

[06]

**SARDAR PATEL UNIVERSITY  
VALLABH VIDYANAGAR****MBA SEMESTER EXAMINATION  
SECURITY ANALYSIS & INVESTMENT MANAGEMENT (FM – 202)**

DATE: 2-4-2008

TIME: 11.00 A.M. TO 2.00 P.M.

TOTAL MARKS: 70

**INSTRUCTIONS:**

1. There are five questions and all are compulsory.
2. Figures in brackets indicate marks for each question.

- 1 (1.1) Give definitions of Real Assets and Financial Assets with the two (02) examples each. How they are connected to each other?
- (1.2) Suppose that you sell short 500 shares Intel, currently selling for \$ 40 per shares, and give your broker \$ 15,000 to establish your margin account.
  - (a) If you earn no interest on the funds in your margin account, (02) what will be your rate of return after 1 year if Intel stock is selling at (i) \$ 44; (ii) \$ 40; (iii) \$ 36 ? Assume that Intel pays no dividends.
  - (b) If the maintenance margin is 25 %, how high can Intel's price (02) rise before you get a margin call?
- (1.3) Describe the trading mechanism of NSE, i.e. NEAT and of BSE, (08) i.e. BOLT. Do you have any suggestions for the improvements? Also suggest revival measures for Regional Stock Exchanges in India.
- 2 (2.1) From the following compute return and standard deviation of (07) return if all funds are invested:
  - (a) Only in security X or only in security Y.
  - (b) If funds are invested in the portfolio of securities X and Y.
    - (i). in equal proportion or (ii). In the proportion of 60% in X and 40% in Y.
  - (c) What is the co-efficient of correlation and what are the proportions of investment in both in order to get risk zero?
- (2.2) Given the data on returns of Modis and the returns on BSE index (07) for a five year period, calculate the Beta and Alpha.

**Year Modis Market Index**

1	0.2	0.1
2	0.4	0.2
3	0.6	0.3
4	0.8	0.4
5	0.8	0.5

- 3 (3.1) Your Preliminary analysis of two stocks has yielded the information set forth below. The market capitalization rate for both stock A and stock B is 10 % per year. (07)

	<b>Stock A</b>	<b>Stock B</b>
Expected return on equity, ROE	14 %	12 %
Estimated earnings per share	\$ 2.00	\$ 1.65
Estimated dividends per share, D1	\$ 1.00	\$ 1.00
Current market price per share, P0	\$ 27.00	\$ 25.00

- (a) What is the expected dividend pay out ratios for the two stocks?
- (b) What are the expected dividend growth rates of each stock?
- (c) What is the intrinsic value of each stock?
- (d) In which, if either, of the two stocks would you choose to invest?

- (3.2) Describe in detail the process of Economic – Industry – Company (EIC) analysis for the stock selection of TCS Ltd. How do you estimate the intrinsic value of this company? (07)

- 4 (4.1) From the following information construct an optimum portfolio. (10)  
Over your holding period you have forecast an expected return on the market of 13.5 percent with a market variance of 25 percent. The treasury security rate available is 7 percent (Risk free). The following securities are under your review.

<b>Stock</b>	<b>Alpha</b>	<b>Beta</b>	<b>Residual variance</b>
A	3.72	0.99	9.35
B	0.60	1.27	5.92
C	0.41	0.96	9.79
D	--0.22	1.21	5.36
E	0.45	0.75	4.52

- 4 (4.2) Explain the approach called Efficient Market Hypothesis (EMH) and its various forms. How do you test one of its forms with some statistical techniques? (04)

- 5 (5.1) Suppose that seven portfolio experienced the following results during a (10)

ten year period.

Portfolio	Average Annual return ( % )	Standard Deviation ( % )	Correlation With the market
A	15.6	27.0	0.81
B	11.8	18.0	0.55
C	8.3	15.2	0.38
D	19.0	21.2	0.75
E	--6.0	4.0	0.45
F	23.5	19.3	0.63
G	12.1	8.2	0.98
Market	13.0	12.0	
Treasury bills	6.00		

- (a) Rank these portfolios using (i) Sharpe's Method, and (ii) Treynor's Method.
- (b) Compare the ranking in part (a) and explain the reasons behind any differences noted.
- (c) Critically evaluate at least five technical analysis tools. How is the usefulness of these tools relevant in an extremely efficient market? (04)

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