GOVERNMENT POLYTECHNIC JAJPUR
A/ P: Ragadi, Block: Korei, Dist.: Jajpur, Odisha- 755019
Website: https://www.gpjajpur.org E-mail: principalgpjajpur@yahoo.co.in Contact: 9437155107

DEPARTMENT OF ELECTRICAL ENGINEERING

LESSON PLAN

Discipline: ELECTRICAL	Semester: 3rd	Name of the Teaching faculty: SOUBHAGYA GHADAI
Subject: EME (Th3)	No of Days/Week class alloted: 4	Semester from Date: 01/07/2024 To Date:08/11/2024 No of weeks: 15
Week	Class Day	Topics
1st	1st	Introduction toThermodynamics
	2nd	Explaning Thermodynamic System & its types
	3rd	Discussing Form of energy trnsfer-Heat & work
	4th	Discussing Unit of Heat and Work
2nd	1st	Defining Law of Thermodynamics-Zeroth,1st & 2nd law
	2nd	Defining 1st law during a change of state & cyclic process
	3rd	Defining 1st law applied to non flow process
	4th	Stating Laws of perfect gases-Boyle's Law,Charles law & Gay Lussac Law
3rd	1st	Discussing Define pecific heat of gas at const. Voume and Const. pressure & relationship.
	2nd	Explanation of Steam generation process -P-V & T-s Diagram
	3rd	Explaining Properties of steam
	4th	Defining Types of steam,Dryness fraction.Use of Steam table
4th	1st	Use of Steam table for solution to simple problem
	2nd	Introduction to Boiler & It's function & types
	3rd	Classification of Boiler
	4th	Identifying difference between Water tube & fire tube boiler
5th	1st	Discussion of Cochran boiler & its working
	2nd	Discussion of Babcock Wilcox boiler & its working
	3rd	Discussion of Boiler Mounting & Boiler Acessories
	4th	Explanation of Boiler efficiency & solving simple Numerical
6th	1st	Introduction to Steam engine
	2nd	Discussing Main parts of steam engine
	3rd	Explaining Working principle of steam engine
	4th	Drawing Indicator diagram & its uses.
7th	1st	Calculation of mean effective pressure
	2nd	Calculation of IHP,BHP & FHP
	3rd	Demonstrating Mechanical efficiency
	4th	Solving Numerical on above.
8th	1st	**CLASS TEST-1**
	2nd	Introduction to Steam turbine
	3rd	Discussing Main parts of steam turbine
	4th	Explaining Working of steam turbine
	1st	Clasification Steam turbine types

9th	2nd	Differentiate Impulse & reaction turbine
	3rd	Introduction to condenser
	4th	Function & uses of condenser
10th	1st	Explaining Working of condenser
	2nd	Clasification of condenser
	3rd	Stating Hact engine & Discussing its classification
	4th	Defining IC engine & its types
11th	1st	Deserbing 2-Stroke & 4-Stroke engine & its working
	2nd	Discussing SI & CI engine
	3rd	Differentiation of 2-S ,4-S petrol & disel engine
	4th	Defining Fluid & its Properties -I
12th	1st	Defining Fluid & its Properties -II,Types of fluid
	2nd	Define pressure at a point & Pascal's Law
	3rd	**CLASS TEST-2**
	4th	Relationship between atmosphericpressure,Gauge pressure & absolute pressure.
13th	1st	Measurement of pressure-I-Piezometer & U-Tube manometer
	2nd	Measurement of pressure-I-Differential U-Tube Manometer
	3rd	Explaining Bourdon tube pressure gauge
	4th	Explaining equation of continuity
14th	1st	Deserbing Energy of flowing fluid
	2nd	Bernoulii's theorem -statement & derivation
	3rd	Application to venturimeter ,orificemeter & pitot tube
	4th	Hydraulic device & Pneumatics-Hydarulic Intensifier & Hydraulic lift
15th	1st	Explaining Working of Hydarulic Intensifier & Hydraulic lift with neat sketch.
	2nd	Explaining Hydraulic accumulator & it's working & Hydraulic ram with it's working.
	3rd	**Previous year question discussion**
	4th	**VST**

Learning Resources:

Sl.No	Title of the Book	Name of Authors	Name of the publisher
1	Thermal Engineering	R. S. Khurmi	S Chand
2	Hydraulics & Hydraulic M/Cs	A. R. Basu	Dhanpat Rai & Co.
3	Thermal Engineering	A. S. Sarad	Satyaprakashan
4	Hydraulics & Hydraulic M/Cs	R. K. Bansal	Laxmi Publishers

signture of faculty