Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA - SEMESTER–III • EXAMINATION – SUMMER • 2015

Subject Code: 830203 Date: 05-06-2015

Subject Name: Security Analysis & Portfolio Management (SAPM)

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 do you mean by the term "investment" also explain the various step involved in investment process. **07**

(b) "Risk and return are two side of a coin" do you agree? Discuss in detail with suitable examples. **07**

Q.2 **(a)** The current dividend on an equity share of Magnum Limited is Rs.4.00.Assume that Magnum's dividend will grow at the rate of 18 percent per year for the next 5 years. Thereafter, the growth rate is expected to fall and stabilize at 10 percent. Equity investors require a return of 15 percent from Magnum's equity shares. What is the intrinsic value of Magnum's equity share? **07**

(b) Perform Porter's five force analysis for banking sector in India. **07**

OR

(b) Explain EIC frame work. **07**

Q.3 **(a)** Find duration and modified duration of a 13%, 1000 par value coupon bond making annual coupon payments, If it has 6 years until maturity and has a YTM of 17%. **07**

(b) A stock earns the following returns over a six year period: R_1 = 10 %, R_2 = 16%, R_3 = 24 %, R_4 = - 2 %, R_5 = 12 %, R_6 = 15%. Calculate the following:(a) Arithmetic mean return, and (b) Geometric mean return.(c) Std. Deviation **07**

OR

Q.3 **(a)** What is Duration? Explain the eight basic rules of duration. **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	0.40	-6%	12%
2	0.10	18%	14%
3	0.20	20%	16%
4	0.30	25%	20%

a. What is the standard deviation of asset 1 and asset 2?
b. What is the covariance of assets 1 and 2?
c. What is the coefficient of correlation between assets 1 and 2?

Q.4 **(a)** The following information is available. **07**

	Stock A	Stock B
Expected return	24%	35%
Standard deviation	12%	18%
Coefficient of correlation is 0.60		

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

(b) "In an efficient capital market, individual security prices fully reflect all available **07**

information". Discuss.

OR

Q.4 **(a)** Consider two stocks, X and Y **07**

	Expected return (%)	Standard deviation (%)
Stock X	10%	18%
Stock Y	25%	24%

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

(b) Explain the CAPM model with it's basic assumptions and limitations. **07**

Q.5 **(a)** Consider the following information for three mutual funds, *X*, *Y*, and *Z*, and the market. **07**

	Mean return (%)	Standard deviation (%)	Beta
X	24	22	1.8
Y	16	14	1.2
Z	12	13	0.8
Market Index	10	10	1.00

The mean risk-free rate was 7 percent. Calculate the Treynor measure, Sharpe measure, and Jensen measure the three mutual funds and the market index.

(b) Discuss the essence of Technical Analysis. **07**

OR

Q.5 **(a)** Why does diversification lead to a reduction in unique risk? Explain with suitable example. **07**

(b) Consider the following information for three mutual funds, *L*, *M*, and *N*, and the market. **07**

	Mean return (%)	Standard deviation (%)	Beta
L	15	20	1.6
M	12	11	.8
N	18	15	1.3
Market Index	13	14	1.00

The mean risk-free rate was 8 percent. Calculate the Treynor measure, Sharpe measure and M^2 for the three mutual funds and the market index.

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