Third Semester MBA Degree Examination, June/July 2017
Investment Management

Time: 3 hrs.   Max. Marks:100

SECTION - A

Note : 1. Answer any FOUR questions from Q.No.1 to Q.No.7.
2. Present value Tables can be provided.

1   What is Rolling Settlement?   **(03 Marks)**

2   List the basic tenets of Dow theory.   **(03 Marks)**

3   Describe S & P BSE SENSEX.   **(03 Marks)**

4   Suppose that the index consists of only 2 stocks : Stock A and Stock B. Company A has 1000 shares in total of which 200 shares are held by the promoters. Similarly Company B has 2000 shares of which 1000 are held by the promoters. The basic year index value is set to 100 and the market capitalization (free float) is Rs 60,000. Suppose the current market price of stock A is Rs 120 and the current market price of stock B is Rs 200. Calculate the value of the index today using Free – Float market capitalization methodology.   **(03 Marks)**

5   If a preferred stock's annual dividend is Rs 4 and the required return is 10%, what is the worth of preferred stock today?   **(03 Marks)**

6   List the assumptions of Marketing model.   **(03 Marks)**

7   Differentiate between CML and SML.   **(03 Marks)**

SECTION - B

Note : Answer any FOUR questions from Q.No.1 to Q.No.7.

1   Explain the trading and settlement procedure in Bombay stock exchange.   **(07 Marks)**

2   What is Risk? Discuss the different types of risk.   **(07 Marks)**

3   Explain the utility of economic analysis and state the economic factors considered for this analysis.   **(07 Marks)**

4   Two bonds A and B have a par value of Rs 10,000 and YTM of 9%. Both mature after 4 years. A pays annual coupon of 10% and B pays 7.5% annual coupon. Calculate the duration and volatility of bonds A & B.   **(07 Marks)**

5   Goodwill Ltd has a beta of 1.5. The risk free rate is 7% and the expected return on the market portfolio is 14%. The company presently pays a dividend of Rs 2.50 per share and investors expect a growth in dividend of 12% per annum for many years to come.
Compute the required return on the equity according to CAPM. What is the present market price of the equity share assuming the computed return as required return?   **(07 Marks)**

6   What is Relative Strength Index (RSI)? Compute 14 day RSI for the following data :   (07 Marks)

Day	Closing Price (Rs)
1	130
2	132
3	130
4	135
5	137
6	134
7	136
8	140

Day	Closing Price (Rs)
9	140
10	142
11	139
12	141
13	145
14	143
15	145

7   An investor invests 30% of his funds in risk free asset and the remaining 70% funds in an index fund that represents the market. The risk free return is 8%. The index fund is expected to give a return of 21%.
a)   Calculate the expected return from the portfolio of the investor. The standard deviation of returns from the index fund is 9.80. What is the standard deviation of the port folio return?
b)   If the investor borrows a sum equal to 20% of his available funds at risk free rate of interest and invests the same also in the index fund, what is the expected return of the portfolio? What is the portfolio risk?   (07 Marks)

SECTION - C

Note : Answer any FOUR questions from Q.No.1 to Q.No.7.

1   Explain the various forms of efficient market hypothesis. Describe the various tests of market efficiency.   (10 Marks)

2   Discuss the advantages of investing in mutual funds. What are the different mutual fund schemes available in India?   (10 Marks)

3   Describe Markowitz efficient frontier and explain how it dominates the portfolios that lie below it?   (10 Marks)

4   Suppose that seven portfolios experienced the following results during a ten year period.
   (10 Marks)

Portfolio	Average annual return (%)	Standard deviation	Correlation with the market
A	15.60	27.00	0.81
B	11.80	18.00	0.55
C	8.30	15.20	0.38
D	19.00	21.20	0.75
E	-6.00	4.00	0.45
F	23.50	19.30	0.63
G	12.10	8.20	0.98
Market	13.00	12.00	

a)   Rank these portfolios using Sharpe and Treynor methods. The risk free rate is 6%.
b)   Did any portfolio out perform the market? Why or why not?

5 Following information is available in respect of market :   (10 Marks)

Security	Expected return (%)	Beta
A	22.20	1.75
B	15.80	1.90
C	18.00	1.10
D	9.00	0.95
E	25.80	2.00
T Bill	8.00	-
SENSEX	15.00	1.00

a) Which of the securities are underpriced or overpriced in terms of security market line?
b) What expected returns an investor would have if the investor forms are equally weighted portfolio of all the risky securities from A to E? Calculate the implied beta for the investor on such on portfolio.

6 The following table gives data on 4 stocks :   (10 Marks)

Stock	Alpha	Systematic variance	Unsystematic variance
A	-0.06	5	4
B	0.10	2	6
C	0.00	3	1
D	-0.14	3	2

The market is expected to have a 12% return over a forward period with a return variance of 6%. Calculate the expected return for a portfolio consisting of equal portion of stocks A, B, C and D.

7 A chemical company paid a dividend of Rs 2.75 during the current year. Forecasts suggest that earnings and dividends of the company are likely to grow at the rate of 8% over the next five years and at the rate of 5% thereafter. Investors have traditionally required a rate of return of 20% on these shares. What is the present value of stock?   (10 Marks)

SECTION - D
CASE STUDY – [Compulsory]

Companies A and B are listed on the stock exchange for the last several years. The stocks behave in tandem depending upon the state of economy but to varying degrees. An analyst has conducted a study to find out how the interrelationship of the returns of the these two stocks. He segregated different economic conditions excellent, good normal and poor and calculated the returns offered by each firm during such period. The summary of his findings is given below :

Situation	Probability	Returns (%)	
		A	B
Excellent	0.15	20	15
Good	0.15	15	12
Normal	0.50	12	9
Poor	0.20	-3	-1

Questions :

1. Calculate the expected return and standard deviation of each stock.   (08 Marks)
2. What is the covariance and correlation coefficient between stocks A & B?   (06 Marks)
3. Calculate portfolio risk and return with equal investment in each of the above securities.   (06 Marks)

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