

LESSON PLAN

NAME OF FACULTY : SUNIL KUMAR
DISCIPLINE : MECHANICAL ENGINEERING - G.P. MANDI ADAMPUR
SEMESTER : III
SUBJECT : MECHANICAL ENGINEERING DRAWING
LESSON PLAN DURATION: 15 WEEKS
WORK LOAD (LECTURE/PRACTICAL) PER WEEK : (6 PRACTICAL)

WEEK	PRACTICAL	
	LECTURE NO.	TOPIC
1 st	1	UNIT 1:- Limit, fits and tolerance Need of limit, fits and tolerance, Maximum limit of size, minimum limit of size, tolerance, allowance, deviation, upper deviation, lower deviation, fundamental deviation
	2	Clearance, maximum clearance, minimum clearance. Fits – clearance fit, interference fit and transition fit. Hole basis system, shaft basis system, tolerance grades
2 nd	3	Calculating values of clearance, interference, hole tolerance, shaft tolerance with given basic size for common assemblies like H ₇ /g ₆ , H ₇ /m ₆ , H ₈ /p ₆ . Basic terminology and symbols of geometrical dimensioning and tolerances (01 Sheets)
	4	UNIT 2:- Drawing of the following with complete dimensions, tolerances, bill of material and surface finish representation 2.1 Universal coupling and Oldham coupling (Assembly) (01 Sheets)
3 rd	5	2.2 Bearings 2.2.1 Bushed bearing (Assembly Drawing) (01 Sheets)
	6	2.2.2 Ball Bearing and Roller Bearing (Assembled Drawing) (01 Sheets)
4 th	7	2.2.3 Plummer Block (Detail and Assembly Drawing) (01 Sheets)
	8	SESSIONAL TEST-I
5 th	9	2.2.4 Foot step Bearing (Assembled Drawing) (01 Sheets)
	10	2.3 Pulleys 2.3.1 Pulleys, Function of pulley, Types and materials of Pulley
6 th	11	2.3.2 Free hand Sketch of Various types of pulleys. (01 Sheets)
	12	2.3.3 Fast and loose pulley (Assembly Drawing) (01 Sheets)
7 th	13	2.4 Pipe joints 2.4.1 Types of pipe Joints, Symbol and line layout of pipe lines (01 Sheets)
	14	2.4.2 Expansion pipe joint (Assembly drawing) (01 Sheets)

8 th	15	2.4.3 Flanged pipe and right angled bend joint (Assembly Drawing) (01 Sheets)
	16	2.5 Lathe Tool Holder (Assembly Drawing) (01 Sheets)
9 th	17	2.6 Reading and interpretation of mechanical components and assembly drawings
	18	2.7 Sketching practice of bearings and bracket (01 Sheets)
10 th	19	UNIT 3:- Drilling Jig (Assembly Drawing) (01 Sheets)
	20	UNIT 4:- Machine vices (Assembly Drawing) (01 Sheets)
11 th	21	SESSIONAL TEST-II
	22	Machine vices (Assembly Drawing) (01 Sheets)
12 th	23	UNIT 5:- I.C. Engine Parts Piston (01 Sheets)
	24	Connecting rod (Assembly Drawing) (01 Sheets)
13 th	25	Crankshaft and flywheel (Assembly Drawing) (01 Sheets)
	26	UNIT 6:- Boiler Parts Steam Stop Valve (Assembly Drawing) (01 Sheets)
14 th	27	Blow off cock. (Assembly Drawing) (01 Sheets)
	28	UNIT 7:- Mechanical Screw Jack (Assembled Drawing) (01 Sheets)
15 th	29	UNIT 8:- Gear, Types of gears, Nomenclature of gears and conventional representation. Draw the actual profile of involute teeth of spur gear by different methods. (02 Sheets)
	30	SESSIONAL TEST-III

