

Discipline: Metallurgical Engineering		Semester: 6th semester	Name of the Teaching Faculty: Ms Sitanjali Khuntia
Subject: Mechanical Metallurgy Sub code: Th-2		No of days /week class allotted: 05	Semester from Date: 10/03/2022 to 10/06/2022
Month	week	Class Day	Theory topics
Mar	1st	1st	Explain basic behaviour of metal
		2nd	Explain type of dislocation
	2nd	1st	Explain slip and twinning
		2nd	Explain deformation of metal elastic and plastic
		3rd	Explain yielding criteria
		4th	Derive critically resolved shearstress
	3rd	1st	Explain deformation of polycrystalline aggregates
		2nd	Explain strengthening mechanism
		3rd	Explain the role of grain boundry instrengthening
		4th	Explain hall petch equation
		5th	Explain yield point phenomena
	4th	1st	Explain strain aging
		2nd	Explain solid solution strengthening from fine particles
		3rd	Explain fiber strengthening
		4th	Explain martensitic strengthening
	Apr	1st	1st
2nd		1st	Explain bauschinger's effect
		2nd	Explain fundamental of metalworking
		3rd	Explain type of metal workingprocess
		4th	Explain hot working of metal and alloys
		5th	Explain cold working of metal andalloys
3rd		1st	Explain advantage of hot and coldworking
		2nd	EXPLAIN disadvantage of hot and coldworking
		3rd	Explain recovery
		4th	Explain recrystallization
4th		1st	Explain grain growth
		2nd	Explain introduction of rollingprocess
		3rd	Explain principle of rolling process
		4th	Explain type of rolling process
		5th	Compare between hot rolling andcold rolling
5th		1st	Explain type of roll pass-open pass
		2nd	Explain box pass
		3rd	Explain different types of rollingdefects
		4th	Explain the remedies for rolling defects
May	1st	1st	Explain introduction of forging
		2nd	Explain the type of forging process
		3rd	Explain the process of forging
		4th	Explain the properties of forged products
	2nd	5th	Explain the defect of forgedproducts

		1st	Explain the Remedies for defects
		2nd	Explain the introduction of extrusion
		3rd	Explain application of extrusion, principle of extrusion
		4th	Explain the defect of extruded products
	3 rd	5th	Explain the manufacturing of seamless pipes
		1st	Explain the advantages disadvantage of extrusion
		2nd	Application of Extrusion, Explain the introduction of wire drawing
	4th	3rd	Explain application of wire drawing
		4th	Explain the defect of wire drawing
		5th	Explain the advantages of wire drawing
		1st	Explain disadvantage of wire drawing
		2nd	Explain basic knowledge of forming methods
	Jun	1st	1st
2nd			Explain the principle of deep drawing
3rd			Explain the introduction of sheet metal forming
2nd		1st	Explain advantage of sheet metal forming
		2nd	Explain disadvantage of sheet metal forming
		3rd	Explain application of sheet metal forming
		4th	Explain the bending shearing, Explain the banking, metal working, metal forming