THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Final Examinations Winter 2006

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BUSINESS FINANCE DECISIONS (MARKS 100)

Module F **(3 hours)**

Q.1 Following data has been extracted from the published financial statements of Progressive Limited.

	2004	2005	2006
	-----Rupees in thousand-----		
Cash Flows from Operating Activities			
Net profit	8,640	10,400	13,080
Depreciation	14,400	19,800	24,000
Interest expense	4,000	5,200	5,200
Provision for taxation	2,160	2,600	3,270
Changes in working capital			
Trade debtors	(500)	(2,000)	(1,500)
Trade creditors	200	900	400
Short term investments	(1,000)	(6,000)	(1,000)
Interest paid	(4,000)	(5,200)	(5,200)
Taxes paid	(2,160)	(2,600)	(3,270)
	21,740	**23,100**	**34,980**
Cash Flows from Investing Activities			
Additions to factory building and plants	-	(45,000)	(35,000)
Acquisition of land	(26,000)	(5,000)	-
	(26,000)	**50,000)**	**(35,000)**
Cash Flows from Financing Activities			
Quoted Debt issued at Par value	-	15,000	-
Issuance of shares of Rs. 10 at par value	-	15,000	-
	-	**30,000**	**-**
Net Cash Flows during the year	**(4,260)**	**3,100**	**(20)**
Cash at the beginning of the year	4,800	540	3,640
Cash at the end of the year	**540**	**3,640**	**3,620**

(i) Further information is given below:

	2004	2005	2006
Market price of shares at the beginning of the year (Rs.)	14.4	14.4	17
Monthly sales (Rs. in '000')	3,750	5,000	6,000
Debt at the beginning (Rs. in '000')	50,000		
Number of shares outstanding at the beginning (in million)	5.0		

(ii) The following information relates to the period 2003 to 2006:

Market form	Semi-strong
Risk free rate of return	5%
Market rate	12%
Comparable security beta	2.0
Comparable Debt/Equity ratio	60:40
Market price of quoted debt (Par value Rs.1,000)	1280

Land was purchased in view of medium term speculative gain available in real estate market.

(iii) Market price of the company's share at the end of the year 2006 was Rs. 19.20 per share.

Progressive Limited, formed in 1996, has been managed by an employed management consisting of highly qualified executives. The board of directors allows them maximum free hand to operate the business. The management has always been keen in expansion and highlights the growth in revenues as a proof of its success.

The relatively high level of liquidity is justified by the management as cover for monthly expenditure and to avail the benefits of any investment opportunity that needs an immediate decision.

Recently, directors are receiving severe criticism from the shareholders on company's profit retention policy. Mr. Q, one of the directors, is a friend of yours. He shared the above information with you and requested you to give your advice.

Required:
Prepare a brief note containing the following:

(a) Computation of 'Free cash flows' of the company along with other inflows. **(07)**

(b) Brief comments on application of the funds generated from the free cash flows and other inflows. **(07)**

(c) Review of retention policy from the shareholders' perspective, for each year separately. **(09)**

Q.2 Management of Accurate Limited is interested in evaluating the expected effect of a recently announced tax rate reduction by the government on its share price and the cost of capital. The announced tax cut has reduced the tax from 35% to 30%.

Accurate’s current capital structure is as follows:

	Rupees in million
Issued, subscribed and paid up share capital – Par value Rs 10	600
Share premium account	480
Other revenue reserves	620
Shareholders’ equity	1,700
10% irredeemable debentures – Par value Rs. 100	500
	2,200

The company’s shares are currently trading at Rs 32 per share ex-dividend, and debentures at Rs 125 per debenture.

Prior to tax change, the value of company’s equity beta was 1.2. The market return is 13% p.a. The tax cut is expected to increase the net present value of company’s operating cash flows by Rs 150 million.

Required:

(a) Estimate the company's current cost of capital **(05)**

(b) Using Modigliani & Miller's theory of capital structure, estimate the following after the change in tax rate:

(i) the expected share price **(04)**
(ii) the company's expected cost of capital **(07)**

(c) Explain why a 5% fall in tax rate could not materially affect company's cost of capital? **(04)**

Q.3 You are the management accountant of a company that is in the process of evaluating a new investment opportunity. Traditionally, the company has been using the Net Present Value method for such evaluation, using its cost of capital of 10% as the discount rate.

You have recently studied the concept of Residual Income and are keen to apply the methodology at this new project. Following is the data you have collected about this project:

(i) Sales in the first operating years are expected to be Rs 1 million. The sale in nominal terms is expected to increase by 20% p.a. that includes price increase of 2% per annum.
(ii) Raw material cost in first year of the operation is expected to be 30% of sales revenue. The raw material price is subject to an annual increase of 5%.
(iii) The production will require specialized labour. In first operating year, labour cost is estimated to be 25% of sales revenue. An annual increment rate of 10% has been agreed with the labour union.
(iv) All other production costs (predominantly fixed) will be Rs 100,000 in today's terms. Any increase in price of such expenses is expected to be matched with efficiency.
(v) Project life is spanned over five operating years.
(vi) Funding requirement will be Rs 1 million upfront to start the project. The funding source is not expected to alter the company's required rate of return.

The company plans to redeem the combined equity raised for this specific project along with the cost thereon in five equal installments

Required:

Using annuity depreciation as appropriate, compute the residual income expected from the project, in respect of each of the five years. **(09)**

Q.4 Fresh Limited is a manufacturer of four products A, B, C and D. While planning for the coming year, the management is concerned about declining trend in the sales of A and expected increase of variable cost of B. However, they are confident about the continuity of the sale of B, C and D.

Data pertaining to last year is as under:

	A	**B**	**C**	**D**
Sales (thousands of units)	12,000	6,000	1,800	2,000
Fixed cost (Rs. per unit)	25	20	5	14
Variable cost (Rs. per unit)	32	20	4.50	13
Selling price (Rs. per unit)	75	60	15	25

Current year's budget forecast is as under:

Sales (thousands of units)	11,400	7,000	2,000	2,000

Variable cost of item B is estimated as Rs. 21 per unit.

Discontinuance of production of D is also under consideration at least till next year when the management will be in a position to increase its price.

Required:
The management has made the budget with reasonable care. Given the circumstances the real challenge for the management would be to at least maintain the last year's profitability. Determine which of the following variable is most sensitive when viewed in relation to the objective of maintaining the level of profitability.

- Volume of product A
- Price of product A
- Variable cost of product B **(14)**

Q.5 A company is analysing its short term investment strategy so as to select the appropriate risk level in relation to investments for the coming year. Return for the coming year is a function of the level of risk taken by the company in investment strategy and the performance of market in the year ahead.

For decision making purposes, the level of risk that can be taken has been classified in discrete categories representing High, Medium or Low level of risk. Similarly the market performance has also been divided into similar performance achievements i.e. High, Medium and Low levels of performance.

A schedule has been prepared showing the expected absolute returns in each of the possible scenarios as follows:

Return on:	Market Performance	Rs.
High risk investment	High	1,500,000
	Medium	900,000
	Low	300,000
Medium risk investment	High	875,000
	Medium	1,250,000
	Low	500,000
Low risk investment	High	500,000
	Medium	750,000
	Low	850,000

The probability profile for the market performance in the year ahead has been estimated as High – 30%, Medium – 40% and Low – 30%.

The company is considering services of a market analyst who can provide information about the performance of market on timely basis enabling the company to switch quickly, from one investment to the other.

Required:
(a) Advise the company as to what level of risk it should be willing to take for its investments in the coming year without hiring the services of analyst, to maximize expected value? **(08)**

(b) Assuming that the information generated by the analyst will be perfect, what is the maximum amount that the company may pay for such services? **(04)**

Q.6 Prudent Limited imports two major chemicals from USA, which are sold to a limited number of buyers. Company negotiates the price of the product with the buyers at the start of every half year.

Historically, US $ is getting stronger against Pak Re. that exposes the company to exchange rate risk. For many years the company has been hedging all of its forex transactions by way of forward booking.

You have recently joined the company as finance director and have been assigned to prepare financial plan for the coming half year starting from January 01, 2007. While reviewing forex hedging policy, you noticed that other avenues like futures and options have never been evaluated by the management.

Following information is available with you:

- Company plans its imports on half yearly basis.
- The buyers have indicated their requirements at 6,000 kgs. for the coming year.
- The chemical is currently available at US $ 106/kg.
- Supply to buyers is almost evenly divided into months.
- Economic Order Quantity for the chemical is 500kgs.
- Import bills are paid one month after the date of order.
- Rates of interest on Rupee account and on US $ account are 10% and 5% per annum respectively.

Assumptions to be made:

Following options will be available for sale with brokers on January 01, 2007.

	Strike price Rs.	**Option cost Rs. / $**					
		Jan	**Feb**	**Mar**	**April**	**May**	**June**
Call Option	60.65	0.40	0.60	0.92	1.18	1.38	1.50
Put Option	60.65	0.35	0.51	0.85	1.05	1.29	1.35

Market quotes of futures on January 01, 2007 will be as under:

Maturing on:	
January 31, 07	60.45/$ - 60.65/$
February 28, 07	61.27/$ - 61.50/$
March 31, 07	61.55/$ - 61.75/$

Required:

(a) Suggest your preferred hedging choice with justification. **(04)**

(b) To evaluate your suggestion given in (a) above, the board has requested you to prepare a comparison of hedging effect in money term through forward, options and futures assuming that following spot rates will be quoted in the market.

January 01, 07	60.10/$ - 60.50/$
January 31, 07	60.50/$ - 60.75/$
February 28, 07	60.05/$ - 60.20/$
March 31, 07	60.75/$ - 60.90/$

(18)

(THE END)