



ORISSA SCHOOL OF ENGINEERING

LESSON PLAN

Discipline : Mechanical		Semester 5th		Name of Teaching Faculty : Er. Krushna Chandra Padhy	
Subject: Design Of Machine Element		No. of Days/ per week class allotted : 5		Semester From date : 1/8/2023 To 30/11/2023	
S.L No	Week	Class Day	Chapter	Theory / Practical Topics	
1	1st (01/08 - 05/08)	1st	Chapter No 1 Introduction	Introduction to Machine Design & Classify It	
2		2nd		Different mechanical engineering materials used in design with their uses and their mechanical and physical properties	
3		3rd		Mechanical properties of Engineering material	
4		4th		Stress Strain Curved for MS & CI with Salient Point	
5		5th		Modes of Failure of elastic deflection, General Yielding & Fracture	
6	2nd (07/08-12/08)	1st	Chapter No 1 Introduction	State the Factor governing the design of machine elements	
7		2nd		State the Factor governing the design of machine elements	
8		3rd		Describe design Procedure	
9		4th	Chapter No 2 Design of Fastening	Joints and their Classification	
10		5th		State types of welded Joint	
11	3rd (15/08-21/08)	1st	Chapter No 2 Design of Fastening Elements	State advantages of welded joint over other	
12		2nd		Design of welded joints for eccentric load	
13		3rd		State types of rivetted joint and types of rivet	
14		4th		Describe failure of rivetted joint	
15		5th		we determine strength and efficiency of rivetted joints	
16	4th (22/08-28/08)	1st	Chapter No 2 Design of Fastening Elements	Determine Strength & Efficiency of Rivetted Joint	
17		2nd		Design rivetted joint for pressure vessel	
18		3rd		Solve numerical problems on weld	
19		4th		Solve numerical problems on rivetted joints	
20		5th		Solve numerical problems on rivetted joints	
21	5th (29/09-05/09)	1st	Chapter No 3 Design of Shafts and Keys	State function of Shafts	
22		2nd		State materials for shafts	
23		3rd		Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
24		4th		Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
25		5th		Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	

26	6th (08/09-13/09)	1st	Chapter No 3 Design of Shafts and Keys	State standard size of shafts as per I.S referring data book
27		2nd		State function of keys, types of keys and materials of keys
28		3rd		Describe failure of keys, effect of keyway and problem
29		4th		Design of rectangular sunk key by using empirical relation for given diameter of shafts
30		5th		State specification of parallel key, gibhead key, taper key as per I.S

31	7th (15/09-22/09)	1st	Chapter No 3 Design of Shafts and Keys	Solve numericals on design of shafts and keys
32		2nd		Solve numericals on design of shafts and keys
33		3rd	Chapter No 4 Design of Coupling	Design of Shafts Coupling
34		4th		Requirements of Good Shaft Coupling
35		5th		Types of Coupling

36	8th (23/09-30/09)	1st	Chapter No 4 Design of Coupling	Design of Sleeve or Muff Coupling
37		2nd		Design of Clamp and Compression Coupling
38		3rd		Solve Numericals
39		4th		Solve Numericals
40		5th		Solve Numericals

41	9th (03/10-09/10)	1st	Chapter No 5 Design of Closed Coil Helical Spring	Material Used for Helical Spring
42		2nd		SWG Wire (Data Book reference)
43		3rd		Terms used in Compression Helical Spring
44		4th		Stress in Helical spring of circular wire
45		5th		Deflection of helical Spring of Circular Wire

46	10th (10/09-16/09)	1st	Chapter No 5 Design of Closed Coil Helical Spring	Surge of Spring
47		2nd		Solve Numerical in design of Closed Coil Helical Compression Spring
48		3rd		Solve Numerical
49		4th		Solve Numerical
50		5th		Solve Numerical

51	11th (17/10-01/11)	1st	Chapter No 5 Design of Closed Coil Helical Spring	Solve Numerical
52		2nd		Solve Numerical
53		3rd	Revision	Chapter 1
54		4th		Chapter 2
55		5th		Chapter 2

56	12th (03/11-08/11)	1st	Revision	Chapter 3
57		2nd		Chapter 4
58		3rd		Chapter 4
59		4th		Chapter 5
60		5th		Chapter 5

61	13th	1st	Revision	Revision
62		2nd		Revision

63	(10/11-15/11)	3rd	Revision	Revision
64		4th		Revision
65		5th		Revision
66	14th (17/11-22/11)	1st	Revision	Revision
67		2nd		Revision
68		3rd		Revision
69		4th		Revision
70		5th		Revision
71	15th (24/11-30/11)	1st	Revision	Revision
72		2nd		Revision
73		3rd		Revision
74		4th		Revision
75		5th		Revision

Koushma Chandra Padhy

Luni Behera

H.O.D. Mechanical Deptt.
O.S.E., Berhampur



Principal
Orissa School of Engineering
Berhampur (Gm.)