



MBA.T.I/11. 1011

**MBA (TRAVEL AND TOURISM) DEGREE I SEMESTER EXAMINATION  
NOVEMBER 2011**

**SMT 2104 QUANTITATIVE TECHNIQUES AND OPERATIONS  
MANAGEMENT**

Time: 3 Hours

Maximum Marks : 50

(5 x 10 = 50)

- I. A. Distinguish between primary data and secondary data. What are the different methods of collecting primary data?

**OR**

- B. Calculate the standard deviation and coefficient of variation for the following data relating to investments by hotels.

Investment in Lakhs of Rupees	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
Number of hotels	12	10	25	15	20	18

- II. A. Explain statistical process control. What are control charts? Explain the different types of control charts.

**OR**

- B. The following data relates to the annual sales of a company.

Year	2003	2004	2005	2006	2007	2008
Sales in Lakhs of Rupees	7	10	12	14	17	20

Obtain the trend values and estimate the sales for the year 2011.

- III. A. Explain the unbalanced transportation problem and unbalanced assignment problem. Explain the main objectives of the transportation problem.

**OR**

- B. Explain the concept of decision tree. Distinguish between long term and short term forecasts.

- IV. A. Explain the main elements of a queuing system.

**OR**

- B. Explain the main objectives of inventory management. What is EOQ? What are its assumptions?

- V. A. Explain the different types of layouts? Discuss what is meant by the P system of inventory control.

**OR**

- B. Write short notes on ANY THREE of the following:

- (i) Layout Planning
- (ii) Line Balancing
- (iii) Linear Programming
- (iv) Safety Stock
- (v) Maintenance Management

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