2013

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 1635 **Roll No............**

Unique Paper Code : 101403

Name of the Paper : Security Analysis & Portfolio Management

Name of the Course : BFIA

Semester : IV

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answer ANY **FIVE** Questions.
3. Marks are indicated against the question.

1. (a) Mr. X has analyzed a stock for a one year holding period. The stock is currently selling for Rs. 10 but pays no dividend, and there is a 50-50 chance that the stock will sell for either Rs. 10 or Rs. 12 by year end. What is the expected return and risk if 250 shares are acquired with 80% margin ? Assume the cost of borrowed funds is 10%. (4)

(b) Which of the following portfolios cannot lie on the efficient frontier and why ?

	A	B	C
Mean return	12	15	15
Standard deviation	22	30	20

(4)

(c) XYZ Ltd. paid a dividend of Rs. 3 in March 2012. Dividend for the next year is expected to be Rs. 3.5 and is expected to grow at 10% P.A. thereafter. If the required rate of return is 15%, what should the price of the stock be in March 2013 ? (4)

(d) Explain preferred habitat theory. (3)

P.T.O.

2. (a) Discuss the implications of the latest review of RBI's monetary policy on different investment alternatives in India. (4)

(b) A company expects to pay a dividend of Rs. 7 next year that is expected to grow at 6%. It retains 30% of its earnings. Assuming a required rate of return of 10%, you are required to calculate :

(i) The expected EPS next year

(ii) ROE

(iii) Intrinsic value of the share price (4)

(c) Explain the following :

(i) Moving average crossovers

(ii) RSI (4)

(d) Comment on the following situations in the light of market efficiency :

(i) It is possible to consistently outperform the market by forming portfolios on the basis of PEG ratio.

(ii) Mutual funds are unable to consistently beat the market. (3)

3. (a) What will be the impact of the following on the stock markets :

(i) A high mutual fund cash position

(ii) A widening TED spread (4)

(b) The following information is available on a bond :

Face value : Rs. 100

Coupon rate : 12% payable annually

Years to maturity : 6

Current market price : Rs. 110

What is the duration of the bond ? (4)

(c) Mr. X needs Rs. 50,000 after 2 years for his son's education. He is considering investment in the following two bonds :

Bond A with 7% coupon, 4 years to maturity and current yield of 10% available for 904.90

Bond B with 6% coupon, 1 year maturity and current yield of 10% available for Rs. 963.64

How much money should he invest and where ? (4)

(d) Which of the following will have longer duration :

(i) 7% coupon bond with 11 years to maturity or 7% coupon bond with 15 years to maturity ?

(ii) 7% coupon bond with 11 years to maturity or 9% coupon bond with 11 years to maturity ?

(iii) 7% coupon bond with 11 years to maturity when market yields are 8% or 7% coupon bond with 11 years to maturity when market yields are 10% ? (3)

4. (a) List the type and number of inputs required to calculate return and risk for 10 securities using the Markowitz technique and the Sharpe index model. (4)

(b)

Portfolios	Annual Return	Standard Deviation	Beta
A	12	4	1.1
B	15	6	1.3
Market	14	5	
Treasury bill	5		

Evaluate the performance of the fund A and B above using Sharpe and Treynor's ratios. (4)

(c) Evaluate the performance of the manager of fund A above using Fama's decomposition. (4)

(d) Explain briefly any one passive bond portfolio management strategy. (3)

5. (a) Calculate risk for a portfolio with the given proportions

	A	B
Return	10	12
Standard deviation	4	5
Proportion in portfolio	0.75	0.25
Correlation :		
A	1	0.5
B	0.5	1

(4)

(b) Return on stock A having beta of 1.1 is 15% and return on stock B having beta of 0.9 is 12%. If these stocks lie on the SML what is the required return for portfolio XYZ with beta of 1.2. (4)

(c) Given the following information which of the securities lie above/below the SML :

Return on the stock index=12%, Return on t-Bills=8%, Return on stock A=12% and beta of A=1.05, Return on stock B=20 % and beta of B=1.7. (4)

(d) Explain the Capital Market Line using diagrams and equations. (3)

6. (a) Beta of a portfolio is 1.2, standard deviation of return on the market index is 20% and unsystematic risk (variance) of the portfolio is 1%. What is the standard deviation of the portfolio ? (4)

(b) Explain briefly the "Dollar Cost Averaging Plan". (4)

(c) In what proportion should the following securities be combined to minimise risk ? (no calculations required)

	A	B
Return %	10	12
Standard deviation	2	4
Correlation	–1	

(4)

(d) Explain the Characteristic Line using diagrams and equations. (3)

(100)