VIKASH INSTITUTE OF TECHNOLOGY, BARGARH

LESSON PLAN

Semester: 6th		**Year: 3rd**	**Course: B.Tech**
Branch : Mechanical Engg		**Sub: MST**	**Total Credit:03**
		Sub Code :	
Name of the Faculty:		**SARITA MISHRA**	
Designation :		**Assistant Professor**	
Department :		**Mechanical Engg.**	
Session		**2024-25**	
Recommended Books		**Text book**:	
		1. G. Boothroyd	
		2. W.A. Knight	
		Reference Books:	
		1. P.N.Rao	
		2. P.C. Pandy	

Sl. No.	Lecture No.	Topics to be covered	No. of Classes
		MODULE-1	
1	Lecture-01	Geometry of cutting tools in ASA and ORS.	**8**
2	Lecture-02	Mechanics of chipformation, merchant's theory, force and velocity relationships.	
3	Lecture-03	Cutting tools materials, types of tool wear, flank wear, crater wear, wear measurement.	
4	Lecture-04	Cutting fluids and its effect, machinability criteria.	
5	Lecture-05	Tool life and taylor's on tool life.	
6	Lecture-06	Surface finish, measurement of cutting frce	
7	Lecture-07	Lathe tool dynamometer, drill tool dynamometer	
8	Lecture-08	Economics of machining.	
		MODULE-2	
9	Lecture-09	Conventional machining process, machine tools- turning, drilling, shaping.	**10**
10	Lecture-10	Machining tools- planning, milling and grinding.	
11	Lecture-11	Machine tools used for process, specifications.	
12	Lecture-12	Various techniques used in machine tools	
13	Lecture-13	Principle of machine tools	
14	Lecture-14	Kinematics of machine tools.	
15	Lecture-15	Speed transmission from motor to spindle	
16	Lecture-16	Speed reversal mechanism	
17	Lecture-17	Problems	
18	Lecture-18	Revision	
		MODULE-3	
19	Lecture-19	Mechanism for feed motion.	9
20	Lecture-20	Tool holding	
21	Lecture-21	Job holding method	
22	Lecture-22	Types of surface generated	
23	Lecture-23	Indexing mechanism	
24	Lecture-24	Thread cutting mechanism	
25	Lecture-25	Quick return mechanism	

26	Lecture-26	Production machine tools, turret lathes, single spindle multi spindle	
27	Lecture-27	Gear shaper and gear hobbing machines, copying lathe and transfer machine.	
MODULE-4			
28	Lecture-28	Non-traditional machining process	8
29	Lecture-29	Ultrasonic machining, laser beam machining	
30	Lecture-30	Plasm arc machining,	
31	Lecture-31	Electro chemical machining	
32	Lecture-32	Electro discharge machining	
33	Lecture-33	Wire EDM	
34	Lecture-34	Abrasive jet machining	
35	Lecture-35	Problems and revisions.	

Signature of Faculty Member **Signature of HOD**

PRINCIPAL