

**END TERM EXAMINATION**

SECOND SEMESTER [MBA] MAY/JUNE 2014

Paper Code: MS110

Subject: Operations Management

Time : 3 Hours

Maximum Marks :60

**Note: Attempt all questions. Internal choice is indicated.**

- Q1 Write short notes on **any five** of the following. (5x4=20)
- Just-in-Time.
  - Compare the four basic layout formats on various parameters.
  - Qualitative methods of Demand Forecasting.
  - Operating Characteristics (OC) Curves.
  - Types of Production Systems (Process Flow Structures).
  - Ergonomics.
  - Design for Manufacture and Assembly.
- Q2 (a) Describe the different stages in evolution of operations management. (8)
- (b) Explain the relationships operations Management has with other functional areas. (8)
- OR**
- (a) Discuss "system Perspective of operations management". (8)
- (b) Discuss current issues/challenges facing Operations Management. (8)
- Q3 (a) Write short notes on **any two**. (2x3=6)
- Value Analysis
  - Design for Quality
  - Mass Customisation.
- (b) Briefly describe the stages in Product Development Process. (4)
- OR**
- (a) Discuss the "Analytic Delphi Model of Plant Location". (2)
- (b) Discuss the techniques of Job-Design (Behavioural considerations). (2)
- Q4 (a) "Supply Chain Management in logistics takes to higher level of sophistication." (6)
- (b) Describe the Exponential Smoothing technique of Demand Forecasting. (4)
- OR**
- (a) What are the Priority Rules of Job Sequencing? (3)
- (b) A Factory uses annually 24000 units of raw material which cost Rs. 6/- per unit. The ordering cost per order is Rs. 300/- and the carrying cost is 10% per year of average inventory.
- Find the Economic order Quantity and the total inventory cost including the cost of material. (4)
  - The factory works for 300 days in a year. If the procurement time is 15 days and the safety stock is 500 units. Find the re-order point, the minimum, maximum and average inventory. (3)
- Q5 (a) Discuss ISO-9000 Series and its forms of certification. What are its advantages? (5)
- (b) Discuss the various types of Costs of Quality and its relationship with Quality level. (8)
- OR**
- (a) Define Total Quality Management and briefly discuss its elements. (3)
- (b) Samples of 4 each were taken for study, the measurement of which were noted as follow. (7)
- | Sample No. | Measurement in mm |    |    |    |
|------------|-------------------|----|----|----|
| 1          | 20                | 21 | 25 | 24 |
| 2          | 18                | 23 | 20 | 25 |
| 3          | 24                | 25 | 22 | 20 |
| 4          | 23                | 21 | 26 | 24 |
| 5          | 24                | 25 | 24 | 21 |

(Draw a  $\bar{X}$  & R control chart for  $(C_p)=0.73$  for samples size 4)