



Name :

Roll No. :

Invigilator's Signature :

**CS/MBA (N)/SEM-3 (FT) & 5 (PT)/FM-303/2011-12
2011**

**SECURITY ANALYSIS &
PORTFOLIO MANAGEMENT**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :
10 × 1 = 10

- i) Yield to maturity is the single factor that makes
 - a) the future value of the present cash flows from a bond equal to bond value
 - b) the future value of the present cash flows equal to the future price of the bond
 - c) present value of the future cash flows of the bond equal to the current price of the bond
 - d) the future value of the bond equal to the present price.



- ii) Which of the following items might result in dilution of a company's earnings per share at present ?
- a) Convertible bonds
 - b) Warrants
 - c) Stock options issued as incentive to top executives
 - d) All of these.
- iii) Mr. Karthik purchased treasury bills since
- a) the returns are certain
 - b) minimum variation in the return
 - c) the return is certain and the variation is nil
 - d) there is assurance of full payment of principle.
- iv) Four securities X , Y , Z , T are selected for analysis. The returns of the securities are 10%, 12%, 13% and 16%, the risk free rate of interest is 6%. The standard deviation of the return of the securities are 4, 7, 5 and 10 respectively. From these which security yields highest return for the risk undertaken ?
- a) X
 - b) Y
 - c) T
 - d) Z .
- v) An investor gets 15 per cent return from X 's stock. The inflation rate is 7 per cent. His real rate of return is
- a) 7.48
 - b) 8.00
 - c) 2.5
 - d) 7.84.



- vi) Which statement is not true regarding the Capital Market Line (CML) ?
- a) The CML is the line from the risk-free rate through the market portfolio
 - b) The CML is the best attainable capital allocation line
 - c) The CML is also called the security market line
 - d) The risk measure for the CML is standard deviation.
- vii) The market risk, beta, of a security is equal to
- a) the covariance between the security's return and the market return divided by the variance of the market's returns
 - b) the covariance between the security and market returns divided by the standard deviation of the market's returns
 - c) the variance of the security's returns divided by the covariance between the security and market returns
 - d) the variance of the security's returns divided by the variance of the market's returns.
- viii) Consider the multifactor APT with two factors. The risk premiums on the Factor 1 and Factor 2 portfolios are 5% and 6%, respectively. Stock A has a beta of 1.2 on Factor 1 and a beta of 0.7 on Factor 2. The expected return on stock A is 17%. If no arbitrage opportunities exist, the risk-free rate of return is
- a) 6.0%
 - b) 6.5%
 - c) 6.8%
 - d) 7.4%.



- ix) The goal of the Dow theory is to
 - a) identify head and shoulder patterns
 - b) identify breakaway points
 - c) identify resistance levels
 - d) identify long-term trends.

- x) In the active approach the investor continuously studies
 - a) group related activities
 - b) market related risk
 - c) security specific risk
 - d) all of these.

- xi) Markowitz approach has roots in
 - a) good portfolio management
 - b) proper entry in and exit from the market
 - c) estimation of stock return
 - d) analyzing the risk and return related to stock.

- xii) Passive management is a process of holding a well diversified portfolio for
 - a) short term with buy and hold approach
 - b) long term with buy and hold approach
 - c) short term with buy and sell approach
 - d) long term with buy and sell approach.



GROUP - B
(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Anand owns Rs. 1,000 face value bond with five years to maturity. The bond has an annual coupon of Rs. 75. The bond is currently priced at Rs. 970. Given an appropriate discount rate of 10%, should Anand hold or sell the bond ?
3. What is price charts ? Describe Japanese candlestick chart used by technical analysts.
4. A bond which has a coupon of 13% and a par value of Rs. 100 is callable at the end of three years at a premium of 10%. It matures in six years and pays coupon semi-annually. the market price is Rs. 107. Given this data, compute yield to call (require only formation of expression, computation not required)
5. A security pays a dividend of Rs. 3.85 and sells currently at Rs. 83. The security is expected to sell at Rs. 90 at the end of the year. The security has a beta of 1.15. The risk free rate is 5 per cent and the expected return on market index is 12 per cent. Assess whether the security is correctly priced.
6. What do you mean by Capital Asset Pricing Model (CAPM) ?



GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. Mr. Anurag estimates that there will be annual cash outflows of Rs. 40,000 for four years from the end of three years from now. Mr. Anurag wants to immunize the payments by investing in the following two bonds :

Bond A : A zero coupon bond of face value Rs. 1,000 maturing after 6 years and currently traded at Rs. 455.60.

Bond B : 12% coupon bearing bond of face value of Rs. 1,000, maturing after 5 years redeemable at par value and currently traded at Rs. 930.90.

Assume the interest rate remains at 14%. You are required to determine the proportion of funds to be invested in Bonds A and B such that Mr. Anurag's payments are immunized.

8. a) A company paid a dividend of Rs. 2.75 during the current year. It is forecasted that the dividend and earning to grow at 8% over the next 5 years and 5% thereafter infinitely. Required rate of return of investors is 20%. What is the present value of the stock ?
- b) Mr. P is considering the purchase of a bond currently selling at Rs. 878.50. The bond has four years to maturity, face value of Rs. 1,000 and 8% coupon rate. The next annual interest payment is due after one year from today. The required rate of return is 10%.
- i) Calculate the intrinsic value (present value) of the bond. Should Mr. P buy the bond ?
- ii) Calculate the yield to maturity of the bond. $6 + 9$



9. From the following details, estimate the stock return by using the CAPM model and the arbitrage model.

a) The expected return of the market is 15% and the equity's beta is 1.2. The risk free rate of interest is 8%.

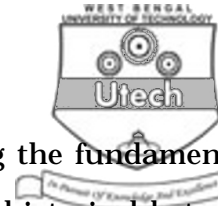
b) Factor	Market price of risk	Sensitivity index
Inflation	6%	1.1
Industrial production	2%	0.8
Risk premium	3%	1.0
Interest rate	4%	- 0.9

What explanations can you offer to explain the difference in two the estimates ?

10. Reliance and Taurus are two mutual funds. Reliance has a mean success of 0.15 and that of Taurus is 0.22. The Taurus has double the beta of Reliance fund's 1.5. The standard deviations of Reliance and Taurus funds are 15% and 21.43%. The mean return of market index is 12% and its standard deviation is 7. The risk free rate is 8%.

a) Compute the Jensen Index for each fund.

b) Compute the Treynor and Sharpe indices for the funds. Interpret the results. 7 + 8



11. a) Can beats be improved by considering the fundamental characteristics of the firm along with historical betas ?
If so, what are they and what is their effect on the historical betas ?
- b) Durgapur Limited's earnings and dividends have been growing at a rate of 18% p.a. This growth rate is expected to continue for 4 years. After that the growth rate will fall to 12% for the next 4 years. Thereafter, the growth rate is expected to be 6% forever. If the last dividend per share was Rs. 2.00 and the investor's required rate of return on Durgapur Limited's equity is 15%, what is the intrinsic value per share ? 8 + 7
12. Write short notes on any *three* of the following : 3 × 5
- a) Mean Variance Criteria (MVC)
 - b) Importance of Candlestick Chart
 - c) Perpetual bonds
 - d) Active portfolio management
 - e) Role of the Asset Management Division (AMD) of mutual funds.