

(Three Hours)

Total Marks: 80

Instructions:

- Q. 1 is compulsory.
- Attempt any **THREE** questions from the remaining questions
- Assume suitable data wherever necessary
- Figures to the right indicate full marks.

- Q.1 Write short notes on. (Any Four). 20
- a. Theory of Constraints
  - b. Malcolm Baldrige Award
  - c. Kaizen and 5S
  - d. Value Stream Mapping
  - e. Green Manufacturing
  - f. Poka-yok
- Q.2 a. Indian manufacturing companies are competitive and using WCM practices, Discuss. 10
- b. What is WCM? Discuss Gunn & Maskell models of framework of WCM. 10
- Q.3 a. Explain the Just In Time Manufacturing System in detail. 10
- b. Explain the factors that influence customer performance of quality. Discuss in the context of an automobile manufacturing company of your choice. 10
- Q.4 a. Explain the importance of cause-and-effect diagrams in process improvement. Construct the cause-and-effect diagram for shrinkage defect in casting process. 10
- b. Describe Motorola's concept of six sigma quality and explain the level of non-conforming product that could be expected from such process. 10
- Q.5 a. Define maintenance management. Which are its different types? Explain Total Productive Maintenance with OEE? 10
- b. Explain how human resource management of WCM organization is different from traditional organization. 10
- Q.6 a. Define Total Quality Management (TQM). Explain evolution of TQM, and framework for TQM for continuous process improvement. 10
- b. Explain Integration Imperative of WCM with SCM. 10

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