



FINAL EXAMINATION  
MODEL QUESTION PAPER  
PAPER - 14

SET 1  
TERM – JUNE 2023

STRATEGIC FINANCIAL MANAGEMENT

Time Allowed: 3 Hours

Full Marks: 100

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

Where considered necessary, suitable assumptions may be made and clearly indicated in the answer.

Question No. 1 and 8 are compulsory; Answer any four from Question No. 2, 3, 4, 5, 6 & 7.

SECTION - A

1. (a) Choose the correct alternative. Provide Justification for your answer. 1 Mark is allotted for the correct choice and 1 mark for the justification. [2 × 10 =20]

(i) An investor buys a call option contract for a premium of ₹ 150. The exercise price is ₹ 15 and the current market price of the share is ₹ 12. If the share price after three months reaches ₹ 20, what is the profit made by the option holder on exercising the option? Contract is for 100 shares. Ignore the transaction charges.

- a. ₹ 300
- b. ₹ 350
- c. ₹ 400
- d. ₹ 450

(ii) The declining market is called bear market because of the \_\_\_\_\_. Provide a justification.

- a. Long hibernation period of bears
- b. Traditional usage
- c. Fur coat of the bears
- d. Attacking manner of bears

(iii) An investor has three alternatives of varying investment values. The data available for each of these alternatives are given below:

Alternative	Expected Return (%)	Standard Deviation of Return
I	23	8.00
II	20	9.50
III	18	5.00

Which alternative would be the best if coefficient of variation is used?

- a. Alternative I
- b. Alternative II
- c. Alternative III
- d. None of the above



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- (iv) The strike price and the current stock price of a European put option are ₹ 1,000 and ₹ 925 respectively. What is its theoretical minimum price after 6 months, if the risk-free rate of interest is 5% p.a.?
- ₹50.3053
  - ₹50.2056
  - ₹51.2125
  - ₹52.4125
- (v) If ROA is 0.20 and leverage factor is 1.5, the ROE of the company is
- 0.25
  - 0.30
  - 0.45
  - 0.50
- (vi) According to the stock market psychology
- Investors forget the past
  - History repeats itself
  - More faith is placed in predictions of the future
  - Both (A) and (B)
- (vii) The concept of securitisation is associated with \_\_\_\_\_. Provide justification for your selection.
- Capital market
  - Money market
  - Debt market
  - Foreign exchange market
- (viii) \_\_\_\_\_ is/are a private arrangement between lending banks and a borrower. Provide justification for your selection.
- Club loan
  - Multiple component facility
  - Syndicated Euro credit
  - All of the above
- (ix) Which of the following is not an assumption of perfect capital market? Why?
- No transaction cost
  - No taxes
  - Information is available to all
  - None of the above
- (x) Hedging through 'currency of invoicing' results in \_\_\_\_\_. Why?
- The exporter covering forex exposure
  - The importer covering forex exposure
  - Both exporter and importer covering forex exposure
  - Either exporter or importer covering forex exposure



SECTION - B

2. (a) PQR Ltd. has a capital budget of ₹ 20,000,000 for the year. From the following information relating to six independent proposals, recommend the projects to be selected if (i) the projects are divisible and (ii) projects are indivisible in order to maximise the NPV.

Proposal	Investment (₹)	NPV (₹)
I	8,500,000	5,000,000
II	3,500,000	2,600,000
III	6,000,000	2,000,000
IV	4,000,000	2,500,000
V	6,000,000	5,000,000
VI	8,000,000	(2,500,000)

- (b) XY Manufacturing Ltd. desires to acquire a diesel generating machine set costing ₹ 40 lakh which has an economic life of 10 years at the end of which the asset is not expected to have any residual value. The company is considering two alternatives: (A) taking the machine on lease (B) purchasing the asset outright by raising a loan. Lease payments are equal annual amounts and have to be made in advance and the lessor requires the asset to be completely amortized over its useful period. The loan carries an interest 16% p.a. The loan has to be paid in 10 equal annual instalments becoming due at the beginning of the first year. Average rate of income tax is 50%. It is expected that the operating costs would remain the same under either method. The company allows straight line method of depreciation and the same is accepted for tax purposes.

Assume tax benefits at the end of the respective years and for end of year zero, tax benefit may be considered at the end of the first year. Use 8% discount rate for p.v. factors. Prepare a statement showing discounted values of annual cash flows to the nearest rupee under alternative (B), only for end of years 0 to 2 and year 10. What should be the maximum annual lease rental for which the lease option may be preferred if you are given that the present value under the loan option is ₹ 26,57,029? The present value of an annuity of one Rupee:

Year	8%
1 to 9	6.247
1 to 10	6.71

Present value of Rupee one at 8%

Year	0	1	2	3	4	5	6	7	8	9	10
PV	1.00	0.926	0.857	0.794	0.735	0.681	0.630	0.583	0.540	0.500	0.463

[7 + 9 = 16]



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3. (a) Delta Corporation is considering an investment in one of following two mutually exclusive proposals:  
Project A: requiring initial outlay of ₹ 1,80,000.  
Project B: requiring initial outlay of ₹ 1,60,000.

The certainty equivalent approach is employed in evaluating risky investment. The current yield on treasury bill is 5% and the company uses this as riskless rate. Expected values of net cash inflow with their respective certainty equivalents are:

Year	Project A		Project B	
	Cash in flow	Certainty Equivalents	Cash in flow	Certainty Equivalents
1	92,000	0.8	92,000	0.9
2	1,02,000	0.7	92,000	0.8
3	1,12,000	0.5	1,02,000	0.6

Analyse the above information to determine the following:

- (i) Which Project should be acceptable to the Company?  
(ii) Which Project is riskier and why? Explain.  
(iii) If the company uses the risk adjusted discount rate method, which project would be discounted with higher rate?
- (b) Briefly discuss the components of digital finance. [10 + 6 = 16]
4. (a) (i) Discuss the key determinants of price-earnings multiple.  
(ii) A company has an EPS of ₹10 for the current year and a DPS of ₹4. The earnings growth rate during the past four years was 4% and earnings are expected to grow at 2% a year in the long run. Currently the shares of the company are trading at 7 times its earnings. If the required rate of return is 14%, compute an estimate of the P/E ratio. Also calculate the long run growth rate implied by the current P/E ratio.  
(b) A mutual fund has an NAV of ₹ 12.50 per unit at the beginning of the year. At the end of the year the NAV increases to ₹ 13.40. In the meanwhile, the Fund distributes ₹ 1.55 as dividend. Calculate the fund's rate of return during the year. Assuming that the investor had 240 units and that the distributions have been reinvested at an average NAV of ₹ 12.80, find out the rate of return. [(6 + 5) + 5 = 16]



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5. (a) The returns on Stock PQ and market portfolio for a period of 4 years are as follows:

Year	Return on PQ (%)	Return on Market portfolio (%)
1	12	8
2	15	12
3	11	11
4	2	(-4)

You may opt to use the following additional information:

Particulars	PQ	Market
Mean Return (%)	10	6.75
Standard Deviation (%)	4.84	6.38
Covariance of stock with market = 29.75		

You are required to determine the Characteristic Line for Stock PQ. Find the expected return on PQ when market return improves to 5% in year 5 or decreases to - 8% in the 5th year.

- (b) The following particulars are furnished about three mutual funds scheme A, B and C.

Particulars	Scheme A	Scheme B	Scheme C
Dividend Distributed	₹ 1.60	-	₹ 1.15
Capital Appreciation	₹ 2.77	₹ 3.33	₹ 1.79
Opening NAV	₹ 30	₹ 25.15	₹ 21.50
Beta	1.40	1.10	1.35

Analyse the performance of the schemes based on Jensen's Alpha, if government of India Bonds carry an interest rate of 6.64% and the NIFTY has increased by 12%. [8 + 8 = 16]

6. (a) The following data relates to DCB Ltd.'s share prices:

Current Price Per Share ₹ 180

Price per share in the futures Market - 6 months ₹ 200

Money can be borrowed from the market at 12% p.a.

Analyse, on the basis of your calculation of the theoretical minimum price of 6 months-Futures contract, whether there exists any arbitrage opportunity.

- (b) The equity share of ABC 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



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a put option if (i) The strike price in both cases is ₹ 220 and (ii) The share price on the exercise days is ₹ 200, 210 220, 230 and 240. On the expiry day for what threshold values of share price will each option holder be in the money? [8+8 = 16]

7. (a) What do you mean by ADR? Discuss its advantages and limitations.
- (b) X Ltd. has imported goods from USA worth US \$ 10 million and it requires 90 days to make the payment. The USA supplier has offered a 60 days interest free credit period and for additional credit for 30 days interest is to be charged at 8% per annum. (Consider 360 days p.a.)

The banker of X Ltd. Offers a 30 days loan at 10% per annum and its quotes for foreign exchange are as follows:

Spot 1 US \$	₹ 64.50
60 days forward rate for 1 US \$	₹ 65.10
90 days forward rate for 1 US \$	₹ 65.50

You are required to evaluate the following options:

- (i) Pay the USA supplier in 60 days or
- (ii) Avail the supplier's offer of 90 days' credit. Advise X Ltd. accordingly.

[8 + 8 = 16]

SECTION - C

8. Zenith Power. Ltd. is considering a proposal to replace one of its machines. In this connection, the following information is available:

The existing machine was purchased 3 years ago for ₹ 20 Lakh. It was depreciated 20 per cent per annum on reducing balance basis. It has remaining useful life of 5 years, but its maintenance cost is expected to increase by ₹ 1 Lakh per year from the end of sixth year of its installation. Its present realizable value is ₹ 12 Lakh. The company has several machines having 20% depreciation.

The new machine costs ₹30 Lakh and is subject to the same rate and basis of depreciation. On sale after 5 years, it is expected to realize ₹18 Lakh. With the new machine, the annual pre-tax operating costs (excluding depreciation) are expected to decrease by ₹2 Lakh. In addition, the machine would increase productivity on account of which net pre-tax revenues would increase by ₹3 Lakh annually (reckoned at year end). The tax rate applicable to the company is 40% and the cost of capital is 10 per cent.

Advise the company on the choice of the machine from a financial perspective on the basis of NPV.



PV Factors (10%)

Year	1	2	3	4	5
PV Factor	0.909	0.826	0.751	0.683	0.621

Present an incremental analysis of using the existing machine versus replacing the machine with a new one. Present annual discounted cash flows in your answers with separate calculation showing annual discounted cash flows on account of incremental depreciation without netting off capital asset outflows or inflows. Calculations are to be presented to the nearest rupee. P.V. factors with above decimal places should be used.

[16]