Seat No.: _____ Enrolment No.______

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA. Sem-III Regular Examination January 2011

Subject code: 830203

Subject Name: Security Analysis and Portfolio Management

Date: 08 /01 /2011 **Time: 10.30 am – 01.00 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 risk? What are the various types of risk involved in investment decision? **07**

(b) What is Technical Analysis? Explain various continuation and reversal patterns for technical analysis. **07**

Q.2 **(a)** Explain the CAPM with the concept of systematic risk and also state its underlying assumptions. **07**

(b) The following data are available for Infosys and HLL **07**

	Infosys	HLL
Standard deviation	16.68%	33.21%
Expected return	13.90%	21.54%
Correlation coefficient	0.43	

Find out the minimum variance portfolio weight for Infosys and HLL. Also find out the expected return and variance of portfolio.

OR

(b) Your portfolio consist of three stocks A, B, and C with the weight of 25%, 32% and 43% respectively with expected return of 18% and S.D. of 28%. The T-bill rate is 8%. Your clients choose to invest 70% of his portfolio in your portfolio fund and 30% in T-bill. What is the expected return and SD of your client's portfolio? What are the investment proportions of your client's overall portfolio (A, B, C stocks and T-bill)? What is the reward to variability ratio (slope) of your portfolio and your client's portfolio? **07**

Q.3 **(a)** The YTM on 1 year Zero Coupon Bond is currently 7%; the YTM on 2 year zeros is 8%. The treasury plans to issue a 2-year maturity coupon bond, paying coupons once per year with a coupon rate of 9%. The face value of the bond is 100. **07**

1) At what price will the bond sell?
2) What will the YTM on the bond be?
3) If the expectations theory of the yield curve is correct, what is the market expectation of the price that the bond will sell for next year?
4) Recalculate your above answer if you believe in the liquidity preference theory and you believe that the liquidity premium is 1%

(b) What is Duration? Explain the eight rules of Duration. **07**

OR

Q.3 **(a)** Find the duration of a 6% coupon bond making annual coupon payments if it has 3 years until maturity and has a YTM of 6%. What is the duration if the YTM is 10%? **07**

(b) What is Options? Explain the different types of options with their pay off profiles. **07**

Q.4 **(a)** An analyst wants to evaluate portfolio X, consisting entirely of equity shares, using both Treynor and Sharpe measures of portfolio performance. The following table provides the annual average rate of return for portfolio X and market portfolio (BSE) and T-bill during the past eight years **07**

	Rate of Return	Standard Deviation	Beta
Portfolio X	10%	18%	0.60
BSE	12%	13%	1.00
T-Bills	06%	N/A	N/A

a. Calculate the Treynor and Sharpe measures for both portfolio X and BSE. Briefly explain whether portfolio X underperformed, equal or outperformed BSE on a risk adjusted basis using both the Treynor and Sharpe measures.

b. Based on the performance of the portfolio X relative to the BSE calculated as above, briefly explain the reasons for conflicting measures when using the Treynor versus Sharpe measures

(b) Explain the various forms of efficient market using random walk theory **07**

OR

Q.4 **(a)** The following information is available for Alpha and Beta. **07**

	Alpha	Beta
Expected ROE	14%	12%
Estimated EPS	2.00	1.65
Estimated DPS	1.00	1.00
Current Market Price	27.00	25.00
Market capitalization rate	10%	10%

Answer the following questions:

1. What is the expected dividend pay-out ratio?
2. What are the expected growth rates of each?
3. What is the intrinsic value of each share?
4. In which, if either, of the two shares would you choose to invest?

(b) What is Mutual Fund? What is Asset Management Company? Discuss the different types of mutual funds schemes in India **07**

Q.5 **(a)** Choose an Industry and identify the factors that will determine its performance in next three years **07**

(b) What is an Investment? Discuss the various marketable and non marketable investment avenues available to investors. **07**

OR

Q.5 **(a)** The current market price of share of XYZ Ltd. is Rs. 10. The expected EPS is Rs. 2. The company has dividend payout ratio of 50%. The remaining is invested in projects that earns 20% rate of return per year. This situation is expected to continue forever. **07**

a) Assuming the current market price reflects the intrinsic value as computed using the constant growth DDM, what is the expected rate of return by investors.
b) By how much does its value exceed what it would be if all earning were paid as dividends and nothing were reinvested.
c) If company cuts its payout ratio to 25%, what would happen to its share price?

(b) The following information is available for one company. **07**

(Rs. in Lakh)

Particulars	**2009**	**2010**	**Particulars**	**2009**	**2010**
Revenue	542	979	Fixed Assets	41	70
Operating Income	38	76	Total Assets	245	291
Depreciation	3	9	Working Capital	123	157
Interest	3	0	Debt	16	0
Income Tax	13	37	Equity	159	220

Calculate each of the following components of ROE as per Du Pont for 2009 and 2010.
1. Operating Margin 2. Asset Turnover 3. Interest Burden 4. Financial Leverage and
5. Income Tax Rate

Briefly discuss the change in asset turnover and financial leverage on the change in ROE from 2009 to 2010

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