

Roll No.

Total No. of Printed Pages: 1

Total No. of Questions: 7

(Duration – 3 hours)

Maximum Marks: 60

Note: Answer any four questions. All questions carry equal marks (15 each)

- Q1. What are the various types of Maintenance? Explain the basic philosophy behind TPM (Total Productive Maintenance). Explain with an example the terms MTBF, MTTR and OEE
- Q2. Explain the concepts and Philosophy behind TQM (Total Quality Management), which are the pillars of TQM? Describe the steps to be taken for the implementation of TQM in an organization.
- Q3. Write brief notes on any three of the following:
- SMED
 - Poka-Yoke
 - Kaizens
 - 5 S
 - JIT
 - Visual Controls
- Q4. Explain in detail any three of the following Quality Control Tools and their applications:
- Flow chart
 - Ishikawa (Cause Effect or Fishbone) Diagram
 - Histogram
 - Pareto Chart
 - Box Plot
- Q5. What are the various Features of "Good Quality" of a Product and Service?
- a. Does Good Quality necessarily imply higher cost?
 - b. What aspects of quality would make a product more expensive and which would actually result into cost reduction?
- Q6. What is a process? What are the various elements of a process? How is process capability measured? What is the difference between a process and a system?
- Q7. Explain the concepts and philosophy behind TOC (Theory of Constraints) with suitable example; why is it important to enhance the Throughput; what is meant by local optima and overall optimization?