

Roll No.

Total No. of Questions—6]

[Total No. of Printed Pages—5

Time Allowed—3 Hours

Maximum Marks—100

NOC

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi medium. If a candidate who has not opted for Hindi medium, answers in Hindi, his answers in Hindi will not be valued.

Question No. 1 is compulsory. Answer any **four** questions from the rest. Figures in the margin indicate marks allotted to each question.

Working notes should form part of the answer.

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1. (a) Shivam Ltd. is considering two mutually exclusive projects A and B. Project A costs Rs. 36,000 and project B Rs. 30,000. You have been given below the net present value probability distribution for each project : 14

Project A		Project B	
NPV estimates (Rs.)	Probability	NPV estimates (Rs.)	Probability
15,000	0.2	15,000	0.1
12,000	0.3	12,000	0.4
6,000	0.3	6,000	0.4
3,000	0.2	3,000	0.1

- (i) Compute the expected net present values of projects A and B.
- (ii) Compute the risk attached to each project i.e. standard deviation of each probability distribution.
- (iii) Compute the profitability index of each project.
- (iv) Which project do you recommend ? State with reasons.

NOC

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(2)

NOC

Marks

- ✓(b) Presently a company is working with an earning before interest and taxes (EBIT) of Rs. 90 lakhs. Its present borrowings are as follows : 6

Rs. in lakhs

12% term loan	300
Working capital borrowings :	
Borrowing from bank at 15%	200
Fixed deposits at 11%	90

The sales of the company are growing and to support this, the company proposes to obtain additional borrowing of Rs. 100 lakhs at a cost of 16%. The increase in EBIT is expected to be 18%. Calculate the present and the revised interest coverage ratio and comment.

2. ✓(a) Following information is provided relating to the acquiring company Mani Ltd. and the target company Ratnam Ltd. : 10

	Mani Ltd.	Ratnam Ltd.
Earnings after tax (Rs. lakhs)	2,000	4,000
No. of shares outstanding (lakhs)	200	1,000
P/E ratio (No. of times)	10	5

Required :

- (i) What is the swap ratio based on current market prices ?
- (ii) What is the EPS of Mani Ltd. after the acquisition ?
- (iii) What is the expected market price per share of Mani Ltd. after the acquisition, assuming its P/E ratio is adversely affected by 10% ?
- (iv) Determine the market value of the merged Co.
- (v) Calculate gain/loss for the shareholders of the two independent entities, due to the merger.

- ✓(b) X Ltd. reported a profit of Rs. 65 lakhs after 35% tax for the financial year 2007-08. An analysis of the accounts revealed that the income included extraordinary items Rs. 10 lakhs and an extraordinary loss Rs. 3 lakhs. The 10

NOC

(3)

NOC

Marks

existing operations, except for the extraordinary items, are expected to continue in the future; in addition, the results of the launch of a new product are expected to be as follows :

	Rs. lakhs
Sales	60
Material costs	15
Labour costs	10
Fixed costs	8

You are required to :

- (a) Compute the value of the business, given that the capitalisation rate is 15%.
- (b) Determine the market price per equity share, with X Ltd.'s share capital being comprised of 1,00,000 11% preference shares of Rs. 100 each and 40,00,000 equity shares of Rs. 10 each and the P/E ratio being 8 times.

3. ✓(a) Sundaram Ltd. discounts its cash flows at 16% and is in the tax bracket of 35%. For the acquisition of a machinery worth Rs. 10,00,000, it has two options—either to acquire the asset by taking a bank loan @ 15% p.a. repayable in 5 yearly instalments of Rs. 2,00,000 each plus interest or to lease the asset at yearly rentals of Rs. 3,34,000 for five (5) years. In both the cases, the instalment is payable at the end of the year. Depreciation is to be applied at the rate of 15% using 'written down value' (WDV) method. You are required to advise which of the financing options is to be exercised and why. 14

Year	1	2	3	4	5
P.V. factor @ 16%	0.862	0.743	0.641	0.552	0.476

- (b) Briefly explain the term "capital rationing". 6
4. (a) The equity share of VCC Ltd. is quoted at Rs. 210. A 3-month call option is available at a premium of Rs. 6 per share and a 3-month put option is available at a premium of Rs. 5 per share. 10

NOC

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(4)

NOC

Marks

Ascertain the net payoffs to the optionholder of a call option and a put option, given that :

- (i) the strike price in both cases is Rs. 220; and
- (ii) the share price on the exercise day is Rs. 200, 210, 220, 230, 240.

Also indicate the price range at which the call and the put options may be gainfully exercised.

- (b) A mutual fund that had a net asset value of Rs. 16 at the beginning of a month, made income and capital gain distribution of Re. 0.04 and Re. 0.03 respectively per unit during the month, and then ended the month with a net asset value of Rs. 16.08. Calculate monthly and annual rate of return. 4
 - (c) Explain the term "debt securitisation". 6
5. (a) The following 2-way quotes appear in the foreign exchange market : 6

	Spot	2 Months Forward
RS/US \$	Rs. 46.00/Rs. 46.25	Rs. 47.00/Rs. 47.50

Required :

- (i) How many US dollars should a firm sell to get Rs. 25 lakhs after 2 months ?
 - (ii) How many Rupees is the firm required to pay to obtain US \$ 2,00,000 in the spot market ?
 - (iii) Assume the firm has US \$ 69,000 in current account earning no interest. ROI on Rupee investment is 10% p.a. Should the firm encash the US \$ now or 2 months later ?
- (b) X & Co. is contemplating whether to replace an existing machine or to spend money in overhauling it. X & Co. currently pays no taxes. The replacement machine costs Rs. 95,000 and requires maintenance of Rs. 10,000 every year at the year end for eight years. At the end of eight years, it would have a salvage value of Rs. 25,000 and would be sold. The existing machine requires 10

NOC

(5)

NOC

Marks

increasing amounts of maintenance each year and its salvage value falls each year as follows :

Year	Maintenance (Rs.)	Salvage (Rs.)
Present	0	40,000
1	10,000	25,000
2	20,000	15,000
3	30,000	10,000
4	40,000	0

The opportunity cost of capital for X & Co. is 15%. You are required to state, when should the firm replace the machine :

(Given : Present value of an annuity of Re. 1 per period for 8 years at interest rate of 15%—4.4873; present value of Re. 1.00 to be received after 8 years at interest rate of 15%—0.3269)

- (c) According to the position taken by Miller and Modigliani, dividend decision does not influence value. Please state briefly any two reasons, why companies should declare dividend and not ignore it. 4
6. (a) What is sensitivity analysis in Capital budgeting ? 6
- (b) Z Co. Ltd. issued commercial paper worth Rs. 10 crores as per following details : 4
- | | |
|--------------------|--------------------|
| Date of issue : | 16th January, 2009 |
| Date of maturity : | 17th April, 2009 |
| No. of days : | 91 |
| Interest rate | 12.04% p.a. |
- What was the net amount received by the company on issue of CP ? (Charges of intermediary may be ignored)
- (c) Explain briefly the advantages of investing in mutual funds. 5
- (d) Write a brief note on the Small Industries Development Bank of India. 5

NOC