

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA - SEMESTER-III • EXAMINATION – SUMMER 2013

Subject Code: 830203

Date: 03-06-2013

Subject Name: Security Analysis and Portfolio Management

Time: 14:30 pm – 17:30 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 (A) What is an Investment? Discuss the various marketable and non-marketable investments available to investors. **07**

(B) Camcad Juice Company’s (CJC) latest annual dividend of Rs. 2.55 a share was paid yesterday and maintained its historic 8 per cent annual rate of growth. You plan to purchase the stock today because you believe that the dividend growth rate will increase to 9 per cent for the next three years and the selling price of the stock will be Rs. 60 per share at the end of that time. **07**

How much should you be willing to pay for the CJC stock if you require a 13 per cent return?

Q-2 (A) The returns of stock of Zoom Industries Limited (ZIL) and Kumbh Motor (KM) under four possible states of nature are given below; **07**

| State of Nature | Probability | Return from RIL (%) | Return from TM (%) | Sensex (%) |
|-----------------|-------------|---------------------|--------------------|------------|
| High growth | 0.40 | 17 | 16 | 15 |
| Low growth | 0.20 | 9 | 11 | 7 |
| Stagnation | 0.15 | 12 | 9 | 8 |
| Recession | 0.25 | -5 | 4 | -4 |

Calculate;

- i. What is the expected Return from both investments
- ii. What is the standard deviation, variance and Co-variance of both investments
- iii. What is the coefficient of correlation between the returns of stock?

(B) Briefly explain different types of Market Orders. **07**

OR

Q-2 (B) Considering the world economic outlook for the coming year and estimates of sales and earnings for the pharmaceutical industry, you expect the rate of return for Zerks Labs common stock to range between –25 percent and 45 percent with the following probabilities: **07**

| Probability | Possible Returns |
|-------------|------------------|
| 0.10 | –0.25 |
| 0.15 | –0.05 |
| 0.20 | 0.10 |
| 0.25 | 0.15 |
| 0.20 | 0.20 |
| 0.10 | 0.45 |

Compute the expected rate of return of Zerks Labs and Standard Deviation.

Q-3 (A) Explain Efficient Market Hypothesis; Also elucidate three forms of Market efficiency. **07**

(B) The return of mutual fund during last few years was 16%, when the return on market portfolio was 18%.the standard deviation of portfolio return was 14% where as standard deviation of Market return was 16%. Beta of portfolio was 1.2. Risk-Free rate was 10%. Decompose the portfolio return into four components as suggested by fama. **07**

OR

- Q-3 (A)** What is Technical Analysis? Explain various patterns for technical charts. **07**
(B) As an investor, you are considering two assets with the following characteristics: **07**

| | |
|-------------------|-------------------|
| $E(R_1) = 0.17$ | $E(R_2) = 0.19$ |
| $\sigma_1 = 0.11$ | $\sigma_2 = 0.21$ |
| $W_1 = 0.4$ | $W_2 = 0.6$ |

Compute the mean and standard deviation of two portfolios if $r_{1,2} = 0.40$ and -0.60 , respectively. Plot the two portfolios on a risk-return graph and briefly explain the results.

- Q-4 (A)** Explain, in brief, the EIC Framework and its implications for investors. **07**
(B) Kavya is considering the purchase of a bond currently selling at Rs. 878.50. The bond has four years to maturity, face value of Rs. 1,000 and 8% coupon rate. The next annual interest payment is due after one year from today. The required rate of return is 10%.
 (i) Calculate the intrinsic value (present value) of the bond. Should Kavya buy the bond?
 (ii) Calculate the yield to maturity of the bond.

OR

- Q-4 (A)** Explain the Difference between SML and CML **07**
(B) Describe the procedure developed by Markowitz for choosing the optimal portfolio of risky assets. **07**

- Q-5 (A)** Explain Capital Asset Pricing Model with an example **07**
(B) The following are the historic returns for the Unitech, Based on this information, compute the following: **07**

| Year | Unitech | SENSEX |
|------|---------|--------|
| 1 | 37 | 15 |
| 2 | 9 | 13 |
| 3 | -11 | 14 |
| 4 | 8 | -9 |
| 5 | 11 | 12 |
| 6 | 4 | 9 |

- a. The correlation coefficient between Unitech and the Sensex.
 b. The standard deviation for the company and the Sensex.
 c. The beta for the Unitech.

OR

- Q-5 (A)** What is bond? Explain bond theorem with examples. **07**
(B) The following portfolios are being considered for investment. During period of consideration, Risk free rate was 0.075. **07**

| Portfolio | Return | Beta | Standard deviation |
|-----------|--------|------|--------------------|
| P | 0.16 | 1.0 | 0.05 |
| Q | 0.21 | 1.5 | 0.10 |
| R | 0.11 | 0.6 | 0.03 |
| S | 0.16 | 1.1 | 0.06 |
| Market | 0.14 | 1.0 | 0.04 |

- A. Calculate Sharpe measure for each portfolio & Market Portfolio.
 B. Calculate Treynor measure for each portfolio & Market Portfolio.
 C. Calculate Jensen measure for each portfolio & Market Portfolio.
 Rank portfolios, using each measure.
