

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN Session-2023-2024

Discipline: Electrical Engg. Semester: 3rd

Subject: EME

Name of the Teaching Faculty: Soumya Prakash Rath

Subject: EME No. of Days/per week class allotted 4
 Semester From Date: 1. 8. 2023 To Date: 30. 11. 2023 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
1	1	Concept of thermodynamics, System, Surround.
	2	Unit of heat and work, and sign convention.
	3	laws of thermodynamics and their application.
	4	law of perfect gases, specific heats.
2	1	Thermodynamic process.
	2	Define relationship of C_p , C_v and R
	3	Properties of steam and mp. Learn.
	4	Steam table use for solving problem.
3	1	Wet, dry saturated and Super heated steam.
	2	$p-v$ dia, $T-s$ dia, $h-s$ diagram for steam.
	3	Dryness fraction
	4.	Boiler and classification of boiler.

S.F. Reddy

Signature of the Faculty

Subject: _____ No. of Days/per week class allotted _____
 Semester From Date : _____ To Date : _____ No. of Weeks : _____

Week	Class Day	Theory /Practical Topics
4	1	Boiler mounting and Accessories.
	2	Describe each boiler mountings.
	3	Describe each boiler Accessories.
	4	Construction and working of Cochran boiler.
5	1	Construction and working of Bab-Cock & Wilcox boiler
	2	Difference bet ⁿ Fire and water tube boiler.
	3	Performance of Steam Boilers.
	4	Boiler Draught, Force and Natural Draught.
6	1	Previous year solved Numerical draw.
	2	Steam engine working principle and classification.
	3	Describe parts of a simple steam engine
	4	working of single cylinder double acting Reciprocating steam engine

SR Pathi
 Signature of the Faculty

Subject: _____ No. of Days/per week class allotted _____
 Semester From Date : _____ To Date : _____ No. of Weeks : _____

Week	Class Day	Theory / Practical Topics
7	1	Draw: Indicator Diagram, Dis. cut imp? Term.
	2	Derive mean effective Pressure, IHP, BHP.
	3	Efficiencies of Steam engine.
	4	Actual indicator Diagram and Diagram factor.
8	1	Power developed by Steam engine. Indicated brake power.
	2	Indicated thermal efficiency, Relative efficiency.
	3	Solving numerical for Simple Steam Engine.
	4	Study Steam Turbines.
9	1	Types of Steam Turbines
	2	Velocity Diagram for Impulse Turbine
	3	Velocity Diagram for Reaction Turbines.
	4	Different bet ⁿ Impulse and Reaction Turbines

S. S. Pathi
 Signature of the Faculty

Subject: _____ No. of Days/per week class allotted _____
 Semester From Date : _____ To Date : _____ No. of Weeks : _____

Week	Class Day	Theory / Practical Topics
10	1	Solving numericals for Steam Turbines.
	2	Study of Steam Condensers.
	3	Jet and Surface Condenser and types.
	4	Jet Condenser VS Surface Condensers.
11	1	Vacuum efficiency & measurement of vacuum condenser.
	2	Study of Internal Combustion engines and its types.
	3	Difference bet ⁿ 4-stroke and 2-stroke petrol and diesel engine.
	4	Working principle of 4-stroke petrol and diesel engine.
12	1	Working principle of 2-stroke petrol and diesel engines.
	2	Study of Hydraulics
	3	Properties of a fluid, Density, specific weight.
	4	Law of liquid pressure

S. P. Roth

Signature of the Faculty

Subject: _____ No. of Days/per week class allotted _____

Semester From Date : _____ To Date : _____ No. of Weeks : _____

Week	Class Day	Theory / Practical Topics
13	1	Determine pressure at a point in a fluid.
	2	Various pressure measurement instruments.
	3	Study of Hydrokinetics
	4	Discuss the equation of continuity of flow.
14	1	Explain energy of flowing liquid.
	2	State and Explain Bernoulli's Theorem
	3	Application of Bernoulli's Theorem - - Venturimeter
	4	Study of Hydraulic and pneumatic devices.
15	1	Working of an Intermittent and its application.
	2	Working of a Hydraulic lift and its application.
	3	Working of an Accumulator and its applications.
	4	Working of a Hydraulic ram and its applications.

S.P. Pathi

Signature of the Faculty