



TEACHING PLAN: Total Quality Management B.Tech. 6th Sem.

SCHOOL OF ENGINEERING & TECHNOLOGY		ACADEMIC SESSION: 2022 – 2023		FOR STUDENTS' BATCH: 2020-24	
1	Course No.	OEC-302			
2	Course Title	Total Quality Management.			
3	Credits	3			
4	Learning Hours	Contact Hours		3	
		Practical Teaching		0	
		Projects, Tutorials and Assessments		0	
		Total Hours		3	
5	Course Objective	CO1: To understand the concept of Quality CO2: To understand the Implication of Quality on Business CO3: To Implement Quality Implementation Programs CO4: To have exposure to challenges in Quality Improvement Programs CO5: To understand the principles of total quality management.			
6	Course Outcomes	CO1 - To understand and apply the principles of total quality management. CO2 – Choose appropriate statistical techniques for improving processes. CO-3 Develop the organizational, competitive and economic potential of quality. CO4 - Integrate biblical principles with the practice of total quality management. CO5 - Identify requirements of quality improvement programs			
7	Outline syllabus: Introduction: Evolution of Quality, Quality Assurance, Acceptance Sampling, Control Charts, Contemporary Trends in Quality Engineering & Management.				
7.01	Paper Code	Unit	Introduction	Page Numbers	Teaching Aids
7.02	OEC-302	Unit I	Introduction: Evolution of Quality Management, Philosophy, Concepts of Product and Service Quality, Dimensions of Quality, Quality Guru's, Quality Awards, Quality Cost.	Total Quality management", Wiley Eastern Limited	White Board, PPT Slides, Projector
		Unit II	Quality Assurance: Inspection, Quality control, Quality assurance, Concept and Advantage of quality assurance, Quality rating, Quality survey/audit, Vendor rating, Quality function deployment. Process Quality Improvement: Introduction to Process Quality, Graphical and statistical techniques for Process Quality Improvement, Graphical tools for data representation, 7QC tools, Process capability analysis, Measurement system analysis.	Total Quality management", Wiley Eastern Limited	White Board, PPT Slides, Projector
		Unit III	Acceptance Sampling: Concept of acceptance sampling, advantage and limitations of sampling inspection, Sampling methods, Operating characteristics curve, producer and consumer risk, Average outgoing quality limits, sampling plans, sampling plans for variables, Problems.	Total Quality management", Wiley Eastern Limited	White Board, PPT Slides, Projector
7.03		Unit IV	Control Charts: Chance and assignable causes of process variation, statistical basis of the control	Total Quality	White Board,

			chart, control charts for variables - x and R charts, attribute control charts - p, np, c and u- Construction and application, Problems.	management", Wiley Eastern Limited	PPT Slides, Projector
		Unit V	Contemporary Trends in Quality Engineering & Management: Introduction to Quality Management Standards – ISO : 9000, ISO:14000, Reliability, Quality circles, Concept of Six sigma, Basic steps involve in six sigma, National and International bodies for quality aspects, Introduction to Japanese's quality techniques such as 5S, Kaizen, SMED, TQM,TPM.	Total Quality management", Wiley Eastern Limited	White Board, PPT Slides, Projector
8	Course Evaluation				
8.1	CA: 20%				
8.11	Attendance	10%			
8.12	Homework	2 Assignments, 10%			
8.13	Quizzes	-			
8.14	Projects	-			
8.15	Presentation	-			
8.13	Any other	-			
8.2	MTE	20%			
8.3	End-term examination: 60%				
9	Text Books & References				
9.1	Text book	1. Lt. Gen. H.Lal, "Total Quality management", Wiley Eastern Limited, 1990. . 2. Greg Bounds. —Beyond Total Quality Management. McGraw Hill, 1994. 3. Menon, H.G, "TQM in New Product manufacturing", McGraw Hill 1992.			
9.2	References	1. George E.Dieter, Linda C.Schmidt, —Engineering Design, McGraw-Hill International Edition, 4th Edition, 2009, ISBN 978-007-127189-9 http://site.iugaza.edu.ps/aschokry/files/2013/08/TQM-and-COURSE-DESCRIPTION.pdf			
9.3	Video References	https://elearn.nptel.ac.in/shop/nptel/total-quality-management-i/ https://www.digimat.in/nptel/courses/video/110104080/L01.html https://www.digimat.in/nptel/courses/video/110104085/L01.html https://www.youtube.com/watch?v=2AYOYTPR6Y0 https://www.youtube.com/watch?v=SMOQV2CyVQo https://freevideolectures.com/course/4605/nptel-total-quality-management-i			

CO-PO Mapping

Course Outcome	Program Outcome												PSO			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO 1	3	3	3	3	2	2	2		2	1	2	2	3	3	2	2
CO 2	3	3	3	3	2	2	2		2	1	2	2	3	3	2	2
CO 3	3	3	3	3	2	2	2		2	1	2	3	3	3	2	2
CO 4	3	3	3	3	2	2	1		2	2	1	2	3	3	2	2
CO 5	3	3	3	3	1	1	2		1	1	1	1	3	3	2	1

QUESTION BANK

1. What are the main objectives of total quality management?
2. What are the 3 main objectives of TQM?
3. What is the importance of studying total quality management?

4. What are the five major benefits of total quality management?
5. What are the objectives of quality management plan?
6. What are the five 5 major elements of TQM?
7. What are the 7 concepts of TQM?
8. What is the scope of Total Quality Management?
9. What are the scope and benefits of total quality management?
10. What is the history or evolution of total quality management?
11. What are the four stages of quality management?
12. What are the stages of quality management system?
13. What are the 5 principles of quality management?
14. What are the 5 Total Quality Management?
15. What are the four stages of evolution of quality?
16. What are the five stages of management?
17. What are the types of quality management?
18. What is quality inspection process?
19. What are the 7 pillars of quality?
20. What is the first steps of QA?
21. What are the 7 steps of inspection process?
22. What are the five 5 types of inspection?
23. What are the 5 basic kinds of inspection methods?
24. What is the role of quality assurance?
25. Which are the 10 steps in the process for quality improvement?
26. What are the four major steps to quality improvements?
27. What is the most common process for quality improvement?
28. What are examples of process improvements?
29. What is 7 step improvement process?
30. What are the 7 steps of quality?
31. What are the 7 QMS principles?
32. What are the 7 QC tools used for process improvement?
33. What is inspection and acceptance sampling?
34. What is the process of acceptance?
35. What is acceptance and its importance?
36. What are the 3 different types of acceptance inspection?
37. What are the 4 types of samples?
38. What is AQL in acceptance sampling?
39. What is acceptance sampling by variables?
40. What are the main purposes of control charts?
41. What are the 3 elements of a control chart?
42. What are the two main types of control charts?
43. What is a control chart in Six Sigma?
44. What is UCL and LCL in control chart?
45. Which is the best control chart?