Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA (AM) – SEMESTER –7• EXAMINATION –SUMMER 2023

Subject Code:2577121 Date:19/06/ 2023

Subject Name: Security Analysis and Portfolio Management

Time: 2:30pm to 5:30 pm Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 **(a)** What is risk? What are the various types of risks involved in investment decision? **07**

(b) Describe the process of developing an optimal portfolio. **07**

Q.2 **(a)** Explain the need of Fundamental and technical analysis in Portfolio management. **07**

(b) A stock costing ₹120 pays no dividends. The possible prices that the stock might sell for at the end of the year with respective probabilities. **07**

Price	Probability
115	0.1
120	0.1
125	0.2
130	0.3
135	0.2
140	0.1

i) Calculate the expected return

ii) Calculate the standard deviation of returns.

OR

(b) On the basis of the results of four portfolio manager for a 5 year period given below (Rf= 5%, Rm= 11%). Calculate Jensen's Alpha and select the manager with best performance. **07**

Portfolio	Average Return (%)	Beta
A	9	0.30
B	12	0.55
C	12	0.75
D	10	0.40

Q.3 **(a)** What is Technical analysis? Explain main tools used for the purpose. **07**

(b) The mean returns and variance of the returns for the stocks during a year are given below. **07**

Stocks	Mean return	Variances
A	20%	8
B	25%	18
C	35%	22
D	32%	21

The treasury bill rate is 7%

Which security is best to buy?

OR

Q.3 **(a)** Compare and contrast CML & SML. **07**

(b) An investor wants to analyze his portfolio using Markowitz or Sharpe's Techniques. His portfolio consists of 25 different stocks. He is not aware of the bits of information needed to evaluate his portfolio. He wants to adapt a technique which requires minimum information. As a portfolio manager which method would you advise him to use? **07**

Q.4 **(a)** Explain Markowitz Portfolio theory. **07**

(b) Returns and their probability are stated in the below table. Calculate the expected return. **07**

Return	Probability
8	0.15
9	0.20
10	0.30
11	0.20
12	0.15

OR

Q.4 **(a)** What is the meaning of Capital Asset Pricing theory? Discuss its assumptions and applications. **07**

(b) The risk free rate of return is 9%, the expected return on NSE-Nifty is 20% and the variance of the index is 25%. Portfolio returns is 15%. Estimate the risk of it. If the investor borrows 25% funds at the risk free rate of return, what will be the return and risk of the portfolio? **07**

Q.5 **(a)** Short note on: Random walk theory. **07**

(b) What is the value of ₹1000 bond that paying 5% annual coupon rate in semiannual payments over 5 years until it matures if its yield to maturity is 7%? **07**

OR

Q.5 **(a)** Short note on: Arbitrage Pricing Theory. **07**

(b) Calculate the expected rate on asset using the equation for APT model if the risk free rate is 7%. **07**

Security	Risk premium	Beta
1	1.25	1.5
2	0.50	0.75
3	1.8	1.2

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