Seat No.:	Enrolment No.
Scat 110	

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2017 Subject Code: 2181920 Date: 06/05/2017

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

Time: 10:30 AM to 01:00 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) (b)	Define Quality and Discuss views of different Quality Gurus. Explain Characteristics and Quality Dimensions of Service Sectors.	07 07
Q.2	(a)	Explain 4 basic cost elements covered under "Cost of Quality" system giving at least two examples of each cost element.	07
	<b>(b)</b>	What do you mean by quality awards? Explain national and International quality awards.	07
		OR	
	<b>(b)</b>	Explain 7 New Quality Improvement Tools.	07
Q.3	(a)	Define QFD and Discuss house of quality-product planning matrix.	07
	<b>(b)</b>	Explain Concurrent Engineering list out its merits and demerits.	07
	` ,	OR	
Q.3	(a)	Define FMEA. Explain how it helps in ensuring quality of a product. Draw a typical format of FMEA and explain its elements in brief.	07
	<b>(b)</b>	Explain basic concepts, scope and implantation barriers of ISO 14000.	07
Q.4	(a)	What is Design of Experiments (DOE)? What are the components and benefits of DOE?	07
	<b>(b)</b>	What is TQM? Explain the principles of Total Quality Management (TQM).  OR	07
Q.4	(a)	What do you understand by the word – Robust Design? How Taguchi Techniques helps achieving robust design of a product?	07
	<b>(b)</b>	Define benchmarking along with its three major types.	07
Q.5	(a)	What are the characteristics and merits of JIT production system?	07
Q.C	(b)	Briefly explain the concepts of Lean and Agile Manufacturing. Discuss the Advantages offered by these systems to the industries.	07
		OR	
Q.5	(a)	Explain six sigma concepts? Explain with example Why companies are gradually moving towards achieving six sigma?	07
	<b>(b)</b>	Explain World class manufacturing.	07

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