

POWER STATION

LESSON PLAN AS PER SCHEDULE WEEF 19/03/22
(SUMMER), 6th SEMESTER

Subj: Power Station Engg.
FACULTY: Manoj Kumar Sahoo
No. of Days/Week - 04

Weeks/P	DATE	TOPICS
1 st week (3p)	19/03/22	Ch-1: Introduction and about power plant & some basic concept discussion, energy power.
	20/03/22	Sources of energy, Types of power station
	21/03/22	Sources of energy for diff. power plant such as: Water, solar, nuclear, tidal, wind, geothermal, thermoelectric
	22/03/22	Solid fuel, types of coal. Ch-1 → Completed.
2 nd week (3p)	22/03/22	Ch-2: Steam power plant - Intro ^d & working of steam power plant with schematic diagram.
	24/03/22	Performance parameters of steam power plant cycle.
	25/03/22	Rankine cycle with diagram & working.
3 rd week (3p)	28/03/22	Pv, T-s and h-s diagram & finding out the eff.
	29/03/22	Working of Reheat cycle with diagram.
	31/03/22	Working principle of Regenerative cycle.
4 th week (4p)	01/04/22	Boiler, Def ⁿ , Boiler mountings, Water level indicators, Pressure gauge & other important accessories.
	05/04/22	Boiler accessories, working of super heater, economiser with diagram.
	07/04/22	Boiler accessories, working of super heater, economiser with diagram.

ENGINEERING (TH-3)

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	09/01/22	Working of air purifier, Working of electrostatic precipitator.
	11/01/22	Draught system
5 th week (4)	12/01/22	forced and induced draught.
	18/01/22	Steam prime mover its advantages and disadvantages.
	19/01/22	Elements of steam turbine, Compounding of steam turbine.
	21/01/22	Working of steam condenser and its types.
6 th week	22/01/22	Cooling tower, its function and types of cooling tower.
	25/01/22	Simple numericals on it & ch-2. completed.
	26/01/22	Ch-3: Nuclear power stations and classification of nuclear fuel.
	28/01/22	Fusion and fusion reac ⁿ .
7 th week	29/01/22	Working of Nuclear power plant.
	02/05/22	Nuclear reactor its working, and construction.
	03/05/22	Types of nuclear reactor.
	05/05/22	Comparison bet ⁿ Nuclear and thermal power plants.
8 th week	06/05/22	Disposal of nuclear waste - explanation.
	09/05/22	Nuclear power station - Site sel ⁿ and some basic ideas about it.
	10/05/22	Listing of Nuclear power stations its advantages & disadvantages. Ch-3. Completed.

9 th week	12/05/22	Expt Diesel electric power plant - working and advantages & disadvantages.
	13/05/22	Demonstrating and explaining diff. systems of diesel electric power plant.
	14/05/22	Fuel injection system. Air supply system. Exhaust system.
	15/05/22	Cooling system & Lubrication system, starting system and governing system.
10 th week	19/05/22	Site sel ⁿ for diesel electric power station and its performance.
	20/05/22	Thermal efficiency and performance parameters of diesel electric power station.
	23/05/22	Hydel Power stations: System working, advantages & disadvantages.
	24/05/22	General arrangement of Hydel power station.
11 th week	26/05/22	Storage type hydroelectric project and its operation.
	27/05/22	Site sel ⁿ of hydel power station.
	30/05/22	Limit of hydro power stations with their capacities.
	31/05/22	Types of hydel turbines and how they work.
12 th week	02/06/22	Simple numericals on above.
	03/06/22	Gas turbine power station, its principle of working, adv & dis. adv.
	06/06/22	Site sel ⁿ for gas turbine power station for better performance.
	07/06/22	Fuel for gas turbine.
13 th week	09/06/22	Elements of gas turbine power station.
	10/06/22	Advantages, Disadvantages, and applications of gas turbine power stations.

Extension of closing of attendance upto 30.06.2022

(22)

14th week

13/06/2022

Revision

14/06/2022

Revision

17/06/2022

Revision

15th week

20/06/2022

Revision

21/06/2022

Revision

23/06/2022

Revision

24/06/2022

Revision

16th week

27/06/2022

Revision

28/06/2022

Revision.