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Total No. of Printed Pages: [01]

Total No. of Questions: [09]

**B. Tech. (Mech. Engg.) (Semester – 8<sup>th</sup>)**

**TOTAL QUALITY MANAGEMENT**

**Subject Code: BMECD1-813**

**Paper ID: [18112347]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A**

**(2 marks each)**

- Q1. Attempt the following:
- a) What do you mean by Total Employee Involvement?
  - b) “Flexibility is important tool in TQM”. Explain the statement.
  - c) Write steps involved in implementing JIT.
  - d) What are the main elements of TQM?
  - e) Define Quality Function Deployment.
  - f) What are the seven tools in Total Quality Control?
  - g) What do you understand by ISO?
  - h) Write the characteristics of JIT.
  - i) What are new management tools in TQM?
  - j) Explain Customer Retention.

**Section – B**

**(5 marks each)**

- Q2. Discuss the role and importance of Total Technology Management in detail.
- Q3. Discuss in detail the benefits of Bench Marking.
- Q4. Compare TQM and ISO 9000.
- Q5. What is Plan-do-check-act (PDCA) cycle?
- Q6. What are the contributions of Deming, Juran and Crosby in TQM framework?

**Section – C**

**(10 marks each)**

- Q7. Define TQM. Enlist the priority areas along with essential steps of implementing TQM in an organization.
- Q8. a) Derive the expression for Taguchi's loss function.  
b) Explain the factors affecting process management.
- Q9. Write note on  
a) Failure Modes and Effect Analysis (FMEA).  
b) Quality circles.