INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

March 2011 Extra Attempt Examinations

Monday, the 21st March 2011

STRATEGIC FINANCIAL MANAGEMENT – (S-601)

STAGE-6

Extra Reading Time:	**15 Minutes**	**Maximum Marks: 90**	**Roll No.:**
Writing Time:	**02 Hours 45 Minutes**		

(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 after finishing/ writing the exam.**

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 A-One Electronics Company assembles Plasma TV for local market. The summarized balance sheet and extracts from income statement of the company for the year just ended are as follows:

		Rs.(million)
Non-current assets		405.00
Current assets:		
Inventory	52.60	
Accounts receivable	48.35	100.95
Total assets		505.95
Paid up capital (8 million ordinary shares of Rs. 10 each)	80.00	
Retained earnings	123.00	203.00
Long term loan		220.00
Current liabilities:		
Accounts payable	47.40	
Bank over draft	35.55	82.95
Total equity & liabilities		505.95
Sales revenue		428.00
Cost of sales		313.00
Administrative & selling expenses		23.00

The directors of the company are planning to expand the business during the forthcoming year considering significant demand.

The company has a long-term loan from bank at fixed interest rate of 12%. Tax is paid at 35% per annum. The company has overdraft limit of Rs. 85 million from the bank against pledge of inventory and pays 14% interest on the utilized balance. Interest on Bank overdraft is expected to be Rs. 4.80 millions next year. No change is expected in the non-current assets, paid-up capital and long-term loan. Depreciation is ignored. The company's dividend policy is to distribute up to 50% of after tax profit or Rs. 2 per share whichever is lower. (A-One Electronics Company takes 365 days a year).

The following accounting ratios have been worked out for the next year:

Sales growth	9%
Gross profit margin	22%
Net operating profit margin	18%
Inventory turnover period	95 days
Trade receivables period	64 days
Trade payables period	58 days

Required:

Prepare the following forecast financial statements for A-One Electronics Company:

(i) Income statement for the next year. 05

(ii) Balance sheet at the end of the next year. 06

Marks

Q. 3 (a) Super Fans Company is considering to review its inventory management policy to minimize its inventory cost. Economic order quantity approach is under consideration for all material purchase orders in future. Annual demand forecast for a chemical costing Rs.15 per kg is 24,000 kgs per annum. The cost of placing an order is Rs. 450 while the cost of carrying chemical in store is Rs. 2.40 per kg per year.

Required:

(i) Determine the optimal economic order quantity (EOQ) for the chemical. 02

(ii) Calculate the total cost of inventory for the chemical when using the EOQ. 03

(iii) On further negotiation, the supplier of this chemical has offered a bulk purchase discount of 2% for orders of 4,000 kgs or more, provided if bulk purchase orders are made regularly. It is expected that annual carrying cost for this chemical will increase by Rs. 1.60 per kg per year.

Advise the Super Fans Company with supporting calculations, whether to accept the discount offered by the supplier or not. 05

(b) The credit policy of SFC is under review by the management. During the year just ended, its annual credit sales revenue was Rs. 24 million and contribution margin was 35% of sales. The current credit policy is 30 days and no discount however, record shows that the customers on average take 40 days. The company currently has no bad debts. Accounts receivables are financed by bank overdraft, which carries an annual interest rate of 8%.

The credit policy under consideration is 1.75/15, net 60 days and the management expects 40% of the customers to avail an early payment discount and the remaining customers to pay on 60 days credit terms. The management expects if these changes are made, annual credit sales will increase by 10%, which also leads to bad debts cost equal to 1% of turnover.

Required:

Evaluate with supporting calculations, whether the proposed changes in credit policy will increase the profitability of the company or not (assume 365 days in a year). 06

Q.4 (a) ABC Company is considering to take over XYZ Company. Both the companies have the same level of risk. Summarized profit & loss statements and balance sheets for the year/ as of year just ended are:

Rs. In million

Company	**ABC**	**XYZ**
Sales	323.0	131.5
Operating profit	83.0	40.1
Interest charges	23.6	19.4
Net profit before tax	59.4	20.7
Tax @ 30%	17.8	6.2
Net profit after tax	41.6	14.5
Dividends	9.0	6.0
Retained earnings	32.6	8.5
Non-current assets	205.2	172.2
Net current assets	95.8	45.2
Total assets	301.0	217.4
Payable dues after more than one year	180.5	180.6
	120.5	36.8
Capital & reserves		
Ordinary shares of Rs. 10 each	30.0	12.0
Retained earnings	90.5	24.8
	120.5	36.8
Price earning ratio before the bid	16	12

The board of directors of ABC Company is considering to make an offer, to the shareholders of XYZ Company, of 5 shares in ABC Company for every 4 shares held. It is believed that a rationalization of administrative and selling functions arising from the merger would reap after tax benefit of Rs. 3.5 million.

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Required:

Calculate:

(i) The total value of the proposed offer. 02

(ii) The earning per share of ABC Company following the successful acquisition of XYZ Company. 02

(iii) The share price of ABC Company following acquisition assuming that the benefits of the acquisitions are achieved and that the price earning ratio declines by 5%. 02

(iv) The effect of the proposed takeover on the wealth of the shareholders of each company. 04

(b) The Alpha Investment Fund, in which you plan to invest some money, has total capital of Rs. 1,000 million invested in 5 stocks.

Stock	Investment (Rs. in million)	Stock's Beta Coefficient
A	320	0.5
B	240	2.0
C	160	4.0
D	160	1.0
E	120	3.0

The beta coefficient for a fund like Alpha Investment can be found as a weighted average of the fund's investment. The current risk-free rate is 6%, whereas market returns have the following estimated probability distribution for the next period:

Probability	Market Return %
0.1	7
0.2	9
0.4	11
0.2	13
0.1	15

Required:

(i) What is the estimated equation for the Security Market Line? (Hint: First determine the expected market return.) 04

(ii) Compute the fund's required rate of return for the next period. 05

(iii) Suppose the CEO of Alpha receives a proposal for a new stock. The investment needed to take a position in the stock is Rs. 100 million, it will have an expected return of 15% and its estimated beta coefficient is 2.0. Should the new stock be purchased? At what expected rate of return should Alpha Investment Fund be indifferent to purchase the stock? 03

Q. 5 Roshan Pakistan Pharmaceuticals has just developed a new drug at a cost of Rs. 250,000 and is now considering whether to put it into production. The production of drug will require the purchase of new specialized machinery at a cost of Rs. 2.4 million payable immediately. The machinery has an expected useful life of four (4) years and at the end of which it will have scrap value of Rs. 400,000. Additional working capital of Rs. 300,000 will be required immediately and will be released at the end of 4th year.

The following information relating to this investment proposal has been prepared:

Current selling price	Rs. 16	per unit
Expected selling price inflation	7.5%	per annum
Current variable operating cost	Rs. 5	per unit
Current fixed operating overhead	Rs. 165,000	per annum
Expected variable and fixed cost inflation	6%	per annum

The production and sale forecast for the new drug have been made by marketing department are as follows:

Year	1	2	3	4
Demand (in units)	115,000	99,000	88,000	58,000

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It is expected that all units of drug produced will be sold and in line with company policy of keeping no inventory of finished goods. For investment appraisal purposes, company uses a nominal rate of 10% for discounting annual cash flows and a target return on capital employed of 20% per year. Company pays tax @ 35% per annum in the year in which taxable profit occurs. The company charges depreciation on straight-line basis.

Required:

(a) Calculate the following values for the investment proposal:

(i) Net present value (NPV) 12

(ii) Internal rate of return (IRR) 04

(iii) Return on capital employed (accounting rate of return) based on average investment 02

(iv) Discounted payback period 02

(b) Discuss your findings in each sections of (a) above and advise whether the investment proposal is financially acceptable or not. 03

Q. 6 **(a)** Summarized balance sheet and income statement of M/s Pure Foods Limited are as follows.

	Rs. In million
Assets less current liabilities	111.50
Debt capital	(50.00)
	61.50
Share capital (2 million ordinary shares of Rs. 10 each)	20.00
Reserves	41.50
	61.50
Net profit before interest and tax	13.60
Interest charges	4.10
Net profit before tax	9.50
Tax @ 30%	2.85
Net profit after tax	6.65
Dividends	5.0
Retained earnings	1.65

The company is now considering an investment of Rs. 20 million, which will add Rs. 3.60 million each year to net profit before interest and taxes.

There are two ways of financing this investment. One would be to borrow Rs. 20 million from commercial bank at a cost (interest) of 8% per annum. The other would be to raise the money by issuing one (1) share for four (4) right issues.

Whichever financing method is used, the company will increase dividend per share next year from current Rs. 2.50 to Rs. 3.00 per share. The company does not intend to allow its gearing level to exceed 55% at the end of any year. It will also not accept any dilution in earning per share.

Required:

(i) Assuming that the rate of taxation will remain 30% and that debt interest cost will be Rs. 4.10 million plus the interest cost of any new debt capital; prepare a forecast income statement and balance sheet for next year, assuming that the new project is undertaken and is financed by: 04

- Debt equity or
- A right issue

(ii) Calculate the earning per share and gearing ratio for next year under each financing method and explain why either or both methods of financing would be acceptable. 03

Marks

(b) Pak China Auto Company is the manufacturer and assembler of Chinese motorcycles in the country. The company is evaluating to manufacture three different models of motorcycles. The investments required and the expected present values if assembling is under taken are as follows:

Assembling of Motorcycle	Required investment	PV of future cash flows
United	Rs. 65.5 million	99.5
United Power	Rs. 72.0 million	118.0
United Super	Rs. 85.0 million	123.0

Additional information regarding assembling of these motorcycles models is as follows:

- If assembling of United and United Power are jointly undertaken, there will be no economies in investment required or present values of future cash flows.
- If assembling of United and United Super are jointly undertaken, there will be one saving in investment required that of machinery costing Rs. 31.5 million that can be used in both assembling process.
- If assembling of United Power and United Super are jointly undertaken, economies to be achieved in manufacturing and marketing of both models but not in investment required. The expected present value of future cash flows is Rs. 259.5 million.
- If assembling of all three models is jointly undertaken, all economies noted still hold, but an additional investment in building structure of Rs. 38.5 million will be necessary to accommodate all three assembling processes.

Required:

(i) Advise the management about assembling of which one of the motorcycle models or combination of models should be chosen? Support your answer with calculations and necessary workings. 05

(ii) Suppose the company has the restriction of Rs. 160 million for investment in the forthcoming period. The directors wish to invest in any two assembling lines, and surplus funds can be invested to earn 25% per annum in perpetuity. Which combination of assembling of motorcycle models will produce the highest NPV at a cost of capital of 20%? (Ignore Taxation) 06

THE END

PRESENT VALUE FACTORS											
Year	**10%**	**11%**	**12%**	**13%**	**14%**	**15%**	**16%**	**17%**	**18%**	**19%**	**20%**
1	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402