MDM – FFE Module I

Question Bank

1. Define: Present Value, Future Value, Time Value for Money and Annuity. Analyze their importance in financial decision-making.
2. What is convexity in bond pricing? How does it improve duration analysis?
3. What are derivative instruments? Give two examples.
4. Distinguish between risk-free assets and risky assets.
5. Differentiate between primary markets and secondary markets with examples.
6. Explain the difference between money market instruments and capital market instruments in terms of risk, return, liquidity, maturity period and with eg.
7. What do you mean by bond yield? Differentiate between current yield and yield to maturity (YTM).
8. Define stocks, bonds, and derivatives. Give one example of each.
9. Explain the concept of financial engineering and its applications.
10. What will be the impact of rising and falling interest rates on bond prices? Which type of bonds (short-term vs. long-term) are more sensitive to these changes? Justify your answer.
11. Define financial engineering. Explain with an example how derivatives can be used in risk management.
12. Differentiate between money market instruments (e.g., T-bills, commercial papers) and capital market instruments (e.g., bonds, equities).
13. Define duration and convexity in the context of bond valuation. Explain how they are used together to measure a bond's price sensitivity to interest rate changes.
14. Explain the difference between coupon rate, yield to maturity (YTM), and current yield of a bond.
15. What is meant by the time value of money? Why is present value important in finance?
16. A company will receive ₹50,000 annually for 5 years. If the discount rate is 8% per annum, calculate the present value of this annuity. Analyze how changes in the discount rate (e.g., 6% and 10%) would affect the present value.
17. A bond with a face value of ₹1,000 pays an annual coupon of 8% and matures in 5 years. If the market interest rate is 10%, calculate the price of the bond.

18. A 3-year bond with face value ₹1,000 pays a coupon of 8% annually. If the market yield is 7%, calculate the bond price. Write Suitable formula.
19. An investor deposits ₹20,000 in a bank account paying 6% annual interest compounded annually. Find the value after 5 years.
20. Calculate the future value of ₹10,000 invested today at 10% annual interest for 5 years using (a) simple interest, (b) compound interest.
21. A 4-year bond with face value ₹1,000 pays a coupon of 10% annually. If its YTM is 8%, calculate its Macaulay Duration.
22. A floating coupon bond has a face value of ₹1,000 and coupon = (Repo Rate + 2%). If the repo rate is 5% in Year 1 and 6% in Year 2, calculate the coupon payment for each year.
23. A treasury bill with face value ₹100,000 is selling for ₹95,000 with 180 days to maturity. Find the annualized discount yield.
24. Imagine that you deposited Rs.2,000 in a savings account that earns an annual interest rate of 7% compounded monthly. What would be the value of the money in your account after ten years?
25. Sita will retire in 20 years. This year she wants to fund an amount of Rs.1,50,00,000 to become available in 20 years. How much does she have to deposit into a pension plan earning 7% annually?