The Institute of Chartered Accountants of Pakistan

Business Finance Decisions

Final Examination	5 December 2012
Winter 2012	100 marks - 3 hours
Module F	Additional reading time - 15 minutes

Q.1 ABM Limited is contemplating a major capacity expansion project that will require an investment of Rs. 6,000 million. It plans to raise this amount on 01 January 2013 from a combination of debt and equity in such a way as to arrive at a debt equity ratio of 60:40 in terms of market value.

The projected capital structure of ABM on 31 December 2012 is as follows:

	Rs. in million
Ordinary share capital (Rs. 10 each)	2,500
Retained earnings	2,000
	4,500
Term finance certificates (Rs. 100 each)	5,000

Earnings per share of the company for the year ending 31 December 2012 is projected at Rs. 3.50 per share whereas the price of its shares on the above date is expected to be Rs. 19.55 per share. ABM plans to offer shares at 80% of their market value.

Existing TFCs were issued on 01 July 2009 and carry a coupon rate of 12% payable semi-annually. Principal repayment is due on 30 June 2014. Due to increase in market interest rates, the TFCs are currently trading at a discount providing an yield to maturity of 14%. Consequently, the new debt would be offered at a coupon rate of 14% per annum. All other terms and conditions would remain the same.

Required:
(a) Calculate the amount to be raised by issue of debt and equity. **(08)**
(b) Compute the number of right shares to be issued and the ex-right price. **(03)**
(c) Assess whether the debt equity ratio would remain within the threshold, on 30 June 2013, if:
- the yield to maturity comes down to 13%; and
- the net profit and P/E ratio increase by 15% and 5% respectively. **(07)**

(Ignore taxation)

Q.2 (a) Discuss any ***five*** limitations of NPV technique when applied generally to investment appraisal. **(05)**

(b) CDN Limited uses a machine for manufacturing some of its products. The machine is replaced every three years. Considering the high maintenance costs in the third year, CDN is considering to revise its replacement policy from three years to two years. Details of purchase price, maintenance costs and net realizable value at **current prices** are as follows:

	Year 0	Year 1	Year 2	Year 3
Purchase price (Rs.)	3,200,000	-	-	-
Maintenance costs (Rs.)	-	130,000	245,000	480,000
Net realizable value (Rs.)	-	-	1,280,000	700,000

Annual increase in purchase price, maintenance costs and net realizable value is estimated at 10%, 15% and 8% respectively. The weighted average cost of capital of the company is 18%.

Required:
Determine whether CDN should revise its replacement policy. **(15)**

Q.3 (a) GHP Limited is a fast growing business which operates a chain of petrol pumps across the country. The company is committed to an aggressive strategy of expansion through acquisition. It is considering to acquire 100 percent shareholding in IJQ Limited that operates a chain of CNG stations on the highways. GHP is contemplating to offer 1 share for every 3 shares held in IJQ.

Latest financial data of GHP and IJQ are summarised below:

Statement of Financial Position

	GHP	IJQ
	Rs. in million	
Non-current assets	5,220	2,340
Current assets minus current liabilities	1,640	900
	6,860	3,240
Less: Non-current liabilities	1,240	120
	5,620	**3,120**
Ordinary share capital (Rs. 10 each)	3,000	2,000
Retained earnings	2,620	1,120
	5,620	**3,120**

Statement of Comprehensive Income

	GHP	IJQ
	Rs. in million	
Revenue	11,280	4,840
Net profit after taxation	6,580	3,760
Dividend	1,316	1,880

Average share price for each company in recent years has been as follows:

	2009	2010	2011	2012
	--------------------Rupees--------------------			
GHP	70	96	138	186
IJQ	48	64	68	58

GHP's board of directors feel that there is a strong synergy between the two businesses which will lead to an increase of Rs. 300 million per year in combined after tax profit, following the acquisition. Both GHP and IJQ are listed companies and their cost of capital is 13% and 18% respectively.

Required:

(i) Calculate the share price of GHP following the takeover, assuming price earnings ratio of the company is maintained and the synergy is achieved as expected. **(05)**

(ii) Calculate the cost of equity of the merged entity. You may use any reasonable assumption wherever necessary. **(05)**

(b) Mr. Danish, a shareholder of IJQ, has expressed concern over the bid. He claims that, following the acquisition, the annual dividends are likely to be lower as GHP normally pays small dividends. As he relies on dividend income to cover his living expenses, he is concerned that he will be worse off following the acquisition. He also believes that price offered for the shares of IJQ is too low.

Required:

Discuss the bid from the point of view of shareholders of IJQ including the concerns raised by Mr. Danish. **(08)**

Q.4 KLR Limited has two operating segments viz. Paints and Chemicals. Break-up of its shareholders' equity is as follows:

	Rs. in million
Share capital (Rs. 10 each)	2,000
Retained earnings	11,765

Latest segment-wise financial information of KLR is summarized below:

	Chemicals	Paints
	Rs. in million	
Revenue	3,150	2,500
Gross profit	378	650
Net profit after tax	220	330
Assets		
Non-current assets	6,610	5,250
Current asset	7,930	6,300
Liabilities		
Non-current liabilities - 12% Debentures (Rs. 100 each)	2,100	1,950
Current liabilities	4,770	3,505

KLR's current share price is Rs. 13 per share and the market value of its debenture is Rs. 101.50. The risk free interest rate and market return are 8% and 14% respectively. KLR's equity beta is 1.15. Debentures are redeemable at par in ten years.

The company is considering a demerger whereby the two segments would be listed separately on the stock market. The existing equity would be split between the segments based on the net assets held by each segment. The following information is relevant for the purpose of demerger:

(i) Transfers to the Paint Segment account for 25% of the revenues of the Chemicals Segment. The transfers are made at cost. After the demerger, all transactions would be made on an 'arms length basis'.
(ii) Common expenses amounting to Rs. 100 million are shared by the two segments on the basis of their revenues. After the demerger, cost of such expenses for Chemicals and the Paints entities would be Rs. 70 million and Rs. 30 million respectively.
(iii) The average equity betas of the companies associated with the Chemicals and Paints business is 1.2 and 1.5 respectively and the average debt equity ratios are 60:40 and 70:30 respectively.
(iv) Projected cash flows for Year 1 are as follows:

	Chemicals	Paints
	------Rs. in million------	
Pre-tax operating cash flows	280	360
Tax deprecation	70	40

From Year 2, projected cash flows and profit after tax are expected to grow at 5% per annum in perpetuity.

Tax rate is 35%. Tax is payable in the year in which the relevant cash flows arise.

Required:
(a) Calculate the weighted average cost of capital of both companies after demerger. **(10)**
(b) Using cash flows, evaluate whether the demerger would be financially advantageous for KLR's existing shareholders. **(15)**

Q.5 EFO Pakistan Limited intends to make an investment of Rs. 3,000 million. Besides Pakistan, EFO has the option to invest either in UAE or in Bangladesh. The total market value of the company's existing share capital is Rs. 9,000 million.

Estimates of returns on investment are presented below:

Economic Performance	**Probability**	**Current and Expected Return in Pakistan %**	**Expected Return % on investment in**	
			UAE	**Bangladesh**
Low growth	0.3	2	5	3
Average growth	0.5	8	9	11
High growth	0.2	14	13	19

Standard deviation of expected returns are as follows:

UAE	5.12
Bangladesh	8.05
Pakistan	1.34

Co-variances of expected returns are as follows :

Pakistan/UAE	5.96
Pakistan/ Bangladesh	10.66

Directors of EFO have different viewpoints about the proposed investment which are summarised below:

(i) Since the company does not have any prior experience of investment abroad, it should focus exclusively on exploring opportunities within Pakistan because investment abroad carries inherent risks.
(ii) Investment abroad will offer the company the opportunity to achieve a much better combination of risk and return than purely domestic investments, and will open up new opportunities.
(iii) Since expected returns are high in Bangladesh, the company should invest there and subsequently increase the company's investment in Bangladesh.

Required:
(a) Calculate the anticipated risks and returns on the proposed investment. **(11)**
(b) Briefly discuss the viewpoints of the directors about the proposed investment. **(04)**
(c) What other factors, in your opinion, would have a bearing on the investment decision? **(04)**

(THE END)