



FINAL EXAMINATION
MODEL QUESTION PAPER
PAPER - 14

SET 2
TERM – JUNE 2023

STRATEGIC FINANCIAL MANAGEMNT

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) In Porter's structural analysis, which of the following is not considered as an entry barrier? Why?
- Product differentiation
 - Switching costs
 - Capital requirements
 - Low value addition
- (ii) Which of the following is not a part of financial risk? Why?
- Operational risk
 - Market risk
 - Credit risk
 - Liquidity risk
- (iii) Which of the following is not a type of Euro Notes? Why?
- Commercial Papers
 - Note Issuance Facility
 - Medium Term Notes
 - Short Term Notes
- (iv) The type of lease that includes a third party, a lender, is called _____.
Why?
- Sale and leaseback
 - Leverage lease
 - Direct lease arrangement
 - Operating lease
- (v) DCL measures the relationship between
- EPS and EAT
 - EPS and P/E
 - EPS and EBIT
 - EPS and Sales



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- (vi) A six-month forward contract on a stock that does not pay dividend is available at ₹340. The risk-free interest rate is 12% p.a. continuously compounded. Calculate the forward price.
- ₹ 359.051
 - ₹ 361.012
 - ₹ 363.217
 - ₹ 364.119
- (vii) A project with an initial investment of ₹50 lakh and life of 10 years generates Cash Flow After Tax (CFAT) of ₹10 lakh per annum. Calculate Payback Reciprocal.
- 15%
 - 18%
 - 20%
 - 22%
- (viii) The return on market portfolio is 14%. The last dividend of share A was ₹2 and the dividend and earnings have a constant growth rate of 5% p.a. The beta of the share is 2 and the intrinsic value of the share is ₹12.35. Find the risk-free return.
- 5%
 - 6%
 - 7%
 - 8%
- (ix) It was observed that in a certain month, 6 out of 10 leading indicators have moved up as compared to 4 indicators in the previous month. The diffusion index for the month was
- 20%
 - 40%
 - 60%
 - 80%
- (x) An Indian Company is planning to invest in the US. The annual rates of inflation are 8% in India and 3% in USA. If the spot rate is currently ₹ 78.50/\$, what spot rate can you expect after 5 years, assuming the inflation rates will remain the same over 5 years?
- ₹ 88.89
 - ₹ 94.95
 - ₹ 99.50
 - ₹ 86.10



SECTION - B

2. (a) Q Ltd. has two projects under consideration, A and B, each costing ₹60 lacs. The projects are mutually exclusive. The life of Project A is four years and of Project B is three years. The salvage value is zero for both the projects. Depreciation is charged uniformly for A over four years and 100% depreciation is available for B at the end of the first year. The tax rate is 40% and the hurdle rate for cash flow evaluation is 15%. The cash inflows before tax for A and B are given below:

(Figs. ₹ lacs)

| At the end of the year | Project A | Project B |
|------------------------|-----------|-----------|
| 1 | 30 | 25 |
| 2 | 55 | 60 |
| 3 | 60 | 65 |
| 4 | 25 | Nil |

Find the NPV of A and B. Comment on your preference. Is the NPV the most appropriate measure for your decision? Why? (Use PV factors up to 3 decimal points, show annual discounted cash flows for each project in ₹ lacs, up to two decimal places.)

- (b) Describe various types of securities issued by a SPV in securitization transactions. [9 + 7 = 16]
3. (a) A firm has an investment proposal, requiring an outlay of ₹ 40,000. The investment proposal is expected to have 2 years' economic life with no salvage value. In year 1, there is a 0.4 probability that cash inflow after tax will be ₹ 25,000 and 0.6 probability that cash inflow after tax will be ₹ 30,000. The probabilities assigned to cash inflows after tax for the year 2 are as follows:

| | | | | |
|------------------------|----------|-------------|----------|-------------|
| The Cash inflow year 1 | ₹ 25,000 | | ₹ 30,000 | |
| The Cash inflow year 2 | | Probability | | Probability |
| | ₹ 12,000 | 0.2 | ₹ 20,000 | 0.4 |
| | ₹ 16,000 | 0.3 | ₹ 25,000 | 0.5 |
| | ₹ 25,000 | 0.5 | ₹ 30,000 | 0.1 |

The Firm uses a 12% discount rate for this type of investment.

- (i) Tabulate the NPVs for each path of the decision tree (diagram not essential)
- (ii) What net present value will the project yield if the worst outcome is realized? What is the probability of occurrence of this NPV.
- (iii) What will be the best outcome and the probability of that occurrence? (12% Discount factor for 1 year is 0.8929 and for 2 year is 0.7972)
- (b) Write a short note on: Non-Fungible Tokens (NFTs). [10 + 6 = 16]



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4. (a) (i) XY Ltd. is expected to pay a dividend of ₹ 8.00 at the end of first year, a dividend of ₹ 14.00 at the end of second year, a dividend of ₹ 22.00 at the end of third year. From fourth 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 value of the stock.
- (ii) A ₹ 100 par value bond bears a coupon rate of 14 percent and matures after five years. Interest is payable semi-annually. Compute the value of the bond if the required rate of return is 16 percent.
- (b) A Mutual Fund made an issue of 10,00,000 units of ₹ 10 each on 01.01.2016. No entry load was charged. It made the following investments after incurring initial expenses of ₹ 2 lacs.

| Particulars | ₹ |
|--|-----------|
| 50,000 Equity Shares of ₹ 100 each @ ₹ 160 | 80,00,000 |
| 7% Government Securities | 8,00,000 |
| 9% Debentures (unlisted) of ₹ 100 each | 5,00,000 |
| 10% Debentures (Listed) of ₹ 100 each | 5,00,000 |
| Total | 98,00,000 |

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% of their respective face values. Other investments are quoted at par. (i) Find out the Net Asset Value (NAV) per unit given that the operating expenses during the year amounted to ₹ 5,00,000. (ii) Also find out the NAV, if the Mutual Fund had distributed a dividend of ₹ 0.90 per unit during the year to the unit holders. **[(4 + 4) + 8 = 16]**

5. (a) A holds the following portfolio:

| Share/Bond | Beta | Initial Price | Dividend | Market price at the end of year |
|------------|------|---------------|----------|---------------------------------|
| A Ltd. | 0.9 | 30 | 3 | 60 |
| B Ltd. | 0.8 | 40 | 3 | 70 |
| C Ltd. | 0.6 | 50 | 2 | 150 |
| G Bonds | 0.01 | 1000 | 140 | 1010 |

Risk Free return is 14%

Calculate:

- (i) The expected rate of return on his portfolio using Capital Asset Pricing (CAPM)
- (ii) The average return of his portfolio.



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- (b) Four investors, A, B, C and D have invested equal amounts of money in different combinations of funds as per their risk appetite. A has fully invested in Money Multiplier Funds, B has invested 50% in Money Multiplier and 50% in Balanced Growth Funds, C has invested 80% in Balanced Growth Funds and 20% in Safe Money Funds and D has fully invested in a fund that exactly replicates the market portfolio. The following information is given:

| Fund Type | Return for the year (%) | Beta Factor |
|---|-------------------------|-------------|
| Money Multiplier (100% Equity) | 24.00 | 1.8 |
| Balanced Growth Funds (50% Equity and 50% Debt) | 17.5 | 1.3 |
| Safe Money (20% Equity and 80% Debt) | 13.00 | 0.75 |

The market return is 16% and the risk-free rate is 8%. Analyse the above information and rank the investors' rewards using Treynor's measure.

[8 + 8 = 16]

6. (a) Briefly illustrate various steps in a risk management process.
- (b) A owns a portfolio in three stocks as detailed below:

| Stock | No. of shares | Price ₹/share | Beta |
|-------|---------------|---------------|------|
| X | 4,00,000 | 400 | 1.1 |
| Y | 8,00,000 | 300 | 1.2 |
| Z | 12,00,000 | 100 | 1.3 |

The NSE-Midcap 100 is at 28,000 and futures price is 28,560. Assume that the index factor is 100. Advise A on the use stock index futures to

- (i) decrease the portfolio β to 0.8;
- (ii) increase the portfolio β to 1.5 ; and
- determine the number of contracts of stock index futures to be bought or sold in each case.

[7 + 9 = 16]

7. (a) (i) Compare and contrast ADR and GDR.
- (ii) An Indian exporter has sold handicraft items to an American business house. The exporter will be receiving US dollar 1 lakh in 90 days. Premium for a dollar put option with a strike price of ₹ 81.00 and a 90 days settlement is ₹ 1. The exporter anticipates the spot rate after 90 days to be ₹ 79.50. Analyse the benefit of the exporter if it hedges its account receivable in the options market.



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(b) A company operating in USA has on 1st September 2022 invoiced sales in \$ to an Indian company, the payment being due on 1st December 2022. The invoice amount is \$ 13,750. At spot rate on 1/9/2022 it is equivalent to ₹ 10,18,875. The 3 months forward rate is presently quoted at \$ 0.01340 per rupee. The importer wants to hedge half his exposure by a forward contract. Advise the company on hedging transaction by forward contract. Substantiate your advice through calculation of the pay outs and the net gain or loss due to hedging if the spot rates are as follows on 1st December 2022.

(i) \$ 0.01338

(ii) \$ 0.01352

Present your calculation using ₹/\$ up to two decimal places. Ignore transaction cost.

[(4 + 4) + 8 = 16]

SECTION - C

8. Y, a British firm with a US subsidiary, seeks to refinance some of its existing British pound debt to include floating rate obligations. The best floating rate it can obtain in London is LIBOR + 2.0%. Its current debts are as follows:
US\$ 10 million owed to CT Bank at 9.5% (fixed annually); and
£ 5 million owed to MD Bank at 9.5% (fixed) annually.

HRS Company wishes to finance exports to Britain with £3 million of pound denominated fixed rate debt for six months. HRS is unable to obtain a fixed interest rate in London for less than 13.5% interest because of its lack of credit history in the UK. However, Lloyds Bank is willing to extend a floating rate British pound loan at LIBOR + 2%. HRS, however, cannot afford to pay more than 12%. Assume that Y is in a strong bargaining position and can negotiate the best deal possible, but HRS will not pay over 12%. Assume further that transaction costs are 0.5% and exchange rates are stable. Advise whether Y and HRS can help each another by an interest rate swap. In case the swap deal is workable, determine the amount of gains for Y, HRS and the Swap Dealer. Create a diagrammatic representation of the effective post-swap interest rates of each party. Explain the diagram with needful narratives. Also show the effective interest rates for each party over the six months period of the swap.

[16]