INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

11th Comprehensive Examination

Sunday, the 7th February 2010

Time Allowed – 2 Hours | **Maximum Marks – 60**

(i) Attempt both the cases 1 and 2 that carry 30 marks each.
(ii) Answers must be neat, relevant and brief.
(iii) In marking the question paper, the examiners take into account the clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram or 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 calculator of any model is allowed.
(v) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
(vi) Paper of "Multiple Choice Questions" printed separately, is an integral part of Comprehensive Examination.

CASE # 1

Marks

ABC Company is planning to launch a new product line of sports goods. The specifications (design, material etc.) are expected to be acceptable in the market for 4 or 5 years. In view of this period, company considered the project 'P' which would remain in operation from 2011 to 2014 and there would be no production after 2014. Information related to the project are as under:

Capital expenditure:

A study was conducted to assess the feasibility of the project for which an amount of Rs.450,000 was paid in last year. The recommendations made in the report are:

- Buy new plant and machinery costing Rs.16,400,000 to be paid at the start of the project.
- The machinery and plant would be depreciated at 20% of cost per annum and sold during year 2015 for Rs.2,420,000 to be received at the end of 2015.
- An old machine be sold for cash at the start of the project at book value of Rs.160,000. This machine had been scheduled to be sold for cash at the end of 2012 for its book value of Rs.120,000.

Material cost

- Material 'Y' costing Rs.64,000, purchased last year is already in stock, and can be used in the manufacture of the new product. If it is not used the company would have to dispose it incurring an additional cost of Rs.20,000 in 2011.
- Material 'Z' is also in stock and will be used for new product line. It was purchased some years ago at a cost of Rs.115,000. The company has no other use for it, but could sell it in the open market for Rs.30,000 in 2011.

Labour cost

- Three employees, currently working in another department and earning Rs.120,000 per annum each, would be transferred at the start of 2011, to work on the new product line.
- An employee currently earning Rs.200,000 per annum would be promoted to work also on the new product line at a salary of Rs.300,000 per annum.
- The effect of transfer of employees from the other department to the project is included in the lost contribution figures given in the table of other data.

PTO

Marks

- Four employees in another department currently earning Rs.100,000 per annum each would have to be made redundant at the end of 2011 and paid redundancy pay of Rs.155,000 each at the end of 2012.
- As a result of negotiations with trade union it had been agreed that wages and salaries would be increased each year by 5% with effect from 2012.

Other related data for new product line is as under:

				Rs.'000'
	2011	**2012**	**2013**	**2014**
Sales	10,000	13,000	15,000	18,000
Accounts receivable (at the year end)	840	1,150	1,400	1,600
Contribution lost on existing products	300	400	400	360
Purchases	4,000	5,000	5,800	6,200
Accounts payable (at the year end)	800	1,000	1,100	1,200
Payments to sub-contractors	600	900	800	800
Prepayments to sub-contractors	50	100	80	80
Net tax payable associated with this project	960	1,420	1,740	2,750
Fixed overheads and advertising:				
With new product line	13,300	11,000	9,900	9,000
Without new product line	12,000	10,000	9,000	8,000

Other information:

- Accounts receivable and payable (at the year end) are received and paid in the following year.
- There is one year time-lag in the payment of tax. The effect of any capital allowance has been taken into the amount of net tax payable.
- Cost of capital of the company is constant @ 10% per annum.
- It is assumed that operating cash flows occur at the year end.
- There is no other financial implication after 2014 apart from the above data and information.

Required:

(a) Prepare a cash flow budget for Project 'P' for its production period from 2011 to 2015. **20**

(b) Calculate the net present value (NPV) of the project. **02**

(c) Write a short report for the board of directors which:

(i) explains the reasons for excluding certain figures while preparing cash flow budget at (a) above and **05**

(ii) advises them on whether or not the project should be undertaken pointing out other factors which would also need to be considered. **03**

PRESENT VALUE FACTORS						
Year	**10%**	**11%**	**12%**	**13%**	**14%**	**15%**
1	0.909	0.901	0.893	0.885	0.877	0.870
2	0.826	0.812	0.797	0.783	0.769	0.756
3	0.751	0.731	0.712	0.693	0.675	0.658
4	0.683	0.659	0.636	0.613	0.592	0.572
5	0.621	0.593	0.567	0.543	0.519	0.497
6	0.564	0.535	0.507	0.480	0.456	0.432

Marks

CASE # 2

XYZ Company is engaged in maintenance and sale of electrical equipment and pumps. Its customers/ client are medium sized companies. Company's business is relatively capital intensive. The most recent year-end financial statement of XYZ Company reflects the following figures:

	Rs. '000'
Revenues	11,200
Operating income	2,800
Depreciation	700
Net income after taxes	1,200
Total assets	17,200
Mark-up-bearing debt	5,400
Shareholders' equity	4,000

The company has 560,000 shares outstanding and its current share price is Rs.16.25. Its cash position is negligible. In view of the nature of business of XYZ Company, M/s Kalam Industries is considering acquiring their business. M/s Kalam Industries and its investment banker believe that by offering a premium of 40%, XYZ Company can be acquired.

At present, free cash flow (excluding interest on debt) of XYZ Company is as under:

		Rs. '000'
Operating income after taxes		1,700
Depreciation		700
Operating cash flow		2,400
Less: Capital expenditures	800	
Working-capital additions	300	1,100
Free cash flow		1,300

M/s Kalam Industries believe that with synergy, they can grow operating cash flow (after tax operating income plus depreciation) by 20% per annum for 3 years, and then by 12% for the next 3 years. At the same time, it believes they can hold capital expenditures and working capital additions to a combined increase (from the present Rs.1,100,000) of only Rs.200,000 per year. At the end of 6 years, M/s Kalam Industries assume that free cash flow will grow at 5% per annum into perpetuity. It also assumes that the required discount rate is 15% for such an investment.

The median valuation of ratios of recently acquired companies comparable to XYZ Company are as under:

Equity value-to-book	2.9x
Enterprise value-to-sales	1.4x
Equity value-to-earnings	15.3x
Enterprise value-to-EBITDA	7.8x

Required:

Do you think that acquisition of XYZ Company is justified at 40% premium and as compared to recently acquired companies' valuation. Substantiate your answer with all necessary calculations. **30**

THE END