

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2785

Roll No.

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B.Tech.

(SEM. VII) ODD SEMESTER THEORY

EXAMINATION 2013-14

QUALITY MANAGEMENT

Time : 3 Hours

Total Marks : 100

Note :- Attempt all questions. Marks allotted are indicated against every part of each question.

1. Attempt any four parts of the following : (5×4=20)
 - (a) How the concept of quality changes ? Explain in short.
 - (b) What do you mean by design review ?
 - (c) Explain evolution of prototype.
 - (d) Explain the contribution of any two of following in quality improvement : Joseph M. Juran, Philip B. Crosby, W. Edwards Deming's, Armand V. Feigenbaum, Dr. Kaoru Ishikawa, Dr. Genichi Taguchi.
 - (e) What is EFQM ? Explain in short.
 - (f) What are the different methods of development of sources ?
2. Attempt any four parts of the following : (5×4=20)
 - (a) Explain organisation structure and its design.
 - (b) Explain the attitude of top management, operator attitude and responsibility toward quality improvement.
 - (c) Explain how the cost of quality should be optimum with sketch of different costs.

- (d) What do you mean by quality costs ? Explain different components of it.
- (e) What should be the operator attitude for improvement in quality ?
- (f) What do you mean by quality of conformance and quality costs ?
3. Attempt any **two** parts of the following : (10×2=20)
- (a) What do you mean by control chart for variable and attributes ? Explain in detail about \bar{X} charts and its construction and analysis.
- (b) What is process capability ? Explain in detail, the improvement in quality with the help of control charts.
- (c) Write short notes on :
- (i) Defect and defectives
 - (ii) Weighted defect control charts.
4. Attempt any **two** parts of the following : (10×2=20)
- (a) What is MTTF ? Explain in detail the methods of identification and analysis of defect and also its corrective measure.
- (b) What is reliability ? What are the different factors which affect reliability ? Explain the methods of calculation of reliability with an example.
- (c) Write short notes on :
- (i) Building reliability in a product
 - (ii) Design of reliability.

5. Attempt any four parts of the following : (5×4=20)
- (a) What do you mean by Taguchi methods ?
 - (b) Explain a cause-and-effect (Ishikawa) diagram to identify a process defect.
 - (c) Explain the concept of ISO 9001 and its implementation.
 - (d) Explain quality circle in brief.
 - (e) Discuss JIT in manufacturing organisation.
 - (f) Explain life cycle curve of a product/component.