Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA (PART TIME) – SEMESTER 3 – EXAMINATION – WINTER 2018

Subject Code: 2830203   **Date:11/12/2018**

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.**

Q. No.	Question Text and Option	6

Q.1 (a)

1. The aggressive investor buys more
   A. Money market instruments   B. Gold
   C. Equity Shares   D. Options and Futures

2. An investor gets 15 per cent return from X's stock. The inflation rate is 7 percent. His real rate of return is

   A. 7.48%   B. 8%
   C. 2.5%   D 7.84%

3. If the company's net profit is Rs. 240 million and Equity capital is Rs. 240 million with a face value of shares equivalent to Rs. 2, what is the earning per share?

   A. Rs. 3   B. Re. 1

   C. Rs. 2   D. Rs.2.5

4. Which of the following statement defines an efficient market?
   A. Information is fully reflected in the stock prices.   B. the stock exchange is fully automated
   C. the market is regulated by regulatory authorities   D. Free entry and exit of investors.

5. The value of the bond depends on
   A. the coupon rate   B. the expected YTM
   C. years to maturity   D. all the above

6. Diversification reduces:
   A. interest rate risk   B. market risk
   C. unique risk   D. Active in portfolio management

Q.1 (b) Short Definitions   **04**
   1. Market risk premium
   2. S&P CNX Nifty
   3. The Dow Theory
   4. Alpha

Q.1 **(c)** Write a Short note on Investment and various Investment Avenues available to Investors. **04**

Q.2 **(a)** Define and Differentiate Technical analysis from Fundamental analysis. **07**

(b) Consider two stocks A and B **07**

Stocks	Expected return %	Standard Deviation%
Stock A	14%	22%
Stock B	20%	35%

The returns on the stocks are perfectly negatively correlated.
What is the expected return of a portfolio comprising of the stocks A and B when the portfolio is constructed to drive the standard deviation of the portfolio return to zero?

OR

(b) The following information is available: **07**

	Stock P	Stock Q
Efficient return	14%	20%
Standard deviation	25%	40%
Correlation coefficient	0.40	

a. What is the covariance between stocks P and Q?

What is the expected return and risk of a portfolio in which P and Q are equally weighted?

Q.3 **(a)** Explain the Difference between SML and CML . **07**
(b) The returns on the equity stock of Auto Electricals Limited and the market portfolio over an 11 year period are given below: **07**

Year	R_A	R_M
1	15	12
2	-6	1
3	18	14
4	30	24
5	12	16
6	25	30
7	2	-3
8	20	24
9	18	15
10	24	22
11	8.	12

(a) Calculate the beta for the stock of Auto Electricals Limited.

Establish the characteristic line for the stock of Auto Electricals Limited.

OR

Q.3 **(a)** Write a Short note on Capital Asset Pricing Model **07**

2

(b) Assume the following held: www.FirstRanker.com   www.FirstRanker.com **07**

Risk free Return	7%
Expected Return on the market	13%
Standard deviation on the market	20%

The expected return and risk for the following portfolios:

    (a) 60% of the investible wealth in the market portfolio, 40% in the riskless assets.

    (b) 125% of the investible wealth in the market portfolio.

Q.4 **(a)** What are the rules of Duration in Bonds? **07**

(b) A Rs. 100 par value bond bears a coupon rate of 12 percent and matures after 6 years. Interest is payable semi – annually. Compute the value of the bond if the required rate of return is 16 percent, compounded semiannually. **07**

OR

Q.4 **(a)** Briefly explain the different types of market orders. **07**

(b) A Zero coupon bond of Rs. 10,000 has a term to maturity of eight years and a market yield of 10 % 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?

What is the % change in the price of the bond, if the yield declines by 0.5 percentage points?

Q.5 Consider the following information for three mutual funds P, Q and R and the market. **14**

Mutual fund	Mean Return	Standard deviation	Beta
P	15%	20%	0.90
Q	17%	24%	1.10
R	19%	27%	1.20
Market Index	16%	20%	1.00

The mean risk-free rate is 10 percent.

Calculate the Treynor's measure, Sharpe's measure, Jensen's measure and M Squared for the three mutual funds and the market index.

OR

Q.5 Anand heads the portfolio management schemes division of Phoenix Investment, a well-known financial services company. Anand has been requested by Arrow technologies to give an investment seminar to its senior managers interested in investing in equities through the portfolio management schemes of Phoenix investment. Manish, the contact person of Arrow Technologies, suggested that the thrust of the seminar should be on equity valuation. Anand has asked you to help him with his presentation.

To Illustrate the equity valuation process, you have been asked to analyse Acme Pharmaceutical's which manufactures formulations and bulk drugs. In particular, you have to answer the following questions:

14

   (a) What is the general formula for valuing any stock, irrespective of its dividend paying pattern?

   (b) How is constant growth stock valued?

   (c) What is the required return on the stock of Acme limited? Assume that the risk free rate is 7 percent, market premium is 6 percent, and the stock of Acme has a beta of 1.2.

   (d) Assume that Acme Pharmaceuticals is a constant growth company which paid a dividend of Rs. 5($D_0=5$), yesterday and the dividend is expected to grow at the rate of 10 percent forever.

      (i)   What is the expected value of stock a year from now?

      (ii)   What is the dividend yield and the capital gains yield in the first year.

   (d) If the stock is currently selling for Rs. 110, what is the expected rate of return on the stock? Assume $D_0=$Rs. 5 and g= 10 percent.

   (e) Assume that Acme Pharmaceuticals is expected to grow at a supernormal growth rate of 25 percent for the next 4 years, before returning to the constant growth of rate of 10 percent .what will be the present value of the stock under these conditions?

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