Reg. No. : | | | | | | | | | | |

Question Paper Code: 31974

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Elective

Mechanical Engineering

01UME923 - TOTAL QUALITY MANAGEMENT

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Write any four principles of deming.
2. Quality and productivity are not mutually exclusive. Justify.
3. What do you mean by vision statement and mission statement?
4. Name the 5S's with Japanese and equivalent English meaning.
5. List the seven statistical tools.
6. What is benchmarking?
7. What are the pillars of TPM?
8. Define quality circle.
9. Which type of companies may go for ISO 9001 certification?
10. What is the difference between ISO 9000 and QS 9000 standards?

PART - B (5 x 16 = 80 Marks)

11. (a) Substantiate how TQM evolved over the years highlighting the special features and drawbacks in each of the stages. (16)

Or

(b) (i) Explain total quality management's six basic concepts. (8)

(ii) Write down the obstacles for implementing TQM in the organizations listed below:

(1) Health-care (2) Institution

(3) Manufacturing Industries (3) Banking sector (8)

12. (a) (i) Why customer feedback is needed? List out the tools used for collecting customer complaints? (8)

(ii) Write short notes on:

(1) Recognition and reward system

(2) Performance appraisal system (8)

Or

(b) (i) Draw the seven phases of PDSA cycle for problem solving and provide a brief description of each phase. (8)

(ii) What are the factors that KAIZEN focuses for continuous improvement? (8)

13. (a) Elucidate the new seven management tools of quality and explain any four with neat diagram in detail with suitable examples. (16)

Or

(b) Formulate an FMEA work sheet for level control of paint tub filling in an auto assembly plant. (16)

14. (a) Explain quality function deployment methodology with suitable example. (16)

Or

(b) (i) Explain the concept of Taguchi's quality loss function in detail with an example. (8)

(ii) Define quality costs. Classify and explain the cost of quality. (8)

15. (a) Explain ISO 9000:2000 quality management system requirement elements in detail. (16)

Or

(b) (i) Explain the concept of ISO: 14000 and list the benefits. (8)

(ii) Explain in detail the QS 9000 certification process. Is QS 9000 certification is superior to ISO 9000 certification? If yes, explain. (8)

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