

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2024****Subject Code:3172507****Date:01-06-2024****Subject Name:Quality Engineering and Management****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.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1	(a) Explain the importance of Benchmarking.	03
	(b) Differentiate between prevention and appraisal cost.	04
	(c) As natural resources become scarce, discuss the role of ISO 14000 in promoting good environmental management practices.	07
Q.2	(a) Define Quality with suitable example.	03
	(b) Discuss ISO. Describe benefits of the certification.	04
	(c) Explain the benchmarking triangle. What are the different varieties of benchmarking?.	07
OR		
	(c) Describe Quality Management as essential building block of business practices and strategies.	07
Q.3	(a) Define Quality assurance.	03
	(b) Write a short note on Agmark Grading and standardization.	04
	(c) Explain Ishikawa diagram with suitable example.	07
OR		
Q.3	(a) Differentiate between variables & attributes.	03
	(b) Differentiate between patent & copyright. Explain with suitable examples.	04
	(c) What are the various types of Quality Audits? Discuss each and identify the context in which they are used.	07
Q.4	(a) Explain QFD.	03
	(b) Discuss control charts for variables.	04
	(c) Explain Vendor rating.	07
OR		
Q.4	(a) What is acceptance limit?	03
	(b) List seven magnificent quality tools? Explain any one of them.	04
	(c) Explain PDCA cycle in detail.	07
Q.5	(a) What is internal failure?	03
	(b) Differentiate Producer's and Consumer's risks.	04
	(c) Evaluate various dimensions of Quality in brief.	07
OR		
Q.5	(a) Enlist various benefits of ISO 9000 certification.	03
	(b) Explain OC curve.	04
	(c) Discuss Taguchi's philosophy for quality improvement. Discuss his loss function and its contribution.	07