

LESSON PLAN -2022
SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR

DISCIPLINE- MECHANICAL	SEMESTER-5TH	NAME OF THE FACULTY:S.R.MOHANTY
SUBJECT- DME	NO. OF CLASS ALLOTTED	SEM. From date: 15.9.2022 TO 22.12.2022 No of weeks: 13TH
WEEK	CLASS DAY	THEORY TOPIC
1ST WEEK	15.09.2022	Introduction to Machine Design and classify it.
	16.09.2022	Different mechanical engineering materials used in design with their uses
	17.09.2022	and their mechanical physical properties
2ND WEEK	19.09.2022	Define working stress, yield stress, ultimate stress
	20.09.2022	Factor of safety and stress- strain curve for M.S. & C.I.
	21.09.2022	Modes of failure (by elastics deflection, general yielding & fracture)
	22.09.2022	State the factors governing the design of machine elements
	23.09.2022	Describe design procedure
3RD WEEK	26.09.2022	DO
	27.09.2022	Design of fastening elements: Joints and their classification
	28.09.2022	State types of welded joints, state advantages of welded joints over other j oints
	29.09.2022	Design of welded joints for eccentric loads
	30.09.2022	State types of rivetes joints and types of rivets
4TH WEEK	06.10.2022	Describe failure of riverted joints.
	07.10.2022	Determine strength and efficiency of riverted joints
5TH WEEK	10.10.2022	Design riveted joints for pressure vessel
	11.10.2022	Solve problems on welded joints and riveted joints
	12.10.2022	DO
	13.10.2022	DO
	14.10.2022	Design of shafts and keys: State function of shafts, state material for shafts
	15.10.2022	Design solid & hollow shafts to tranmit a given power at given rpm based o n
6TH WEEK	17.10.2022	a) Strength: (i) Shear stress, (ii) Combined bending tension
	18.10.2022	b)Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity
	19.10.2022	State standard size of shaft as per I.S.
	20.10.2022	State function of keys, types of keys & material of keys
	21.10.2022	Describe failure of key, effect of key way
7TH WEEK	26.10.2022	Design rectangular sunk key considering its failure against shear and crushi ng
	27.10.2022	Design rectangular sunk key by using empirical relation for given diameter of shaft
	28.10.2022	State specification of parallel key, gib- head key, taper key as per I.S.
	29.10.2022	Solve numerical on design of shaft and keys.
	31.10.2022	Design of Coupling: Design of shaft coupling
8TH WEEK	01.11.2022	Requirements of a good shaft coupling, types of coupling
	02.11.2022	Design of sleeve or Muff- Coupling
	10.11.2022	Design of clam or compression coupling
	16.11.2022	Solve the numerical problems
	24.11.2022	DO

9TH WEEK	30.11.2022	DO
10TH WEEK	02.12.2022	Design a closed coil helical spring, Material used for helical spring
	06.12.2022	Standard size spring wire(SWG)
11TH WEEK	07.12.2022	Terms used in compression spring
	08.12.2022	Stress in helical spring of a circular wire
12TH WEEK	13.12.2022	Deflection of helical spring of circular wire
	14.12.2022	Surge in spring
13TH WEEK	20.12.2022	Solve numerical on design of closed coil helical compression spring
	21.12.2022	DO
	22.12.2022	DO