

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA Semester –III Examination Dec. - 2011**

**Subject code: 830203**

**Date: 17/12/2011**

**Subject Name: Security Analysis and Portfolio Management (SAPM)**

**Time: 10.30 am – 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** (a) Explain the Elliott Wave theory. **07**  
(b) "No Investment Decisions are made without calculating risk." Do you agree? As an Investment Manager of a firm, discuss the various investment avenues available for investment with risk involved in each of them. **07**

- Q.2** (a) How is Markowitz model useful in portfolio selection? **07**  
(b) A stock costing Rs.120 pays no dividends. The possible prices that the stock might sell for at the end of the year and the probability of each are: **07**

| Possible Prices (Rs) | Probability |
|----------------------|-------------|
| 115                  | 0.1         |
| 120                  | 0.1         |
| 125                  | 0.2         |
| 130                  | 0.3         |
| 135                  | 0.2         |
| 140                  | 0.1         |

- (a) What is the expected return?  
(b) What is the standard deviation of the returns?

**OR**

- (b) Following data are available for two security portfolio, find the minimum variance portfolio. Also calculate the return of the portfolio. **07**

| Security | Return | Standard deviation | Correlation between C and D |
|----------|--------|--------------------|-----------------------------|
| C        | 26.9   | 22.3               | - 0.12                      |
| D        | 17.5   | 51.0               |                             |

- Q.3** (a) Zero coupons bonds are excellent vehicles for immunizing a portfolio. Do you agree or disagree? Why? **07**  
(b) Face value of a bond is Rs.1000, YTM = 6%, and coupon rate is 3.5%. What is its present value if its maturity period is 10 years? **07**

**OR**

- Q.3** (a) Differentiate between call and put options. What are rights and obligations of the holders of long and short positions in them? **07**

- (b) You are given two bonds to choose from namely Zero Coupon Bond (ZCB) of 5 years and 20 years and your target Duration is 10 years. How much do you allocate to each Bond to achieve your target duration? **07**

- Q.4 (a)** The stock of Taksha Ltd. is expected to pay cash dividend for three years from now and it will be at 25% of its earnings. The company's cost of equity is 16% and its ending P/E is 18. Its current earnings per share is Rs.3 and its earning is expected to grow at rate of 10% per year. What should be the value of stock that he is willing to pay for this stock, if he is willing to hold the stock for 4 years? No dividend will be paid in the first two years. **07**
- (b) Compare and contrast Capital Market Line (CML) and Security Market Line (SML). **07**

**OR**

- Q.4 (a)** Define investment. What are the characteristics of investment? **07**
- (b) The Mansi corporation has a required rate of return of 16% and its current dividend is Rs 3 per share. If the current price of Mansi's stock is Rs 55 per share, what is the growth rate of its dividends? **07**

- Q.5 (a)** What do you mean by Asset Management Company? As an investor which points you take care of while choosing the Mutual Fund? **07**
- (b) Two portfolios are having the following characteristics: **07**

|             | Observed returns | Beta | Residual variance |
|-------------|------------------|------|-------------------|
| Portfolio A | 0.18             | 2.0  | 0.03              |
| Portfolio B | 0.12             | 1.5  | 0.00              |

The risk-free rate is 0.07. The return on the market portfolio is 0.15. The standard deviation of the market is 0.06. Compute Sharpe Index and Treynor Index for the portfolio A and B.

**OR**

- Q.5 (a)** Critically examine the basic assumptions of formula plans and comment on their validity in the Indian Context. **07**
- (b) With a risk-free rate of 12% and with the market portfolio having an expected return of 22% with a standard deviation of 10%. What is the sharp Index for portfolio X, with a mean of 16% and a standard deviation of 20%? For portfolio Y, having a return of 22% and a standard deviation of 18%? Would you rather be in the market portfolio or one of the other two portfolios? **07**

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