

B.PRODUCTION ENGG. EXAMINATION 2017
(3rd Year 2nd Semester)

TOTAL QUALITY MANAGEMENT

Full Marks: 100

Time: Three Hours

The figures in the margin indicates full marks
Answer any FIVE questions

1. a) What do you understand by Quality? Distinguish between quality and reliability.
b) What do you mean by Total Quality Management? State the importance and ingredients of it.
c) Explain that TQM is a new cultural revolution.
d) What are the benefits of TQM?

(4+6+3+7)
2. a) What are the objectives of statistical quality control?
b) Discuss about various quality control charts for variables and their importance for statistical quality control.
c) What do you understand by Producer's risk and Consumer's risk with respect to O C Curve?
d) What are the basic steps involved in the road map to achieve Six-Sigma Quality level?

(3+7+4+6)
3. a) What is benchmarking? Explain various steps of benchmarking.
b) What is brainstorming? What are the basic rules and benefits of brainstorming?
c) What are the fundamental steps of KAIZEN?

(10+6+4)
4. a) Define Quality and Quality loss function according to Dr. G. Taguchi.
b) What is Robust Design? What are the steps in Robust Design?
c) How do you select the standard orthogonal array?
d) How and why do you perform ANOVA test?

(4+6+4+6)
5. a) What do you understand by JIT Philosophy? What are the seven waste elements of Just-In-Time Philosophy?
b) What are the importance and benefits of JIT for Quality Improvement?
c) What do you mean by P-D-C-A cycle?
d) State Juran's ten steps to quality improvement.

(5+7+3+5)
6. a) Construct a model for adoption of customer satisfaction based total quality management system.
b) What do you understand by Quality Function Deployment? How do you obtain the voice of quality?
c) Sketch a typical House of Quality template showing its benefits.
d) Sketch a typical waterfall relationship of QFD matrices.

(5+5+5+5)
7. Write short notes on: a) Concurrent Engineering and b) Quality System.

(10+10)