**K.J. Somaiya Institute of Management Studies & Research**

**Programme: PGDM FS – III Trim**

**Sub: Portfolio & Investment Management**

**Date of Exam: 3/04/2017 Time: 3 Hours Marks: 50**

**Note: 1. Section A is compulsory. It carries 20 Marks**

**2. Attempt any 3 questions from section B. Each question carries 10 Marks**

**3. The exam is Excel-based but the solution and explanation has to be written in the answer sheets.**

## Section A

**Q1. Case**

Christie is an analyst working for OCC Securities Limited. She has been transferred to her company's office in India recently. The first task that she faces is to create an equity portfolio that can be offered to her company's clients who have varied risk profile. After undertaking extensive security analysis, Christie short lists following 14 stocks:

1. JSW Steel
2. Hindustan Zinc
3. HDFC Bank
4. Reliance Capital
5. Bank of Baroda
6. India Cements
7. Tata Chemicals
8. Adani Ports
9. Bajaj Finance
10. Motherson Sumi Systems
11. Escorts
12. Marico
13. Tech Mahindra

14. Hindalco

However, with adequate diversification always being debated and a general trend towards a more concentrated portfolio, her unit head advises her to prune the list and make a six security portfolio. Help Christie create minimum variance portfolio and optimal risky portfolio, using risk-free rate of 7%. Use stock price information given in folder ‘Q1’.

## Section B

**Q2.** Tech Sector has always been attractive to equity analysts. With tech companies growing in strength year on year and reporting profits more often than not, tech stocks offer opportunities for lucrative equity investment. However, being one sector which is most sensitive to news, right entry and exit points are often difficult to identify, despite attractive valuations. Relative strength index is one of the most popular mathematical indicators that technical analysts use to identify buy sell signals and the overbought and oversold zone.

Use the data given in folder Q2 to plot RSI for HCLTECH. Identify the overbought and oversold zones and sell and buy signals. Analyze the behavior of the stock for the given data duration.

**Q3**. Create the best minimum variance two stock portfolio using the data given in folder Q3. Trace the efficient frontier and Capital Market Line (CML) given the risk-free rate of 7%.

**Q4**. **Case**

With increased focus on ‘Make in India’, manufacturing sector is expected to improve considerable. Increasing manufacturing activity will require transportation of raw material and finished goods from on part of the country to another.  In India, road transportation continues to be a prominent mode of movement for freight. This will boost the use of trucks in the country despite the fear of rise in fuel costs. Thus, the growth of economy, manufacturing in particular, can be seen as positive news for truck manufacturers.  Fuel price cut in the recent times has further added to the optimistic sales expectation for these companies. Improved sales and performance of truck manufacturers has attracted attention of many equity analysts who have started betting big on the sector. . After detailed analysis of the sector, a leading broker zeroes in on Ceaser Motors Ltd. and decides to analyze it further. The company has a large market share, innovative and visionary top management team and very positive image as reliable and trustworthy truck manufacturers. Help the broker compute the intrinsic value range for the company analyzing the financial information given in folder Q4 (the data is hypothetical and grouped for ease of analysis) to decide at what price he should buy the share.

**Q5.** The balance sheet of Sicily Fashion Ltd (SFL) at the end of the year (at present) is as follows:

Rs. in Crore

| Liabilities | | Assets | |
|---|---|---|---|
| Shareholders ‘ funds | 250 | Fixed assets (net) | 400 |
| Equity Capital (10 crore shares of Rs. 10 each) | 100 | Net Working Capital | 100 |
| Reserves & Surplus | 150 | | |
| Loan funds (9 percent) | 250 | | |
| | 500 | | 500 |

The rate of growth of revenues and assets is expected to be 18% in the first four years, 12% in the next two years and 7% thereafter. The return on invested capital is expected to be 11% and the cost of equity is 16%. The effective tax rate is 33.33 percent and the pre-tax cost of debt is 10%. The firm is expected to maintain its current debt equity ratio. Use the FCF approach to determine the intrinsic value of the firm.