation at @ 6% per year?	03
(iii)	If the total costs consisted of a fixed cost of Rs.150,000 per year and variable costs of Rs.7,125 per unit and if only the variable costs were expected to increase with inflation, would this make the project better or worse? "Continue with the assumption that the sales price will rise with inflation". Offer your comments (calculation is not required).	02

Q. 5 Global Limited is at present financed entirely by equity shares which have a market value (market capitalization) of Rs.12,000,000. A dividend of Rs.2,400,000 has just been paid. On the strength of present plans annual dividends of this amount are expected to be paid indefinitely.

A new project is being considered which will require an outlay of Rs.10,000,000 now and is expected to generate net cash receipts of Rs.2,100,000 per annum indefinitely. The project would be financed by issuing Rs.10,000,000 of term certificates at the mark up of 15%. The level of uncertainty of the new project is similar to that of existing activities but as a result of accepting the project and increasing the leverage the cost of equity is expected to rise to 22% per annum.

Required:

(a)

(i)	Calculate the gain made by the ordinary shareholders if the project is accepted.	04
(ii)	Calculate the weighted average cost of capital (WACC) after the project has been accepted.	03

(b) If the original Modigliani – Miller hypothesis (ignoring tax) holds true, the WACC will remain at 20%. This will be so if the cost of equity rises to 24% when the project is accepted.

(i)	Calculate the value of the equity shares and the gain made by the shareholders if the cost of equity rises to 24%.	02
(ii)	Prove that the WACC is now 20% (i.e. the cost of capital is unchanged by an increase in leverage).	03
(iii)	Calculate the net present value of the project when discounted at 20%. What conclusion do you draw?	03

PTO

Marks

Q. 6 (a) Mid-Night Fast Food Chain latest earnings are Rs.4 per share. The expected growth in EPS and dividend payout ratio is as under:

Year	Annual Expected growth in EPS	Dividend payout ratio
1 – 4	20 %	25%
5 – 8	12 %	40%
9 onwards	06 %	50%

At the end of year 8, the price/ earnings ratio for the company is expected to be 8.5 times, where 9^{th} years expected earning per share is used in the denominator.

Required:

If the required rate of return is 14%, what is the present market price per share? 06

(b) The Al-Faisal Company expects with some degree of certainty to generate the following net income and to have the following capital expenditures during the next five (5) years:

Rs. '000'

YEAR	1	2	3	4	5
Net Income	50,000	37,500	62,500	57,500	45,000
Capital Expenditures	25,000	37,500	50,000	37,500	50,000

The company currently has 10 million shares of ordinary share outstanding and pays dividends of Rs.2.5 per share.

Required:

(i) Determine dividends per share and external financing required in each year, if dividend policy is treated as a residual decision. 03

(ii) Determine the amounts of external financing in each year that will be necessary, if the present dividend per share is maintained. 03

(iii) Determine dividends per share and the amounts of external financing that will be necessary, if a dividend – payout ratio of 50% is maintained. 04

(iv) Under which one of the above three referred dividend policies the aggregate dividends are maximized and the external financing is minimized? 02

THE END

Present value factors

Year	10%	11%	12%	13%	14%	15%
1	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696
2	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561
3	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575
4	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718
5	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972
6	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323
7	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759
8	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269
9	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843
10	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472