Lesson Plan

Name of the Faculty : Sh. Subhash Chander (G1), Sh. Munish Kumar Jain (G2)

Discipline : Mechanical Engineering

Semester : 3rd

Subject : Mechanical Engineering Drawing

Lesson Plan duration : 15 weeks (01.09.2023 to 15.12.2023)

Work load per week : Lecture – 00, Practical – 06

Practical		EXECUTION			
Practical Day	Topic	Date (G1)	Sign. (G1)	Date (G2)	Sign. (G2)
1st	**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, clearance, maximum clearance, minimum clearance. Fits – clearance fit, interference fit and transition fit				
2nd	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 H_7/g6, H_7/m6, H_8/p6. Basic terminology and symbols of geometrical dimensioning and tolerances. Surface finish representation				
3rd	**2. Drawing of the following with complete dimensions, tolerances, bill of material and surface finish representation.** **2.1 Universal coupling and Oldham coupling (Assembly)**				
4th	2.2 Bearings: 2.2.1 Bushed Bearing (Assembly Drawing) 2.2.2 Ball Bearing and Roller Bearing (Assembled Drawing)				
5th	2.2.3 Plummer Block (Detail and Assembly Drawing) 2.2.4 Foot step Bearing (Assembled Drawing)				
6th	**1st sessional test (Tentative) Assessment**				
7th	**2.3 Pipe Joints :** 2.3.1 Types of pipe Joints, Symbol and line				

	layout of pipe lines 2.3.2 Expansion pipe joint (Assembly drawing) 2.3.3 Flanged pipe and right angled bend joint (Assembly Drawing)				
8th	2.4 Reading and interpretation of mechanical components and assembly drawings				
9th	2.5 Sketching practice of bearings and bracket **3. Drilling Jig (Assembly Drawing)** **4. Machine vices (Assembly Drawing)**				
10th	**2nd sessional test (Tentative)** **Assessment**				
11th	4.1 Lathe tool holder (Assembly Drawing) 4.2 lathe tail stock (Assembly Drawing) **5. I.C. Engine Parts :** 1.Piston 2.Connecting rod (Assembly Drawing) 3.Crankshaft and flywheel (Assembly Drawing)				
12th	**6. Boiler Parts :** Steam Stop Valve (Assembly Drawing) Blow off cock. (Assembly Drawing)				
13th	**7. Mechanical Screw Jack (Assembled Drawing)** **8. Gear** Gear, Types of gears, Nomenclature of gears and conventional representation Draw the actual profile of involute teeth of spur gear by approximate method & Base circle method.				
14th	**3rd sessional test (Tentative)** **Assessment**				
15th	Revision/Evaluation				