

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Seventh Semester

Biomedical Engineering

GE3752 - Total Quality Management

(Common to Agricultural Engineering, Civil Engineering & Chemical Engineering)

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Define total quality management.	RE	1	2
2.	List any two dimensions of product quality.	RE	1	2
3.	Outline Deming's philosophy of leadership in quality management.	UN	2	2
4.	Define strategic planning.	RE	2	2
5.	Define bench marking.	RE	3	2
6.	What are the traditional tools of quality?	RE	3	2
7.	Define Quality Function Deployment (QFD) in product development.	RE	4	2
8.	Define BPR.	RE	4	2
9.	State the benefits of ISO 9001 certification.	RE	5	2
10.	Outline the requirements for ISO 14001.	UN	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Summarize the need and dimensions of product and service quality.	UN	1	13
	Or			
	b Explain in detail about the barriers and framework of TQM.	UN	1	13
12.	a Survey the importance of customer feedback and complaints in enhancing service quality. Provide examples of how companies can use this feedback to improve customer satisfaction.	AN	2	13
	Or			
	b Analyze the benefits and challenges of developing long-term supplier partnerships. How does supplier selection and rating contribute to the success of these partnerships?	AN	2	13
13.	a i Compare the new management tools with the traditional quality tools. How do they help address more complex issues in quality management?	UN	3	7
	ii Explain the seven traditional tools of quality and discuss how they help in problem-solving and process improvement.	UN	3	6
	Or			

	b	i	Explain the documentation process involved in FMEA (Failure Modes and Effects Analysis). How does it ensure that risks are systematically identified and addressed in both design and process stages?	UN	3	7
		ii	Summarize the stages and design in FMEA process.	UN	3	6
14.	a		Describe the key steps involved in Quality Function Deployment (QFD). How does QFD help organizations translate customer needs into product design specifications?	UN	4	13
			Or			
	b		Explain the steps involved in Business Process Reengineering (BPR) and how it differs from traditional process improvement methods. Provide examples of organizations that have successfully implemented BPR.	UN	4	13
15.	a		Illustrate the benefits and registration of ISO 9000.	UN	5	13
			Or			
	b		Explain in detail about the requirements and benefits of ISO 14000.	UN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>	<i>Questions</i>			<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	i	Examine the comprehensive plan for implementing Kaizen and 5S in a manufacturing organization.	AN	2	8
		ii	Analyze the importance of companies choose to benchmark tool. Provide examples of any one industries that have successfully applied benchmarking to improve their competitive position.	AN	3	7
			Or			
	b	i	Classify the four categories of the Cost of Quality (COQ)? Analyze how each category impacts an organization's overall quality management system.	AN	4	8
		ii	Compare the ISO 14000 series of standards with the ISO 9000 series. How do these standards differ in their focus and objectives?	AN	5	7