

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – VIII SEMESTER EXAMINATION- WINTER 2018

Subject Code: 2181920**Date: 19-11-2018****Subject Name: Quality Engineering****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.

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|------------|---|-----------|
| Q.1 | (a) Write three definitions of Quality as given by the quality gurus. | 03 |
| | (b) Explain Quality Dimensions of manufacturing sectors. | 04 |
| | (c) Explain fundamental factors affecting quality (9 M's). | 07 |
| Q.2 | (a) What is Kaizen? Explain with example. | 03 |
| | (b) Explain Poka-Yoke with two examples. | 04 |
| | (c) Explain 7 QC tools. | 07 |
| OR | | |
| | (c) Explain 7 New Quality Management Tools. | 07 |
| Q.3 | (a) What is concurrent engineering? | 03 |
| | (b) Explain the barriers in implementing TQM. | 04 |
| | (c) Explain Quality Management Standards – ISO: 9000. | 07 |
| OR | | |
| Q.3 | (a) Write Taguchi's contribution in quality engineering. | 03 |
| | (b) Explain the implementation requirement of TQM. | 04 |
| | (c) Write a short note on ISO: 14000. | 07 |
| Q.4 | (a) Write application of FMEA | 03 |
| | (b) Write two methodologies of Six Sigma. | 04 |
| | (c) Write a short note on QFD. | 07 |
| OR | | |
| Q.4 | (a) Write the limitation of six sigma. | 03 |
| | (b) Write the steps in experimental design in DOE. | 04 |
| | (c) Write a short note on FMEA. | 07 |
| Q.5 | (a) Define (1) JIT, (2) TPM and (3) BPR | 03 |
| | (b) Write a note on Agile manufacturing. | 04 |
| | (c) Write a short note on World Class Manufacturing. | 07 |
| OR | | |
| Q.5 | (a) Define Six sigma with one example. | 03 |
| | (b) Explain characteristics of Quality in Service Sectors. | 04 |
| | (c) Write a short note on Quality Dimensions in Service Sectors. | 07 |
