

**PAPER 2 : MANAGEMENT ACCOUNTING AND FINANCIAL ANALYSIS
NOVEMBER 2001**

Answer Any Five Question

Question 1

- (a) XYZ Ltd., an infrastructure company is evaluating a proposal to build, operate and transfer a section of 35 kms of road at a project cost of Rs.200 crores to be financed as follows:
Equity Share Capital Rs.50 crores, loans at the rate of interest of 15% p.a. from financial institutions Rs.150 crores. The project after completion will be opened to traffic and a toll will be collected for a period of 15 years from the vehicles using the road. The company is also required to maintain the road during the above 15 years and after the completion of that period, it will be handed over to the Highway authorities at zero value. It is estimated that the toll revenue will be Rs.50 crores per annum and the annual toll collection expenses including maintenance of the roads will amount to 5% of the project cost. The company considers to write off the total cost of the project in 15 years on a straight line basis. For Corporate income tax purposes the company is allowed to take depreciation at 10% on WDV basis. The financial institutions are agreeable for the repayment of the loan in 15 equal annual instalments – consisting of principal and interest.
Calculate project IRR and Equity IRR. Ignore Corporate taxation.
Explain the difference in Project IRR and Equity IRR.

- (b) Consider the following information for Strong Ltd.,
- | | |
|------------|-------------------|
| EBIT | 1,120 Rs. In lakh |
| PBT | 320 Rs. in lakh |
| Fixed cost | 700 Rs. In lakh |

Calculate the percentage of change in earnings per share, if sales increased by 5 per cent.

(14+6=20 Marks)

Question 2

- (a) DD amusement park charges Rs.4 each for all rides in the park. Variable costs amount to Re. 0.80 per ride and fixed costs are Rs.32,00,000. Last year's net income was Rs.6,40,000 on sales of Rs.48,00,000. Rising costs have cut sharply into net income for DD for the last 2 years. This year management again expects a cost increase of 25 per cent in variable costs and 10 per cent in fixed costs. To help offset these increases, the management is considering raising the price of a ride to Rs.5.

Required :

- (1) How many rides did DD sell last year?
 - (2) If the price increase is not implemented, what is the expected net income for this year assuming the same volume of activity?
 - (3) Compute the price indifference point for the new ride price.
 - (4) Compute the break even point for this year using the old price and the new price.
 - (5) Should management raise the price of a ride, if the price increase will reduce ride volume 10 per cent from the last year's level? In that situation what will be the expected net income ?
- (b) Airlines Company entered into an agreement with Airbus for buying latest planes for a total value of F.F (French Franc) 1,000 Million payable after 6 months. The current spot exchange rate is INR(Indian Rupees) 6.60/F.F. The Airline company cannot predict the exchange rate in the future. Can the Airlines Company hedge its Foreign Exchange risk. Explain by examples.

Question 3

- (a) A firm has a bond outstanding Rs.3,00,00,000. The bond has 12 years remaining until maturity has a 12.5 per cent coupon and is callable at Rs.1.050 per bond, it had flotation costs of Rs.4,20,000, which are being amortised at Rs.30,000 annually. The flotation costs for a new issue will be Rs.9,00,000 and the

current interest rate will be 10 per cent. The after tax costs of the debt is 6 per cent. Should the firm refund the outstanding debt? Show detailed workings. Consider Corporate Income – tax rate at 50%

- (b) IOPS has an equity capital of 12 million, total debt of 8 million and sales last year were 30 million
- It has a target Assets – to – sales ratio of .667, a target Net Profit margin of .04, a target D.E.Ratio of .667 and target earnings retention rate of .75. In a steady state, what is its sustainable growth rate?
 - Suppose the company has established for the next year a target Asset-to-Sales ratio of .62, a target Net Profit margin of .05, and a target D.E ratio of .80. it wishes to pay an annual dividend of 3 million and raise 1 million in equity capital next year. What is its sustainable growth rate for next year? (Million = Million Rupees)
- (c) The total market value of the equity share of O.R.E Company is Rs.60,00,000 and the total value of the debt is Rs.40,00,000. The turnover estimate that the beta of the stock is currently 1.5 and that the expected risk premium on the market is 10 per cent. The treasury bill rate is 8 per cent.
- Required:
- What is the beta of the Company's existing portfolio of Assets?
 - Estimate the Company's cost of capital and the discount rate for an expansion of the company's present business. **(8+6+6=20 Marks)**

Question 4

A company is considering its working capital investment and financial policies for the next year. Estimated fixed assets and current liabilities for the next year are Rs.2.60 crore and Rs.2.34 crore respectively. Estimated sales and EBIT depend on current assets investments, particularly inventories and book-debts. The Financial Controller of the company is examining the following alternative Working Capital Policies:

Working capital policy	Investment in Current Assets	(Rs. Crores)	
		Estimated sales	EBIT
Conservative	4.50	12.30	1.23
Moderate	3.90	11.50	1.15
Aggressive	2.60	10.00	1.00

After evaluating the working capital policy, the financial controller has advised the adoption of the moderate working capital policy. The company is now examining the use of long term and short term borrowings for financing its assets. The company will use Rs.2.50 crore of the equity funds. The corporate tax rate is 35%. The company is considering the following debt alternatives:

Financing Policy	Short term Debt	Long term debt
Conservative	0.54	1.12
Moderate	1.00	0.66
Aggressive	1.50	0.16
Interest rate average	12%	16%

You are required to calculate the following:

- Working Capital Investment for each policy;
 - Net Working Capital position.
 - Rate of Return
 - Current ratio.
- Financing for each policy
 - Net working capital position
 - Rate of return on shareholders equity.
 - Current ratio.

(20 Marks)

OR

G Manufacturing Company is an important producer of lawn furniture and decorative objects for the patio and garden. The last year's income statement and balance sheet are as follows.

Income Statement

	Rs.
Sales	75,00,000
Variable costs	46,90,000
Contribution	28,10,000
Fixed costs	14,00,000
Earnings before interest and tax (EBIT)	14,10,000
Interest	2,00,000
Earnings before tax (EBT)	12,10,000
Taxation	6,05,000
Net income after tax	6,05,000

Balance sheet

Liabilities	Rs.	Assets	Rs.
Equity capital	10,00,000	Fixed assts	60,00,000
Reserves and surplus	42,00,000	Inventory	6,00,000
Long term debt (10%)	20,00,000	Receivables	7,00,000
Current liabilities	5,00,000	Cash	4,00,000
	77,00,000		77,00,000

Figures for industry comparison:

Normal Asset Turnover 1.2:1

Normal Profit Margin 20%

For the Current year, the a\forecasted sales are Rs.80,00,000 and it is likely that variable costs will remain at approximately the same percentage of sales as was in the last year. (Figures could be rounded off). Fixed costs will rise by 10%

G has short listed the following two product lines to be sold through its existing distribution channels.:

- (1) Production and sale of metal table and chair unit that will be sold for issue around swimming pools. This will require an investment of Rs.20,00,000, which would involve installation of manufacturing and packaging machinery. Sales forecast are Rs.15,00,000 per annum, variable costs account for $\frac{2}{3}$ rd of sales value, fixed costs are Rs.2,00,000 and no additional working capital is needed.
- (2) Hardwood Planter with three separate components, will be appropriate for medium sized shrubs. This will require an investment of Rs30,00,000 with forecasted sales . per annum of Rs.25,00,000, variable costs 64% of sales value and fixed costs of Rs.5,00,000.

Two financial plans are available:

- (a) It could borrow on a 10 years note at 9 per cent for either or both of the projects of an amount not to exceed Rs.60,00,000
- (b) Cumulative preference shares with a 10 per cent dividend upto an amount of Rs.30,00,000.

Financing through the issue of equity shares would not be possible at the present time.

Required:

- (1) Without the proposals, what would be the company's operating. Fixed charges and Combined leverages next year? Would the company have favorable financial leverage?
- (2) How does the acceptance of each project affect the differing leverages including asset leverages?
- (3) With each financing alternative, do the company's future earning per share increase or decrease, Why?

(20 Marks)

Question 5

(4×5=20 Marks)

Write short notes on any four of the following:

- (a) Factors determining the dividend policy of a company.

- (b) Advantages of a depository system.
- (c) Effect of inflation on inventory management.
- (d) Economic value added method(EVA).
- (e) Restrictive covenants placed by a lender on a borrower in cases of term lending for projects.