

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA-SEMESTER-III-EXAMINATION-WINTER-2024

Subject Code: 4539221**Date: 13/12/2024****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 |
|--|-------|
| Q.1 Explain the following terms:
(a) Technical Indicators
(b) Buy and Hold Strategy
(c) Market Breadth
(d) Forms of EMH
(e) Portfolio Revision
(f) PBV-ROE Matrix
(g) Immunization Strategy | 14 |
| Q.2 (a) Define Security analysis portfolio Management. Explain the portfolio Process in Detail. | 07 |
| (b) Select the Industry of your choice and Discuss the Macro Economic variables that affect the stock price and stock market in detail. | 07 |

OR

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| (b) During the past five years, the returns of a stock of ITC shares were as follows: | 07 |
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Year	1	2	3	4	5
Return	0.07	0.03	-0.09	0.06	0.10

Compute the following: (i) cumulative wealth index (ii) arithmetic mean (iii) variance (iv) standard deviation and (v) coefficient of Variation

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|---|----|
| Q.3 (a) Define Technical analysis. "Technical Analysts believe that one can use past price changes to predict future price changes" agree? Discuss various charting techniques of technical Analysis in detail. | 07 |
| (b) The information about two company's stock is given as under: | 07 |

State of the Economy	Probability of Occurrence	Rate of Return on Orlando Utility, Inc. stock	Rate of Return On Orlando Technology, Inc. stock
Recession	0.2	4	10
Normal	0.5	10	14
Boom	0.3	14	30

What is the expected return and standard deviation of return? Which stock investor should invest in? Why?

OR

- Q.3 (a)** Describe the procedure developed by Markowitz for choosing optimal portfolio of risky assets. Why single index model is suggested over Markowitz model. **07**
- (b)** The following information is available: **07**

	Stock of Hyundai Motors	Stock JSW Tyres
Expected return	16%	12%
Standard deviation	5%	8%
Coefficient of correlation is	0.60	

- (i) What is the covariance between stock of Hyundai Motors and JSW Tyres?
- (ii) What is the expected return and risk of a portfolio in which Stock Hyundai Motors and stock of JSW Tyres have weights of 0.6 and 0.4 respectively.

- Q.4 (a)** Discuss the Capital Asset Pricing Model in Detail stating its assumptions. **07**
- (b)** The following table gives an analyst expected return on two stocks for particular market returns: **07**

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

Calculate: (i) The betas of the two stocks. Determine the expected return on each stock if the market return is equally likely to be 6% or 20%. (ii) If the risk-free rate is 7% and the market return is equally likely to be 6% or 20% Formulate the SML. Also determine the alphas of two stocks.

OR

- Q.4 (a)** Explain the Arbitrage Pricing Model & Multi Factor Model. And also differentiate the APT and CAPM Model. **07**
- (b)** The following information is provided regarding the performance of the Blue chip fund, leading sector fund and Contra fund for a period of six months ending on December 2023. The risk-free rate of interest is assumed to be 9%. Rank the fund according to Sharpe Index and Treynor Index and comment on ranking. **07**

	Return on Fund (Rp)	Standard deviation of Portfolio (σ_p)	Beta (β)
Blue Chip Fund	25.38	4	0.23
Leading Sector Fund	25.11	9.01	0.56
Contra	25.01	3.55	0.59

Q.5**CASE STUDY:**

The rate of return on stock A and Market Portfolio for 15 periods are given Below:

Period	Return on Stock A (%)	Return on Market Portfolio (%)	Period	Return on Stock A (%)	Return on Market Portfolio (%)
1	10	12	9	-9	1
2	15	14	10	14	12
3	18	13	11	15	-11
4	14	10	12	14	16
5	16	9	13	6	8
6	16	13	14	7	7
7	18	14	15	-8	10
8	4	7			

(a) Determine the Covariance of return on Stock A and Market portfolio? **07**

(b) What is Beta for stock A? **07**

OR

Q.5 (a) Determine the Variance of Return on Market. **07**

(b) What is alpha of the stock A and Determine the characteristic (SML) line for Stock A? **07**
