

## DEPARTMENT OF MECHANICAL ENGINEERING

### Lesson Plan & Work-done Diary for AY:2025-26, Even Semester

Course with Code: Total Quality Management -BME613A				Faculty: Dr. Chethan S			Semester & Section: 6 <sup>th</sup> sem	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
<b>MODULE-1 Principles and Practice</b>								
1		Introduction to the subject – Discussion on Course module and syllabus	PPT					
2		<b>Principles and Practice:</b> Definition, basic approach.	PPT					
3		Gurus of TQM.	PPT					
4		TQM Framework, awareness.	PPT					
5		Historical review, defining quality.	PPT					
6		Obstacles, benefits of TQM.	PPT					
7		Quality Management Systems: Introduction, benefits of ISO registration.	PPT					
8		ISO 9000 series of standards.	PPT					
9		ISO 9001 requirements.	PPT, Quiz					

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<b>MODULE-2 Leadership</b>								
10		<b>Leadership:</b> Definition, characteristics of quality leaders.	PPT					
11		Leadership concept.	PPT					
12		Characteristics of effective people, ethics.	PPT					
13		The Deming philosophy.	PPT					
14		Role of TQM leaders, implementation.	PPT					
15		Core values, concepts and framework.	PPT					
16		Strategic planning communication.	PPT					
17		Decision-making	PPT Quiz					

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<b>MODULE-3 Customer Satisfaction and Customer Involvement, Employee Involvement</b>								
18		<b>Customer Satisfaction:</b> customer and customer perception of quality.	PPT					
19		Customer feedback, using customer complaints.	PPT, Videos					
20		Service quality, Translating needs into requirements	PPT					
21		Customer retention, and case studies.	PPT, Animations					
22		<b>Employee Involvement –</b> Motivation, employee surveys.	PPT					
23		Empowerment, teams, Suggestion system	PPT					
24		Recognition and reward, gain sharing.	PPT					
25		Performance appraisal, unions and employee involvement, case studies.	PPT, Quiz					

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<b>MODULE-4 Continuous Process Improvement, Statistical Process Control</b>								
26		<b>Continuous Process Improvement:</b> process, the Juran trilogy.	PPT					
27		Improvement strategies, types of problems.	PPT					
28		The PDSA Cycle, problem-solving methods.	PPT					
29		Kaizen, reengineering, six sigma, case studies.	PPT					
30		<b>Statistical Process Control:</b> Pareto diagram, process flow diagram.	Chalk & Board					
31		Cause and effect diagram, check sheets, histograms.	Chalk & Board					
32		Statistical fundamentals, Control charts, state of control, out of control process.	Chalk & Board					
33		Control charts for variables, control charts for attributes, scatter diagrams, case studies.	Chalk & Board, Quiz					

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MODULE-5								
34		<b>Total Productive Maintenance (TPM):</b> Definition, Types of Maintenance	PPT					
35		Steps in introduction of TPM in an organization, Pillars of TPM	PPT					
36		5S, Jishu Hozen, Quality Maintenance, Planned Maintenance	PPT					
37		<b>Quality by Design (QbD):</b> Definition, Key components of QbD	PPT					
38		Role of QbD in Pharmaceutical Industry	PPT					
39		Benefits and Challenges of QbD	PPT					
40		<b>Environmental Management Systems (EMS):</b> Definition, Basic EMS	PPT					
41		EMS under ISO 14001, Costs and Benefits of EMS.	PPT, Quiz					

## DEPARTMENT OF MECHANICAL ENGINEERING

	Activity	Planned	Actual	Remarks
1	Theory Classes	41		
2	Assignments/ Quizzes/ Self-study	02/05		
3	Tutorials/ Extra classes	05		
4	Internal Assessments	03		
5	ICT based Teaching (% of usage in Curriculum)	90		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	