Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 172504 **Date: 06/05/2017**

Subject Name: Quality Management & Reliability 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.**

Q.1	**(a)**	"Reliability engineering is an important aspect of quality management." explain.	**07**
	(b)	Using schematic diagram, explain the five phases of Strategic Quality Management.	**07**
Q.2	**(a)**	Describe W. Edwards Deming's contribution to TQM.	**07**
	(b)	Differentiate between quality audit and quality assurance.	**07**
		OR	
	(b)	What is COPC – 2000? Briefly explain its various clauses.	**07**
Q.3	**(a)**	Taguchi method in experimental design- Explain	**07**
	(b)	Differentiate between product and service. How does service quality management differ than the product quality management?	**07**
		OR	
Q.3	**(a)**	What is Service blueprint? How can Poka-Yoke be helpful in service blueprint? Explain using appropriate example.	**07**
	(b)	Classify services. How service quality can be measured?	**07**
Q.4	**(a)**	Describe the role of on seven magnificent quality tools.	**07**
	(b)	Define-patent, copyright, industrial design, trademark.	**07**
		OR	
Q.4	**(a)**	Describe the quality related priorities of Indian Industries considering the present scenario.	**07**
	(b)	What is intellectual property right (IPR)? What are the advantages of filing the right?	**07**
Q.5	**(a)**	Explain the use of Ishikawa's fishbone diagrams using suitable examples.	**07**
	(b)	Explain bath tub curve with respect to maintenance function.	**07**
		OR	
Q.5	**(a)**	Write a short note on Total Productive Maintenance.	**07**
	(b)	Describe FMECA.	**07**

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