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Sr. No. of Question Paper : 2573 **Roll No.....**

Unique Paper Code : 101558

Name of the Course : Bachelor of Business Studies 2013

Name of the Paper : Investment Analysis and Portfolio Management (503, F-1)

Semester : V

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. Attempt any **five** questions.

1. (i) A 6 year bond with face value of Rs. 1000 and 12% coupon rate is currently available for Rs. 920. It is callable after 4 years at Rs. 1200. What is the yield to maturity, yield to call, and current yield ? (6)

(ii) Mr. X needs Rs. 4,00,000 after 2 years. He is considering investment in the following two bonds.

Bonds A with 7% coupon, 4 years to maturity and current yield 10% available for Rs. 905.

Bond B with 6% coupon, 1 year maturity and current yield 10%, available for Rs . 963.

How much money should Mr. X invest in each bond ? And how many of each bond will he purchase ? (4)

(iii) A Rs. 1000 par value bond with 5 years maturity, paying an annual coupon of 8% annually, currently available with Rs. 950. The current market yield is 10%. What will be new price of bond if market yield changes from 10% to 7% ? (Use duration method in solving this problem). (5)

P.T.O.

2. (i) A 12% preference share of XYZ Ltd is priced at 120, and another 17% preference share of ABC Ltd is priced at Rs 150. Which share is good for investment ? (3)

(ii) A company paid a dividend of Rs. 5 in the previous year. The dividends in the future are expected to grow perpetually at the rate of 6%. Find out the share's price today if the market capitalization rate is 12% ? (3)

(iii) A company is currently paying a dividend of Rs. 5 per share. The dividend is expected to grow at a 10% annual rate for three years, then at 12% rate for the next three years, after which it is expected to grow at a 8% rate for ever. What is the present value of the share if the capitalization rate is 12% ? (5)

(iv) Explain the concept of industry life cycle in fundamental analysis. (4)

3. (i) Briefly discuss any two items from the annual accounts which require special attention during company analysis. (4)

(ii) How can Porter model be used in industry analysis ? (4)

(iii) You are thinking of buying ABC Motor irredeemable preference shares of Rs. 100 par value, currently available in Rs. 110 that will pay a dividend of 15%. What price should you pay for the preference share if you are expecting a return of 18% ? (3)

(iv) What are the passive strategies of bond management ? (4)

4. (i) According to the CAPM the required return on a stock with beta of 1.5 is 12.5% and for a stock with beta of 0.9 is 9.5%. What is the required return on a stock with beta of 1.2 ?

(ii) How do technical analysts use the following in forecasting stock prices-futures, institutional activity, small investor volumes ?

(iii) Draw diagrams to depict the characteristic line and the capital market line and write their respective equations. (5,5,5)

5. The following information is available for stocks of ABC and XYZ :

	ABC	XYZ
Expected Return	12%	16%
Correlation with market	0.5	0.6
Beta	0.9	1.2

Expected return on the market is 14 % and standard deviation of market return = 10% Risk free rate = 5%.

(a) Which stock will you prefer to buy according to CAPM ?

(b) Which will you prefer to buy if you consider the return /total risk ?

(c) If we want to create a minimum risk portfolio with the two stocks in part (a) what proportion would you recommend in the following two cases : if they have perfect negative correlation (–1) and if they have perfect positive correlation (+1). (5,5,5)

6. (i) Rank the following mutual funds according to Sharpe, Jensen and Fama's measures. Did any of them out perform the market ?

Fund A return 15%, standard deviation 25% , beta 1.2

Fund B return 12%, standard deviation 22%, beta 1.1

Nifty return 11%, standard deviation 20%

Risk free rate of return 5%

(ii) What is the standard deviation and return of a portfolio containing 50% of each of the funds in part (a) above if the correlation between them is 0.6 ?

(iii) Briefly explain the asset allocation pyramid. Is it identical for all investors ?

(5,5,5)

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Sr. No. of Question Paper : 1144

Roll No.....

Unique Paper Code : 101558

Name of the Paper : Investment Analysis and Portfolio Management

Name of the Course : Bachelor of Business Studies

Semester : V

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. Attempt any **five** questions.

1. (I) A Rs 1000 par value bond with 3 years maturity, paying an annual coupon of 6% annually, currently available with Rs. 991. The current market yield is 8%. What will be new price of bond if market yield change from 8% to 5%. (Use duration method in solving this problem) (4 marks)

(II) Mr. X needs Rs. 4,00,000 after 2 years. He is considering investment in the following two bonds.

Bonds A with 7% coupon, 4 years to maturity and current yield 10% available for Rs. 905.

Bond B with 6% coupon, 1 year maturity and current yield 10%, available for Rs. 943.

How much money should Mr. X invest in each bond? And how many of each bond will he purchase ? (4 marks)

(III) List the type and number of inputs required to calculate return and risk for 5 securities using the Markowitz technique and the Sharpe index model. (4 marks)

(IV) How does RSI use in technical analysis ? (3 marks)

P.T.O.

2. (I) A 3 year bond of Rs 1000 face value will pay 7% interest per annum. If market interest rate is 6%, what is the duration of the bond ? (4 marks)

(II) A 5 year bond with face value of Rs. 100 and 12% coupon rate is currently available for Rs. 80. It is callable after 4 years at Rs. 120. What is the current yield, and yield to call ? (4 marks)

(III) A risk averse investor is holding stock X. He is considering to add Y and/or Z to increase return, but he is worried that risk will also increase. What do you advise when the following information is given ? (4 marks)

Stock	Ex. Return	St. Dev.	Correlation with X
X1	10%	5	1.0
X2	12%	7	0.5
X3	13%	9	0.7

(IV) Explain the different forms of efficient market hypothesis. (3 marks)

3. (I) ABC Ltd has sales of Rs. 200 lakh, after tax profit margin on sales of 5%, effective tax rate 30% and 2 lakh shares and the share is currently priced at Rs. 20. What is the earning per share ? (4 marks)

(II) Calculate risk and return for a portfolio with the given proportions.

	Stock-A	Stock-B
Return	10	12
Standard deviation	4	5
Proportion in portfolio	0.5	0.5
Correlation		
Stock-A	1	0.5
Stock-B		1

(4 marks)

(III) Stock A has expected return of 7.8% and beta of 0.7. Stock B has an expected return of 10.20% and a beta of 1.3. The risk free rate is 5%. (4 marks)

A. Plot the security market line.

B. What is the expected return on the market ?

C. What is the expected return of C as per CAPM having beta of 1.1.

(IV) Explain the concept of industry life cycle in fundamental analysis. (3 marks)

4. (I) A company is currently paying a dividend of Rs. 2 per share. The dividend is expected to grow at a 15% annual rate for three years, then at 10% rate for the next three years, after which it is expected to grow at a 5% rate for ever. What is the present value of the share if the capitalization rate is 9% ? (4 marks)

(II) On Monday Sensex opened with 17000 points and closed at 17500 points on Friday. The ABC stock has 2.5 alpha and 1.7 beta values and currently trading at Rs. 1200.

What will be the expected return and the new price of ABC stock ? (4 marks)

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

	A	B	C
Mean return	10	14	14
Standard deviation	20	30	19

(4 marks)

(IV) Explain the Capital Market Line with a diagram and equations. (3 marks)

5. (I) ABC Ltd has a beta of 1.5 and standard deviation of 40%. The standard deviation in the market portfolio is 20%. What is the correlation between ABC stock return and market return? Also calculate the systematic and unsystematic risk of ABC Ltd. (4 marks)

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

(III) A 13% preference share of XYZ Ltd is priced at 110, and another 15% preference share of ABC Ltd is priced at Rs. 160. Which share is good for investment ? (4 marks)

(IV) Explain the investor life cycle approach in selection and formulation of portfolio. (3 marks)

6. (I) The expected return on the market is 20% and standard deviation is 30% and return on the risk free asset is 5%. Design the portfolio as per CAPM with :

A. No standard deviation

B. Standard deviation of 15%

C. Standard deviation of 30%

D. Standard deviation of 45% (4 marks)

(II) Rank the portfolio on the basis of Sharpe, and Treynor. (4 marks)

Portfolio	Return	Standard deviation	Correlation with market
X	20%	15%	0.60
Y	35%	18%	0.75
Market Index	25%	15%	
Bank deposit rate	8%		

(III) Rank the portfolios given in above example on the basis of Jenson ratio. (4 marks)

(IV) How do active investment strategies apply in portfolio management ? (3 marks)