

DEPARTMENT OF MECHANICAL ENGINEERING

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

Course with Code: Machine Design – BME602				Faculty: Mr. Rohith S			Semester: 6 th	
Module	Class No.	Date planned.	Topics to be covered	TLP Planned	Date of Conduction	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1	1		Bridge course on mechanics, material science, and mathematics	PPT Chalk & Talk				
	2		Introduction to course	PPT				
	3		Engineering materials and their properties; use of codes and standards, selection of Preferred sizes	Chalk & Talk				
	4		Review of axial, bending, shear and torsion loading on machine components	Chalk & Talk				
	5		Numerical on combined loading	Chalk & Talk				
	6		Concept of theories of failure	Chalk & Talk				
	7		Concept of Mohr's theory	Chalk & Talk				
	8		Introduction & numerical on Impact loading.	Chalk & Talk				
	9		Introduction to fatigue failure, Mechanism of fatigue failure, types of fatigue loading	Chalk & Talk				
	10		S-N Diagram, Low and high cycle fatigue.	Chalk & Talk				

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MODULE-2	11		Keys: Types of keys and their applications	Chalk & Talk				
	12		Design considerations in parallel & tapered sunk keys	Chalk & Talk				
	13		Design of square and rectangular sunk keys	Chalk & Talk				
	14		Introduction to couplings	Chalk & Talk				
	15		Design of Flange coupling	Chalk & Talk				
	16		Design of Bush and Pin type coupling.	Chalk & Talk				
	17		Introduction to Shafts and types of shafts	Chalk & Talk				
	18		Design of shafts subjected to combined bending	Chalk & Talk				
	19		Design of shafts subjected to torsional bending	Chalk & Talk				
	20		Design of shafts subjected to axial bending	Chalk & Talk				

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MODULE-3	21		Introduction to riveted joints - Types of rivets, rivet materials	Chalk & Talk				
	22		Concept of caulking and fullering, failures of riveted joints	Chalk & Talk				
	23		Numerical on riveted joints	Chalk & Talk				
	24		Numerical on Boiler joints	Chalk & Talk				
	25		Numerical on riveted brackets	Chalk & Talk				
	26		Introduction to Welded joints and strength of butt and fillet welds	Chalk & Talk				
	27		Numerical on welded brackets	Chalk & Talk				
	28		Introduction to Spur gear – Numerical on Spur gear	Chalk & Talk				
	29		Numerical on Spur gear	Chalk & Talk				
	30		Numerical on Spur gear	Chalk & Talk				

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MODULE-4	31		Introduction to Helical gear – Numerical on helical gear	Chalk & Talk				
	32		Numerical on helical gear	Chalk & Talk				
	33		Numerical on helical gear	Chalk & Talk				
	34		Introduction to Bevel gear – Numerical on bevel gear	Chalk & Talk				
	35		Numerical on bevel gear	Chalk & Talk				
	36		Numerical on bevel gear	Chalk & Talk				
	37		Introduction to worm gear – Numerical on worm gear	Chalk & Talk				
	38		Numerical on worm gear	Chalk & Talk				
	39		Numerical on worm gear	Chalk & Talk				
	40		Quiz 1	PPT				

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MODULE-5	41		Introduction to Clutches - Design of single plate, multi-plate, and cone clutches	Chalk & Talk				
	42		Numerical on clutches	Chalk & Talk				
	43		Introduction to brakes – Numerical on brakes	Chalk & Talk				
	44		Numerical on brakes	Chalk & Talk				
	45		Introduction to lubrication and their properties, mechanisms of lubrication	Chalk & Talk				
	46		Introduction to bearing materials and properties	Chalk & Talk				
	47		Numerical on Bearings	Chalk & Talk				
	48		Introduction to Anti friction bearing	PPT				
	49		Quiz 2	PPT				
	50		Discussion on previous year QP					

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	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
2	Assignments/ Quizzes/ Self-study	3/3		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	25%		

Planning	Execution
Faculty Signature:	Faculty Signature:
HoD Signature:	HoD Signature: