

## LESSON PLAN.

W.E.F:- 01/08/2023

Subject :- DESIGN OF MACHINE ELEMENTS , Subject code - Th-2

Total Period :- 60  
per Sem

Teacher :- SUBHASINI MUDULI (PTGF, MECHANICAL ENGINEERING DEPT.)

Theory :- 4p/week

SEMESTER:-5th

MONTH	Week	DATE	UNIT NO/PERIOD ALLOTTED	Syllabus to be covered	Syllabus actually covered	Short fall	Signature
AUGUST	1st	01-08-2023	12	1.0 Introduction: Introduction to Machine Design and Classify it.			
		02-08-2023		Different mechanical engineering materials used in design with their uses and their mechanical and physical properties.			
	2nd	07-08-2023		Different mechanical engineering materials used in design with their uses and their mechanical and physical properties.			
		08-08-2023		Define working stress, yield stress, ultimate stress & factor of safety and stress –strain curve for M.S & C.I.			
	3rd	14-08-2023		ultimate stress & factor of safety			
		16-08-2023		stress –strain curve for M.S & C.I.			
		16-08-2023		Modes of Failure (By elastic deflection			
	4th	21-08-2023		general yielding & fracture)			
		22-08-2023		State the factors governing the design of machine elements.			
		22-08-2023		State the factors governing the design of machine elements.			
		23-08-2023		Describe design procedure.			
	5th	28-08-2023		Describe design procedure.			
		29-08-2023		2.0 Design of fastening elements: Joints and their classification.			
		29-08-2023		State types of welded joints			
	SEPT	2nd		04-09-2023	12	State advantages of welded joints over other joints.	
05-09-2023			Design of welded joints for eccentric loads.				
05-09-2023			State types of riveted joints and types of rivets.				
3rd		11-09-2023	Describe failure of riveted joint				
		12-09-2023	Determine strength & efficiency of riveted joints				
		12-09-2023	Design riveted joints for pressure vessel.				
4th		13-09-2023	Solve numerical on Welded Joint and Riveted Joints.				
		18-09-2023	Solve numerical on Welded Joint and Riveted Joints.				
		25-09-2023	Solve numerical on Welded Joint and Riveted Joints.				
		5th	26-09-2023	Solve numerical on Welded Joint and Riveted Joints.			
27-09-2023	3.0 Design of shafts and Keys:State function of shafts.						
		03-10-2023		State materials for shafts.			

27	OCT	1st	03-10-2023	12	Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity			
28			04-10-2023		Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii)			
29		2nd	09-10-2023		State standard size of shaft as per I.S.			
30			10-10-2023		State function of keys, types of keys & material of keys.			
31			11-10-2023		Describe failure of key, effect of key way.			
32		3rd	16-10-2023		shear & crushing.			
33			17-10-2023		given diameter of shaft.			
34			17-10-2023		as per I.S.			
35			18-10-2023		Solve numerical on Design of Shaft and keys			
36		4th	25-10-2023		Solve numerical on Design of Shaft and keys			
37		5th	30-10-2023		4.0 Design of Coupling;- Design of Shaft Coupling			
38			31-10-2023		Requirements of a good shaft coupling			
39	31-10-2023		Types of Coupling.					
40	NOV	2nd	06-11-2023	12	Design of Sleeve or Muff-Coupling			
41			07-11-2023		Design of Sleeve or Muff-Coupling			
42			07-11-2023		Design of Clamp or Compression Coupling			
43			08-11-2023		Design of Clamp or Compression Coupling			
44		3rd	13-11-2023		Solve simple numerical on above			
45			14-11-2023		Solve simple numerical on above			
46			14-11-2023		Solve simple numerical on above			
47			15-11-2023		Solve simple numerical on above			
48		4th	20-11-2023		Solve simple numerical on above			
49			21-11-2023		5.0; Design a closed coil helical spring:-Materials used for helical spring			
50			21-11-2023		Materials used for helical spring			
51			22-11-2023		Standard size spring wire. (SWG).			
52	28-11-2023		Terms used in compression spring.					
53	5th	28-11-2023	Stress in helical spring of a circular wire					
54		29-11-2023	Stress in helical spring of a circular wire					
55	DEC	2nd	04-12-2023	12	Deflection of helical spring of circular wire.			
56			05-12-2023		Deflection of helical spring of circular wire.			
57			05-12-2023		Surge in spring			
58		06-12-2023	Solve numerical on design of closed coil helical compression spring					
59	3rd	11-12-2023	Numerical solving					
60		12-12-2023	Numerical solving					

*Subhasini Mudali*