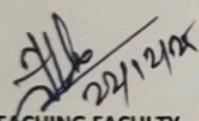


LESSON PLAN,2025-26(S)

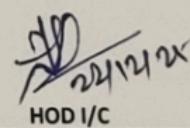
Discipline : Mechanical Engg.	Semester : 6th	Name of the Teachnig Faculty : Miss. Tapati Panigrahy
Subject : POWER STATION ENGINEERING	No.of days/Per weeks Class	Semester from date : 22.12.2025 To Date : 18.04.2026 No.of Weeks : 17
Weeks	Class day	Theory
4th (Dec-2025)	1st	INTRODUCTION:
	2nd	Describe sources of energy.
	3rd	Explain concept of Central and Captive power station.
	4th	Classify power plants.
5th (Dec-2025)&1st(Jan-2026)	1st	Importance of electrical power in day today life.
	2nd	Overview of method of electrical power generation.
	3rd	THERMAL POWER STATIONS:
	4th	Layout of steam power stations.
2nd(Jan-2026)	1st	Steam power cycle.
	2nd	Explain Carnot vapour power cycle with P-V
	3rd	, T-s diagram and determine thermal efficiency.
	4th	
3rd (Jan-2026)	1st	Explain Rankine cycle with P-V, T-S & H-s diagram
	2nd	Explaining the processes from the P-V, T-s Diagram
	3rd	, T-s diagram and determine thermal efficiency.
	4th	
4th (Jan-2026)	1st	Plotting various processes on PV, TS diagram
	2nd	determine thermal efficiency, Work done ,work ratio, and specific steam. Co
	3rd	
	4th	Solve Simple Problems.
5th (Jan-2026)	1st	List of thermal power stations in the state with their capacities.
	2nd	Boiler Accessories: Operation of Air pre heater, Operation of Economiser
	3rd	Operation Electrostatic precipitator and Operation of super heater
	4th	Need of boiler mountings and operation of boiler
1St(Feb-2026)	1st	Draught systems (Natural draught, Forced draught & balanced draught) with their advantages & disadvantages.
	2nd	Steam prime movers: Advantages & disadvantages of steam turbine.
	3rd	Elements of steam turbine, governing of steam turbine. Performance of steam turbine
	4th	Explain Thermal efficiency, Stage efficiency and Gross efficiency
2nd (Feb-2026)	1st	Steam condenser: Function of condenser, Classification of condenser.
	2nd	function of condenser auxiliaries such as hot well
	3rd	condenser extraction pump, air extraction pump, and circulating pump.
	4th	Cooling Tower: Function and types of cooling tower, and spray ponds
3rd (Feb-2026)	1st	Selection of site for thermal power stations.
	2nd	NUCLEAR POWER STATIONS:
	3rd	Classify nuclear fuel (Fissile & fertile material)
	4th	Explain fusion and fission reaction.
4th (Feb-2026)	1st	Explain working of nuclear power plants with block diagram .
	2nd	Explain the working and construction of nuclear reactor .
	3rd	Compare the nuclear and thermal plants.
	4th	Explain the disposal of nuclear waste.
1st (Mar-2026)	1st	Selection of site for nuclear power stations.
	2nd	List of nuclear power stations.
	3rd	DIESEL ELECTRIC POWER STATIONS:
	4th	State the advantages and disadvantages of diesel electric power stations.
2nd (Mar-2026)	1st	Explain briefly different systems of diesel electric power stations: Fuel storage and fuel supply system system.
	2nd	DIESEL ELECTRIC POWER STATIONS contd.

	3rd	Fuel injection system, Air supply system, cooling system
3rd (Mar-2026)	4th	Lubrication system, Exhaust system
	1st	starting system, governing and selection of site
	2nd	Selection of site for diesel electric power stations.
	3rd	Performance and thermal efficiency of diesel electric power stations
4th (Mar-2026)	4th	HYDEL POWER STATIONS:
	1st	State advantages and disadvantages of hydroelectric power plant.
	2nd	Classify and explain the general arrangement of storage type hydroelectric project and explain its operation.
	3rd	Operation of hydroelectric project
5th (Mar-2026)&1st(Apr-2022)	4th	Selection of site of hydel power plant in the state
	1st	Types of turbines and generation used.
	2nd	Simple problems.
	3rd	GAS TURBINE POWER STATIONS: Selection of site for gas turbine stations.
2nd(Apr-2026)	4th	Fuels for gas turbine, Elements of simple gas turbine power plants, Merits, demerits and application of gas turbine power plants
	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class
3rd(Apr-2026)	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class

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LESSON PLAN,2025-26(S)		
Discipline : Mechanical Engg.	Semester : 4th	Name of the Teachnig Faculty : Miss. Tapati Panigrahy
Subject : REFRIGERATION AND AIR CONDITIONING	No.of days/Per weeks Class Allotted Weeks :3	Semester from date : 22.12.2025 To Date : 18.04.2026 No.of Weeks : 17
Weeks	Class day	Theory
4th (Dec-2025)	1st	Introduction to Refrigeration;
	2nd	Definition of Refrigeration; Refrigerating effect
	3rd	Coefficient of performance;
5th (Dec-2025)&1st(Jan-2026)	1st	Types of Refrigeration-Ice, dry ice, Steam jet,
	2nd	Throttling, Liquid nitrogen refrigeration;
	3rd	Carnot refrigeration Cycle;
2nd(Jan-2026)	1st	Air refrigeration- Bell - Coleman cycle,
	2nd	PV& TS diagram;
	3rd	Advantage and disadvantages in air refrigeration;
3rd (Jan-2026)	1st	Simple problems in air ref.
	2nd	Refrigeration systems: Basic Components,
	3rd	Flow diagram of working of Vapour compression cycle;
4th (Jan-2026)	1st	Representation of the vapour compression cycle on P-H, T-S & P-V Diagram;
	2nd	Expression for Refrigerating effect, work done and power required;
	3rd	Types of Vapour Compression cycle;
5th (Jan-2026)	1st	Effects of super heating and under cooling, its advantages and disadvantages;
	2nd	Simple Vapour absorptions cycle and its flow diagram
	3rd	Simple Electrolux system for domestic units;
1St(Feb-2026)	1st	Comparison of Vapour absorption and vapour compression system;
	2nd	Simple problems on vapour compression cycle.
	3rd	Refrigeration equipment: Compressor - types of compressors;
2nd (Feb-2026)	1st	Hermetically sealed and Semi hermetically sealed compressor;
	2nd	ondensers - Air Cooled, water cooled,
	3rd	natural and forced draught cooling system;
3rd (Feb-2026)	1st	Advantages and disadvantages of air cooled and water cooled condensers;
	2nd	Evaporators -natural, convection, forced convection types.
	3rd	Refrigerant flow controls: Capillary tube;
4th (Feb-2026)	1st	Automatic Expansion valve; Thermostatic expansion valve;
	2nd	High side and low side float valve;
	3rd	Evaporator pressure regulator.
1st (Mar-2026)	1st	Application of refrigeration: S
	2nd	Slow and quick freezing;
	3rd	Cold storage and Frozen storage;
2nd (Mar-2026)	1st	Dairy refrigeration;
	2nd	Ice making industry;
	3rd	Water coolers.
3rd (Mar-2026)	1st	Introduction to Air conditioning;
	2nd	Factors affecting Air conditioning;
	3rd	Psychometric chart and its use;
4th (Mar-2026)	1st	Psychometric process-sensible heating and cooling, Humidifying and dehumidifying;

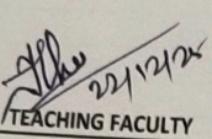
	2nd	Adiabatic saturation process; Equipment used in air conditioning cycle;
	3rd	Air conditioning units and plants.
5th (Mar-2026)&1st(Apr-2026)	1st	Tools used in refrigeration and Air conditioner installation;
	2nd	Installation procedure;
	3rd	Faults in refrigeration and air conditioning system; Servicing procedure.
2nd(Apr-2026)	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class
3rd(Apr-2026)	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class

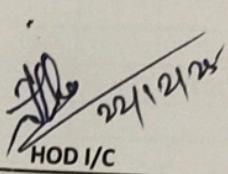
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LESSON PLAN,2025-26(S)		
Discipline : Mechanical Engg.	Semester : 4th	Name of the Teachnig Faculty : Miss. Tapati Panigrahy
Subject : COMPUTER INTIGRATED MANUFACTURING	No.of days/Per weeks Class Allotted Weeks :3	Semester from date : 22.12.2025 To Date : 18.04.2026 No.of Weeks : 17
Weeks	Class day	Theory
4th (Dec-2025)	1st	Concept of Computer Integrated Manufacturing (CIM);
	2nd	Basic components of CIM;
	3rd	Distributed database system
5th (Dec-2025)&1st(Jan-2026)	1st	distributed communication system, computer networks for manufacturing;
	2nd	future automated factory;
2nd(Jan-2026)	1st	social and economic factors.
	2nd	Computer Aided Design (CAD):
	3rd	CAD hardware and software;
3rd (Jan-2026)	1st	product modelling,
	2nd	automatic drafting;
	3rd	engineering analysis;
4th (Jan-2026)	1st	FEM design review
	2nd	and evaluation
	3rd	Doubt clearing class
5th (Jan-2026)	1st	Group Technology Centre.
	2nd	Computer Aided Manufacturing (CAM)
	3rd	Doubt clearing class
1St(Feb-2026)	1st	Computer assisted NC part programming for plain turning
	2nd	and step turning;
	3rd	Doubt clearing class
2nd (Feb-2026)	1st	Computer assisted robot programming;
	2nd	computer aided process
	3rd	Doubt clearing class
3rd (Feb-2026)	1st	planning (CAPP);
	2nd	computer aided material requirements planning (MRP)
	3rd	Doubt clearing class
4th (Feb-2026)	1st	Computer aided production scheduling;
	2nd	computer aided inspection planning;
	3rd	Doubt clearing class
1st (Mar-2026)	1st	computer aided inventory planning,
	2nd	Flexible manufacturing system (FMS);
	3rd	Doubt clearing class
2nd (Mar-2026)	1st	concept of flexible manufacturing,
	2nd	Integrating NC machines,
	3rd	Doubt clearing class
3rd (Mar-2026)	1st	robots,
	2nd	AGVs, and other NC equipment;t;
	3rd	Doubt clearing class
4th (Mar-2026)	1st	Computer aided quality control;
	2nd	business functions,
	3rd	Doubt clearing class
5th (Mar-2026)&1st(Apr-2026)	1st	computer aided forecasting;
	2nd	office automation
	3rd	Doubt clearing class
2nd(Apr-2026)	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class

3rd(Apr-2026)	1st	Revision class
	2nd	problem practice class
	3rd	problem practice class
	4th	Doubt clearing class


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