GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

Discipline : Metallurgy Engg.		Semester: 4th Sem		Name of the Teaching Faculty :Sourav Adhya
Subject : MT		No. of Days / per week class allotted : 04		Semester From date : 14.02.2023 To Date : 23.05.2023
MONTH	**Week**	**Day**	**Unit**	**Topics**
FEBRUARY	3rd		UNIT-1	**Hardness Test**
		3rd		Explain and Derive expressions for Brinell,vickers and Rockwell Hardness test
	4th	2nd		Discuss rebound hardness with reference to shore's Scleroscope
		3rd		Describe scratch hardness and explain mho's scale.
		2nd		Discuss the imperical relationship of hardness with strength
			UNIT-2	**Tensile Test**
	5th	2nd		Draw and explain stress-strain curve
		3rd		Explain modulus of elasticity, proof stress
		2nd		Discuss with sketch about yield point phenomenon.
		3rd		Explain true stress and true strain curve.
				DOLO PURNIMA
	2nd	3rd		Define ductility and toughness
	3rd	2nd		Required properties of coke for making iron
		3rd		Discuss with sketch about yield point phenomenon.
			UNIT-3	**Impact Test**
		3rd		Define impact strength

MARCH	4th	2nd		Discuss about Charpy and Izod impact tests
		3rd		Discuss about transition temperature and ductility, brittle fracture
			UINT-4	**Fatigue Test**
		3rd		Explain different stress cycles
	5th	2nd		Describe S.N curve and endurance limit
		3rd		Explain the procedure of fatigue testing and fatigue testing machine
		2nd		Mention different metallurgical factors that affect fatigue behavior
				RAMANAVAMI
			UNIT-5	**Creep Test**
	6th	2nd		Define creep and its importance
APRIL	1st	3rd		Discuss engineering creep curve,constant
		2nd		Explain equicohesive temperature
				GOOD FRIDAY
		3rd		State various factors that affect creep
	2nd	2nd		Describe creep testing machine
		3rd		Describe stress rupture test
		3rd		**CLASS TEST-1**
		2nd	UNIT-6	**Non Destructive Testing**
		3rd		Give brief description of the following NDT
	3rd	2nd		Visual testing ,Leakage test
		3rd		Acoustic methods and ultrasonic testing Eddy current testing X – ray diffraction
			UNIT-7	**Temparature Measurement and Calibration**
		3rd		Analysis the basic principle of pyrometry
				MOHABISUBA SANKRANTI
	4th	2nd		Explain different types of pyrometer and thermocouples.
		3rd		State various factors that affect creep
		2nd		State various factors that affect creep
		3rd		State various factors that affect creep
	5th	2nd		**INTERNAL-1**
				EID-UL-FITAR
		2nd		State various factors that affect creep

	5th	3rd		Acoustic methods and ultrasonic testing Eddy current testing X – ray diffraction
MAY	1st	2nd		Acoustic methods and ultrasonic testing Eddy current testing X – ray diffraction
		3rd		Acoustic methods and ultrasonic testing Eddy current testing X – ray diffraction
	2nd			**BUDDHA PURNIMA**
		2nd		Explain the procedure of fatigue testing and fatigue testing machine
		3rd		Explain the procedure of fatigue testing and fatigue testing machine
		2nd		Explain the procedure of fatigue testing and fatigue testing machine
		3rd		Explain the procedure of fatigue testing and fatigue testing machine
	3rd	2nd		Revision
		3rd		Revision
		2nd		Revision
		3rd		Previous year question answer discussion
	4th	2nd		Previous year question answer discussion
				SABITRI AMABASYA
		3rd		Previous year question answer discussion
		2nd		Previous year question answer discussion