

June 07, 2001

## STRATEGIC FINANCIAL MANAGEMENT

(MARKS 100)

## PE-2 (PAPER-2)

(3 HOURS)

- Q 1 Pills Ltd is involved in manufacturing and distribution of pharma products. Currently company manufactures and sells locally developed products. The financials of the company are as follows:

Balance Sheet	Rupees
Fixed Assets	1,000,000
Stocks-Raw material	250,000
-WIP	50,000
-Finished products	200,000
Debtors	600,000
Other current assets	100,000
	<u>2,200,000</u>
Creditors	400,000
Other liabilities	100,000
Long term loan	1,000,000
Equity	700,000
	<u>2,200,000</u>
Profit and loss account	
Sales	2,000,000
Cost of goods sold	<u>1,200,000</u>
	800,000
Selling and admin. cost	<u>300,000</u>
Interest cost	<u>200,000</u>
Profit before tax	300,000
Less: Tax @ 43%	<u>( 129,000)</u>
Profit after tax	<u>171,000</u>

Company's stock level remains the same throughout the year. Company's purchases amount to Rs 1 million for the year.

The company is considering to launch a new product with foreign collaboration. To promote the manufacturing of the product, the government has announced a subsidy of 5% at cost of product including selling and admin. cost but excluding presumptive tax, to be reimbursed to the company. The new product shall increase company's sale by Rs 3 million. The raw material of new product shall be imported and the annual imports will cost Rs 1.5 million. However, first year imports shall cost company Rs 2 million. The imports

will be subject to 6% presumptive tax at the import stage after which no tax shall be levied on the profits of the company from the sale of the new product. The amount of presumptive tax paid shall not be treated as part of cost of goods sold/stocks. Other conversion and selling and admin. expenses are estimated to be Rs 200,000 and Rs 160,000 respectively. Company's existing production and storage facilities are sufficient to handle the new product requirements.

The credit payment period on imports shall be 60 days. The debtors collection period relating to the new product is 90 days whereas the bad debts are estimated to be 2% of the total sale of new product. The closing stock of the new product at the end of the year shall be:

	Rupees
Raw Material	250,000
WIP	50,000
Finished products	200,000

### Required:

- Calculate company's existing cash cycle (05)
- Calculate company's earnings after tax after the launch of new product, assume interest cost to increase by Rs 400,000 (05)
- Calculate company's new cash operating cycle (10)

Q 2 Pearl Bank Ltd is entering into a transaction with a large manufacturing company in which the bank will extend a one year loan of Rs 1,200 million to the company which shall be partially secured against company's dollar deposits of US\$ 10 million. The transaction has to be structured in a way to leave a spread of 2% with the bank after paying for bank's cost.

You are required to price the transaction while considering the followings:

- The deposit of US\$10 million shall be placed in one year term deposit @ 4% per annum
- The bank shall obtain a forward cover on principal (US\$10 million) plus profits from the State Bank of Pakistan (SBP) @ 8% p a, paid in advance in Rupees
- The bank shall be required to keep 5% cash reserve on the deposit with the SBP which shall earn no return
- The bank shall arrange for remaining financing as follows:
  - Rs 300 million from deposits
  - Rs 300 million from money market borrowing
- The bank's cost of deposits after taking effect of SBP cash reserve requirement is 12% p a
- The bank's borrowing from money market for one year shall cost 10% p a
- For all other deals, bank uses 11% as its cost of capital
- Rupee/US\$ exchange rate is 60

(10)

(3)

Q 3 (a) Best Ltd carries out projects with different risk & return profile. The average return on similar industry are 18% with a standard deviation of 10% whereas the company's cost of capital is 22%. The company is considering 4 projects with the following risks and returns:

Project	Outlay (Rupees '000)	Expected inflow in one year (Rupees '000)	Risk (Standard Deviation)	Correlation Coefficient between industry returns and project returns
A	1,500	1,700	12%	+0.3
B	1,800	2,100	20%	+0.1
C	1,800	2,100	16%	+0.6
D	2,000	2,340	14%	+0.1

If the return on AAA one-year government bonds is 12%, you are required to calculate the following:

- i) Best Ltds' beta factor (02)
- ii) Beta factor for each project (04)
- iii) CAPM required return for each project (02)
- iv) Expected rate of return of each project (02)

You are also required to decide for each project whether the project should be accepted or rejected. (02)

- (b) What are the advantages of CAPM (02)
- (c) What are the limitations of CAPM (02)

Q 4 The Oyster Group, a large manufacturing group is holding surplus funds to be used to acquire new investments. You being the group Financial Controller wants to acquire Silver Bank Ltd, a leading medium-sized local commercial bank, to diversify the operations of the group. Your board having no background of financial institutions is reluctant to consider the idea. You are required to prepare a report for the board containing the appraisal of the bank you have identified for acquisition. You need not to discuss the valuation aspect at this early stage of discussions. The report must also include the followings:

- advantages of diversification
  - benefits of owning a bank by the group
- (Assume necessary details to support the acquisition of the bank) (20)

Q 5 The Kay Company has the following capital structure at 31.03.98, which is considered to be optimum.

	Rupees
14% Debentures	300,000
11% Preference	100,000
100,000 Equity Shares	<u>1,600,000</u>
	2,000,000

The Company's share has current market price of Rs.23.60 per share. The expected dividend per share next year is 50% of 1998 EPS. The followings are the earnings per share figure for the company during the preceding 10 years. The past trends are expected to

(04)

Year	EPS Rs.	Year	EPS Rs.
1989	1.00	1995	1.77
1990	1.10	1996	1.95
1991	1.21	1997	2.15
1992	1.33	1998	2.36
1993	1.46		
1994	1.61		

The company can issue 16% new debentures. The company's debentures is currently selling at Rs.96. The company's marginal tax rate is 50%.

- Calculate the after-tax costs (i) of new debts (ii) of ordinary equity assuming new equity comes from retained earnings. (08)
- Find the marginal cost of Capital, again assuming no ordinary shares are sold. (02)
- How much can be spent for capital investment before new ordinary must be sold? Assume that retained earnings available for next year's investments are 50% of 1998 earnings. (03)
- What is the marginal cost of capital [cost of funds revised in excess of amount calculated in part (c) if the firm can sell new ordinary shares to net Rs.20 a share)? The cost of capital (preference) and of debt is constant. (04)

Q 6(a) Explain the logic of the arbitrage pricing model (APM)? How does it compare and contrast with CAPM. (05)

- An aggressive mutual fund promises an expected return of 16% with a possible volatility (standard deviation) of 20%. On the other hand, a conservative mutual fund promises an expected return of 13% and volatility of 15%.
  - which fund would you like to invest in? (02)
  - would you like to invest in both if you have the money (02)
  - assuming you are borrowing money from provident fund at an opportunity cost of 10%, which fund you would invest your money in? (02)
  - would you consider both funds if you could lend or borrow money at 10% (02)

(c) A portfolio consists of three securities P,Q and R with the following parameters:

	P	Q	R	Correlation coefficient
Expected return (%)	25	22	20	
Standard Deviation (%)	30	26	24	
Correlation coefficient				
PQ				-0.5
QR				+0.4
PR				+0.6

If the securities are equally weighted, how much is the risk and return of the Portfolio of these three securities? (04)

(THE END)