

Paper 14 - Advanced Financial Management

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Full Marks: 100

Time allowed: 3 Hours

Answer Question No. 1 which is compulsory and carries 20 marks
and any five from Question No. 2 to 8.

Section A

[20 marks]

1. (a) Answer all questions, each question carries 2 marks [Marks 7*2=14]

(i) X Ltd. issued ₹ 100, 12% Debentures 5 years ago. Interest rates have risen since then, so that debentures of the company are now selling at 15% yield basis. What is the current expected market price of the debentures?

(ii)

Given:	Last year	Current year
Sales unit	2,000	2,800
Selling price per unit	₹ 10	₹ 10
EPS	₹ 9.60	₹ 38.40

What is the Degree of Combined Leverage?

(iii) MI Ltd. has annual sales of ₹ 365 lacs. The company has investment opportunities in the money market to earn a return of 15% per annum. If the company could reduce its float by 3 days, what would be the increase in company's total return? (Assume 1 year = 365 days)

(iv) In the inter-bank market, the DM is quoting ₹ 21.50. If the bank charges 0.125% commission for TT selling, what is the TT selling rate?

(v) The required rate of return on equity is 24% and cost of debt is 12%. The company has a capital structure mix of 80% of equity and 20% debt. What is the overall rate of return, the company should earn? Assume no tax.

(vi) Consider the following quotes:

Spot (Euro/Pound) = 1.6543/1.6557

Spot (Pound/NZ's) = 0.2786/0.2800

Calculate the % spread on the Euro/Pound Rate.

(vii) Initial Investment ₹ 20 lakh. Expected annual cash flows ₹ 6 lakh for 10 years. Cost of capital @ 15%. What is the Profitability Index? The cumulative discounting factor @ 15% for 10 years = 5.019.

(b) State if each of the following sentences is T (= True) or F (= False), Each Question carries 1 mark. [Mark: 6*1=6]

(i) External Commercial Borrowing (ECB) is the amount borrowed by the Government through designated agents from All India Financial Institutions (AIFIs).

(ii) European Option can be exercised any time during option period.

(iii) FPA policy is a minimum liability insurance and gives only a partial cover for losses.

(iv) Forward Exchange Rate contract is for the purchase or sale of a specified quantity of a specified currency price as agreed today.

(v) Risk Adjusted Discount Rate (RADR) = Risk Free Return X Premium for facing the risk.

(vi) Price of contract changes every day in Futures.

Section-B

Answer any 5 Questions from the following. Each Question carries 16 Marks.

2. (a) A company is considering two mutually exclusive projects X and Y. Project X costs ₹3,00,000 and Project Y ₹3,60,000. You have been given below the net present value, probability distribution for each project:

Project X		Project Y	
NPV Estimate	Probability	NPV Estimate	Probability
₹		₹	
30,000	0.1	30,000	0.2
60,000	0.4	60,000	0.3
1,20,000	0.4	1,20,000	0.3
1,50,000	0.1	1,50,000	0.2

(i) Compute the expected net present value of Projects X and Y.

(ii) Compute the risk attached to each project i.e., Standard Deviation of each probability distribution.

(iii) Which project do you consider more risky and why?

(iv) Compute the profitability index of each project. [Marks 12]

2. (b) The risk free return is 8 per cent and the return on market portfolio is 14 per cent. If the last dividend on Share 'A' was ₹2.00 and assuming that its dividend and earnings are expected to grow at the constant rate of 5 per cent. The beta of share 'A' is 2.50. Compute the intrinsic value of share A. [Marks 4]

3. (a) A mutual fund made an issue of 800000 units of ₹10 each on 01.04.2016. No entry load was charged. It made the following investments after meeting its issue expenses.

	₹
40,000 Equity Shares of ₹100 @ ₹160	64,00,000
At par:	
8% Government Securities	6,40,000
9% Debentures (unlisted)	4,00,000
10% Debentures (listed)	4,00,000
	78,40,000

During the year, dividend of ₹9,60,000 was received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year on 31.03.2017, equity shares and 10% debentures were quoted at 175% and 90% of the respective par value. Other investments were at par. The operating expenses during the year amounted to ₹4,00,000.

(i) Find out the Net Assets Value (NAV) per unit at the end of the year.

(ii) Find out the NAV if the Mutual Fund had distributed a dividend of ₹0.90 per unit

during the year to the unit holders.

[Marks 9]

3. (b) The data pertaining to 5 mutual funds is given below:

Fund	Return	Standard deviation (σ)	Beta (β)
J	13	6	1.50
K	9	2	0.90
L	11	3	1.20
M	15	5	0.80
N	12	4	1.10

Compute the reward- to- variability/volatility ratios and rank the funds, if the risk-free rate is 6%. [Marks 7]

4. (a) A Ltd has an expected return of 22% and standard deviation of 40%. B Ltd. has an expected return of 24% and standard deviation of 38%. A Ltd. has a beta of 0.86 and B Ltd. has a beta of 1.24. The correlation coefficient between the return of A Ltd. and B Ltd. is 0.72. The standard deviation of the market return is 20%. Suggest:

- Is investing in B Ltd. better than investing in A Ltd.?
- If you invest 30% in B Ltd. and 70% in A Ltd., what is your expected rate of return and portfolio standard deviation?
- What is the market portfolios expected rate of return and how much is the risk-free rate?
- What is the beta of portfolio if A Ltd.'s weight is 70% and B Ltd.'s weight is 30%?

[Marks 8]

- (b) Compute Return under CAPM and the Average Return of the Portfolio from the following information:

Investment	Initial Price	Dividends	Market Price at the end of the year	Beta Risk Factor
A. Cement Ltd	25	2	50	0.80
Steel Ltd	35	2	60	0.70
Liquor Ltd	45	2	135	0.50
B. Govt. of India Bonds	1,000	140	1005	0.99

Risk Free Return = 14%

[Marks 8]

5. (a) State the term "Contango" and "Backwardation" as used with respect to Future Contracts.[4 marks]
 (b) Draw a relationship between call option and put option in put-call parity theory. [4 Marks]
 (c) Compute the theoretical price of the following securities for 6 months:

Securities of	A Ltd	B Ltd.	C Ltd.
Spot Price	₹5,450	₹450	₹1,050
Dividend Expected	₹60	₹25	₹60
Dividend Receivable in	2 months	3 months	4 months
6 month's futures contract rate	₹5,510	₹490	₹1,070

You may assume a risk-free interest rate of 9% p. a.

What action do you recommend to benefit from futures contract?

[8 Marks]

6. (a) On 1st April, 3 months interest rate in the US and Germany are 6.5 percent and 4.5 percent per annum respectively. The \$/DM spot rate is 0.6560. What would be the forward rate for DM for delivery on 30th June? [8 marks]

(b) Describe the role of hedging as foreign exchange risk management. [8 Marks]

7. (a) A company wish to acquire an asset costing ₹1,00,000. The company has an offer from a bank to lend @ 18%. The principal amount is repayable in 5 years end installments. A leasing Company has also submitted a proposal to the Company to acquire the asset on lease at yearly rentals of ₹ 280 per ₹ 1,000 of the assets value for 5 years payable at year end. The rate of depreciation of the asset allowable for tax purposes is 20% on W.D.V with no extra shift allowance. The salvage value of the asset at the end of 5 years period is estimated to be ₹1,000. Whether the Company should accept the proposal of Bank or leasing company, if the effective tax rate of the company is 50%? The Company discounts all its cash flows at 18%.

P.V factor at 18%

Year-end	1	2	3	4	5
PV factor @ 18%	0.847	0.718	0.609	0.516	0.437

[Marks 12]

7. (b) An investor is seeking the price to pay for a security, whose standard deviation is 4.00 per cent. The correlation coefficient for the security with the market is 0.8 and the market standard deviation is 2.2 per cent. The return from government securities is 5.2 per cent and from the market portfolio is 9.8 percent. The investor knows that, by calculating the required return, he can then determine the price to pay for the security. What is the required return on the security? [Marks 4]

8. (a) Trie market received rumor about XYZ Corporation's tie - up with a multinational company. This has induced the market price to move up. If the rumor is false, the XYZ Corporation's stock price will probably fall dramatically. To protect from this an investor has bought the call and put options. He purchased one 3 months call with a strike price of ₹42 for ₹2 premium, and paid ₹1 per share premium for a 3 months put with a strike price of ₹40.

(i) Determine the Investor's position if the tie up offer bids the price of XYZ Corporation's stock up to ₹44 in 3 months.

(ii) Determine the Investor's ending position, if the tie up programme fails and the price of the stocks falls to ₹35 in 3 months. [Marks 8]

(b) Write short notes on Green Shoe Option. [Marks 4]

(c) Features of Global Depository Receipt (GDR). [Marks 4]