

LESSON PLAN

NAME OF FACULTY: SH PAWAN BALODA / SH HITESH AGGARWAL

DISCIPLINE: MECHANICAL ENGINEERING

SEMESTER: 3rd

SUBJECT: MECHANICAL ENGINEERING DRAWING

WORK LOAD (LECTURE/PRACTICAL) PER WEEK: (06 Practical)

WEEK	PRACTICALS	
	LECTURE	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,
	2	fundamental deviation, clearance, maximum clearance, minimum clearance. Fits – clearance fit, interference fit and transition fit. Hole basis system, shaft basis system, tolerance grades, calculating values of clearance, interference, hole tolerance, shaft tolerance with given basic size for common assemblies like H7/g6, H7/m6, H8/p6. Basic terminology and symbols of geometrical dimensioning and tolerances.
	3	Unit-2- Drawing of the following with complete dimensions, tolerances, bill of material and surface finish representation
2 nd	4	2.1 Universal coupling and Oldham coupling (Assembly)
	5	2.2 Bearings
	6	Bushed Bearing (Assembly Drawing), Ball Bearing and Roller Bearing (Assembled Drawing)
3 rd	7	2.2.3 Plummer Block (Detail and Assembly Drawing)
	8	2.2.4 Foot step Bearing (Assembled Drawing)
	9	2.3 Pulleys
4 th	10	2.3.1 Pulleys, Function of pulley, Types and materials of Pulley.
	11	2.3.2 Free hand Sketch of Various types of pulleys.
	12	2.3.3 Fast and loose pulley (Assembly Drawing)
5 th	13	SESSIONAL TEST -I.
	14	Unit-2 - 2.4 Pipe Joints,
	15	2.4.1- Types of pipe Joints,
6 th	16	Symbol and line layout of pipe lines
	17	2.4.2 Expansion pipe joint (Assembly drawing)
	18	2.4.3 Flanged pipe and right angled bend joint (Assembly Drawing)

7 th	19	2.5- Lathe Tool Holder (Assembly Drawing)
	20	2.6- Reading and interpretation of mechanical components and assembly drawings
	21	2.7- Sketching practice of bearings and bracket
8 th	22	Unit-3 Drilling Jig (Assembly Drawing)
	23	Unit4-Machine vices (Assembly Drawing)
	24	
9 th	25	SESSIONAL TEST –II
	26	Unit-5- I.C. Engine Parts
	27	Piston Connecting rod (Assembly Drawing)
10 th	28	Crankshaft and flywheel (Assembly Drawing)
	29	Unit-6- Boiler Parts
	30	Steam Stop Valve (Assembly Drawing)
11 th	31	Blow off cock. (Assembly Drawing)
	32	Unit-7- Mechanical Screw Jack (Assembled Drawing)
	33	Unit-8- Gears
12 th	34	Gear, Types of gears,
	35	Nomenclature of gears and conventional representation
	36	Draw the actual profile of involute teeth of spur gear by different methods
13 th	37	SESSIONAL TEST –III
	38	Revised Sessional Test -1
	39	Revised Sessional Test -2
14 th	40	Revised Sessional Test -3