

Roll No.....

Total No. of Questions—6]

[Total No. of Printed Pages—6

Time Allowed—3 Hours

Maximum Marks—100

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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) DL Services is in the business of providing home services like plumbing, sewerage line cleaning etc. There is a proposal before the company to purchase a mechanized sewerage cleaning line for a sum of Rs. 20 lacs. The life of the machine is 10 years. The present system of the company is to use manual labour for the job. You are provided the following information : 12

Cost of machine	Rs. 20 lacs
Depreciation	20% p.a. straight line
Operating cost	Rs. 5 lacs per annum
Present system	
Manual labour	200 persons
Cost of Manual labour	Rs. 10,000 (ten thousand) per person per annum

The company has an after tax cost of funds of 10% per annum. The applicable rate of tax inclusive of surcharge and cess is 35%.

Based on the above you are required to :

- State whether it is advisable to purchase the machine.
- Compute the savings/additional cost as applicable, if the machine is purchased.

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(b) P Ltd. invested on 1.4.2006 in Equity shares as below :

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Company	Number of Shares	Cost (Rs.)
M Ltd.	1,000 (Rs. 100 each)	2,00,000
N Ltd.	500 (Rs. 10 each)	1,50,000

In September, 2006, M Ltd. paid 10% dividend and in October, 2006, N Ltd. paid 30% dividend.

On 31.3.2007, market price of shares of M Ltd. and N Ltd. were Rs. 220 and Rs. 290 respectively.

P Ltd. have been informed by their investment advisers that :

(i) Dividends from M Ltd. and N Ltd. for the year ending 31.3.2008 are likely to be 20% and 35% respectively.

(ii) Probabilities of market quotations on 31.3.2008 are :

Probability Factor	Price of share of M Ltd.	Price of share of N Ltd.
0.2	220	290
0.5	250	310
0.3	280	330

You are required to :

(i) Calculate the average return from the portfolio for the year ended 31.3.2007.

(ii) Calculate the expected average return from the portfolio for the year 2007-08.

(iii) Advise P Ltd. of the comparative risk of two investments by calculating the Standard deviation in each case.

2. (a) A company has a choice of investments between several different equity oriented mutual funds. The company has an amount of Rs. 1 crore to invest. The details of the mutual funds are as follows :

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Mutual Fund

A
B
C
D
E

Beta

1.6
1.0
0.9
2.0
0.6

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Required :

- (i) If the company invests 20% of its investment in the first two mutual funds and an equal amount in the mutual funds C, D and E, what is the beta of the portfolio ?
- (ii) If the company invests 15% of its investment in C, 15% in A, 10% in E and the balance in equal amount in the other two mutual funds, what is the beta of the portfolio ?
- (iii) If the expected return of market portfolio is 12% at a beta factor of 1.0, what will be the portfolios' expected return in both the situations given above ?

- (b) A holds the following portfolio :

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Share/Bond	Beta	Initial Price Rs.	Dividends Rs.	Market Price at end of year Rs.
Epsilon Ltd.	0.8	25	2	50
Sigma Ltd.	0.7	35	2	60
Omega Ltd.	0.5	45	2	135
GOI Bonds	0.99	1,000	140	1,005

Calculate :

- (i) The expected rate of return on his portfolio using Capital Asset Pricing Method (CAPM)
- (ii) The average return of his portfolio.

Risk-free return is 14%.

$$14\% + 0.8 \left(\frac{50 - 25}{25} \right) + 0.7 \left(\frac{60 - 35}{35} \right) + 0.5 \left(\frac{135 - 45}{45} \right) + 0.99 \left(\frac{1005 - 1000}{1000} \right)$$

3. (a) The following is the Balance Sheet of a Private Limited Company as at 31st March, 2008 : 16

Capital and Liabilities	Rs.	Property and Assets	Rs.
<i>Share capital :</i>		<i>Fixed assets :</i>	
Authorised : 8,000 Equity shares of Rs. 100 each	8,00,000	Cost	6,00,000
10,000 11% Cumulative Preference shares of Rs. 100 each	10,00,000	Less depreciation	2,00,000
Issued, subscribed and paid up :		<i>Current assets :</i>	
4,000 Equity shares of Rs. 100 each fully paid up	4,00,000	Stock in trade	2,00,000
Reserve	1,00,000	Sundry debtors	4,00,000
15% Unsecured debentures	2,00,000	Cash and bank balances	1,00,000
Trade creditors and creditors for expenses	4,00,000		
	<u>Rs. 11,00,000</u>		<u>Rs. 11,00,000</u>

The company finds that a very profitable market exists for its products and with a little expansion, it could generate more sales at the present selling prices. The expansion calls for an investment of Rs. 8,00,000 in Fixed assets and Rs. 2,00,000 in Current assets. It is ascertained that the current annual profits in the region of Rs. 3,00,000 will be enhanced by 50% due to the expansion.

The debt-equity ratio applicable generally to the industry in which the company is engaged is 2 : 1.

Please advise the management on the various methods available to it to meet the cost of financing the expansion, keeping in mind the interest of the equity shareholders.

- (b) Explain the difference between a Repo and a Reverse Repo transaction.

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4. (a) Given below is the Balance Sheet of S Ltd. as on 31.3.2008 :

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		(Rs. in lakh)	
Liabilities	Rs.	Assets	Rs.
Share capital (Shares of Rs. 10)	100	Land & Buildings	40
Reserves and Surplus	40	Plant & Machinery	80
Creditors	30	Investments	10
		Stock	20
		Debtors	15
		Cash & bank	5
	<u>170</u>		<u>170</u>

You are required to work out the value of the Company's shares on the basis of Net Assets method and Profit-earning capacity (capitalisation) method and arrive at the fair price of the shares, by considering the following information :

- Profit for the current year Rs. 64 lakhs includes Rs. 4 lakhs extraordinary income and Rs. 1 lakh income from investments of surplus funds; such surplus funds are unlikely to recur.
- In subsequent years, additional advertisement expenses of Rs. 5 lakhs are expected to be incurred each year.
- Market value of Land and Building and Plant and Machinery have been ascertained at Rs. 96 lakhs and Rs. 100 lakhs respectively. This will entail additional depreciation of Rs. 6 lakhs each year.
- Effective Income-tax rate is 30%.
- The capitalisation rate applicable to similar businesses is 15%.

(b) Comment briefly on the social cost benefit analysis in relation to evaluation of an Industrial project.

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5. (a) M Ltd. belongs to a risk class for which the capitalisation rate is 10%. It has 25,000 outstanding shares and the current market price is Rs. 100. It expects a net profit of Rs. 2,50,000 for the year and the Board is considering dividend of Rs. 5 per share.

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M Ltd. requires to raise Rs. 5,00,000 for an approved investment expenditure. Show, how does the MM approach affect the value of M Ltd., if dividends are paid or not paid.

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(b) A company is considering hedging its foreign exchange risk. It has made a purchase on 1st January, 2008 for which it has to make a payment of US \$ 50,000 on September 30, 2008. The present exchange rate is 1 US \$ = Rs. 40. It can purchase forward 1 US \$ at Rs. 39. The company will have to make a upfront premium of 2% of the forward amount purchased. The cost of funds to the company is 10% per annum and the rate of Corporate tax is 50%. Ignore taxation. Consider the following situations and compute the Profit/Loss the company will make if it hedges its foreign exchange risk :

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(i) If the exchange rate on September 30, 2008 is Rs. 42 per US \$.

(ii) If the exchange rate on September 30, 2008 is Rs. 38 per US \$.

(c) Briefly explain, what is 'refinancing', indicating any two institutions which offer this facility.

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6. Write short notes on the following :

4×5=20

(a) Venture capital financing

(b) Inter-bank participation certificate

(c) Distinction between Money market and Capital market

(d) Credit cards as part of Consumer finance

(e) Stock Lending Scheme.

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