

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – SUMMER 2013****Subject Code: 142502****Date: 17-06-2013****Subject Name: Fundamentals of Quality Management****Time: 10:30am – 01:00pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Define Quality, quality assurance and quality control (TQC). What are the various dimensions of quality? **07**
- (b)** What is strategic quality management (SQM)? How is it defined? Using a schematic diagram, explain the five phases of SQM. **07**
- Q.2 (a)** Enumerate the 4 absolutes of quality management given Crosby. Also mention his 14 steps to quality improvement. **07**
- (b)** Distinguish clearly between quality of design, quality of conformance and quality of performance. Explain the factors which influence the quality of conformance and quality of performance. **07**
- OR**
- (b)** Enumerate deming's 14 points for the total quality management. Also mention the 7 deadly diseases propounded by Deming. **07**
- Q.3 (a)** Explain Acceptance Sampling procedure. Discuss single and Double sampling plan. **07**
- (b)** State the procedure of constructing OC curve and explain producer's risk, consumer's risk, AOQ and AOQL. **07**
- OR**
- Q.3 (a)** Explain the differences between X-bar and R-charts. How can they be used together and why would it be important to use them together? **07**
- (b)** Explain the difference between:- **07**
- (i) Chance causes and assignable causes (ii) Control limits and tolerance limits (iii) Variables and attributes.
- Q.4 (a)** Explain the various steps in the implementation of ISO 14000 quality system. Explain the various clauses of ISO14001. **07**
- (b)** Classify the various types of services into categories with respect to degree of labour intensity and degree of interaction and customization. How difficult is it to manage the service quality for services in these categories? **07**
- OR**
- Q.4 (a)** Using a schematic diagram, briefly summarize the clauses and sub clauses of ISO9001:2000 **07**
- (b)** How does operational analysis help a quality system auditor to understand the underlying concepts of complex operations? How is it performed? **07**
- Q.5 (a)** Explain the concept of QFD. **07**
- (b)** Write short note on "Benchmarking". **07**
- OR**
- Q.5 (a)** Write short note on "Importance and applications of Software in Quality Control and Management". **07**
- (b)** Write short note on "Quality Management scenario in Indian Industry". **07**
