

# Lesson Plan

Discipline: Mechanical, Semester: 6th

Name of Faculty : SRITAM ROUT

Semester From Date: 10-3-22

To date : 30-6-22

Subject: POWERSTATION ENGINEERING

No. of days/  
week Class  
allotted: 4

Class Day

Theory

INTRODUCTION TO SUBJECT

Describe sources of energy.

Explain concept of Central and Captive power station.

Classify power plants.

Layout of steam power plant

Steam power cycle.

Explain Rankine cycle with P-V, T-S & H-s diagram  
thermal efficiency, Work done, Work ratio and specific steam  
Consumption.

Solve Simple Problems.

Explain reheat cycle and regenerative cycle

combination of reheat and regenerative cycle.

Boiler Accessories

Draught systems

Steam prime movers

Compounding and governing of steam turbine.

Compounding and governing of steam turbine.

Thermal efficiency, Stage efficiency and Gross efficiency

Solve Simple problems.

Solve Simple problems.

Steam condenser

function of condenser auxiliaries

function of condenser auxiliaries

Cooling Tower

Function of cooling tower

Describe the various types of cooling tower

Describe the various types of cooling tower

Introduction to nuclear power plant

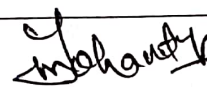
Explain fusion reaction

fission reaction

Explain nuclear reactor

Components of nuclear reactor and their function

9th	4th	Components of nuclear reactor and their function
	1st	Components of nuclear reactor and their function
	2nd	working principle of PWR power plant
	3rd	working principle of BWR power plant
10th	4th	Compare the nuclear and thermal plants
	1st	Compare the nuclear and thermal plants
	2nd	Explain the disposal of nuclear waste
	3rd	Explain the disposal of nuclear waste
11th	4th	UNIT TEST-I
	1st	Introduction to Diesel engine power plant
	2nd	State the advantages of diesel plant
	3rd	disadvantages of diesel plant
12th	4th	Explain briefly different systems of diesel power plant
	1st	Fuel storage and
	2nd	fuel supply system
	3rd	Fuel injection system,
13th	4th	Air supply system
	1st	Exhaust system, Cooling system
	2nd	Lubrication system, Starting system
	3rd	Governing system
14th	4th	Introduction to Hydel Power Plant
	1st	State advantages of hydroelectric power plant.
	2nd	disadvantages of hydroelectric power plant.
	3rd	Classify hydroelectric power plant.
15th	4th	Explain the general arrangement of storage type hydroelectric project
	1st	Explain the general arrangement of storage type hydroelectric project
	2nd	Explain its operation
	3rd	Describe sources of energy.
16th	4th	Explain concept of Central and Captive power station.
	1st	Classify power plants.
	2nd	Layout of steam power plant
	3rd	REVISION
	4th	PREVIOUS YEAR QUESTION DISCUSSION

  
 10-3-22  
 HOD MECHANICAL  
 GOVT. POLYTECHNIC KANDHAMAL  
 PHULBANI  
 Lecturer in Mechanical  
 Govt. Polytechnic Kandhamal  
 Phulbani