

Time: 2 hours

Full Marks: 70

Answer any five questions
The questions are of equal value.

1. a) Quality may be viewed from different distinct perspective. What are these perspectives?
b) Edward Deming identified 14 points on quality. Explain each points.
c) State the relation between Quality and Profitability.
2. a) State and explain the key benefits of Quality Management Principles.
b) Explain the 5S concept. How can it be applied in workplace?
c) What is Kaizan philosophy? Explain with example.
3. a) Who are the customers? State the expectation of customer? Explain the determination of product quality and service quality the customer look for.
b) What do you mean by quality of design? Explain the factors controlling Quality of Design. State the meaning of technical specification and standard.
4. a) Discuss the step plan for Quality Improvement Programme (Crosby concept)
b) What is the meaning of Quality Cost? State & explain the different categories of quality cost recommended by American Society for Quality Control.
5. a) What is control chart? Discuss the steps in establishing to construct the control chart.
b) Control chart for \bar{x} and σ are maintained on the weight in Kg. of the contents of a certain container. The subgroup size is 10. The values of \bar{x} and σ are computed for each subgroup. After 18 subgroups, $\Sigma x = 595.8$ and $\Sigma \sigma = 8.24$. Complete the values of σ on the assumption the process is in statistical control.
 $A_1 = 1.03, B_4 = 1.72, B_3 = 0.28, c_2 = d_2 = 0.9227$
6. a) What do you mean by Total Quality Management? Is there any model demonstrating Pillers of TQM? Explain with proper examples.
b) State and explain the factors to be considered in designing for reliability. What are the basic elements of reliability?
7. Write short notes on (Any three):-
 - a) Six Sigma Methodology
 - b) Robust Design (Quality loss function)
 - c) Concept of Quality Function Development
 - d) Towards Zero defects concept
 - e) ISO 9000