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Question Paper Code: 49074

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Elective

Mechanical Engineering

14UME923 - TOTAL QUALITY MANAGEMENT

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- The purpose of TQM is to provide:
 - Quality product to customers
 - Increase productivity
 - Lower the cost
 - All the above
- TQM does not imply
 - Strong external customer orientation
 - Partnership with vendors
 - Meticulously re-stocking defective products
 - Training
- Statistical methods are used to differentiate random variation from
 - Standards
 - Assignable variation
 - Control limits
 - Specification limits
- A process is predictable if
 - We can forecast its output
 - It is always at the same level
 - It has no humans involved
 - The data can be plotted on a chart
- Which of the following is not considered a cost of non-conformance to quality?
 - Scrap
 - Rework
 - Expediting
 - Process control

6. What is the name of the property of ASP.NET page that you can query to determine that a ASP.NET page is being requested not data being submitted to web server?
- (a) FirstGet (b) Initialized (c) IncludesData (d) IsPostBack
7. Which of the following is least likely to contribute to developing an effective project team supportive of quality?
- (a) Commitment to the project (b) Team member flexibility
(c) Frequent turnover of personnel (d) Team interest in workmanship
8. A sampling plan helps in
- (a) Keeping the process in control (b) Keeping workers motivated
(c) Rejecting lots that are of unacceptable quality (d) Tuning the machines
9. TQM and ISO both focuses on
- (a) Customer (b) Employee (c) Supplier (d) All the above
10. Vision states
- (a) Where the workers want to go after work
(b) Whether we should use SPC
(c) Whether we should use inspection
(d) Where the company wants to be in the long run

PART - B (5 x 2 = 10 Marks)

11. What are the dimensions of quality?
12. List the key elements of supplier partnering.
13. Name the stages of FMEA.
14. Define process capability ratio
15. Give the ISO 9000 Series of Standards.

PART - C (5 x 16 = 80 Marks)

16. (a) Discuss the prerequisites for TQM. Also explain the common barriers to the implementation of a TQM programme in an industry. (16)

Or

(b) Write the fourteen principles of Deming's Philosophy for improving quality and productivity. (16)

17. (a) Explain the seven steps involved in strategic quality planning. (16)

Or

(b) (i) Briefly explain Employee Involvement. (8)

(ii) Briefly explain 5s housekeeping Techniques. (8)

18. (a) Explain the process of Bench marking. (16)

Or

(b) Briefly examine seven traditional tools of quality. (16)

19. (a) Explain the types of costs that incur in the quality related activities. (16)

Or

(b) Explain Quality function Deployment. (16)

20. (a) Explain the seven quality management principles of ISO 9001:2015 standards. (16)

Or

(b) Discuss Detail the elements of ISO 14000. Discuss the benefits of Environmental Management system. (16)
