Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA – SEMESTER -III– EXAMINATION – WINTER 2021

Subject Code: 4539221 **Date: 21-02-2022**

Subject Name: Security Analysis and Portfoilio 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.**

Q.1 Explain the following terms: **14**

(a) Random Walk Theory
(b) Behavioral Finance
(c) Capital Market Line
(d) Bonds with Embedded Option
(e) Arbitrage Pricing Model
(f) Immunisation
(g) Zero Coupon Bond

Q.2 **(a)** During the past five years, the returns of a stock were as follows: **07**

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

Compute the following: (a) cumulative wealth index, (b) arithmetic mean, (c) geometric mean (d) variance, (e) standard deviation.

(b) Gambling is fundamentally different from investment & speculation. In the light of this sentence explain the difference between investment, speculation & gambling. **07**

OR

(b) Define investments. Discuss the various marketable and non-marketable investment avenues available to investors. **07**

Q.3 **(a)** Macro-economic analysis is a vital step in the investment process. Explain the various macro-economic factors that need analysis in the process. **07**

(b) The returns of two assets under four possible states of nature are given below: **07**

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%

Find out expected return and standard deviation for both assets and suggest best alternative to invest.

OR

Q.3 **(a)** What are the principles of Bond duration? Explain in detail. **07**

(b) 1000 Rs par value bond currently selling at Rs.992 matures after 6 years with coupon rate of 12%. If the discount rate is 8% should Mr. Mahesh buy this **07**

bond?

Q.4 **(a)** What is Efficient Market Hypothesis? Explain different forms of EMH. **07**

(b) Explain the contribution of Charles H. Dow in the field of technical analysis. **07**

OR

Q.4 **(a)** What are the basic assumption and inputs required for CAPM? Explain CML and SML. Also establish intra-relation between them. **07**

(b) A zero coupon bond of Rs 10,000 has a term to maturity of eight years and a market yield of 10 percent at the time of issue. **07**

(a) What is the issue price?

(b) What is the duration of the bond?

(c) What is the modified duration of the bond?

(d) What will be the percentage change in the price of the bond, if the yield declines by 0.5 percentage points (50 basis points)

Q.5 The rates of return on Stock A and market are given below. **14**

Period	1	2	3	4	5	6	7	8	9	10
Return on A	24	13	15	14	12	6	-8	15	-9	25
Return on Market	12	14	13	10	9	7	1	12	-11	7

What is beta of Stock A and draw Characteristic line?

OR

Q.5 You were invested in three different portfolios namely P,Q and R and mean, standard deviation and beta of them with market are given: **14**

Portfolio	Mean return (%)	S.D.	Beta
P	17.1	28.1	1.20
Q	14.5	19.7	0.92
R	13.0	22.8	1.04
Market	11	20.5	1.00

If risk free rate is 8.6, calculate portfolio performance of P, Q and R by Sharpe, Treynor and Jensen method and rank them by their performance.