Paper 14: Advance Financial Management
Answer Question No.1 which is compulsory

Total Allowed: 3hours **Full Marks: 100**

1.

(a) NTPC Ltd will be receiving ₹ 60 Lakhs by way of interim dividend from its subsidiary in 4 months. At the end of the year it will be receiving ₹ 110 Lakhs by way of final dividend and interest on loans to subsidiaries. What is the present value of such interest and dividends if the weighted average cost of capital for NTPC Ltd is 13.50% and the Company discounts continuous compounding for income by way of dividends and interests? **[5]**

(b) Wipro LTD. paid a dividend of ₹2.60 during the last year and the growth rate in the dividends are expected to be 8%. The current market price of the stock is ₹30.00. The beta of the stock is 1.60 and the return on the market index is 13%. If the risk free-free rate of return is 8%, by how much should the price of the stock be raised in percentage terms so that it is at equilibrium? **[3]**

(c) Write any three differences between the primary market and the secondary market.**[3]**

(d) A stock costing ₹140 pays no dividends. The possible prices that the Stock might sell for at the end of the year with the respective probabilities are given below. Compute the Expected Return and its standard Deviation. **[4]**

Price	135	140	145	150	155	160
Probability	0.1	0.1	0.2	0.3	0.2	0.1

(e) Company is forced to choose between two machines X and Y. The machines are designed differently, but have identical capacity and do exactly the same job. Machine X costs ₹ 75,000 and will last for 3 years. It costs ₹ 20,000 per year to run. Machine Y is an 'economy' model costing only ₹ 50,000, but will last only for 2 years, and costs ₹ 30,000 per year to run. These are real cash flows. The costs are forecasted in rupees of constant purchasing power. Ignore tax. Opportunity cost of capital is 10 per cent. Which machine Company should buy? **[5]**

Section A

(Answer any two of the following)

2.

a) What are the factors affecting fluctuation of call rate? Point out the measures adopted from time to time for stabilizing call rates?

b) The following are the data on Five mutual funds-

Fund	Return	Standard Deviation	Beta
Laheri	15	7	1.25
Mitra	1 8	10	0.75
Vredhi	14	5	1.40
Varsha	12	6	0.98
Raksha	16	9	1.50

What is the reward – to – variability ratio and the ranking if the risk – free rate is 6%?

[(4+4) +4]

3. Write short notes three of the following
(a) No Ombudsman for hearing complaints against NBFCs
(b) Certificate of Deposits
(c) Repo and Reverse Repo
(d) Objectives of Commodity Futures. **[3 × 4 = 12]**

4.
(a) A Mutual Fund Co. has the following assets under it on the close of business as on:

Company	No. of Shares	1st February 2013 Market price per share(₹)	2nd February 2013 Market Price per share (₹)
P Ltd	10,000	20.00	20.50
Q Ltd	15,000	312.40	360.00
R Ltd	10,000	361.20	383.10
S Ltd	30,000	505.10	503.90

Total No. of Units 3, 00,000
i) Calculate Net Assets Value (NAV) of the Fund.
ii) Following information is given: Assuming one Mr. Basu, submits a cheque of ₹ 15, 00,000 to the Mutual Fund and the Fund manager of this company purchases 4,000 shares of Q Ltd; and the balance amount is held in Bank. In such a case, what would be the position of the Fund?
iii) Find new NAV of the fund as on 2nd February 2013.

(b) An aggressive mutual fund promises an expected return of 18 per cent with a possible volatility (standard deviation) of 20%. On the other hand, a conservative mutual fund promises an expected return of 17 per cent and volatility of 19%.
i) Which fund would you like to invest in?
ii) Would you like to invest in both if you have money?
iii) Assuming you can borrow money from your provident fund at an opportunity cost of 10%, which fund you would invest your money in?
iv) Would you consider both funds if you could lend or borrow money at 10%? **[8+4=12]**

Section – B
(Answer any one of the following)

5.
(a) The shares of JSW Steel Ltd are currently priced at ₹415 and call option exercisable in three month's time has an exercise rate of ₹400. Risk Free Interest Rate is 5% p.a. and Standard Deviation (volatility) of share Price is 22%. Based on the assumption that JSW Steel Ltd is not going to declare any dividend over the next three months is the option worth buying for ₹25?
i) Calculate value of aforesaid call option based on Black Scholes Valuation Model if the current Price is considered as ₹380.
ii) What would be the worth of put option if current price is considered ₹380?

(b) Considering the following quotes
Spot (Euro/Pound) = 1.6543/1.6557
Spot (Pound/NZ$) =0.27860/0.2800
i) Calculate the % spread on the Euro/Pound Rate
ii) Calculate the % spread on the Pound/NZ$ Rate

iii) The maximum possible % spread on the cross rate between the Euro and the NZ$.

(c) Make a critical assessment of WTO's contributions to world trade. **[10+5+5]**

6.

(a) The price of Compact Stock of a face value of ₹10 on 31st December, 2012 was ₹414 and the futures price on the same stock on the same date i.e., 31st December, 2012 for March, 2013 was ₹444.

Other features of the contract and the related information are as follows.

- Time to expiration 3 months (0.25 year)
- Annual dividend on the stock of 30% payable before 31.3.2012.
- Borrowing Rate is 20 % p.a.

Based on the above information, calculate future price for Infosys stock on 31st December, 2012. Please also explain whether any arbitrage opportunity exists.

(b) NMDC Ltd is considering a project in US, which will involve an initial investment of US $55,00,000. The project will have 5 years of life. Current spot exchange rate is ₹ 48 per US $. The risk free rate in US is 8% and the same in India is 12%. Cash inflows from the project are as follows —

Years	1	2	3	4	5
Cash Inflow (US $)	10,00,000	12,50,000	15,00,000	20,00,000	25,00,000

Calculate the NPV of the project using foreign currency approach. Required rate of return on this project is14%.

(c) MNC rolls over a $25 million loan priced at LIBOR on a three-month basis. The company feels that interest rates are rising and that rates will be higher at the next roll- over date in three months. Suppose the current LIBOR is 5.4375%. Explain how MNC can use FRA at 6% offered by a bank to reduce its interest rate its FRA? Assume the three month period as 90 days. **[8+7+5]**

Section C

(Answer any one of the following)

7. Ms Mitrika an analyst at Aasheesh Securities Ltd. is considering the stocks of Aftek Ltd. And Paraan Ltd. For investment. Expected returns on these stocks depend on the growth rate GDP. The conditional returns of the market and the stocks are given below:

Economic Scenario GDP growth rate	Probability	Return on (%)		Return on market %
		Aftek Ltd.	Paraan Ltd.	
1.00 - 3.00%	0.18	15	9	7
3.00 - 6.00%	0.24	25	14	11
6.00 - 8.00%	0.26	38	27	18
More than 8.00%	0.32	46	33	25

The expected risk-free return is 6.5%
Assume that CAPM holds well in the market
You are required to

i) Calculate the ex-ante-betas for the two stocks.
ii) Find out whether the stocks of Aftek Ltd. And Paraan Ltd. Are underpriced or overpriced.
iii) Calculate the proportion of systematic risk and unsystematic risk for both the companies.
iv) Determine which stock the analyst would suggest to invest. **[16]**

8.

(a) Stock A has a Beta of 1.50 and a market expectation of 17% return. For Stock B, it is 0.80 and 14.5% respectively. If the risk free rate is 7% and the market risk premium is 8%, evaluate whether these two stocks are priced correctly? I these two stocks to be regarded as correctly priced, what should the risk free rate and market risk premium be?

(b) What are the weaknesses of technical analysis? Explain the differences of Security Market Line (SML) and Characteristic Line. **[8+8]**

Section D

(Answer any one of the following)

9.

(a) Pearls Builders has been approached by a foreign embassy to build for it a block of six flats to be used as guest houses. As per the terms of the contract, the foreign embassy would provide Pearls Builders the plans and the land costing ₹25 lakhs. Pearls Builders would build the flats at their own cost and lease them to the foreign embassy for 15years. At the end of which the flats will be transferred to the foreign embassy for a nominal value of ₹ 8 lakh. Pearls Builders estimates the cost of constructions as follows:

Area per flat, 1,000 sq. feet ; Construction cost, ₹400 per sq. feet ; Registration and other costs, 2.5 per cent of cost of construction; Pearls Builders will also incur ₹4 lakhs each in years 14 and 15 towards repairs.

Pearls Builders proposes to charge the lease rentals as follows:

Years	Rentals
1 - 5	Normal
6 – 10	120 per cent of normal
11 - 15	150 per cent of normal

Pearls builders present tax rate averages at 35 per cent which is likely to be the same in future. The full cost of construction and registration will be written off over 15 years at a uniform rate and will be allowed for tax purposes.

You are required to calculate the normal lease rental per annum per flat. For your exercise you may assume: (a) Minimum desired return of 10 per cent, (b) Rentals and repairs will arise on the last day of the year, and, (c) Construction, registration and other costs will be incurred at time= 0.

(b) You are analyzing the beta for ROYAL Computers Ltd. and have dividend the Company into four broad business groups, with market values and betas for each group.

Business Group	Market value of Equity	Unleveraged beta
Main frames	₹100 billion	1.10
Personal Computers	₹ 100 billion	1.50
Software	₹ 50 billion	2.00
Printers	₹ 150 billion	1.00

ROYAL Computers Ltd. had ₹ 50 billion in debt outstanding.

Required:

i. Estimate the beta for ROYAL Computers Ltd. as a Company. Is this beta going to be equal to the beta estimated by regressing past returns on ROYAL Computers stock against a market index. Why or Why not?

ii. If the treasury bond rate is 7.5% estimate the cost of equity of ROYAL Computers Ltd. Estimate the cost of equity for each division. Which cost of equity would you use to value the printer division? The average market risk premium is 8.5%. **[10+10]**

10.

(a) Computronics India Ltd. has been analyzing the firm's policy regarding computers, which are now being leased on a yearly basis on rental amounting to ₹ 1,00,000 per year. The computers can be bought for ₹ 5,00,000. The purchase would be financed by 16% loan repayable in 4 equal annual installments.
On account of rapid technological progress in the computer industry, it is suggested that a 4-year economic life should be used, instead of the 10-year physical life. It is estimated that the computers would be sold for ₹ 2,00,000 at the end of 4 years.
The company uses the straight line method of depreciation. Corporate tax rate is 50%.

i) Comment on whether the equipment should be bought or leased?
ii) Analyse the financial viability from the point of view of the lessor, assuming 14% cost of capital.
iii) Determine the minimum lease rent at which the lessor would break even.
iv) Determine the lease rent which will yield an IRR of 16% to the lessor.

(b) "Cost of capital is used by a company as a minimum benchmark for its yield". Comment. Also enumerate the applications of cost of capital in managerial decisions.

(c) An entity has ₹ 100 lakhs existing funds financed ₹ 40 lakhs from equity share capital, ₹ 30 lakhs from retained earnings and ₹30 lakhs from 12% debentures. It requires additional funds of ₹ 40 lakhs. These can be financed ₹ 20 lakhs from 14% debentures and ₹ 20 lakhs from new issue of equity shares. Tax rate applicable to the company is 40%. The company is expecting to pay ₹4 per share at the end of the year. The company is growth rate of dividends is expected to be 9% perpetually. Market price per equity share is ₹40 per share. Issue price of the new equity shares is expected to be ₹35 per share. Flotation cost to the issue is ₹3 per share. Compute weighted marginal cost of capital.

[10+6+4=20]