



LESSON PLAN-(SUMMER-2022)

SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- MECHANICAL	Semester-6TH	Name of teaching faculty- MR. A. Parida
Subject- POWER STATION ENGG.	No of days/ per week class allotted-4	SEM From date- 10.03.2022 No of weeks- 15
WEEK	Class day	Theory Topics
Week-1	16.01.2024	CH1-Describe sources of energy
	17.01.2024	Explain concept of Central and Captive power station
	18.01.2024	Classify power plants.
	22.01.2024	Importance of electrical power in day today life.
Week-2	23.01.2024	Overview of method of electrical power generation.
	25.01.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
	29.01.2024	CH-2 Layout of steam power stations.
	30.01.2024	Steam power cycle. Explain Carnot vapour power cycle diagram and determine thermal efficiency.
Week-3	31.01.2024	Explain Rankine cycle with P-V, T-S & H-s diagram
	01.02.2024	determine thermal efficiency, Work done, work ratio, steam Consumption
	02.02.2024	Solve Simple Problems.
	05.02.2024	List of thermal power stations in the state with their capacity
Week-4	06.02.2024	Boiler Accessories: Operation of Air pre heater, Operation of Economiser
	08.02.2024	Operation Electrostatic precipitator and Operation of superheater
	09.02.2024	Need of boiler mountings and operation of boiler
	12.02.2024	Draught systems (Natural draught, Forced draught & turbo draught) with their advantages & disadvantages.
Week-5	13.02.2024	Steam prime movers: Advantages & disadvantages of
	16.02.2024	Elements of steam turbine, governing of steam turbine
	19.02.2024	of steam turbine:
	21.02.2024	Explain Thermal efficiency, Stage efficiency and Gross work output
Week-6	22.02.2024	Steam condenser: Function of condenser, Classification
	24.02.2024	function of condenser auxiliaries such as hot well, condenser extraction pump, air extraction pump, and circulating pump
	26.02.2024	Cooling Tower: Function and types of cooling tower, and selection of site for thermal power station
	27.02.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
Week-7	28.02.2024	CH1 & CH-2 CLASS TEST
	29.02.2024	CH-3 Classify nuclear fuel (Fissile & fertile material)
	01.03.2024	Explain fusion and fission reaction.
	04.03.2024	Explain working of nuclear power plants with block diagram
	05.03.2024	Explain the working and construction of nuclear reactor
		Compare the nuclear and thermal plants.

Week-8	11.03.2024	Selection of site for nuclear power station
	13.03.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
Week-9	14.03.2024	CH-4 State the advantages and disadvantages of diesel electric power stations.
	15.03.2024	Explain briefly different systems of diesel electric power stations: Fuel storage and fuel supply system
	18.03.2024	Fuel injection system, Air supply system,
	20.03.2024	Exhaust system, cooling system
Week-10	21.03.2024	Lubrication system, starting system, governing system
	22.03.2024	Selection of site for diesel electric power stations
	27.03.2024	Performance and thermal efficiency of diesel electric power stations
	28.03.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
Week-11	29.03.2024	CH-5 State advantages and disadvantages of hydroelectric power plant
	30.03.2024	Classify and explain the general arrangement of storage type hydroelectric project and explain its operation
	01.04.2024	Selection of site of hydel power plant.
	03.04.2024	List of hydro power stations with their capacities and number of units in the state.
Week-12	04.04.2024	Types of turbines and generation used
	08.04.2024	Simple problems.
	09.04.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
	10.04.2024	CH-6 Selection of site for gas turbine stations.
Week-13	11.04.2024	Fuels for gas turbine
	12.04.2024	Elements of simple gas turbine power plants
	15.04.2024	Merits, demerits and application of gas turbine power plants
	16.04.2024	REVISION OF TOPIC PREVIOUSLY TAUGHT
Week-14	19.04.2024	CH-1 REVISION & IMP QUESTION DISCUSSION
	20.04.2024	CH-2 REVISION & IMP QUESTION DISCUSSION
	22.04.2024	CH-3 REVISION & IMP QUESTION DISCUSSION
	23.04.2024	CLASS TEST
Week-15	24.04.2024	CH-4 REVISION & IMP QUESTION DISCUSSION
	25.04.2024	CH-5 & 6 REVISION & IMP QUESTION DISCUSSION
	26.04.2024	CLASS TEST

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