LESSON PLAN FOR MANUFACTURING PROCESSES

Discipline: Mechanical Engg **Semester: 3rd** **Name of the Teaching Faculty:TRUPTI MOHANTY**

Subject:MP(TH-1) **No. of Days/week class allotted=3** **Semester From date:: 14.07.2025To Date: 15.11.2025**

Week	Class	Topic	Details
1	1	Introduction to Manufacturing	Importance, types, role in industry
	2	Cutting Fluids – I	Types, applications in different operations
	3	Cutting Fluids – II	Selection, application methods
2	4	Lubricants – I	Classification: solid, liquid, gaseous
	5	Lubricants – II	Properties and industrial uses
	6	Lathe – I	Types, specifications, basic parts
3	7	Lathe – II	Lathe operations: turning, facing, parting
	8	Lathe – III	Threading, taper turning, tool nomenclature
	9	Broaching Machines – I	Types, applications
4	10	Broaching Machines – II	Broach tools, teeth geometry, materials
	11	Drilling – I	Types, parts, operations
	12	Drilling – II	Specifications, types of drills and reamers
5	13	Welding – I	Introduction, gas welding, flames
	14	Welding – II	Arc welding, TIG, MIG, resistance welding
	15	Welding – III	Defects, brazing and soldering
6	16	Milling – I	Types of machines, construction
	17	Milling – II	Indexing methods
	18	Milling – III	Cutters, tool geometry
7	19	Gear Manufacturing – I	Gear production methods
	20	Gear Manufacturing – II	Gear hobbing, gear shaping
	21	Gear Finishing	Materials, heat treatment
8	22	Press Working – I	Press types, operations
	23	Press Working – II	Dies, punches, components
	24	Clearance and Effects	Blanking, piercing clearances
9	25	Grinding – I	Principles, abrasive types
	26	Grinding – II	Bonds, grain structure, wheel markings
	27	Grinding Machines	Cylindrical, surface, tool grinders
10	28	Centerless Grinding	Principle, pros & cons
	29	Honing, Lapping	Super finishing processes
	30	Metal Finishing – I	Electroplating, hot dipping
11	31	Metal Finishing – II	Coatings, organic and metallic
	32	Paints and Sprays	Finishing specifications
	33	Review of Units I–III	Consolidated discussion
12	34	**Internal assessment 1**	**Based on Units I–III**
	35	Discussion on Test	Feedback, Q&A
	36	Review of Units IV–V	Important numericals, concepts
13	37	Discussion on Test	Concept clarity
	38	Recap of All Units	High-yield topics
	39	**Internal assessment 2**	**Based on Units IV–V**
14	40	Model Q&A	Objective and theoretical questions
	41	Mock Paper Practice	Timed writing
	42	Paper Review & Correction	Feedback on mock paper
15	43	Final Revision – I	Group Q&A round
	44	Final Revision – II	Student presentation on selected topics
	45	Last-Minute Doubts	Quick formulae, tips & tricks

Trupti Mohanty.
Concerned faculty

11/07/2025
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