

Dicipline:	Mechanical.	Semester: 6th	Name of the Teaching Faculty: Bhagyashree Panda	
Subject: P. S. E	No of Days/Week Class Allotted: 4	Semester From date: 13/08/23 To date: 23/05/23	No. of Weeks:	
WEEK	Class Day	Theory Topics		
1	1st	Describe sources of energy		
	2nd	Concept of central & captive power station		
	3rd	classify power plants		
	4th	Importance of electrical power in day to day life.		
	5th			
2	1st	Overview of method of electrical power generation		
	2nd	Layout of steam power stations		
	3rd	Steam power cycle		
	4th	Explain Rankine cycle with p-v & T-s diagrams		
	5th			
3	1st	Determine thermal efficiency, work done, work ratio, specific steam consumption		
	2nd	Solve simple problems		
	3rd	List of thermal power station in the state		
	4th	Boilers accessories		
	5th			

WEEK	Class Day	Theory Topics
A	1st	Operation of air-preheater, operation of economiser, operation of electro-static precipitator
	2nd	Need of boiler mounting
	3rd	Operation of boiler
	4th	Draught system
	5th	
5	1st	Advantages & dis-advantages of draught system
	2nd	Steam prime movers
	3rd	Advantages & dis-adv. of steam turbine
	4th	Elements of steam turbine
	5th	
6	1st	Governing of steam turbine
	2nd	Performance of steam turbine
	3rd	Explain thermal efficiency
	4th	Steam condenser (F ⁿ & condenser)
	5th	

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WEEK	Class Day	Theory Topics		
7	1st	Classification of condensers		
	2nd	Condenser extraction pump		
	3rd	Airc extraction pump & circulating pump.		
	4th	Cooling tower.		
	5th			
8	1st	Function & types of cooling tower & spray ponds.		
	2nd	Selection of site for thermal power station.		
	3rd	Classify nuclear fuel		
	4th	Explain fusion & fission reaction.		
	5th			
9	1st	Explain working of nuclear power plants		
	2nd	Explain working & construction of nuclear reactors.		
	3rd	Compare nuclear & thermal plants		
	4th	Revision of above topics.		
	5th			

WEEK	Class Day	Theory Topics
10	1st	Explain the disposal of nuclear waste.
	2nd	Selection of site for nuclear power station.
	3rd	List of nuclear power stations.
	4th	Nuclear power station detailed diagram
	5th	
11	1st	State advantage & dis-adv. of diesel electric power station
	2nd	Explain briefly different systems of diesel electric power system.
	3rd	Fuel storage & fuel supply system.
	4th	Fuel injection system
	5th	
12	1st	Air-supply system
	2nd	Lubrication system
	3rd	Governing system.
	4th	Selection of site for diesel electric power station.
	5th	

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WEEK	Class Day	Theory Topics
13	1st	Performance & efficiency of diesel electric power station.
	2nd	Adv. & dis-adv. of hydro-electric power plant
	3rd	Classify & explain hydro-electric project
	4th	Selection of site for hydel electric plant.
	5th	
14	1st	List of hydro-electric power station in the state.
	2nd	Types of turbine & generator used.
	3rd	Simple problems.
	4th	Selection of site for gas power station.
	5th	
15	1st	Fuels of gas turbine.
	2nd	Elements of simple gas turbine power plants.
	3rd	Merit; demerit of gas turbine power plant.
	4th	Application of gas turbine power plant.
	5th	