MEASI
Institute *of* Management

FINANCIAL MODELLING (534E7B) -QUESTION BANK

SECTION - A

1. Define Financial Modelling.
2. State any four needs/uses of financial modelling.
3. What are the steps involved in constructing a financial model?
4. Explain the characteristics of a good financial model.
5. What is Time Value of Money?
6. Write short notes on:
    - PV
    - FV
    - PMT
    - RATE
7. Explain the uses of LOOKUP functions in financial modelling.
8. What is Loan Amortisation?
9. Explain the concept of EMI.
10. What is Conditional Formatting? How is it used in financial modelling?
11. Explain Data Validation and its importance.
12. Write short notes on VLOOKUP and HLOOKUP.
13. Define Bond Valuation.
14. What is Yield to Maturity (YTM)?
15. Distinguish between coupon rate and yield.
16. Write a note on Flexi Bonds.
17. What are Strip Bonds?
18. Explain redemption of bonds.
19. What is intrinsic value of equity shares?
20. Explain multiple growth rate valuation.

21. Differentiate between single stage and multi–stage valuation.
22. What is IRR method of YTM?
23. What is Altman Z-Score?
24. Write short notes on Bankruptcy Modelling.
25. Define Indifference Point.
26. Explain Financial Break-even.
27. What is Capital Budgeting?
28. Distinguish between NPV and IRR.
29. What is two-stage corporate valuation?
30. Explain the concept of ARR.
31. Define DCF.
32. What are the assumptions of capital budgeting models?
33. Define Portfolio.
34. What is Portfolio Risk?
35. Explain Beta.
36. What is Annualised Return?
37. Write short notes on Security Market Line (SML).
38. Distinguish between Equal Proportion vs Varying Proportion Portfolios.
39. What is Diversification?
40. Explain Efficient Frontier.
41. What is the meaning of Portfolio Construction?
42. Explain the steps involved in calculating portfolio risk.
43. Define Derivatives.
44. What is a Call Option?
45. What is a Put Option?
46. Write short notes on Option Payoff.

47. What is Black–Scholes Model?
48. Define Hedge Ratio.
49. What is Hedging?
50. Explain Long Call and Short Call.
51. Explain Put Option Strategies.
52. What is Optimal Hedge Contract?

SECTION - B

1. Discuss the importance of financial modelling in modern corporate finance.
2. Elaborate the steps for effective financial modelling with examples.
3. Explain in detail the applications of Time Value of Money functions in financial decision-making.
4. Describe the process of constructing an EMI model and the components involved.
5. Explain Loan Amortisation Modelling in detail.
6. Discuss how lookup functions and logical functions enhance the flexibility of financial models.
7. Explain the concept of bond valuation and the different types of cash flows associated with bonds.
8. Compare and contrast YTM using Rate Method and IRR Method.
9. Explain the features and valuation of Flexi Bonds.
10. Discuss Strip Bond valuation and its advantages for investors.
11. Describe the models used for equity valuation with multiple growth rates.
12. Explain in detail the process of valuing equity shares with and without growth.
13. Examine the components of Altman Z-Score and explain how it predicts bankruptcy.

14. Discuss the importance of Indifference Point analysis in financing decisions.
15. Explain Financial Break-even Modelling and its relevance to decision-making.
16. Describe in detail the capital budgeting techniques: Payback, NPV, IRR and ARR.
17. Explain the process of Two-Stage Corporate Valuation.
18. Discuss the role of financial modelling in evaluating long-term investment decisions.
19. Explain the concept of Portfolio Risk and Return with suitable explanation.
20. Discuss the significance of Beta in measuring systematic risk.
21. Explain the Security Market Line (SML) and its use in evaluating securities.
22. Describe in detail the process of Portfolio Construction and optimisation.
23. Explain how diversification reduces risk in portfolio modelling.
24. Discuss the methods used to calculate Portfolio Risk under different proportion models.
25. Develop a model to calculate Portfolio Risk and Return for equal and varying proportions.
26. Construct a Security Market Line Model and evaluate securities.
27. Build a complete Portfolio Construction Model using beta-based risk optimisation.
28. Compare Equal Proportion and Varying Proportion Portfolio.
29. Explain the procedure for Portfolio Risk calculation.
30. Develop a model to calculate Portfolio Risk and Return for equal and varying proportions.
31. Construct a Security Market Line Model and evaluate securities

SECTION -C

1. Elaborate on the importance of Financial Modelling and outline the steps for developing a robust financial model.

2. Construct an EMI model using single and dual interest rate structure with illustrations.
3. Build a Debenture Redemption Model using TVM functions.
4. Explain the steps involved in effective financial modelling.
5. Write short notes on RATE, NPER and IF functions.
6. Explain the construction of a Loan Amortisation Schedule in Excel.
7. Explain the components of a robust financial model and the risks associated with poor model design.
8. Prepare an EMI schedule for a loan where the interest rate changes after a specific period (stepped EMI model).
9. Illustrate the use of VLOOKUP**,** HLOOKUP**,** and COUNTIF in financial data cleaning.
10. Develop a Dual-Rate Amortisation Model for a loan where pre-closure is allowed in Year 3.
11. Build a dynamic model showing the relation between PV, FV, NPER, and RATE using sliders (What-If Analysis)
12. Distinguish between Rate method and IRR method of YTM.
13. Develop a complete Bond Valuation Model and compute YTM using Rate Method and IRR Method.
14. Construct a Flexi Bond YTM Model with all necessary Excel formulas.
15. Build a Multi-Stage Equity Share Valuation Model with and without growth.
16. Write short notes on Flexi Bond Modelling.
17. Explain multiple growth rate equity valuation.
18. Develop a model to compute YTM for a bond with semi-annual coupon payments**.**

19. Explain the steps to build a Bond Redemption Fund model using sinking fund contributions.
20. Construct a Multiple Strip Bond Valuation model showing the decomposition of cash flows.
21. Build an Equity Valuation Model with three growth phases (High growth → Moderate → Stable).
22. Explain Altman Z-Score modelling.
23. Discuss Indifference Point Modelling with an example.
24. Explain two-stage corporate valuation.
25. Develop a Bankruptcy Prediction Dashboard using the Altman Z-Score
26. Create a Financial Break-even Model and explain how fixed costs and debt affect the break-even level.
27. Build a Two-Stage Corporate Growth Valuation Model incorporating cost of equity and WACC.
28. Create a Capital Budgeting Modelling using NPV, IRR, and Payback Period.
29. Build a DCF-based Enterprise Valuation Model including terminal value calculations.
30. Prepare a detailed Bankruptcy Prediction Model using Altman Z-Score including interpretation.
31. Develop a complete Capital Budgeting Model with Payback, NPV, IRR, and ARR in Excel.
32. Construct a two-stage corporate valuation model and estimate company value.
33. Build a complete Portfolio Construction Model using beta-based risk optimisation.
34. Create payoff models for long/short call and long/short put options and interpret results.

35. Develop a Black–Scholes Option Pricing Model in Excel and compute option premium.
36. Construct an Optimal Hedge Contract Model using Hedge Ratio.
37. Create a Greeks Calculation Model (Delta, Gamma, Vega, Theta, Rho).
38. Explain hedging using futures and model the Minimum Variance Hedge Ratio.
39. Build an Option Pricing Sensitivity Table (Delta Hedging Table).
40. Model the effect of time decay (Theta) on the option premium
41. Construct a Profit/Loss Model for Covered Call and Protective Put Strategies
42. Construct a Profit/Loss Model for Covered Call and Protective Put Strategies