8E8076

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B.Tech. (Sem.VIII) (Main/Back) Examination, April/May-2018
Mechanical Engineering
8ME4.3 Total Quality Management (Elective)

Time : 3 Hours

Total Marks : 80
Min. Passing Marks : 26

Instructions to Candidates :
Attempt any five questions, selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

UNIT–I

1. Explain the Deming management philosophy, Why has it been controversial? Describe the key elements of Total Quality (10 + 6 = 16)

OR

1. (a) Explain the term leadership for decision making and strategic planning communications. (10)
   (b) Describe the term customer satisfication and customer retention. (6)

UNIT–II

2. Explain DMAIC methodology. How is it similar to or different from the Deming cycle? (16)

OR

2. Write short notes on:
   (a) Principles of customer / Supplier Relationship Partnering. (8 + 8 = 16)
   (b) Cost of Quality.

UNIT–III

3. What philosophical changes might be required to implement a six sigma process in a hospital, government agency or not- for- profit organization? Are they likely to be easy or difficult? (16)

OR

3. What are the Lean Fundamentals? Explain it with benefits and implementation. (8 + 8 = 16)

UNIT–IV

4. Explain the concepts of ISO 14001, discuss the Quality Function Deployment Process. (8 + 8 = 16)

OR

4. Explain the following terms (any two) : (8 + 8 = 16)
   (a) Benefits of ISO Registration
   (b) QMS and EMS
   (c) House of Quality

UNIT–V

5. Explain the role of management tools. Discuss seven new management tools in detals. (6+10 = 16)

OR

5. Describe basic statistics of Experimental Designs with t-Test and F Test. Explain Taguchi's Quality loss function. (10 + 6 = 16)

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