

LESSON PLAN

Name of Faculty:

Discipline: Automobile Engineering

semester: 2nd

Subject: Mechanical Engineering Drawing-I

Work load (practical) per week: (06 Practical)

WEEK	PRACTICALS	
	Lab	TOPIC
1 st	3	Detail and Assembly Drawing Principle and utility of detail and assembly drawings, Practical exercise on drawing from detail to assembly or vice versa (01 sheets)
	6	Different wooden joints as example (lap joint – T joint and corner joint, Mortise and tenon joint, Bridle joint, Mitre faced corner joint). (01 sheets)
2 nd	9	Nomenclature of threads, types of threads. Single and multiple start threads, right hand and left hand thread. Forms of various external thread sections. (01 sheets)
	12	V- thread (Metric thread, British associate, American thread, Basic whitworth thread), Square, Acme, Knuckle, and Butress thread. Simplified conventional representation of V thread. (01 sheets)
3 rd	15	Nuts and Bolts Different views of hexagonal and square headed nuts and bolts. Assembled view of nuts and bolts with washers. (01 sheets)
	18	Foundation bolt- Rag bolt, Hook bolt. (Free hand) (01 sheets)
4 th	21	Lewis bolt, Eye bolt and curved bolt (Free hand) (01 sheets)
	24	Locking Devices (01 sheet) Locking nuts - Castle nut, Sawn nut, and Split pin lock nut. Locking by spring washers, Locking plates.
5 th	27	Screws, Studs and Washers (01 sheet) Drawing of various types of machine and set screws. Drawing of various types' of studs, through bolt, tap bolt and stud bolt.
	30	SESSIONAL TEST -I.
6 th	33	Keys and Cotters (01 sheets) Various types of keys and their application. Preparation of drawings of various keys and cotters. (01 sheet)
	36	Various types of joints (a) Gib and Cotter joint (b) (01 sheet)

7 th	39	Various types of joints (c) Spigot and Socket joint (01 sheet)
	42	Rivets and Riveted Joints Types of general purpose rivet heads (Snap Head, Pan Head , Flat and counter sunk). Types of riveted joints – lap (single and double riveted), (01 sheet)
8 th	45	butt (single cover plate and double cover plate), chain and zig-zag riveting (Double riveted). Caulking and fullering operation of riveted joints. (01 sheet)
	48	Shaft Coupling Introduction to coupling, their uses and types, Muff Coupling, (01 sheet)
9 th	51	Protected type flange coupling. Flexible or non-rigid coupling (01 sheet)
	54	DOUBT/RIVISION
10 th	57	SESSIONAL TEST –II
	60	Computer Aided Drafting (CAD) (01sheets) Introduction, Various 2 D commands – Draw, modify and option commands (basic) (01 sheet)
11 th	63	Prepare at least 4 sheets using CAD software – one drawing each from wooden joint(basic) (01 sheet)
	66	Prepare at least 4 sheets using CAD software – one drawing each from w threads, nut (basic) (01 sheet)
12 th	69	Prepare at least 4 sheets using CAD software – one drawing each from bolts, coupling(basic) (01 sheet)
	72	DOUBT/RIVISION
13 th	75	DOUBT/RIVISION
	78	SESSIONAL TEST –III