

Dicipline: Mechanical	Semester: 4th Sem.	Name of the Teaching Faculty Tapas Kumar Panda.	
Subject: Manufacturing Technology	No of Days/Week Class Allotted: 04	Semester From date: 19/04/21 To date 04/08/21	No. of Weeks: 15

WEEK	Class Day	Theory Topics
(01)	<u>Unit - 1</u> → 1st dt: 19/04/21	Introduction About Manufacturing Technology. why we need to read about this paper.
	2nd dt: 23/04/21	Area Covered in this Manufacturing Techology. what Tool & Tool material.
	3rd dt: 24/04/21	Varrious tool materials & their Composition.
	4th dt: 26/04/21	physical properties & uses of such tool materials
	5th	
(02)	<u>Unit - 2</u> → 1st dt: 28/04/21	What is Cutting Tools. Types of Cutting Tool
	2nd dt: 30/04/21	Cutting action of varrious hand tools such as chisel, Hacksaw Blade, dies & Reamer
	3rd dt: 03/05/21	What is Turning operation & which type tool used in Turning, tool geometry & purpose of tool angle
	4th dt: 05/05/21	Machine process parameters. (Speed, feed & depth of cut)
	5th	
(03)	1st dt: 07/05/21	What is Coolant & what is lubricant. purpose of use them in Machining.
	<u>Unit - 3</u> → 2nd dt: 08/05/21	Lathe Machine: Major Componets of a lathe machine & their function.
	3rd dt: 10/05/21	operation Carried out in a lathe (Turning, thread Cutting, taper turning, facing, Knurling)
	4th dt: 12/05/21	operation Carried out in lathe (Parting off, Step turning, Internal thread cutting, boring)

Mechanics
Manufacturing
Technology
WEEK

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04	1st Dt: 15/05/21	Safety Measures during Lathe Machining
	2nd Dt: 17/05/21	Capstan Lathe: what is different with respect to engine lathe.
	3rd Dt: 19/05/21	Major Components of Capstan Lathe Machine & their functions.
	4th Dt: 21/05/21	Define about multiple tool holders.
	5th	
05	1st Dt: 22/05/21	Turret Lathe: what is different with respect to Capstan lathe.
	2nd Dt: 24/05/21	Major Components of turret lathe & their functions.
	3rd Dt: 26/05/21	Draw the tooling layout for preparation of a hexagonal bolt & bush.
	4th Dt: 28/05/21	Unit Test - 1
	5th	
06	1st Dt: 28/05/21	Discuss with students regarding Unit test - 1 & doubt clearing class.
	Unit-4 → 2nd Dt: 29/05/21	Shaper: potential application area of a Shaper Machine
	3rd Dt: 31/05/21	Major Component of Shaper Machine & their function
	4th Dt: 02/06/21	Explain the automatic table feed mechanism (Quick Return Mechanism)
	5th	

Respect



Mechanical

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WEEK

Class Day

Theory Topics

1st
Dt: 04/06/21

Explain the construction & working of tool head on shaper Machine.

2nd
Dt: 05/06/21

Explain the Quick return Mechanism through Sketch.

3rd
Dt: 07/06/21

Specification of a shaping machine.

Unit-5 →
4th
Dt: 09/06/21

Planning Machine: Application area of a planner and its different with respect to shaper

5th

07

1st
Dt: 11/06/21

Major Components and their functions of planning Machine.

2nd
Dt: 12/06/21

The table drive mechanism of planning Machine.

3rd
Dt: 16/06/21

Working of tool and tool Support.

4th
Dt: 18/06/21

Clamping of work through Sketch

5th

08

Unit-6 →
1st
Dt: 19/06/21

Milling Machine: what is milling operation why we read about this machine.

2nd
Dt: 21/06/21

Types of Milling Machine & operation performed by them.

3rd
Dt: 23/06/21

know about up milling & down milling.

4th
Dt: 25/06/21

Explain Work holding attachment.

5th

09

WEEK	Class Day	
10	1st Dt: 26/06/21	Construction & working of simple dividing Head
	2nd Dt: 28/06/21	Construction & working of universal dividing head.
	3rd Dt: 30/06/21	procedure of simple & compound indexing.
	4th Dt: 02/07/21	Illustration of different indexing methods.
	5th	
11	<u>Unit-7</u> 1st Dt: 03/07/21	Slotted: what is slotted? Basic idea about Slotted Machine
	2nd Dt: 05/07/21	Major Components and their function
	3rd Dt: 07/07/21	Construction of the slotted Machine
	4th Dt: 09/07/21	Working of the slotted Machine Tools used in slotted
	5th	
12	<u>Unit-8</u> 1st Dt: 10/07/21	Specification of grinding wheels with Example
	2nd Dt: 14/07/21	Working of cylindrical Grinder, Surface Grinder & Center less Grinder
	3rd Dt: 16/07/21	Unit test - II
	4th Dt: 16/07/21	Discuss with students regarding Unit test-II & doubt clearing class
	5th	

10/1

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13	Unit-8 1st dt: 17/07/21	what is grinding operation and How the grinding machine operate.
	2nd dt: 19/07/21	Different parts of a grinding machine & their function.
	3rd dt: 23/07/21	Manufacturing of grinding wheels,
	4th dt: 24/07/21	Criteria for selecting of grinding wheels.
	5th	
14	Unit-9 1st dt: 26/07/21	Internal Machining Operation: what is drilling operations
	2nd dt: 26/07/21	Types of drilling operations (Bench drilling, Pillar drilling & Radial drilling)
	3rd dt: 28/07/21	Working of Bench drilling, Pillar drilling & Radial drilling.
	4th dt: 30/07/21	what is boring operation. Basic principle of boring
	5th	
15	1st dt: 31/07/21	Different between boring & drilling.
	2nd dt: 02/08/21	what is broaching operation. Types of broaching operations
	3rd dt: 02/08/21	pull type & push type broaching operations. Advantages of Broaching and applications.
	Unit-10 4th dt: 04/08/21	Surface finish, lapping Definition & working Description of lapping & Explain their specific cutting
	5th	