

PNS SCHOOL OF ENGINIERING & TECHNOLOGY
LESSON PLAN

Discipline : Mechanical	Semester: 5th	Name of the Teaching Faculty : ER. RAMESH CH PRADHAN
Subject : DME Design of Machine Elements	No. of Days / per week class allotted : 5	Semester From date : 0 1.08.2023 to Date :30.11.2023 No. of Weesks : 14
Week	Class Day	Topics
1	1st	Introduction to Machine Design & Classify it
	2nd	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties
	3rd	Mechanical properties of Engineering material
	4th	Stress Strain Curved for MS & CI with Salient Point
	5 th	Revision
2	1st	Modes of Failure of elastic deflection, General Yielding & Fracture
	2nd	State the Factor governing the design of machine elements
	3rd	State the Factor governing the design of machine elements
	4 th	Describe design Procedure
	5th	Solve Numerical
3	1st	Joints and their Classification
	2nd	State types of welded Joint
	3rd	State advantages of welded joint over other
	4th	Design of welded joints for eccentric load
	5th	Solve Numerical
4	1st	State types of rivetted joint and types of rivet
	2nd	Describe failure of rivetted joint
	3rd	we determine strength and efficiency of rivetted joints
	4th	Determine Strength & Efficiency of Rivetted Joint
	5th	Solve Numerical
5	1st	Design rivetted joint for pressure vessel
	2nd	Solve numerical problems on weld
	3rd	Solve numerical problems on rivetted joints
	4th	Solve numerical problems on rivetted joints
	5th	Solve Numerical
6	1st	State function of Shafts
	2nd	State materials for shafts
	3rd	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity
	4th	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity
	5th	Solve Numerical
7	1st	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity
	2nd	State standard size of shafts as per I.S referring data book
	3rd	State function of keys, types of keys and materials of keys
	4th	Describe failure of keys, effect of keyway and problem
	5th	Solve Numerical

8	1st	Design of rectangular sunk key by using empirical relation for given diameter of shafts
	2nd	State specification of parallel key, gibhead key, taper key as per I.S
	3rd	Solve numericals on design of shafts and keys
	4th	Solve numericals on design of shafts and keys
	5th	Solve Numerical
9	1st	Design of Shafts Coupling
	2nd	Requirements of Good Shaft Coupling
	3rd	Types of Coupling
	4th	Design of Sleeve or Muff Coupling
	5th	Solve Numerical
10	1st	Design of Clamp and Compression Coupling
	2nd	Solve Numericals
	3rd	Solve Numericals
	4th	Solve Numerical
	5th	Solve Numerical
11	1st	Material Used for Helical Spring
	2nd	SWG Wire (Data Book reference)
	3rd	Terms used in Compression Helical Spring
	4th	Stress in Helical spring of circular wire
	5th	Solve Numerical
12	1st	Deflection of helical Spring of Circular Wire
	2nd	Surge of Spring
	3rd	Solve Numerical in design of Closed Coil Helical Compression Spring
	4th	Solve Numerical
	5th	Solve Numerical
13	1st	Solve Numerical
	2nd	Solve Numerical
	3rd	Solve Numerical
	4th	Solve Numerical
	5th	Solve Numerical
14	1st	Solve Numerical
	2nd	REVISION
	3rd	REVISION
	4th	REVISION
	5th	REVISION

Signature of H.O.D, Mechanical

Signature of Lecturer