ICMA Pakistan

29TH COMPREHENSIVE EXAMINATION

Saturday, the 24th May 2014

Time Allowed – 2 Hours	**Maximum Marks – 60**	**Roll No.:**

(i) Attempt both the cases 1 and 2 carrying 30 marks each.
(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 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.
(vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
(vii) Multiple Choice Questions (MCQs) printed separately, is an integral part of this question paper.
(viii) Question paper must be returned to the invigilator before leaving the examination hall.

Marks

CASE # 1

Zephyr Industries is a diversified corporation with separate operating divisions. Each division's performance is evaluated on the basis of profit and return on investment.

The AC Division manufactures and sells air conditioning units. The coming year's budgeted income statement, which follows, is based upon a sales volume of 18,750 units:

AC Division
Budgeted Income Statement

	Per Unit (Rs.)	**Total (Rs. '000')**
Sales revenue	40,000	750,000
Manufacturing costs:		
Compressor	7,000	131,250
Other direct material	3,700	69,375
Direct labour	3,000	56,250
Variable overhead	4,500	84,375
Fixed overhead	3,200	60,000
Total manufacturing costs	21,400	401,250
Gross margin	18,600	348,750
Operating expenses:		
Variable selling	1,800	33,750
Fixed selling	1,900	35,625
Fixed administrative	3,800	71,250
Total operating expenses	7,500	140,625
Net income before taxes	11,100	208,125

The manager of AC Division believes sales can be increased, if the price of the air conditioner is reduced. A market research study by an independent firm indicates that a 5% reduction in the selling price would increase sales volume by 16%. AC Division has sufficient production capacity to manage this increased volume with no increase in fixed costs.

Marks

AC Division uses a compressor in its units, which it purchases from an outside supplier at a cost of Rs. 7,000 per compressor. The Auxiliary Division currently manufactures and sells a compressor to outside firms which is similar to the compressor used by AC Division. The manager of AC Division has asked the manager of the Auxiliary Division about selling compressor to AC Division. The specifications of the AC Division compressor are slightly different, which would reduce the Auxiliary Division's direct material cost by Rs. 150 per unit. In addition, the Auxiliary Division would not incur any variable selling costs for the units sold to AC Division. The manager of AC Division wants all of the compressors it uses to come from one supplier and has offered to pay Rs. 5,000 for each compressor.

The Auxiliary Division has the capacity to produce 93,750 units. Its budgeted income statement for the coming year, which follows, is based on a sales volume of 80,000 units without considering AC Division's proposal:

Auxiliary Division
Budgeted Income Statement

	Per Unit (Rs.)	**Total (Rs. '000')**
Sales revenue	10,000	800,000
Manufacturing costs:		
Direct material	1,200	96,000
Direct labour	800	64,000
Variable overhead	1,000	80,000
Fixed overhead	1,100	88,000
Total manufacturing costs	4,100	328,000
Gross margin	5,900	472,000
Operating expenses:		
Variable selling	600	48,000
Fixed selling	400	32,000
Fixed administrative	700	56,000
Total operating expenses	1,700	136,000
Net income before taxes	4,200	336,000

Required:

(a) Should AC Division undertake the 5% price reduction on its air conditioner units even if it cannot acquire the compressors internally for Rs. 5,000 each? Support your conclusion with appropriate calculation. **12**

(b) Independently of your answer to requirement **(a)** above, assume AC Division needs 16% increase in its units. Should the Auxiliary Division be willing to supply the compressor units for Rs. 5,000 each? Support your conclusions with appropriate calculations. **12**

(c) Independently of your answer to requirement **(a)** above, assume AC Division needs 16% increase in its units. Suppose Zephyr Industries' top management has specified a transfer price of Rs. 5,000. Would it be in the best interest of Zephyr Industries for the Auxiliary Division to supply the compressor units at Rs. 5,000 each to the AC Division? Support your conclusions with appropriate calculations. **04**

(d) Is Rs. 5,000 a goal-congruent transfer price? Refer to your answers for requirements **(b)** and **(c)** above. **02**

CASE # 2

The Stylish Carpet Company has been growing rapidly during the past 5 years. Recently, its commercial bank urged the company to consider increasing its permanent financing. Its bank loan under a line of credit has risen to Rs. 5 million, carrying an 8% interest rate. The company has been 30 to 60 days late in paying trade creditors.

Discussions with an investment banker have resulted in a decision to raise Rs. 10 million at this time. Investment banker has assured the company that the following alternatives are feasible (ignore floatation cost):

Alternative-1:

Sell common stock at Rs. 80.

Alternative-2:

Sell convertible bonds at an 8% coupon, convertible into 10 shares of common stock for each Rs. 1,000 bond (i.e., the conversion price is Rs. 100 per share)

Alternative-3:

Sell debentures at 8% coupon, each Rs. 1,000 bond carrying 10 warrants to buy common stock at Rs. 100.

Mr. Jawad Ahmed, the managing director, owns 80% of the common stock and wishes to maintain control of the company. Two hundred thousand shares are outstanding. The following are extracts of latest financial statements of Stylish Carpet Company:

Balance Sheet **Rs. '000'**

Total assets	11,000	Current liabilities	8,000
		Common stock, par Rs.10	2,000
		Retained earnings	1,000
Total	11,000	Total	11,000

Income Statement **Rs. '000'**

Sales	22,000
Cost of good sold	19,800
EBIT	2,200
Interest	400
EBT	1,800
Taxes (40%)	720
Net income	1,080
Shares outstanding (000)	200
Earnings per share	5.4
Price/ earnings ratio	15
Market price of stock	81

Required:

(a) Show the new balance sheet under each alternative. For Alternatives-2 and 3, show the balance sheet after conversion of the bonds or exercise of the warrants. Assume that half of the funds raised will be used to pay off the bank loan and half to increase total assets. **06**

(b) Show control position of Mr. Jawad Ahmed under each alternative, assuming that he does not purchase additional shares. **03**

(c) What is the effect on earnings per share of each alternative, if it is assumed that EBIT will be 20% of total assets? **15**

(d) What will be the debt ratio under each alternative? **03**

(e) Which of the three alternatives would you recommend to Stylish Carpet Company? **03**

THE END