

GOVT. POLYTECHNIC MAYURBHANJ			
ACADEMIC SESSION-2021-22		LESSON PLAN	
Discipline : Mechanical Engg.		Semester: 4th Sem	Name of the Teaching Faculty : Mihir mohanta
Subject : MT		No. of Days / per week class allotted : 04	Semester From date :10.03.2022 To Date : 10.06.2022
MONTH	Week	Day	Topics
MARCH	2ND	4TH	1. Tool Materials :Composition of various tool materials, Physical properties& uses of such tool materials.
	3RD	1ST	2.Cutting Tools:Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer
		1ST	Turning tool geometry , purpose of tool angle
		2ND	Machining process parameters (Speed, feed and depth of cut),Coolants and lubricants in machining and purpose
		4TH	Revision
	4TH	1ST	3. Lathe Machine: Construction and working of lathe and CNC lathe ,Major components of a lathe and their function
		1ST	Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining )
		2ND	parting off, facing, knurling ,Define multiple tool holders
		4TH	Capstan lathe, Difference with respect to engine lathe, Major components and their function
	5TH	1ST	Define multiple tool holders
		1ST	Turret Lathe :Difference with respect to capstan lathe and Major components and their function
		2ND	Draw the tooling layout for preparation of a hexagonal bolt &bush
4TH		Revision	
APRIL	2ND	1ST	4. Shaper : Potential application areas of a shaper machine, Major components and their function
		1ST	Explain the automatic able feed mechanism,
		2ND	Explain the construction &working of tool head
		4TH	Explain the quick return mechanism through sketch
	3RD	1ST	Classtest-1
		1ST	Classtest-1
		2ND	Revision
	4TH	1ST	5.Planning Machine: Application area of a planer and its difference with respect to shaper, Major components and their functions.
		1ST	The table drive mechanism,
		2ND	Working of tool and tool support
		4TH	Clamping of work through sketch
	5TH	1ST	Revision
1ST		6. Milling Machine : Discuss about milling machine and its operation performed	
2ND		Types of milling machine and operations performed by them and also same for CNC milling machine	
4TH		Explain work holding attachment, Construction & working of simple dividing head,	

<b>MAY</b>	1ST	1ST	Universal dividing head . Procedure of simple indexing,	
		1ST	Procedure of compound indexing, Illustration of different indexing methods	
		4TH	Revision	
	2ND	1ST	7Slotter: Major components and their function, Construction and working of slotter machine,	
		1ST	Tools used in slotter	
		2ND	8 Grinding: Significance of grinding operations, Manufacturing of grinding wheels,	
		4TH	Internal	
	3RD	2ND	Criteria for selecting of grinding wheels,	
		4TH	Specification of grinding wheels, With example Working of : Cylindrical Grinder, Surface Grinder	
	4TH	1ST	Centreless Grinder	
		1ST	9. Internal Machining operations : Classification of drilling machines, Working of Bench drilling machine	
		2ND	Pillar drilling machine , Radial drilling machine	
		4TH	Boring : Basic Principle of Boring , Different between Boring and drilling	
5TH	2ND	Broaching :Types of Broaching(pull type, push type) Advantages of Broaching and applications		
<b>JUNE</b>	1ST	4TH	10. Surface finish: lapping, Definition of Surface finish, Description of lapping& explain their specific cutting.	
	2ND	1ST	Lapping, Definition of Surface finish, Description of lapping& explain their specific cutting.	
		1ST	Revision	
		2ND	Previous Year Question Discussion	
		4TH	Classtest-2	

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