Paper 14 – Strategic Financial Management

Paper – 14 – Strategic Financial Management

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. Choose the correct option among four alternative answer. (1 mark for correct choice, 1 mark for justification.)   **[10*2=20 marks]**

   (i) A mutual Fund had a Net Asset Value (NAV) of ₹72 at the beginning of the year. During the year, a sum of ₹6 was distributed as Dividend besides ₹ 4 as Capital Gain distributions. At the end of the year, NAV was ₹ 84. Total return for the year is:
   (A) 33.65%
   (B) 30.56%
   (C) 32.65%
   (D) 31.46%

   (ii) The following two types of securities are available in the market for investment:

Security	Return %	Standard Deviation%
Gilt-edge Security	7	0
Equity	25	30

   Using the above two securities, if you are planning to invest ₹1,00,000 to construct a portfolio with a standard deviation of 24%, what is the return of such portfolio?

   (A) ₹21700
   (B) ₹21600
   (C) ₹21500
   (D) ₹21400

   (iii) A characteristic line is formed by regressing
   (A) Stock prices with market index
   (B) Beta with required rate of return
   (C) Standard deviation with required rate of return
   (D) Stock returns with market returns

   (iv) Which of the following is not a source of systematic risk?
   (A) Market risk
   (B) Interest rate risk
   (C) Purchasing power risk
   (D) Financial risk

(v) A Call Option at a strike price of ₹ 280 is selling at a premium of ₹23. At what share price on maturity will it break-even for the buyer of the option?

(A) ₹303/-

 (B)₹257/-

(C) ₹300/-

(D) ₹280/-

(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.

(A) 0.0805%

(B) 0.0080%

(C) 0.8501%

(D) 0.0850%

(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.

(A) 1.51

(B) 1.15

(C) 5.15

(D) 0.151

(viii) The following details relate to an investment proposal of XYZ Ltd.

Investment outlay— ₹ 100 lakhs

Lease Rentals are payable at ₹ 180 per ₹ 1,000

Term of lease—8 years

Cost of capital—12%

What is the present value of lease rentals, if lease rentals are payable at the end of the year? [Given PV factors at 12% for years (1-8) is 4.9676.

(A) ₹ 98,14,680

(B) ₹ 89,41,680

(C) ₹ 94,18,860

(D) ₹ 96,84,190

 (ix)Following information is available regarding a mutual fund:

Return	13
Risk (σ)	16
Beta (β)	0.90
Risk free rate	10

Calculate Sharpe ratio.

(A) 0.18

(B) 0.19

(C) 0.20

(D) 0.21

(x) A project had an equity beta of 1.3 and was going to be financed by a combination of 30% debt and 70% equity. Assuming debt-beta to be zero, calculate the project beta and return from the project taking risk free rate of return to be 10% and return on market portfolio of 18%.

(A) 17.28%

(B) 18.28%

(C) 19.28%

(D) 16.28%

Section – B

Answer any five questions from question nos. 2 to 8. Each question carries 16 marks.

2. (a) SHREE LEATHERS LTD. has an investment proposal, requiring an outlay of ₹40,000. The investment proposal is expected to have 2 years' economic life with no salvage value. In year 1, there is a 0.4 probability that Cash Flow After Tax (CFAT) will be ₹ 25,000 and 0.6 probability that CFAT will be ₹ 30,000.

The probabilities assigned to CFAT for the year 2 are as follows:

If CFAT = ₹ 25,000   If CFAT = ₹ 30,000

Amount (₹)	Probability	Amount (₹)	Probability
12,000	0.2	20,000	0.4
16,000	0.3	25,000	0.5
22,000	0.5	30,000	0.1

SHREE LEATHERS LTD. uses a 10% discount rate for this type of investment. Required:

(i) Construct a decision tree for the proposed investment project.

(ii) What Net Present Value (NPV) will the project yield if worst outcome is realised? What is the probability of occurrence of this NPV?

(iii) What will be the best and the probability of that occurrence?

(iv) Will the project be accepted?   [10% discount factor: Year 1 = 0.909 and Year 2 = 0.826]

(b) Megatron 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?   [10+6]

3. (a) A mutual fund made an issue of 800000 units of ₹10 each on 01.04.2017. 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 31.03.2018, 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.

(b) The following particulars are furnished about three Mutual Fund schemes P, Q and R:

Particulars	Scheme P	Scheme Q	Scheme R
Dividend distributed (₹)	1.75	—	1.30
Capital appreciation (₹)	2.97	3.53	1.99
Opening NAV (₹)	32.00	27.15	23.50
Beta	1.46	1.10	1.40

Ascertain the Alpha of the three schemes and evaluate their performance, if Govt. of India Bonds carry an interest rate of 6.84% and the Nifty has increased by 12.13%. **[8+8]**

4. (a) X 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. 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:

i) Is investing in B Ltd. Better than investing in A Ltd.?

ii) If you invest 30% in B Ltd. And 70% in A Ltd., what is your expected rate of return and portfolio standard deviation?

iii) What is the market portfolios expected rate of return and how much is the risk-free rate?

iv) What is the beta of portfolio if A Ltd.'s weight is 70% and B Ltd.'s weight is 30%?

(b) An investor has two portfolios known to be on minimum variance set for a population of three securities R, S and T, having below-mentioned weights:

	W_R	W_S	W_T
Portfolio X	0.30	0.40	0.30
Portfolio Y	0.20	0.50	0.30

Assume that there are no restrictions on short sales.

Required:

(i) What would be the weight for each stock for a portfolio constructed by investing ₹ 6,000 in Portfolio X and ₹ 4,000 in Portfolio Y?

(ii) Suppose the investor invests ₹ 5,000 out of ₹10,000 in Security R. How will he allocate the balance between Security S and T to ensure that his portfolio is on minimum variance set? **[8+8]**

5. (a) From the following data for Government Securities:

Face Value (₹)	Interest rate (%)	Maturity Year	Current Price (₹)
1,00,400	0	1	91,900
1,00,400	10	2	98,900
1,00,400	10.5	3	99,400

Calculate the forward rates.

(b) Determine the value of option, both call and put, on expiry for the stock of Nirmal Spice Foods (NSF) Ltd. from the following information:

Exercise Price   ₹510

Spot price on exercise date ranges between ₹495 and ₹525 with interval of ₹5.

Also state what will be the action on the above range of prices for both the options.   [10+6]

6. (a) You are given the middle rates as under:

₹ 80/£ 1 in London,
₹ 47/US $ in Delhi, and
US $ 1.58/£ 1 in New York.
Compute the Arbitrage gain on ₹ 8,00,000.

(b) ADS Ltd. is considering a project in US, which will involve an initial investment of US $ 1,10,00,000. 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 $)	20,00,000	25,00,000	30,00,000	40,00,000	50,00,000

Calculate the NPV of the project using foreign currency approach. Required rate of return on this project is 14%.   [6+10]

7. (a) ABC Limited has decided to go in for a new model of Mercedes Car. The cost of the vehicle is 40 lakhs. The company has two alternatives: (i) taking the car on finance lease or (ii) borrowing and purchasing the car.

BMN Limited is willing to provide the car on finance lease to ABC Limited for five years at an annual rental of ₹ 8.75 lakhs, payable at the end of the year.

The vehicle is expected to have useful life of 5 years, and it will fetch a net salvage value of 10 lakhs at the end of year five. The depreciation rate for tax purpose is 40% on written-down value basis. The applicable tax rate for the company is 35%. The applicable before tax borrowing rate for the company is 13.8462%.

What is the net advantage of leasing for ABC Limited?

The present value interest factor at different rates of discount are as under:

Rate of Discount	Y-1	Y-2	Y-3	Y-4	Y-5
0.138462	0.8784	0.7715	0.6777	0.5953	0.5229
0.09	0.9174	0.8417	0.7722	0.7084	0.6499

(b) The following two types of securities are available in the market for investment:

Security	Return (%)	Standard Deviation (%)
Gilt-edge Security	7	0
Equity	25	30

Using the above two securities, if you are planning to invest ₹ 1, 00,000 to construct a Portfolio with a standard deviation of 24%, what is the return of such portfolio?   [10+6]

8. Answer any 4 questions out of 5   (4*4=16)

(a) Write short note on GDRs.
(b) Objectives of Commodity Futures.
(c) List four types of market risk.
(d) Key elements of well functioning Financial System.
(e) Role of Financial intermediaries in swap arrangements