M.Com 4th Semester Examination, 2011

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PAPER—CM-2203

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

UNIT—I

1. Answer any *two* questions from the following :   5 x 2

   (a) Write your observation on market risk of a security as a significant component of systematic risk. How can we measure such risk ?   3 + 2

(b) How is strong form of market efficiency defined ? 5

(c) Suppose, two securities, X and Y are under scrutiny of a security analyst. Their returns and respective chances of occurrence are given as follows :

Security X		Security Y	
Return (in % age)	Probability	Return (in % age)	Probability
7	1/3	6	1/4
8	1/3	8	1/2
9	1/3	10	1/4

What will be the average returns of security X and security Y? Which security is more risky ? 2 + 3

(d) The price of each equity share of X. Co. Ltd. (face value of which is Rs. 10) was Rs. 35 as on 1st June, 2008. Mr. I purchased 100 equity shares as on that date and later sold all the equity shares in this account on 30th November, 2008 @ Rs. 30 per share. He has received

(*Continued*)

20% dividend on his holding on 1st September, 2008 for the financial year, 2007–08 by proper transfer of the shares in his name. There has also been a bonus issue by the company as a result of persisting demand from its shareholders focusing on the company's large amount of accumulation in the reserve fund. The bonus issue was made on 1st July, 2008, the date of company's AGM for the financial year, 2007–08 @ 1:2 due to which ex-market price of the shares came down to Rs. 20 on that day. The company also declared an interim dividend of 4% on 30th September, 2008 for the first half-year of the financial year, 2008–09. The same dividend was paid with in 45 days to all the shareholders. Calculate the holding period rate of return to Mr. L

5

2. Answer any *one* question from the following : 10 x 1

(a) Describe, in brief, how company-level analysis is usually conducted as a part of overall fundamental security analysis. 10

(*Turn Over*)

(b) Following information about closing and opening share prices are available about the equity shares of company Z:

Day	Opening Price (in Rs.)	Closing Price (in Rs.)	Day	Opening Price (in Rs.)	Closing Price (in Rs.)
1	25	27	11	29	29
2	28	29	12	30	29
3	29	30	13	29	30
4	29	28	14	31	28
5	27	26	15	26	25
6	25	23	16	24	22
7	21	19	17	22	22
8	22	22	18	24	26
9	23	25	19	28	31
10	27	29	20	31	34

You are required to draw :

(i) Line chart for the said period,

(ii) Point and figure chart, with a reversal criterion of Rs. 2 and box size of Re.1

(iii) 5-day simple moving average for the 10th day and the 15th day, and

(iv) 5-day exponential moving average for the 15th day. $2 + 4 + 2 + 2$

(*Continued*)

UNIT—II

3. Answer any *two* questions from the following : 5 × 2

   (a) The current dividend on an equity share of Preity Limited is Rs. 4·00. The present growth rate is 20%. It is expected that this rate will remain for the next 8 years after which it will stabilize at a rate of 10%. The required rate of return by the equity shareholders is 18%. calculate the intrinsic value of the equity share of the company. 5

   (b) For a two-security portfolio, benefit of diversification in terms of risk reduction depends on the correlation coefficient between the securities. Comment on the statement. 5

   (c) There are two securities A and B. The following information is given relating to the two securities :

   Return of A : 15%
   Return of B : 18%
   Variance of returns of security A : 16
   Variance of returns of security B : 25
   The correlation coefficient between A and B is 0·60

You are required to compute :

(*i*) The portfolio risk if equal weightage is given to them in the portfolio.

(*ii*) The percentage of investment in *A* and *B* in order to reduce the portfolio risk to zero, if the correlation coefficient is minus 1 (i.e.-1).   3 + 2

(*d*) Explain the concept of Security Market Line. How can it be used to make investment decisions ?   3 + 2

4. Answer any *one* of the following :   10 x 1

(*a*) (*i*) What is a zero coupon bond ? Calculate the yield to maturity of a bond having face value of Rs. 1000 and a coupon rate of 15 % per annum which will be maturing at par after 6 years. The present selling price of the bond is Rs. 825.

(*ii*) Consider the following information for the three mutual funds : *R*, *S* and *T* and the market index.

	Mean return	Standard deviation	Beta
R	15%	20%	0·90
S	19·50%	24%	1·10
T	19%	15%	1·40
Market Index	16%	20%	1·00

The risk–free rate of return is 10%.

You are required to rank the four funds using :

(*I*) Sharpe ratio

(*II*) Treynor ratio.

Why do the rankings differ in the two cases ?

$(2 + 3) + (2 + 2 + 1)$

(b) (i) The importance of variance term diminishes whereas that of the covariance term increases as the number of securities in the portfolio is increased. Elaborate the statement.

(ii) Explain the shape of efficient frontier in the case where riskless lending and borrowing is introduced to an investor. 5 + 5

[*Internal Assessment* : 10 Marks]