

Discipline Mechanical	Semester 4 <sup>th</sup>	Name of the teaching faculty J.P. NATH
Subject MT	No OF Days Per Weeks 4	Semester Starts :- 10:01:22 Semester End :- 30:06:22 No. OF Weeks :- 60

Month	Week	Class day	Theory topic			
March	2nd	1st	Composition of Various tool Materials.			
		2nd	Composition of Various tool Materials.			
		3rd	Physical properties and uses of Such tool materials.			
	3rd	1st	1st	Physical properties and uses of Such tool Materials.		
			2nd	Cutting action of Various hand tools Such as chisel, hack saw blade, dies and Reamer.		
			3rd	Turning tool geometry and Purpose of tool angle.		
			4th	Machining, process parameters.		
			4th	1st	1st	Machining process parameter
					2nd	Coolants and Lubricants In machining and purpose.
	3rd	Coolants and Lubricants In machining and purpose.				

Month	Week	Class day	Theory Topic
March	4th	4th	Major Components of a lathe and their function.
		5th	Operation carried out in a lathe (Turning, thread cutting, taper turning, internal machining, facing, knurling).
	5th	1st	Safety measure during machining, Capstan lathe difference with respect to Engine lathe.
April	1st	1st	Capstan lathe major components and their function.
		2nd	Multiple tool holders
		3rd	Turret lathe with respect to capstan lathe.
		4th	Turret Lathe with respect to capstan lathe.
		5th	Turret Lathe components and their function.
	2nd	1st	Potential application areas of a Shaper machine.
		2nd	Major components and their function.
		3rd	Automatic table feed Mechanism.

Month	Week	Class day	Theory topic
April	2nd	4th	Construction and working of tool head.
	3rd	1st	Quick return mechanism through sketch.
		2nd	Specification of a Shaping machine.
		3rd	Application area of a planar and its difference with respect to Shaper.
		4th	Planning Machine major components and their functions.
		5th	Table drive mechanism.
	4th	1st	Working of tool and tool support.
		2nd	Working of tool and tool support.
		3rd	Clamping of work through sketch.
		4th	Types of milling machine and operations performed by them.
	5th	1st	Types of milling machine and operations performed by them.

Month	Week	Class day	Theory topic
May	1st	1st	Work holding attachment.
		2nd	Construction and working of Simple dividing head, Universal dividing head.
		3rd	Construction and working of Simple dividing head, Universal dividing head.
		4th	Procedure of Simple and Compound Indexing.
	2nd	1st	ILLUSTRATION OF different Indexing method.
		2nd	Major Components and their function.
		3rd	Major Components and their function.
		4th	Construction and working of Slotter machine.
		5th	Construction and working of Slotter machine.
	3rd	1st	Tools used in Slotter.
2nd		Revision class	

Month	Week	Class day	Theory topic
May	3rd	3rd	Significance of grinding operation.
	4th	1st	Significance of grinding operation.
		2nd	Manufacturing of grinding wheels.
		3rd	Criteria for selecting of grinding wheels.
		4th	Specification of grinding wheels with Example.
	5th	1st	Working of cylindrical grinder.
June	1st	1st	Working of surface grinder.
		2nd	Working of centre less grinder.
		3rd	Classification of drilling machine.
		4th	Working of Bench drilling machine. Working of Pillar drilling machine.
	2nd	1st	Working of Radial drilling Machine.
		2nd	Basic principle of Boring
		3rd	Different between Boring and drilling

Month	Week	Class day	Theory topic
June	3rd	1st	Types of Broaching
		2nd	Advantages of Broaching and application.
		3rd	Revision class.
	4th	1st	Surface finish
		2nd	Super finish.
		3rd	Description of lapping and their specific cutting
	5th	1st	Revision class.