Paper – 14: Strategic Financial Management

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

Section A - Investment Decisions [25 marks]

Answer any 2 questions from Section A

1. **(a)** Explain the financial meaning of investment?

(b) Given the following risky portfolios

	A	B	C	D	E	F	G	H
Return %	10	12.5	15	16	17	18	18	20
σ%	23	21	25	29	29	32	35	45

(i) Which of these portfolios are efficient? Which are inefficient?
(ii) Suppose one can tolerate a risk of 25%, what is the maximum return one can achieve if no borrowing or lending is resorted to?
(iii) Suppose one can tolerate a risk of 25%, what is the maximum return one can achieve if borrowing or lending at the rate of 12% is resorted to?

[3.5+9]

2. X Leasing Company is considering a proposal to lease out a tourist bus. The bus can be purchased for ₹ 5,00,000 and, in turn, be leased out at ₹ 1,25,000 per year for 8 years with payments occurring at the end of each year :
   (i) Estimate the internal rate of return for the company assuming tax is ignored.
   (ii) What should be the yearly lease payment charged by the company in order to earn 20% annual compound rate of return before expenses and taxes ?
   (iii) Calculate the annual lease rent to be charged so as to amount to 20% after tax annual compound rate of return, based on the following assumptions :
   - Tax rate is 40%
   - Straight line depreciation
   - Annual expenses of ₹ 50,000 and
   - Resale value ₹ 1,00,000 after the turn.

[12.5]

3. An Indian company is planning to set up a subsidiary in the US. The initial project cost is estimated to be US $ 400 million; working capital requirements are estimated at US $ 40 million. The Indian company followed the straight-line method of depreciation.

   The finance manager of the Indian company estimated data in respect of the project as follows :
   (i) Variable cost of production and sales $ 25 per unit.
   (ii) Fixed cost per annum are estimated at $ 30 million
   (iii) Plant will be producing and selling 50 million units at $ 100 per unit and
   (iv) The expected economic useful life of the plant is 5 years with no salvage value.

The subsidiary of the Indian company is subject to 40% corporate tax rate in the US and the required rate of return of such a project is 12%. The current exchange rate between the two countries is ₹48/ US $ and the rupee is expected to depreciate by 3% per annum for next five years.

The subsidiary will be allowed to repatriate 70% of the CFAT every year along with the accumulated arrears of blocked funds at year-end 5, the withholding taxes are 10%. The blocked funds will be invested in the USA money market by the subsidiary, earning 4% (free of tax) per year.

Determine the feasibility of having a subsidiary company in the USA, assuming no tax liability in India on earnings received by the parent from the US subsidiary.

[12.5]

Section B [20 marks]

Answer any 2 questions from Section B

4. (a) A has invested in three mutual fund schemes as per details below:

	MF 1	MF 2	MF 3
Date of investment	01.12.2015	01.01.2016	01.03.2016
Amount of investment	₹50,000	₹1, 00,000	₹50,000
Net Asset Value (NAV) at entry date	₹10.50	₹10	₹10
Dividend received upto 31.03.2013	₹970	₹1,520	Nil
NAV as at 31.03.2013	₹10.40	₹10.10	₹9.80

What is the effective yield on per annum basis in respect of each of the three schemes to A upto 31.03.2016?

(b) State the 'Hedging Approach' to financing working capital requirements of a firm.

[6+4]

5. (a) Describe the five credit rating agencies registered with the SEBI.

(b) Write down the unique features of National Level Commodity Exchanges. **[7+3]**

6. (a) A unit trust wants to hedge its portfolios of shares worth ₹10 million using the BSE-SENSEX index futures. The contract size is 100 times the index. The index is currently quoted at 6,840. The beta of the portfolio is 0.8. The beta of the index may be taken as 1. What is the number of contracts to be traded?

(b) Discuss the benefits of Commodity Futures Market. **[6+4]**

Section C [25 marks]

Answer any 2 questions from Section C

7. **(a)** Describe the techniques used in economic analysis.

(b) Explain Dow-Jones theory regarding the behaviour of stock market prices. **[4.5+8]**

8. **(a)** X has the following investments :

Stock	Expected return %	Portfolio weight %	Beta
ABC	15.00	40	0.6
BAC	25.40	30	1.4
CAB	20.60	30	1.1

i. What is the expected return and β of X's portfolio?

ii. X has now decided to take on some additional risk in order to increase his expected return, by changing his portfolio weights. If X's new portfolio's expected return is 22.12% and its β is 1.165, what are his new portfolio weights?

(b) An investor owns the following investments :

(i) 1 million equity shares of D Ltd. Price ₹ 40, Beta 1.10

(ii) 2 million equity shares of E Ltd. Price ₹ 30, Beta 1.20

(iii) 3 million equity shares of F Ltd. Price ₹ 10, Beta 1.30

The investor wants to enhance the beta of his portfolio to 1.50. Suggest. **[6+6.5]**

9. **(a)** 'A' Mills has expected dividend growth of 7% and the average market return is 12% per annum. Dividend expected end-year on A is ₹ 2.50. The company stock has β = 2.00 and the risk free rate us 6%. What is the risk-adjusted rate of return on 'A' assuming the CAPM holds? What is the fair price of the equity share if the current market price is ₹ 20? What are the risks attached to the investment strategy?

(b) Describe the term 'Portfolio rebalancing'. **[8+4.5]**

Section D [30 marks]

Answer all questions from Section D

10. On 19th July following are the spot rates - Spot USD / EUR 1.20000 INR / USD

Following are the quotes of European Options;

Currency Pair	Call/Put,	Strike Price	Premium	Expiry Date
USD/EUR	Call	1.2000	$ 0.035	Oct. 19

USD/EUR	Put	1.2000	$0.04	Oct.19
INR/USD	Call	44.8000	Re.0.12	Dec. 19
INR/USD	Put	44.8000	Re.0.04	Dec.19

(i) A Trader sells an At-The-Money Spot Straddle expiring at three months (Oct. 19). Calculate the gain or loss if three months later the spot rate is USD / EUR 1.2900.

(ii) Which strategy gives a profit to the dealer if five months later (Dec. 19) expected spot rate is INR / USD 45.00. Also calculate profit for a transaction of USD 1.40 Millions.

[10]

11. Das Ltd. an Indian company is evaluating an investment in Hong Kong. The project costs 300 Million Hong Kong Dollars. It is expected to generate an income of 100 Million HKDs a year in real terms for the next 4 years (project duration). Expected inflation rate in Hong Kong is 6% p.a. Interest rate in India is 7% p.a. while in Hong Kong it is 10% p.a.The risk premium for the project is 6% in absolute terms, over the risk free rate. The project beta is 1.25. Spot Rate per HKD is ₹ 5.75. Evaluate the project in Rupees, if the investment in the project is out of retained earnings. **[10]**

12. Does interest rate parity imply that interest rates are the same in all countries? Also explain why purchasing power parity might fail to hold. **[10]**