

MECHANICAL ENGINEERING DEPARTMENT

Session 2024-2025(2nd semester)

Subject: Mechanical Engineering Drawing-I

Load:-6 hrs Practical

Lesson Plan

WEEK	PRACTICALS	
		TOPIC
1st	4 hours	Chapter- 1: Detail and Assembly Drawing Principle and utility of detail and assembly drawings, Practical exercise on drawing from detail to assembly or vice versa, Different wooden joints as example (lap joint – T joint and corner joint, Mortise and tenon joint, Bridle joint,
	2 hours	wooden joint - Mortise and tenon joint (01 sheet)
2nd	4 hours	Chapter-2: THREADS -Nomenclature of threads, types of threads. Single and multiple startthreads, right hand and left hand thread. Forms of various external thread sections. Simplified conventional representation of V thread. V- thread (Metric thread, British associate, American thread, Basic whitworth thread) (01 sheets)
	2 hours	Square, Acme, Knuckle, and Butress thread. (01 sheet)
3rd	4 hours	Chapter- 3: Nuts and Bolts Different views of hexagonal and square headed nuts. (01 sheet) Assembled view of nuts with washers.
	2 hours	Different views of hexagonal and square headed bolts. (01 sheet) Assembled view of bolts with washers.
4th	4 hours	Foundation bolt- Rag bolt, Hook bolt, Lewis bolt, Eye bolt and curved bolt (Free hand) (01 sheet)
	2 hours	Wooden joint : Cross halving joint (01 sheet). Revision of chapter-1
5th	4 hours	Revision of chapter- 1,2,3 and 1st sessional Test
	2 hours	
6th	4 hours	Chapter - 4: Locking Devices (01 sheet) Locking nuts - Castle nut, Sawn nut, and Split pin lock nut. Locking by spring washers, Locking plates.
	2 hours	Chapter-5: Screws, Studs and Washers (01 sheet)
7th	4 hours	Chapter-6: Keys and Cotters Introduction, Various types of joints (a) Gib and Cotter joint (01 sheet)
	2 hours	Various types of keys and their application. Preparation of drawings of various keys and cotters.
8th	4 hours	Various types of joints (b) Knuckle joint. (01 sheet)
	2 hours	Various types of joints (c) Spigot and Socket joint (01 sheet)
9th	4 hours	Revision of chapter- 4,5,6 & 2nd sessional Test
	2 hours	
10th	4 hours	Chapter-7: 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)
	2 hours	butt (single cover plate and double cover plate), chain and zig-zag riveting (Double riveted). Caulking and fullering operation of riveted joints. (01 sheet)
11th	4 hours	Chapter-8: Shaft Coupling Introduction to coupling, their uses and types, Muff Coupling. (01 sheet)
	2 hours	Protected type flange coupling. Flexible or non-rigid coupling. (01 sheet)
12th	4 hours	Chapter- 9: Computer Aided Drafting (CAD) (01sheets) Introduction, Various 2 D commands – Draw, modify and option commands (basic) (01 sheet)

	2 hours	Prepare at least 4 sheets using CAD software – one drawing each from wooden joint (01 sheets)
13th	4 hours	Prepare at least 4 sheets using CAD software – one drawing each from threads, nut (basic) (01 sheet)
	2 hours	Prepare at least 4 sheets using CAD software – one drawing each from bolts, coupling(basic) (02 sheets)
14th	4 hours	Revision of Chapter- 7,8,9 & 3rd sessional Test
	2 hours	
15th	4 hours	Doubt session/Revision
	2 hours	Doubt session/Revision

Subject Incharge-Mr Amit Attri

O/I Department-Mr Amit Attri

