

16146(D) • 0 DEC 2016

B. Tech 5th Semester Examination

Total Quality Management (NS)

HU-300(b)/ME-300(b)

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, selecting one from section A, B, C & D. Section E is compulsory.

SECTION - A

1. (a) Discuss the need for quality and its evolution. (10)
(b) Explain different TQM models. (10)
2. (a) Explain Zero defect program (POKA-YOKE) (10)
(b) Explain scatter with suitable examples. (10)

SECTION - B

- 3 Explain: (a) Supplier selection (b) Supplier rating. (20)
4. (a) Explain different types of quality statements. (10)
(b) Explain PDCA cycle. (10)

SECTION - C

5. Define Six-sigma tool. Explain its methodology and application in manufacturing. (20)
6. (a) What is Taguchi's loss function? Discuss in brief. (10)
(b) Explain bench marking process. (10)

SECTION - D

7. What are the aims, benefits and weaknesses of ISO-9000? What are ISO-9000 requirements for implementation? (20)
8. Explain case studies of TQM implementation in manufacturing and service sectors including IT. (20)

SECTION - E

9. Explain the followings:
 - (i) Difference between Quality control and quality assurance.
 - (ii) Barriers to TQM.
 - (iii) Pareto Chart.
 - (iv) Affinity diagram.
 - (v) Kaizen.
 - (vi) QFD.
 - (vii) TPM.
 - (viii) ISO 9001.
 - (ix) ISO 14000.
 - (x) Methods of quality control. (2×10=20)