Paper 14 – Strategic Financial Management

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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 ₹141.40

Mitra ₹161.50

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

Answer:

1. (a) Correct option is D

Funding liquidity risk is a financial risk due to uncertain liquidity. An institution might lose liquidity if its credit rating falls, it experiences sudden unexpected cash outflows, or some other event causes counterparties to avoid trading with or lending to the institution. A firm is also exposed to liquidity risk if markets on which it depends are subject to loss of liquidity.

(b) Correct option is A

Inflation rate signifies the rate of increase in the prices of goods and services.

(c) Correct option is A

There are basically three options, viz. Accept Transfer, Mitigate and Avoid.

(d) Correct option is C

Portfolio return = 0.4 × 12 + 0.6 × 16 = 14.4%

(e) Correct option is D

He has initially received ₹ (2.50 + 2.50) = ₹ 5.00

When spot price is less than ₹ 47 put option is exercised and call option is not exercised and vice versa. Thus, the price should remain in the range of (47-5) to (47+5) i.e. ₹ 42 to ₹ 52 to ensure gain to the option writer.

(f) Correct option is A

Spot quote is US $ 1 = ₹ 45.02-45.04 and forward premium is 20-25.

So, forward quote will be = ₹ (45.02 + 0.20) – (45.04 + .0.25) i.e. ₹ 45.22-45.29

So, bank will quote ₹ 45.29 to sell a 3 month forward buying contract.

(g) Correct option is A

Cost of equity = Expected dividend/Current Market Price + Growth rate

= 1(1+.05)/20 + 0.05 = 10.25%

(h) Correct Option is B

β = Covariance/variance of market return

$$= \frac{\text{Covariance}}{\text{S. D of Market Return} \times \text{S. D of Stock Return}} \times \frac{\text{S. D of Stock Return}}{\text{S. D of Market Return}}$$

$$= \text{Correlation} \times \frac{\text{S. D of Stock Return}}{\text{S. D of Market Return}} = 0.8 \times \frac{0.04}{0.025} = 1.28$$

(i) Correct option is B

Expected NPV = 30000 × 0.1 + 60000 × 0.3 + 120000 × 0.4 + 150000 × 0.2 = 99000

Cost of the project = 300000

Total PV = 300000 + 99000 = 399000

So, PI = 399000/300000 = 1.33

(j) Correct option is A

Treynor ratio for Vreedhi = (14-6)/1.4 = 5.71 and for Mitra = (16-6)/1.5 = 6.67

Section – B

Answer any *five* questions **[80 Marks]**

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]

Answer:

(a)

Total capital outlay = ₹ 6.00 lakhs

Computation of Net Present Value and Benefit-Cost Ratio for five Projects

(₹)

Project	Investment	Cash flow p.a.	No. of years.	P.V. @ 10%	P.V.	NPV	BCR (PV/Investment
M	1,00,000	36000	10	6.145	221220	120320	2.212
N	2,00,000	100000	4	3.170	317000	117000	1.585
O	2,40,000	60000	8	5.335	320100	80100	1.334
P	3,00,000	80000	16	7.824	625920	325920	2.086
Q	4,00,000	60000	25	9.077	544620	144620	1.362

Statement Showing Feasible Combination of Projects and their NPV, BCR

Feasible combination of projects	Investment (₹)	NPV (₹)	Rank	BCR	Rank
(i) M, N and P	6,00,000	5,64,140	1	1.940	1
(ii) M, N and O	5,40,000	3,18,320	4	1.589	4
(iii) O & P	5,40,000	4,06,020	3	1.752	3
(iv) M & Q	5,00,000	2,65,840	5	1.532	5
(v) N&P	5,00,000	4,42,920	2	1.886	2
(vi) N&Q	6,00,000	2,61,620	6	1.436	6

Comment - The optimum combination of projects, is Projects M, N and P with total investment of ₹ 6.00 lakhs since it has highest NPV & BCR of ₹ 564140 and 1.940 respectively. Hence, the same should be taken up.

(b)

Particulars	₹
Annual cash inflow (9,000 × 2.9137)	26,223
Less: Project cost	24,000
Net present value	2,223

(i) Sensitivity for Project Cost

If the project cost is increased by ₹ 2,223, the NPV of the project will become zero. Therefore, the sensitivity for project cost is = 2,223/24,000 × 100 = 9.27%

(ii) Sensitivity for Annual Cash Inflow

If the present value of annual cash inflow is lower by ₹ 2,223, the NPV of the project will become zero. Therefore, the sensitivity for annual cash flow is = 2223/26223X 100 = 8.48%

(iii) Sensitivity for Cost ofCapital

Let 'x' be the annuity factor which gives a zero NPV i.e. 'x' is the IRR

– 24,000 + 9,000x = 0

Or, 9000x = 24,000

Or, x = 24,000/9,000 = 2.6667

Hence, x = 2.6667 and at 18% for 4 years, the annuity factor is 2.6667.

Sensitivity % = (18% -14%)/14% = 29%

Analysis: The cash inflow is more sensitive, since only 8.5% change in cash inflow will make the NPV of the project zero.

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]

Answer:

(a)

Given, the Total Initial Investments is ₹ 98,00,000, out of issue proceeds of ₹ 1,00,00,000. Therefore, the balance of ₹ 2,00,000 is considered as Issue Expenses.

Computation of Closing NAV

Particulars	Opening value of investment (₹)	Capital appreciation (₹)	Closing value of investment (₹)	Income (₹)
Equity shares	80,00,000	7,50,000 (175-160) × 50,000	87,50,000	12,00,000
7% Govt. Securities	8,00,000	0	8,00,000	56,000
9% Debentures (Unlisted)	5,00,000	0	5,00,000	45000
10% Debentures (Listed)	5,00,000	-50,000 (5,00,000 × 90%-5,00,000)	4,50,000	50,000
	98,00,000	7,00,000	105,00,000	13,51,000

Less. Operating expenses	5,00,000
Net income	8,51,000
Net fund balance (10500000+851000)	113,51,000
Less. Dividend (1000000×0.80)	8,00,000
Net Fund balance after dividend	105,51,000
NAV (Before dividend)	11.351
NAV (After dividend)	10.551

(b)

Return = (Net NAV +Dividend + Capital gain distribution)/Purchase Price ×100

(i) So, return = [(48-45)+1+2]/45 ×100=13.33%

(ii) Amount reinvested = 200×1+200×2.00 = 600

No. of units allotted at average NAV = 600/46 = 13.043 units.

Closing value of Fund Assets = (200+13.043)×48 = 10226.064

Opening value of fund assets = 200×45 = 9000

Return = (10226.064–9000)/9000×100 = 13.62%

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

What is the beta of Security P?

(i) 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]

Answer:

(a)

Calculation for beta

Period	RX (%)	RM (%)	$(RX-\overline{RX})^2$	$(RM-\overline{RM})^2$	$(RX-\overline{RX})(RM-\overline{RM})$
1	20	22	25	100	50
2	22	20	49	64	56
3	25	18	100	36	60
4	21	16	36	16	24
5	18	20	9	64	24
6	-5	8	400	16	80
7	17	-6	4	324	-36
8	19	5	16	49	-28
9	-7	6	484	36	132
10	20	11	25	1	-5
Total	150	120	1148	706	357

Here, $\overline{RX}$ = 150/10 = 15%, $\overline{RM}$ = 120/10 = 12%

Variance of RX = 1148/10 = 114.8; S.D of RX = $\sqrt{114.8}$ = 10.71%

Variance of RM = 706/10 = 70.6; S.D of RX = $\sqrt{70.6}$ = 8.4%

Covariance = 357/10 = 35.7%

Beta (β) = Covariance/ Variance of RM = 35.7/70.6 = 0.51

Let the equation for the characteristic line be $Y = \alpha + \beta . X$

Here, Y = $\overline{RX}$ = 15%, X = $\overline{RM}$ = 12%

So, $15 = \alpha + 0.51 \times 12$; or, $\alpha = 8.88\%$

So, the characteristic line for security P = 8.88% + 0.51× $\overline{RM}$.

(b) Face value of Treasury Bills = ₹ 100

Return on Treasury Bills = ₹ 6.75

Current Market Price = ₹ 107

Risk free rate of return = 6.75/107×100 = 6.31% = R_f

Given, Market return = R_m = 18.5%

Beta factor = β = 1.7

As per CAPM, Return on Stock = $R_f + \beta (R_m - R_f)$ = 6.31 + 1.7(18.5−6.31) = 27.033%

Calculation for alpha factor

Year	Actual Return (%)	CAPM Return (%)	Alpha Factor (%)
1	24.5	27.033	24.5 – 27.033 = -2.533
2	25.6	27.033	25.6 – 27.033 = -1.433
3	27.2	27.033	27.2 – 27.033 = 0.167
4	28.3	27.033	28.3 – 27.033 = 1.267
5	29.8	27.033	29.8 – 27.033 = 2.767

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]

Answer:

(a)

(i) Theoretical Futures Price

Given, 6-months Futures Price ₹195

Current Stock Price [S_x] = Rs.180

Borrowing Rate (r) = 12% or 0.12

Time (in years) = 6/12 = 0.5 year

Theoretical Futures Price [F_x] = $S_x \times e^{rt}$ = ₹180 × $e^{0.12x0.5}$ = ₹180 × $e^{0.06}$ = ₹180 × 1.0618 = ₹191.124.

(ii) Since the Theoretical Futures Price is less than the Expected Futures Price, arbitrage opportunity exists and the recommended action would be to sell in the Futures Market.

1. The arbitrageur can borrow the amount required to buy the Shares at the current Market Price i.e. ₹ 180 at the rate of 12% p.a. for 6 months.
2. Enter into a Futures Contract to sell Shares at the rate of ₹ 195.
3. On the expiry date, sell the shares at the 6-month Futures rate of ₹195.
4. Pay the amount of Borrowing together with Interest i.e. [180 × $e^{0.12 \times 0.5}$] ₹ 191.124.
5. Thus net gain = 195 – 191.124 = ₹ 3.876

(b)

Calculation of Net Pay-off on Call Option

Spot Price (₹)	Exercise Price (₹)	Action	Gross gain (₹)	Premium (₹)	Net Gain (₹)
200	220	Not Exercised	0	5	-5
210	220	Not Exercised	0	5	-5
220	220	Not Exercised	0	5	-5
230	220	Exercised	10	5	5
240	220	Exercised	20	5	15

Calculation of Net Pay-off on Put Option

Spot Price (₹)	Exercise Price (₹)	Action	Gross gain (₹)	Premium (₹)	Net Gain (₹)
200	220	Exercised	20	5	15
210	220	Exercised	10	5	5
220	220	Not Exercised	0	5	-5
230	220	Not Exercised	0	5	-5
240	220	Not Exercised	0	5	-5

Call option may be gainfully exercised if spot price > ₹ 220.

Put option may be gainfully exercised if spot price < ₹ 220.

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]

Answer:

(a)

If the liability is settled immediately:

Total exposure = 10,00,000 × 30.50 = ₹ 3,05,00,000

Overdraft Interest = 3,05,00,000 × 14% × 3/12 = ₹ 10,67,500

Total cost = 3,05,00,000+10,67,500 = ₹ 3,15,67,500.

If the liability is settled after 3 months:

Interest payable = SF 1000000 × 5% × 3/12 = SF 12500

Total exposure = SF 1000000 + SF 12500 = SF 1012500

Total Cost = 1012500 × 31.60 = ₹ 31995000

So, paying immediately will be cheaper.

(b)

Facts: Y Ltd. will sell AED 1000000 in 3 months.

Evaluation: Money Market Hedge is possible only if the 3-Month Forward Rate is lower than value of Spot Bid in the next 3 Months (computed by applying UAE Borrowing Rate and Rupee Deposit Rate).

Value of Spot Bid In 3 Months' time

= Spot Bid Rate × (1+Rupee Deposit Rate for 3 Months)/ (1AED Deposit Rate for 3 Months)

= 11.60 ×(1+0.09×3/12)/(1+0.13×3/12) = 11.60×(1.0225)/(1.0325) = ₹ 11.49

So, value of Spot Bid ₹ 11.49 in 3 Months' time > Forward Bid Rate of ₹ 11.30.

Therefore, there is a possibility for Money Market Hedge.

Process:

1. Borrow an amount of AED at 13% p.a. for 3 Months so that, the total liability including interest for 3 months, is AED 1000000. So, AED 968523.0024 should be borrowed.
2. Convert AED 968523.0024 into Rupees at Spot Rate (Bid Rate since AED is sold) for AED 968523.0024 × ₹ 11.60 = ₹ 11234866.83
3. Invest ₹ 1,12,34,866.83 in Rupee Deposit for 3 Months at 9% p.a.
4. Realize the maturity value of rupee deposit. Amount received will be ₹1,12,34,866.83 (1+0.09×3/12) = R ₹ 1,14,87,651.33
5. Receive the AED 1000000 from the customer abroad.
6. Repay the AED Loan using the money received from the customer abroad. Amount Payable = Amount Borrowed AED 968523.0024 × (1 + 13% p.a. for 3 Months) = AED 1000000.

Amount Saved by Utilizing Money Market Hedge Action:

Enter into a 3-Months Forward Sale Contract for sale of AED 1000000 at ₹ 11.30.

Sell AED 1000000, 3 Months from now at ₹ 11.30

Effect: Amount in ₹ in hand in 3 Months = AED 1000000 × ₹ 11.30 = ₹ 1,13,00,000.

Amount Saved under Money Market Hedge:

Under Money Market Hedge is ₹ 11,487,651.33

Under Forward Contract is ₹ 1,13,00,000

Amount Saved = 114,87,651.33 – 113,00,000 = ₹ 1,87,651.33

Conclusion: Hedging risks using Money Market Operations will be advantageous to the company.

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]

Answer:

(a)

Calculation for NCF under Buy Option

Year	Repayment (₹)	Interest (₹)	Tax Savings on Interest (₹)	Depreciation (₹)	Tax Saving on Depreciation (₹)	NCF (₹)
(1)	(2)	(3)	(4)	(5)	(6)	(7) = (2)+(3)-(4)-(6)
1	1,00,000	60,000 (5,00,000×12%)	24,000	1,00,000	40,000	96,000
2	1,00,000	48,000 (4,00,000×12%)	19,200	1,00,000	40,000	88,800
3	1,00,000	36,000	14,400	1,00,000	40,000	81,600
4	1,00,000	24,000	9,600	1,00,000	40,000	74,400
5	1,00,000	12,000	4,800	1,00,000	40,000	67,200

Calculation of PV of NCF under Buy Option

Year	NCF (₹)	PVIF @10%	PVCF (₹)
1	96,000	0.909	87,264
2	88,800	0.826	73,349
3	81,600	0.751	61,282
4	74,400	0.683	50,815
5	67,200	0.621	41,731
			3,14,441

Let before tax lease rental = X

So, after tax lease rental = X (1-0.4) = 0.6X

Conditionally, 0.6X × PVIFA (10%, 5) = 314441

Or, 0.6X × 3.79 = 314441

Or X = 138277

So, the required lease rental is ₹ 138277

(b)

(i) MV of Equity = ₹ 30,00,000, MV of Debt = ₹ 20,00,000. So, Equity: Debt = 3:2.

Equity beta = β_E = 1.5 and Debt beta = β_D = 0.

B_p = {β_E × Equity ÷ [Equity + Debt × (1 - Tax)]} + {β_D × Debt (1-Tax) ÷ [Equity + Debt × (1 -Tax)]}

= [1.5 × 3/5] + [0 × 2/5] = 0.9 + 0 = 0.9

(ii) Cost of Capital = K_e = R_F + [β_p X Risk Premium] = 10 + (0.9x12) = 10 +10.8 = 20.8%

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.

Answer:

(a) Green Shoe Option

A green shoe option is nothing but a clause contained in the underwriting agreement of an IPO. This option permits the underwriters to buy up to an additional 15% of the shares at the offer price if public demand for the shares exceeds expectations and the share trades above its offering price. Green shoe option is also known as an over-allotment provision. The above option is primarily used at the time of IPO or listing of any stock to ensure a successful opening price. Accordingly, companies can intervene in the market to stabilise share prices during the first 30 days' time window immediately after listing. This involves purchase of equity shares from the market by the underwriting syndicate in case the share price fall below issue price or goes significantly above the issue price. The above option acts as a price stabilising mechanism. From the investor's point of view, an IPO with green shoe option ensures that after listing the share price will not fall below its offer price.

To keep the share price under control, the underwriter oversells or shorts up to a fixed percentage of shares than initially offered by the company. For instance, if company ABC decides to sell 10 million with 15% green shoe option, the underwriters may exercise their green shoe option and sell 11.5 million shares. When the shares are actually listed in the market, the underwriters can buy back 15% of the shares. If the market price of the shares exceeds the offer price, the underwriters exercise the green shoe option to buy back 15% of the shares at the offer price, thus protecting them from the loss. Similarly, if the shares trade below the offer price, it may create a wrong impression in the minds of the investors and they may sell the shares they have bought or stop buying more from the market. In such a scenario, to stabilise share prices, the underwriters exercise their option and buy back the

shares at the offer price and return the shares to the issuer. In the entire process the company has no role to play and any gains or losses arising out of the green shoe option belongs to the underwriters. To conclude, from investor's point of view those companies which have green shoe option in their IPO process are considered to be good because they have a built-in price stabilising mechanism which will ensure the prices will not go below its offer price.

(b) Participants of Commodity Exchange

Participants who trade in the derivatives market can be classified under the following three broad categories:

1. Hedgers
2. Speculators
3. Arbitrageurs

(1) Hedgers A Hedger can be farmers, manufacturers, importers and exporter. A hedger buys or sells in the futures market to secure the future price of a commodity intended to be sold at a later date in the cash market. This helps protect against price risks. The holders of the long position in futures contracts (buyers of the commodity), are trying to secure as low a price as possible. The short holders of the contract (sellers of the commodity) will want to secure as high a price as possible. The commodity contract, however, provides a definite price certainty for both parties, which reduces the risks associated with price volatility. By means of futures contracts, Hedging can also be used as a means to lock in an acceptable price margin between the cost of the raw material and the retail cost of the final product sold. Someone going long in a securities future contract now can hedge against rising equity prices in three months. If at the time of the contract's expiration the equity price has risen, the investor's contract can be closed out at the higher price. The opposite could happen as well: a hedger could go short in a contract today to hedge against declining stock prices in the future.

(2) Speculators Other commodity market participants, however, do not aim to minimize risk but rather to benefit from the inherently risky nature of the commodity market. These are the speculators, and they aim to profit from the very price change that hedgers are protecting themselves against. A hedger would want to minimize their risk no matter what they're investing in, while speculators want to increase their risk and therefore maximize their profits. In the commodity market, a speculator buying a contract low in order to sell high in the future would most likely be buying that contract from a hedger selling a contract low in anticipation of declining prices in the future. Unlike the hedger, the speculator does not actually seek to own the commodity in question. Rather, he or she will enter the market seeking profits by off-setting rising and declining prices through the buying and selling of contracts.

(3) Arbitrageurs A central idea in modern economics is the law of one price. This states that in a competitive market, if two assets are equivalent from the point of view of risk and return, they should sell at the same price. If the price of the same asset is different in two markets, there will be operators who will buy in the market where the asset sells cheap and sell in the market where it is costly. This activity termed as arbitrage, involves the

simultaneous purchase and sale of the same or essentially similar security in two different markets for advantageously different prices. The buying cheap and selling expensive continues till prices in the two markets reach equilibrium. Hence, arbitrage helps to equalize prices and restore market efficiency.

(c) Different Types of Credit Risk:

Credit risk can be classified in the following way:

- Credit default risk - The risk of loss arising from a debtor being unlikely to pay its loan obligations in full or the debtor is more than 90 days past due on any material credit obligation; default risk may impact all credit- sensitive transactions, including loans, securities and derivatives.
- Counterparty risk – The risk of loss arising from non performance of counterparty in trading activities such as buying and selling of commodities, securities, derivatives and foreign exchange transactions. If inability to perform contractual obligations in such trading activities is communicated before the settlement date of the transaction, then counterparty risk is in the form of pre-settlement risk, while if one of the counterparty defaults on its obligations on the settlement date, the counterparty risk is in the form of settlement risk.
- Concentration risk - The risk associated with any single exposure or group of exposures with the potential to produce large enough losses to threaten a lender's core operations. It may arise in the form of single name concentration or industry concentration.
- Country risk - The risk of loss arising from sovereign state freezing foreign currency payments (transfer/conversion risk) or when it defaults on its obligations (sovereign risk).

(d) Forfeiting vs. Export Factoring

Forfaiting is similar to cross border factoring to the extent both have common features of non-recourse and advance payment. But they differ in several important respects:

1. A forfaiter discounts the entire value of the note/bill. The implication is that forfaiting is hundred per cent financing arrangement of receivables finance. But the extent of advance receivables financing with a factoring arrangement is only partial ranging between 75–85 per cent. The balance is retained by the factor as a factor reserve which is paid after maturity.
2. The availing bank which provides an unconditional and irrevocable guarantee is a critical element in the forfeiting arrangement. The forfaiter's decision to provide financing depends upon the financial standing of the availing bank. On the other hand, in a factoring deal, particularly non-recourse type, the export factor bases his credit decision on the credit standards of the exporter and participates in the credit extension and credit protection process.
3. Forfaiting is a pure financing arrangement while factoring also includes ledger administration, collection and so on.

4. Factoring is essentially a short term financing deal. Forfaiting finances notes/ bills arising out of deferred credit transaction spread over 3 -5 years.

5. A factor does not guard against exchange rate fluctuations; a forfeiter charges a premium for such risk.

(e) Leading and Lagging in Foreign Currency Payments

It refers to the adjustment of the times of payments that are made in foreign currencies. Leading is the payment of an obligation before due date while lagging is delaying the payment of an obligation past due date. The purpose of these techniques is for the company to take advantage of expected devaluation or revaluation of the appropriate currencies. Lead and lag payments are particularly useful when forward contracts are not possible. It is more attractive to use for the payments between associate companies within a group. Leading and lagging are aggressive foreign exchange management tactics designed to take the advantage of expected exchange rate changes. Buckley (1988) supports the argument with the following example: Subsidiary b in B country owes money to subsidiary a in country A with payment due in three months' time and with the debt denominated in US dollar. On the other side, country B's currency is expected to devalue within three months against US dollar moreover vis-à-vis country A's currency. Under these circumstances, if company b leads -pays early - it will have to part with less of country B's currency to buy US dollar to make payment to company A. Therefore, lead is attractive for the company. When we take reverse the example-revaluation expectation, it could be attractive for the lagging. On the other hand, in case of lagging payment to an independent third party, there is always the possibility of upsetting the trading relationship, with possible loss of credit facilities or having prices increased to compensate for the delay in the receipt of funds. There is also the possibility of damage to the lagging company's external credit rating.