

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA – SEMESTER - 3 - EXAMINATION – SUMMER 2021

Subject Code: 4539221

Date: 18/08/2021

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.

Q.1 Explain the Following Terms

14

1. Margin Trading
2. MACD
3. Capital Market Line (CML)
4. YTM
5. IPO
6. Cumulative wealth index
7. Stop-loss order

Q.2 (a) What are the key domestic economic variables to be considered for economic analysis?

07

(b) During the past five years, the returns of a stock were as follows:

07

Year	1	2	3	4	5
Return	0.07	0.03	-0.09	0.06	0.1

Compute the following:

- (a) Cumulative wealth index, (b) arithmetic mean, (c) geometric mean, (d) variance, and (e) standard deviation.

OR

(b) Following information of Dev Ltd. and Anand Ltd. is available

07

Particulars	Dev Ltd.	Anand Ltd.
Expected Return	22%	30%
Standard Deviation	10%	15%
Coefficient of Correlation	0.60	

1. Calculate Expected return and risk of a portfolio in which securities of **Dev Ltd.** and **Anand Ltd.** are equally weighted
2. What is the covariance between stocks of **Dev Ltd.** and **Anand Ltd.**?

Q.3 (a) Write a note on Single index model

07

(b) A Rs 100 par value bond bears a coupon rate of 12 percent and matures after 6 years.

07

Interest is payable semi-annually. Compute the value of the bond if the required rate of return is 16 percent, compounded semi-annually.

OR

Q.3 (a) What do you mean by Efficient Market Hypothesis, Also Explain the forms of Market Efficiency **07**

(b) The following information is available on a bond: **07**

Face value: Rs 100 & Current market price: Rs 110

Coupon rate: 12 percent payable annually

Years to maturity: 6

What is the duration of the bond?

Q.4 (a) What is the meaning of Capital Asset Pricing Model and also state its Major Assumptions. **07**

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

OR

Q.4 (a) Explain different indicators associated with Technical Analysis? **07**

(b) Suppose the following historical returns have been earned for the stock market and the stock of company Nihar Ltd. **07**

Period	Return on Market	Return on Nihar Ltd.
1	-5%	-12%
2	4%	6%
3	8%	12%
4	15%	20%
5	9%	6%

Calculate Beta for Nihar Ltd.

Q.5 Consider the following information for three mutual funds, P, Q, and R, and the market. The mean risk-free rate was 6 percent.

Particulars	Mean return (%)	Standard deviation (%)	Beta
P	12	18	1.1
Q	10	15	0.9
R	13	20	1.2
Market Index	11	17	1

(a) Calculate the Treynor measure & Sharpe measure **07**

(b) Calculate Jensen measure for the three mutual funds and the market index **07**

OR

Q.5

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

State of nature	Probability	Return on asset A	Return on asset B
1	0.1	5%	0%
2	0.3	10%	8%
3	0.5	15%	18%
4	0.1	20%	26%

- (a) What is the standard deviation of the return on Asset A and Asset B? 07
- (b) What is the covariance & coefficient of correlation between the returns on Assets A and B? 07

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