Paper 14 – Strategic Financial Management

Paper 14 – Strategic Financial Management

Full Marks: 100 **Time allowed:3 hours**

This paper contains two sections **A** and **B** . **Section A** is compulsory and contains question No.1 for 20 marks. **Section B** contains question Nos. 2 to 8, each carrying 16 marks.
Answer any five questions from **Section B**.

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]

(a) Liquidity risk is a financial risk due to uncertain liquidity. What can this cause to happen?
- A. A firm's credit rating fall.
- B. A firm experiences sudden unexpected cash outflow.
- C. A firm's market experiences a loss in liquidity.
- D. All of the above.

(b) What is inflation rate?
- A. The increase in prices of goods and services in the economy.
- B. The risk that the value of assets or income will decrease.
- C. The risk that inflation will get out of control to become hyperinflation.
- D. The risk that is due to uncertainty of inflation.

(c) What are the four options for dealing with a risk?
- A. Accept, Mitigate, Transfer and Avoid.
- B. Accept, Insure, Transfer and Avoid.
- C. Accept, Mitigate, Reduce and Avoid.
- D. Situation, Task, Action and Result.

(d) A portfolio comprises two securities and the expected return on them is 12% and 16% respectively. Determine return of portfolio if first security constitutes 40% of total portfolio.
- A. 12.4%
- B. 13.4%
- C. 14.4%
- D. 15.4%

(e) An option dealer took short positions in a call and a put options on dollar at the strike price of `47.00. He received premiums of `2.50 for each option. For the dealer to make a gain in this option strategy, price should remain in the range of
- A. `44.50 to `47.00
- B. `47.00 to `49.50
- C. `44.50 to `49.50
- D. `42.00 to `52.00

(f) What rate should a bank quote for a sale of 3 month forward exchange contract for US $1 million given interbank quote spot US $ 1= `45.02-04 and forward premium 20-25 point?

A. `45.29

B. `45.22

C. `45.27

D. `45.24

(g) By using the constant growth formula, find out the cost of equity of a company which has growth rate of 5%, last year's dividend `1.00 and current market price of the company's equity share is `20.

A. `10.25

B. `10.00

C. `8.25

D. `12.00

(h) Consider the following of Target Ltd:
Standard deviation of share = 4%, Correlation coefficient = 0.8, Market standard deviation = 2.5%. Based on CAPM, the Beta coefficient of the company's share (which is traded in the stock market) is equal to

A. 1.50

B. 1.28

C. 1.00

D. 0.50

(i) The probability distribution of NPV is given below:

NPV (`)	Probability
30,000	0.1
60,000	0.3
1,20,000	0.4
1,50,000	0.2

If the cost of the project is `3,00,000, the Profitability Index is

A. 1.23

B. 1.33

C. 1.43

D. 1.53

(j) The following are the data on two Mutual Funds:
Fund, Return % Beta
Vreedhi ,1.4%, 1.4
Mitra ,1.6%,1.50
If the risk-free rate is 6%, the Treynor's ratios are

A. 5.71, 6.67

B. 5.67, 6.71

C. 6.71, 5.67

D. 5.76, 6.76

Section - B [80 Marks]
Answer any five questions

2. (a) Five Projects A, B, C, D and E are available to a company for consideration. The investment required for each project and the cash flows it yields are tabulated below. Projects B and E are mutually exclusive. Taking the cost of capital @ 10%, which combination of projects should be taken up for a total capital outlay not exceeding `6 lakhs on the basis of NPV and Benefit-Cost Ratio (BCR)?

Project	Investment (`)	Cash flow p.a. (`)	No. of years	P.V. @10%
M	1,00,000	36,000	10	6.145
N	2,00,000	1,00,000	4	3.170
O	2,40,000	60,000	8	5.335
P	3,00,000	80,000	16	7.824
Q	4,00,000	60,000	25	9.077

(b) From the following project details calculate the sensitivity of the (a) Project cost, (b) Annual cashflow, and (c) Cost of capital. Which variable is the most sensitive?

Project cost	`24,000
Annual cashflow	`9,000
Life of the project	4 years
Cost of capital	14%

The annuity factor at 14% for 4 years is 2.9137 and at 18% for 4 years is 2.6667.

[8+8=16]

3.(a) A mutual fund made an issue of 1000000 units of `10 each on January 01, 2008. No entry load was charged. It made the following investments:

Particulars	`
50000 Equity shares of `100 each @ `160	80,00,000
7% Government Securities	8,00,000
9% Debentures (Unlisted)	5,00,000
10% Debentures(Listed)	5,00,000

During the year, dividends of `12,00,000 were received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year equity shares and 10% debentures are quoted at 175% and 90% respectively. Other investments are at par.

Find out the Net Asset Value (NAV) per unit given that operating expenses paid during the year amounted to `5,00,000. Also find out the NAV, if the Mutual fund had distributed a dividend of `0.80 per unit during the year to the unit holders.

(b) Orange purchased 200 units of Oxygen Mutual Fund at `45 per unit on 31st December, 2009. In 2010, he received `1.00 as dividend per unit and a capital gains distribution of `2 per unit.

Required:

(i) Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was `48 per unit.

(ii) Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was `48 per unit and all dividends and capital gains distributions have been reinvested at an average price of `46.00 per unit. Ignore taxation.

[8+8=16]

4. (a) The rates of return on security P and market portfolio for 10 periods are given below:

Period	Return on Security P (%)	Return on Market Portfolio (%)
1	20	22
2	22	20
3	25	18
4	21	16
5	18	20
6	-5	8
7	17	-6
8	19	5
9	-7	6
10	20	11

(i) What is the beta of Security P?

(ii) What is the characteristic line for security P?

(b) Share of X Limited has a beta factor of 1.7. The NIFTY has yielded a return of 18.5%. 6.75% `100 Treasury Bills are traded at `107. Ascertain — (a) Expected Return on Shares of Sharee Ltd under CAPM. (b) Alpha Factor of Shares of Sharee Ltd if the past 5 Years actual returns on shares of Sharee Ltd are: 24.5%, 25.6%, 27.2%, 28.3%, 29.8%.

[8+8=16]

5. (a) The following data relates to ABC Ltd.'s share prices:

Current price per share: `180

Price per share in the 6 months futures market: `195

It is possible to borrow money in the market for securities transactions at the rate of 12% per annum.

Required:

(i) Calculate the theoretical minimum price of a 6-month futures contract.

(ii) Explain if any arbitrage opportunities exist.

(b) The equity share of VCC Ltd. is quoted at `210. A 3-month call option is available at a premium of `6 per share and a 3-month put option is available at a premium of `5 per share. Ascertain the net pay offs to the option holder of a call option and a put option.

(i) The strike price in both cases `220, and

(ii) The share price on the exercise day is `200,`210,`220,`230 and `240.

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

[8+8=16]

6. (a) An import house in India has bought goods from Switzerland for SF 1000000. The exported has given the Indian company two options:

(i) Pay immediately the bill for SF 1000000;

(ii) Pay after 3 months with interest 5% p.a.

The importer's bank charges 14% on overdrafts. If the exchange rates are as follows, what should the company do?

Spot (`/SF): 30.00/30.50
3-month (`/SF): 31.10/31.60

(b) Y Ltd has exported goods to UAE for Arab Emirates Dirham (AED) 1000000 at a credit period of 180 days. Rupee is appreciating against the AED and Y Ltd is exploring alternatives to migrate loss due to AED depreciation. From the following information, analyse the possibility of Money Market Hedge.

Foreign Exchange Rates			Money Market Rates		
	Bid	Ask		Borrowing	Lending
Spot	`11.60	`11.90	AED	10%	13%
3 Month Forward	`11.30	`11.50	Rupees	9%	11%

[8+8=16]

7. (a) ABC Ltd. Is considering a proposal to acquire an equipment costing `5,00,000. The expected effective life of the equipment is 5 years. The company has two options – either to acquire it by obtaining a loan of `5,00,000 at 12% p.a or by lease. The following additional information is available:

(i) The principal amount of loan will be repaid in 5 equal yearly instalments.
(ii) The full cost of the equipment will be written off over a period of 5 years on straight line basis and it is to be assumed that such depreciation charge will be allowed for tax purpose;
(iii) The effective tax rate for the company is 40% and the after-tax cost of capital is 10%.
(iv) The interest charge, repayment of principal and lease rentals are to be paid on the last day of each year.

You are required to work out the amount of lease rental to be paid annually, which will match the loan option.

(b) The total market value of the equity share of M Ltd. is `30,00,000 and the total value of the debt is `20,00,000. The treasurer estimate that the beta of the stocks is currently 1.5 and that the expected risk premium on the market is 12 per cent. The Treasury bill rate is 10 per cent.

Required— (i) What is the beta of the Company's existing Portfolio of assets? (ii) Estimate the Company's Cost of Capital and the discount rate for an expansion of the company's present business.

[8+8=16]

8. Write short note on (any four): [4×4=16]

(a) Green Shoe Option.
(b) Participants of Commodity Exchange.
(c) Different types of credit risk.
(d) Forfeiting versus Export Factoring.
(e) Leading and Lagging in Foreign Currency Payments.