Paper Name: Investment and Risk Management

Semester: 3rd

Question Bank

Q1. What is NAV of a fund? Can the NAV of a fund be negative?

Q2. What is Efficient Frontier? Clearly show the impact of superimposing Efficient frontier on Capital Market Line.

Q3. Explain the call option terms 'at the money, in the money & out of the money'. Do these terms apply to all type of options including put options.

Q4. Write short notes on the following:
  a) Tactical Asset Allocation
  b) Bond Immunization through Duration Matching
  c) Weak form of Market efficiency
  d) Technical analysis
  e) Single index model

Q5. Explain the term Random Walk hypothesis

Q6. Can we consider the Capital Market Line to be a Line of Capital Allocation. What is the rationale behind Capital Market Line to be a straight line?

Q7. What do you mean by the following terms:
  a) Fund of Funds
  b) Portfolio Rebalancing
  c) Exchange Traded Funds

Q8. A company has issued a bond(Face value ₹100) bearing 10% interest and maturity of 7years at par. Required rate of return of the bond investers is 12%. Find out market price, duration and modified duration of the bond. How these would change if the maturity period increases to 15years?

Q9. Draw a typical yield curve. How does the yield curve behave, when the economy is passing through uncertain times?

Q10. Differentiate between SML and CML.

Q11. Explain the term structure of interest rates.

Q12. Explain the two stage growth model.

Q13. "Harry Markowitz pioneered the study of portfolio theory through his analysis of portfolios.' Comment, explaining the various stages in his model of portfolio selection.

Q14. 'Capital market line is different from security market line in a number of ways.' Explain giving points of differences and diagrams.

Q15. The current price of XYZ stock is ₹80. Dividends are expected to grow at 20% next year, 12% annually for the two years after that, 6% annually thereafter. Assume the required rate of return is 10%. What is the current market price of the stock?

Q16. Explain the following concepts:
  a) Tracking Error
  b) Sortino ratio

c) M2 ratio

Q17. 'Bond Immunization matches the duration of liabilities and assets.' Explain the strategy of bond immunization with an example.

Q18. Explain the various types of risks that are relevant to investment in bonds.

Q19. Explain and illustrate Straddle and Spread options strategy.

Q20. Show with your own illustration how the concept of 'Mark to market' is applied to stock futures.

Q21. An investor buys a share of ₹100 and simultaneously buys a put option @premium of 16(excercise price is ₹110). Determine the net profit/loss to this investor if the price on the expiry of option is a) ₹80 b) ₹100 c) ₹110

Q22. Calculate expected return and risk of the investments X and Y. What will be the returns if the total investment is allocated in the ratio 2:3?

Market condition	Probability	Security A	Security B
Dull	0.2	10	6
Stable	0.5	14	15
Growth	0.3	20	11

Also calculate covariance and correlation coefficient.

Q23. Mr. Sharma wants to invest in a company that has just given a current dividend of Rs5 per share. Dividends are expected to grow at 10% for 5years, at 8% for next 3years and 5% thereafter perpetually. Find the intrinsic value of the equity share if the required rate of return of Mr. Sharma is 10%. What is intrinsic value of the share at the end of 8th year? If the actual market price is Rs100, should Mr. Sharma buy this share?

Q24. Explain efficient Market hypothesis and the different forms of market efficiency.

Q25. Mutual fund schemes X, Y and Z are available

Mutual fund	Actual return	Beta	S.D(%)
X	14	0.70	21
Y	26	1.20	30
Z	24	1.15	29

The return on market index is 22% and standard deviation of returns on market index is 25%.Tthe risk free rate is 5%

Calculate

a. Sharpe's ratio for all the funds and market index and rank them
b. Treynor's ratio for all the funds and market index and rank them
c. Jensen's ratio for all the funds and market index and rank them