

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2017

**Subject Code: 2181920**

**Date: 15/11/2017**

**Subject Name: Quality Engineering(Department Elective III)**

**Time:02:30 PM TO 05:00 PM**

**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) Enlist seven new quality management tools. **03**
  - (b) Analyze the contribution of any one quality guru in your language. **04**
  - (c) Explain your understanding about the importance of the subject Quality Engineering. **07**

- Q.2**
- (a) Write down any three different definitions of quality **03**
  - (b) Explain about 5-S technique. **04**
  - (c) State the importance and application of ISO 9000, ISO 14000 and QS 9000. **07**

**OR**

- (c) State the importance of national and international quality awards as per your understanding. **07**
- Q.3**
- (a) Explain your understanding about quality circle. **03**
  - (b) State the importance of total quality management. **04**
  - (c) Enumerate importance and application of design of experiments. **07**

**OR**

- Q.3**
- (a) Define and discuss about quality function deployment and failure mode and effect analysis. **03**
  - (b) Analyze the new concept of quality with respect to old concept of quality in your language. **04**
  - (c) Explain in detail about concurrent engineering. **07**
- Q.4**
- (a) Define and discuss about benchmarking. **03**
  - (b) Differentiate between Lean and Agile manufacturing. **04**
  - (c) Explain about basic concept, principle, implementation methodology and application of six sigma. **07**

**OR**

- Q.4**
- (a) Explain the concept and scope of implementing QS 9000. **03**
  - (b) Explain JIT with real field application. **04**
  - (c) Explain your understanding about importance of quality in service sector. **07**
- Q.5**
- (a) Justify the cost of quality. **03**
  - (b) Explain business process re-engineering with real field application. **04**
  - (c) Explain your understanding about importance and application of total productive maintenance. **07**

**OR**

- Q.5**
- (a) Define and discuss about world class manufacturing. **03**
  - (b) Explain various quality dimensions in service sector. **04**
  - (c) Explain the real life application of implementation of various quality initiatives you have noticed. **07**

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