

DISCIPLINE		SEMESTER	NAME OF THE FACULTY
MECHANICAL ENGG.		5TH	ER. DEVI PRASAD ACHARYA
SUBJECT/CODE		NO. OF PERIODS ALLOTTED IN A WEEK : 03	SEMESTER W.E.F.: 01.07.2026
POWER PLANT ENGG./ TH-04 (A)			TO DATE : 05.11.2026
			NUMBER OF WEEKS : 15
LEARNING/COURSE OUTCOMES: After the completion of the course, the student shall be able to			
C01: Explain the present and future power scenario in India.			
C02: List the various load terminologies used in power plants.			
C03: Describe the working and classifications of hydro power plants.			
C04: Explore the working principles of Diesel, Gas, andNuclear power plants.			
C05: Comprehend the issues and importance of safety concepts in power plants.			
Month	Period	Date	Topics to be Covered
JULY	1	01.07.2026	Introduction to Power Plant Engineering
JULY	2	07.07.2026	Energy Resources and Indian Energy Scenario
JULY	3	07.07.2026	Location of Power Plants
JULY	4	08.07.2026	Choice of Power Plants
JULY	5	14.07.2026	Classification of Power Plants
JULY	6	14.07.2026	Layout of Thermal Power Plant
JULY	7	15.07.2026	CLASS TEST-01
JULY	8	21.07.2026	Introduction to Power Plant Economics
JULY	9	21.07.2026	Peak Load and Base Load
JULY	10	22.07.2026	Load Factor and Capacity Factor
JULY	11	28.07.2026	Load Curve and its Significance
JULY	12	28.07.2026	Factors Affecting Operation of Power Plants
JULY	13	29.07.2026	Methods of Meeting Fluctuating Load
AUGUST	14	04.08.2026	Load Sharing and Cost of Power Generation
AUGUST	15	04.08.2026	Tariff Methods, Performance and Operating Characteristics
AUGUST	16	05.08.2026	CLASS TEST-02
AUGUST	17	11.08.2026	Introduction to Hydroelectric Power Plant
AUGUST	18	11.08.2026	Rainfall, Runoff and Measurement
AUGUST	19	12.08.2026	Hydrograph and Flow Duration Curve
AUGUST	20	18.08.2026	Selection of Sites for Hydroelectric Plants
AUGUST	21	18.08.2026	Layout of Hydroelectric Power Plant
AUGUST	22	19.08.2026	Working of Hydroelectric Power Plant
AUGUST	23	25.08.2026	Classification: Run-of-River, Storage and Pumped Storage Plants
AUGUST	24	25.08.2026	Advantages and Disadvantages of Hydroelectric Power Plant
SEPTEMBER	25	01.09.2026	CLASS TEST-03
SEPTEMBER	26	01.09.2026	Introduction and Layout of Diesel Power Plant
SEPTEMBER	27	02.09.2026	Components and Working of Diesel Power Plant
SEPTEMBER	28	08.09.2026	Advantages and Disadvantages of Diesel Power Plant
SEPTEMBER	29	08.09.2026	Gas Turbine Power Plant: Layout and Components
SEPTEMBER	30	09.09.2026	Working of Gas Turbine Power Plant
SEPTEMBER	31	22.09.2026	Combined Cycle Power Generation
SEPTEMBER	32	22.09.2026	Introduction to Nuclear Power Plant
SEPTEMBER	33	23.09.2026	Radioactivity and Radioactive Decay
SEPTEMBER	34	29.09.2026	Nuclear Reactions and Fission Process
SEPTEMBER	35	29.09.2026	Working of Nuclear Power Plant

SEPTEMBER	36	30.09.2026	Thermal Fission Reactors: PWR and BWR
OCTOBER	37	06.10.2026	Gas-Cooled Reactors, Advantages and Disadvantages
OCTOBER	38	06.10.2026	CLASS TEST-04
OCTOBER	39	07.10.2026	Social and Economic Issues of Power Plants
OCTOBER	40	13.10.2026	Greenhouse Effect and Global Warming
OCTOBER	41	13.10.2026	Acid Precipitation: Acid Rain, Snow, Fog and Dry Deposition
OCTOBER	42	14.10.2026	Air Pollution from Power Plants
OCTOBER	43	21.10.2026	Water and Thermal Pollution
OCTOBER	44	27.10.2026	Radiation Hazards from Nuclear Plant Effluents
OCTOBER	45	27.10.2026	Final Review & Test
OCTOBER	46	28.10.2026	Final Review & Test

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