

<b>Discipline :</b> MECHAN ENGG.	<b>Semester : 4TH</b>	<b>Name of The Teaching Faculty :</b>  <b>ER.SUSANTA KU. TRIPATHI</b>
<b>Subject:</b> <b>PSE</b>	<b>No Of Days/Week Class Allotted 04</b>	Semester From : 16.01.2024 To 26.04.2024
		No. Of Weeks : 15
<b>WEEKS</b>	<b>CLASS DAY</b>	<b>THEORY</b>
16.01.2024 TO 20.01.2024	1 <sup>st</sup>	Describe sources of energy
	2 <sup>nd</sup>	Explain concept of Central and Captive power station
	3 <sup>rd</sup>	Classify power plants
22.01.2024 TO 27.01.2024	1 <sup>st</sup>	Importance of electrical power in day today life
	2 <sup>nd</sup>	NETAJI JAYANTI
	3 <sup>rd</sup>	Overview of method of electrical power generation
	4 <sup>th</sup>	REPUBLIC DAY
29.01.2024 TO 03.02.2024	1 <sup>st</sup>	Introduction to thermal power stations Layout of steam power stations
	2 <sup>nd</sup>	Component of Steam power cycle.
	3 <sup>rd</sup>	Explain Carnot vapor power cycle with P-V, T-s diagram
	4 <sup>th</sup>	Steam power cycle and determine thermal efficiency
05.02.2024 TO 10.02.2024	1 <sup>st</sup>	Explain Rankin cycle with P-V, T-S & H-s diagram
	2 <sup>nd</sup>	Rankin cycle thermal efficiency,
	3 <sup>rd</sup>	Work done, work ratio, and specific steam Consumption.
	4 <sup>th</sup>	List of thermal power stations in the state with their capacities
12.02.2024 TO 17.02.2024	1 <sup>st</sup>	Boiler Accessories: Operation of Air pre heater, Operation of Economizer, Operation
	2 <sup>nd</sup>	Electrostatic precipitator and Operation of super heater. Need of boiler mountings and operation of boiler
	3 <sup>rd</sup>	Draught systems (Natural draught, Forced draught & balanced draught) with their advantages & disadvantages.
	4 <sup>th</sup>	Definition of Steam prime movers
19.02.2024 TO 24.02.2024	1 <sup>st</sup>	Advantages & disadvantages of steam turbine, Elements of steam turbine,
	2 <sup>nd</sup>	governing of steam turbine. Performance of steam turbine: Explain
	3 <sup>rd</sup>	Thermal efficiency, Stage efficiency and Gross efficiency.
	4 <sup>th</sup>	Steam condenser: Function of condenser.
26.02.2024 TO 02.03.2024	1 <sup>st</sup>	Classification of condenser
	2 <sup>nd</sup>	function of condenser auxiliaries such as hot well, condenser extraction pump, air extraction pump, and circulating pump.
	3 <sup>rd</sup>	Cooling Tower: Function and types of cooling tower, and spray ponds
	4 <sup>th</sup>	Selection of site for thermal power stations.
04.03.2024 TO 09.03.2024	1 <sup>st</sup>	Introduction to nuclear power stations
	2 <sup>nd</sup>	PANCHAYAT RAJ DIVAS
	3 <sup>rd</sup>	Classify nuclear fuel (Fissile & fertile material
	4 <sup>th</sup>	MAHA SIVA RATRI
11.03.2024 TO 16.03.2024	1 <sup>st</sup>	Explain fusion and fission reaction
	2 <sup>nd</sup>	Explain working of nuclear power plants with block diagram
	3 <sup>rd</sup>	Explain the working and construction of nuclear reactor
	4 <sup>th</sup>	Compare the nuclear and thermal plants
18.03.2024 TO	1 <sup>st</sup>	Explain the disposal of nuclear waste
	2 <sup>nd</sup>	Selection of site for nuclear power stations

23.03.2024	3 <sup>rd</sup>	List of nuclear power stations.
	4 <sup>th</sup>	Introduction to diesel electric power stations
25.03.2024 TO	1 <sup>st</sup>	DOLO PURNIMA
30.03.2024	2 <sup>nd</sup>	HOLI
	3 <sup>rd</sup>	State the advantages and disadvantages of diesel electric power stations
	4 <sup>th</sup>	GOOD FRIDAY
01.04.2024 TO	1 <sup>st</sup>	UTKAL DIVAS
06.04.2024	2 <sup>nd</sup>	Explain briefly different systems of diesel electric power stations: Fuel storage and fuel supply system
	3 <sup>rd</sup>	Fuel injection system, Air supply system
	4 <sup>th</sup>	Exhaust system, cooling system, Lubrication system, starting system, governing system.
08.04.2024 TO	1 <sup>st</sup>	Selection of site for diesel electric power stations.
13.04.2024	2 <sup>nd</sup>	Performance and thermal efficiency of diesel electric power stations.
	3 <sup>rd</sup>	ID UL FITRE
	4 <sup>th</sup>	State advantages and disadvantages of hydroelectric power plant
15.04.2024 TO	1 <sup>st</sup>	Classify and explain the general arrangement of storage type hydroelectric project and explain its operation
20.04.2024	2 <sup>nd</sup>	Selection of site of hydel power plant. List of hydro power stations with their capacities and number of units in the state
	3 <sup>rd</sup>	Types of turbines and generation used and simple problem.
	4 <sup>th</sup>	Selection of site for gas turbine stations
22.04.2024 TO	1 <sup>st</sup>	Fuels for gas turbine and Elements of simple gas turbine power plants
27.04.2024	2 <sup>nd</sup>	Merits, demerits and application of gas turbine power plants
	3 <sup>rd</sup>	Revision of chapter
	4 <sup>th</sup>	Discussion previous year question
		CLOSING OF ATTENDANCE