

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA-SEMESTER-III-EXAMINATION-SUMMER-2025

Subject Code: 1539503

Date: 02/06/2025

Subject Name: Security Analysis and Portfolio Management

Time: 02:30 PM TO 05:30 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

Q. No.	Explanation the following terms:	Marks
Q.1	a) Investment b) Speculation c) Portfolio revision d) Portfolio Execution e) Bonds f) Risk g) Technical Analysis	14

Q.2	(a) Fundamental Analysis is in-depth economic analysis. Critically evaluate	07
	(b) Differentiate between Investment, Speculation and Gambling?	07

OR

(b)	What do you mean by Efficient Market Hypothesis, Also Explain the forms of Market efficiency?	07
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Q.3	(a) Technical Analysis believes that history repeats itself. Share your views in light of the statement using tools of the same.	07
	(b) During the past five years the return of a stock were as follows: Find the Cumulative wealth index, Arithmetic Mean, Geometric Mean	07

Year	Return
1	0.07
2	0.03
3	-0.09
4	0.06
5	0.10

OR

Q.3	(a) Explain Dow Theory and trends associated with the theory in details	07
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(b) 07

Calculate the return and risk associated

State of the economy	Probability of Occurrence	Return in %
Boom	0.4	25
Normal	0.3	12
Recession	0.3	-6

Q.4 (a) Explain in detail Capital Market Theory: CML, SML, Capital Asset Pricing Model 07

(b) Consider two stocks, P and Q 07

	Expected Return	Standard deviation
Stock P	16%	25%
Stock Q	18%	30%

The returns on the two stocks are perfectly negatively correlated.

What is the expected return of a portfolio constructed to drive the standard deviation of portfolio return to zero?

OR

Q.4 (a) Explain in detail Bond Management Strategies, Analysis of Bonds 07

(b) A portfolio consists of 3 securities, 1, 2, and 3. The proportions of these securities are: $W_1 = 0.3$, $W_2 = 0.5$ and $w_3 = 0.2$. The standard deviations of returns on these securities (in percentage terms) are: $\sigma_1 = 6$, $\sigma_2 = 9$, and $\sigma_3 = 10$. The correlation coefficients among security returns are $\rho_{12} = 0.4$, $\rho_{13} = 0.6$, $\rho_{23} = 0.7$. What is the standard deviation of portfolio Return? 07

Q.5 The returns of two assets under four possible states of nature are given below:

State of nature	Probability	Return on asset 1	Return on asset 2
1	0.10	5%	0%
2	0.30	10%	8%
3	0.50	15%	18%
4	0.10	20%	26%

(a) What is the standard deviation of the return on asset 1? 07

(b) What is the covariance between the returns on assets 1 and 2? 07

OR

Q.5 (a) What is the coefficient of correlation between the returns on assets 1 and 2? 07

(b) What is the standard deviation of the return on asset 2? 07
