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**MTECH**  
**(SEM II) THEORY EXAMINATION 2023-24**  
**TOTAL QUALITY MANAGEMENT**

**TIME: 3 HRS****M.MARKS: 70**

**Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

a.	Explain Quality characteristics.
b.	Differentiate between Quality Control and Quality Assurance.
c.	Explain capacity verification of probable vendor.
d.	Define MTBF and give its relationship with failure rate.
e.	Define Benchmarking.
f.	Define maintainability.
g.	Explain QS 9000.

**SECTION B****2. Attempt any three of the following:****7 x 3 = 21**

a.	Discuss procurement procedure of bought out items in details.
b.	Discuss Quality cost and analyze it in detail.
c.	What is control chart? Evaluate the method of drawing R chart with example.
d.	Explain the process of defect diagnosis and its prevention in detail.
e.	Explain different elements of ISO quality system and give its benefits in quality management.

**SECTION C****3. Attempt any one part of the following:****7 x 1 = 7**

(a)	Explain the evolution of quality concept from craftsmanship to TQM.
(b)	"Quality promotes sale", justify the statement.

**4. Attempt any one part of the following:****7 x 1 = 7**

(a)	Examine the concept of 5-S in detail with suitable examples.
(b)	What do you understand from 'continuous process improvement'? Illustrate P-D-C-E cycle for continuous process improvement.

**5. Attempt any one part of the following:****7 x 1 = 7**

(a)	Name all the QC or SPC tools. Explain any two QC or SPC tools.
(b)	Differentiate between control charts for variable quality characteristics and attribute quality characteristics. Also explain central tendency & control limits with suitable examples.

**6. Attempt any one part of the following:****7 x 1 = 7**

(a)	What is FMEA? Explain the stages of FMEA.
(b)	Explain the term 'Reliability' and factors affecting it. Also formulate the procedure of evaluation of the reliability.

**7. Attempt any one part of the following:****7 x 1 = 7**

(a)	Justify in detail, the implementation of TQM in manufacturing and service sector.
(b)	Discuss about ISO 9000:2000 Quality Systems