18MBAFM302

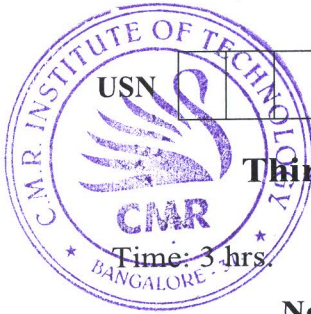### Third Semester MBA Degree Examination, June/July 2023
Investment Management

Time: 3 hrs.   Max. Marks:100

Note: 1. *Answer any FOUR full questions from Q.No.1 to Q.No.7.*
2. *Question No. 8 is compulsory.*
3. *Use of PV Tables is permitted.*

1 a. What is a derivative?   (03 Marks)
   b. Explain the various Bond Portfolio management strategies.   (07 Marks)
   c. Stocks DMW and KMW have yielded the following returns :

Years	Return (%)	
	DMW	KMW
2021	12	14
2022	18	12

   i)   What is the expected return on a portfolio made up of 60% of DMW and 40% of KMW?
   ii) Find out the standard deviation of each stock.
   iii) What is the covariance and co-efficient of correlation between stocks DMW and KMW?
   iv) What is the portfolio risk of a portfolio made up of 60% of DMW and 40% of KMW?
                                                                                     (10 Marks)

2 a. What is unsystematic risk?   (03 Marks)
   b. A bond of Rs.1000 face value, bearing a coupon rate of 12% will mature after 7 years. What
      is the value of the bond if the discount rates are 14% and 12%?   (07 Marks)
   c. The returns on securities KMW and MVW are given below :

Probability	KMW	MVW
0.5	4	0
0.4	2	3
0.1	0	3

   Give the security of your preference. The security has to be selected on the basis of risk and
   return.   (10 Marks)

3 a. Explain the term resistance level, based on Technical analysis.   (03 Marks)
   b. Differentiate between Investor and Speculator.   (07 Marks)
   c. Mr.MVW, a financial analyst is analyzing two investment alternatives, stock Y and stock Z.
      The estimated rates of return and their chances of occurrence for the next year are given
      below:

Probability	Rates of return (%)	
	Y	Z
0.20	22	5
0.60	14	15
0.20	−4	25

   (i)   Determine the expected rates of return, variance and standard deviation of Y and Z.
   (ii) Which stock has move risk element?
   (iii) If Mr. MVW wishes to invest half in Z and another half in Y, would it reduce the risk?
         Explain.   (10 Marks)

4 a. What is an EIC frame work?   (03 Marks)
   b. Explain the various stages in an Investment process.   (07 Marks)
   c. Explain the assumptions of CAPM and APT.   (10 Marks)

5 a. What is a Mutual Fund?   (03 Marks)
   b. Explain the various types of Risk.   (07 Marks)
   c. Explain the different methods of raising capital in the primary market. (10 Marks)

6 a. What is RSI?   (03 Marks)
   b. Analyze any 5 chart patterns, based on Technical analysis.   (07 Marks)
   c. The details of 3 portfolios are mentioned below :

Portfolio	Average Annual return	Standard deviation	Co-efficient of correlation of market portfolio
DMW	18	27	0.8
KMW	14	18	0.6
MVW	15	8	0.9
Market	13	12	-

   The return on government securities is 9%.
   (i) Rank these portfolios based on Sharpes and Treynor's methods.
   (ii) Compare the indices.   (10 Marks)

7 a. State the equation of the Arbitrage pricing Theory model.   (03 Marks)
   b. Explain the various types of Money Market instrument.   (07 Marks)
   c. Mr. MVW did an investment analysis for Stock X. The results of the analysis are as follows.
      The market price of risks (b_i) and sensitivities for the particular stock is given below. The
      return from Treasury bills is 5%.

Factor	λ	b_i
Interest rate risk	0.9	0.9
Purchasing power risk	0.9	1.8
Management risk	1.3	1.6
Market risk	0.8	−1.75

   The probability of getting a return on stock X is given below :

Return (%)	Probability (%)
15	40
20	30
10	20
8	10

   Can an investor purchase stock X?   (10 Marks)

8 **CASE STUDY: (compulsory)**

Mr. KMW received Rs.10 lakhs from his pension fund. He wants to invest in the stock market. The Treasury bill rate is 7% and the market return variance is 20. The following table gives the details regarding the expected return, beta and residual variance of the individual security.

Stock	R_i	Beta	σ^2_{ei}
A	20	0.75	25
B	18	1.3	16
C	16	1.3	09
D	12	0.75	16
E	10	0.6	09
F	15	1.8	36

a. Calculate the Fund allocation in the stocks, based on Sharpe's optimum portfolio assuming no short sales. **(14 Marks)**

b. Guide Mr.KMW to generate expected returns for stocks, by stating the assumptions of CAPM. **(06 Marks)**

* * * * *