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**Question Paper Code : X10557**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020 AND  
APRIL/MAY 2021  
Fifth/Sixth/Seventh Semester  
Civil Engineering  
GE 8077 – TOTAL QUALITY MANAGEMENT  
(Common to All Branches B.E. B.Tech)  
(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

**(10×2=20 Marks)**

1. List out barriers to implement TQM.
2. Explain Customer Retention.
3. What is Quality Policy Statement ?
4. Define Kaizen.
5. Explain six-sigma.
6. List out the new seven management tools.
7. What is external failure cost ?
8. State the objectives of TPM.
9. List the types of Quality Audits.
10. What is ISO and why is it important ?

PART – B

**(5×13=65 Marks)**

11. a) Explain the six basic concepts of TQM. Also, discuss about the nine dimensions of quality.

(OR)

- b) Explain the fourteen steps of Deming's Philosophy for improving quality, productivity and competitiveness.

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12.a) Explain Juran's Trilogy in detail.

(OR)

b) Discuss the process of PDCA cycle with their advantages and limitations.

13.a) Elaborate in detail about the seven traditional tools of quality.

(OR)

b) Discuss about benchmarking and the process of benchmarking.

14.a) Explain QFD and 'House of Quality' in detail with a neat sketch.

(OR)

b) Discuss about Taguchi's Quality Loss Function in detail with neat sketches.

15.a) Discuss about the elements of ISO 9000.

(OR)

b) Elaborate on the requirements of ISO 14001. Also, explain the global and organizational benefits of EMS.

PART – C

**(1×15=15 Marks)**

16. a) Discuss the implementation of TQM with a case study in a manufacturing sector.

(OR)

b) Explain the relevance of 6 Sigma concept in achieving quality output in a process. Also, discuss about a company practicing six-sigma concept.

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