STRATEGIC FINANCIAL MANAGEMENT

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.

SECTION – A (Compulsory)

1. Choose the correct option: **[15 x 2 = 30]**

(i) The Profitability Index of a project is 1.28 and its cost of investment is ₹2,50,000. The NPV of the project is _____

(a) ₹75,000
(b) ₹80,000
(c) ₹70,000
(d) ₹65,000

(ii) The type of lease that includes a third party, a lender, is called as which of the following?

(a) Sale and leaseback
(b) Leveraged Lease
(c) Direct leasing arrangement
(d) Operating lease

(iii) If Annual CFAT is ₹5,40,000, Project life is 4 years and initial cost is ₹19,80,000, what is the Payback Profitability of the project?

(a) ₹1,60,000
(b) ₹1,95,000
(c) ₹1,80,000
(d) ₹1,20,000

(iv) In securitization who is the issue of securities?

(a) SPV
(b) Underwriter
(c) Depositor
(d) Insurer

(v) High growth rates in earnings and market share are characteristics of companies which are in

(a) Maturity stage
(b) Expansion stage
(c) Pioneering stage
(d) Declining stage

(vi) It was observed that in a certain month, 6 out of 10 leading indicators and moved up as compared to 4 indicators in the previous month. The diffusion index for the months was

(a) 20%
(b) 40%
(c) 60%
(d) 80%

(vii) The definition "the promised compounded rate of return an investor will receive from a bond purchased at the current market price and held to maturity" pertains to

(a) Yield to maturity
(b) Realized yield
(c) Current yield
(d) Yield to call

(viii) A stock with a dividend pay-out ratio of 45%, required rate of return is 15% and a constant growth rate of 10% will have a P/E ratio of

(a) 3 times
(b) 9 times
(c) 8 times
(d) 7.5 times

(ix) Which among the following increases the NAV of a mutual fund scheme?

(a) Value of investments
(b) Receivables
(c) Accrued income
(d) All of (a), (b) and (c)

(x) A mutual fund had average daily assets of ₹500 million in the past year. During the year, the fund sold ₹60 million of stock X and purchased ₹90 million of stock Y. What was the fund's turnover ratio?

(a) 12%
(b) 15%
(c) 18%
(d) 30%

(xi) A portfolio manager realized an average annual return of 10%. The beta of the portfolio is 0.8 and the standard deviation of returns is 20%. The average annual return for the market index is 12% and the standard deviation of the market returns is 25%. The rf rate is 3%. Calculate the Treynor ratio.

(a) 7.00
(b) 8.75
(c) 11.25
(d) 12.50

(xii) An investor is bullish about X Ltd. which trades in the spot market at ₹1,150. He buys two call option contracts with three months (one contract is 100 shares) with a strike price of ₹1,195 at a premium of ₹35 per share. Three months later, the share is selling at ₹1,240. Net profit/loss of the investor on the position will be

(a) ₹1,000
(b) ₹16,000
(c) ₹11,000
(d) ₹2,000

(xiii) Shibosai bond is a bond
- (a) Denominated in ¥ and issued outside Japan
- (b) Denominated in a currency other than ¥ and issued in Japan
- (c) Denominated in Japanese ¥ and issued under private placement in Japan
- (d) Denominated in ¥ and issued by a overseas corporate to the public in Japan

(xiv) A wants to hedge its portfolio of shares worth ₹150 million using the Index futures. The contract size is 100 times the index. The index is currently quoted at 7500. The beta of the portfolio is 0.9. Consider the beta of the index as 1. The number of contracts to be traded is
- (a) 18,000
- (b) 180
- (c) 22
- (d) 200

(xv) The following various currency quotes are available from a leading Indian Bank:
₹/£: ₹75.31/75.33
£/$: £0.6391/0.6398
$/¥: $0.01048/0.01052
The rate at which yen (¥) can be purchased with rupees will be
- (a) ₹0.5070
- (b) ₹1.5030
- (c) ₹1.7230
- (d) None of the above

SECTION – B

(Answer any five questions out of seven questions given. Each question carries 14 marks.)

[5 x 14 = 70]

2. (a) S Engineering Company is considering to replace or repair a particular machine, which has just broken down. Last year this machine costed ₹2,00,000 to run and maintain. These costs have been increasing in real terms in recent years with the age of the machine. A further useful life of 5 years is expected, if immediate repairs of ₹1,90,000 are carried out. If the machine is not repaired it can be sold immediately to realize about ₹50,000 (Ignore loss/gain on such disposal).

Alternatively, the company can buy a new machine for ₹4,90,000 with an expected life of 10 years with no salvage value after providing depreciation on straight line basis. In this case, running and maintenance costs will reduce to ₹1,40,000 each year and are not expected to increase much in real term for a few years at least. S Engineering Company regard a normal return of 10% p.a. after tax as a minimum requirement on any new investment. Considering capital budgeting techniques, which alternative would you advise choosing, and why? Take corporate tax rate of 50% and assume that depreciation on straight line basis will be accepted for tax purposes also. Given cumulative present value of ₹1 p.a. at 10% for 5 years ₹3.791, 10 years ₹6.145.

[7]

(b) Fair finance, a leasing company, has been approached by a prospective customer intending to acquire a machine whose Cash Down price is ₹3 crores. The customer, in order to leverage his tax position, has requested a quote for a three-year lease with rentals payable at the end of each year but in a diminishing manner such that they are in the ratio of 3: 2: 1. Depreciation can be assumed to be on straight line basis and Fair Finance's marginal tax rate is 35%. The target rate of return for Fair Finance on the transaction is 12%.

Calculate the lease rents to be quoted for the lease for three years. [7]

3. (a) The Globe Manufacturing Company Ltd. is considering an investment in one of the two mutually exclusive proposals – Projects X and Y, which require cash outlays of ₹3,40,000 and ₹3,30,000 respectively. The certainty-equivalent (C.E.) approach is used in incorporating risk in capital budgeting decisions. The current yield on government bond is 10% and this be used as the riskless rate. The expected net cash flows and their certainty-equivalents are as follows:

	Project X		Project Y	
Year-end	Cash flow (₹)	C.E	Cash flow (₹)	C.E
1	1,80,000	0.8	1,80,000	0.9
2	2,00,000	0.7	1,80,000	0.8
3	2,00,000	0.5	2,00,000	0.7

Present value factors of ₹1 discounted at 10% at the end of year 1, 2 and 3 are 0.9091, 0.8264 and 0.7513 respectively.

Required:

(i) Examine which project should be accepted.

(ii) Discuss, with reasons, which project should be analysed using a higher risk-adjusted discount rate. [7]

(b) AB Ltd. is expected to pay a dividend of ₹4.00 at the end of first year, a dividend of ₹7.00 at the end of second year, a dividend of ₹11.00 at the end of 3rd year. From 4th year onwards, the dividends are expected to grow at a constant growth rate of 4%. If the required rate of return is 14%, compute the present value of the stock. [7]

4. (a) Calculate the Yield to Maturity of a ₹1,000 zero-coupon bond maturing in 10 years, issued at ₹190. [7]

(b) A mutual fund having 300 units has shown its NAV of ₹8.75 and ₹9.45 at the beginning and the end of the year respectively. The Mutual fund has given two options to the investors:

(i) Get dividend of ₹0.75 per unit and capital gain of ₹0.60 per unit, or

(ii) These distributions are to be reinvested at an average NAV of ₹8.65 per unit.

Examine the difference in returns available between the options, and discuss with reasons which option would be preferable for investors. [7]

5. (a) Returns on two portfolios, B and L, for the past 4 years are —

Year	1	2	3	4
Portfolio B	13.00%	13.5%	12.5%	14.00%
Portfolio L	14.35%	11.75%	13.60%	12.90%

Beta factor of the two portfolios are 1.3 and 1.2 respectively. If the market portfolio fetches 12% return and RBI Bonds, which are considered risk free, yield 5% return, advise which of the above two portfolios will an investor prefer. [7]

(b) A mutual fund starts the year with ₹50 million. By 1st year it has appreciated to ₹60 million, at which point it receives cash amounting to ₹20. In the second year, the fund appreciates by another 50%.

(i) Calculate Annual MWROR.

(ii) Calculate Annual TWROR.

(iii) If the fund has a 1st year cash outflow of ₹20 million rather than an inflow, calculate the impact on the Time-Weighted Rate of Return (TWROR) and explain whether it would increase or decrease. [7]

6. (a) The price of Compact Stock of a face value of ₹10 on 31st December, 2024 was ₹414 and the futures price on the same stock on the same date i.e., 31st December, 2024 for March, 2025 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 31.3.2025.
- Borrowing Rate is 20 % p.a.

Based on the above information, calculate future price for Compact Stock on 31st December, 2024. Also examine whether any arbitrage opportunity exists or not. [7]

(b) Sundar Ramalingam had entered into 5 Put Options and 5 Call Options in different securities, the particulars of which are given below, along with their exercise price and actual market price on the date of exercise-

Call Options		
Security	Exercise Price (₹)	Actual Market Price (₹)
P	370	376
Q	450	444
R	1790	1700
S	135	140
T	953	953

Put Options		
Security	Exercise Price (₹)	Actual Market Price (₹)
A	118	122
B	758	758
C	350	340
D	65	69
E	230	220

Discuss the investor's position on the date of option exercise, and advise on the most appropriate course of action based on market conditions. [7]

7. (a) Following are the details of cash inflows and outflows in foreign currency denominations of M Co., an Indian export firm, which have no foreign subsidiaries —

Currency	Inflow	Outflow	Spot rate	Forward rate
US $	4,00,00,000	2,00,00,000	48.01	48.82
French Franc (F Fr)	2,00,00,000	80,00,000	7.45	8.12
UK £	3,00,00,000	2,00,00,000	75.57	75.98
Japanese Yen	1,50,00,000	2,50,00,000	3.20	2.40

(1) Determine the net exposure of each foreign currency in terms of Rupees.
(2) Discuss whether any of the exposure positions are offsetting to some extent. [7]

(b) Suppose, the interest rate on pound sterling is 12% p.a. in London and interest rate on a comparable dollar investment in New York is 7% p.a. The pound sterling spot rate is $1.95/£ and one year forward rate is $1.87/£. Examine, is there any arbitrage opportunity exists. If so, discuss the steps to earn arbitrage profit. [7]

8. Short Notes on:
   (a) Discuss the various benefits of Digital Finance. [5]
   (b) Discuss the various features of Global Depository Receipts (GDRs). [5]
   (c) Discuss the Objectives of Cross Border Leasing. [4]