

Enrollment No.: _____

Seat No.: _____

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

Subject Code: 4539221

Date: 17-12-2025

Subject Name: Security Analysis and Portfolio Management

Time: 10:30 AM TO 01:30 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.	Marks
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Q.1	Define the following terms:	14
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- (a) Unique risk and Market risk
- (a) Breath indicators
- (b) Immunization strategy of bond
- (c) Marketability
- (d) Portfolio rebalancing
- (e) Weak form EMH
- (f) Oscillators

Q.2	(a) What do you mean by security analysis and portfolio management? Also explain the portfolio Process in detail.	07
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	(b) The expected dividend per share on the equity share of Rocky Limited is Rs. 2.00. The dividend per share of Rocky Limited has grown over the past five years at the rate of 5 percent per year. This growth rate will continue in future. Further, the market price of the equity shares of Rocky Limited, too, is expected to grow at the same rate. What is a fair estimate of the intrinsic value of the equity share of Rocky Limited if the required rate is 15 percent? If market price if the company is 35, comment on company valuation and give your recommendation to investors for buying and selling.	07
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OR

	(b) Explain the concept of Markowitz diversification principle. Discuss the portfolio construction process as per modern portfolio theory.	07
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Q.3	(a) The following information is available for the two company stocks:	07
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	Stock A	Stock B
Expected return	16%	12%
Standard deviation	15%	8%
Coefficient of correlation	0.60	

- | | | |
|------------|---|-----------|
| | (a) What is the covariance between stocks A and B? | |
| | (b) What is the expected return and risk of a portfolio in which A and B have weights of 0.6 and 0.4. | |
| (b) | The following information is available regarding the performance of the three mutual funds and Nifty index. The risk-free rate of interest is assumed to be 9%. Rank the following mutual fund portfolio with the help of Sharpe index and Treynor index. | 07 |

	Rp	Standard deviation	Beta
DSP Blue-chip	25.38	4.00	0.23
Fraklin growth	25.11	9.01	0.56
SBI Contra	25.01	3.55	0.59
Nifty 50 Index	22.50	4.00	-----

OR

- Q.3** (a) Fundamental analysis is significant tool of security selection. Explain various macro-economic factors of fundamental analysis that influence the stock market. **07**
- (b) Explain the CAPM Model and CML, SML in detail. Also state the detail assumptions of CAPM. **07**

- Q.4** (a) Define Technical Analysis. What are the different techniques of technical analysis? **07**
- (b) The following table gives an analyst's expected return on two stocks for particular market returns: **07**

Market Return	Aggressive Stock	Defensive Stock
6%	2%	8%
20%	30%	16%

- (i) What are the betas of the two stocks?
- (ii) What is the expected return on each stock if the market return is equally likely to be 6% or 20%?
- (iii) If the risk-free rate is 7% and the market return is equally likely to be 6% or 20% what is the SML?
- (iv) What are the alphas of the two stocks?

OR

- Q.4** (a) What is EMH? Discuss the various forms of EMH and state the empirical evidence of test of various forms. **07**
- (b) The returns on security X is given under: **07**

Period	Return on security X
1	15
2	12
3	20
4	-10
5	14
6	9

Calculate the (i) Arithmetic mean (ii) Variance of stock return (iii) Risk of Stock Return

Q.5

CASE STUDY:

You are employee of the investment company bluebird. You have been asked to consider the following investment alternatives and also construct the portfolio for hypothetical investors. The research department has provided the data of probability for various economic scenario and details of company DCM and Hindalco for your analysis. Advise the investors on your analysis of two company and market.

The returns of two company's stock and market is as given under four possible states of economy nature are given below:

State of economy	Probability	Return on stock DCM	Return on stock Hindalco	Return on market portfolio
Recession	0.10	5%	0%	5
Low growth	0.30	10%	8%	15
Normal	0.50	15%	18%	20
High growth	0.10	20%	26%	25

- (a) What is the standard deviation of the return on company DCM stock and company Hindalco stock? Comment which co is riskier for investment, and why. **07**
- (b) What is the coefficient of correlation between the returns on Stock of DCM & Hindalco? Interpret the result. **07**

OR

- Q.5** (a) What is the covariance between the returns on DCM Stock and Hindalco stock? Also comment on covariance of two company stock returns. **07**
- (b) What is the expected return of a portfolio constructed with equal weighted of company DCM and Hindalco. Comment whether this company performance is better than market performance or not. **07**
