

Discipline: Electrical Engineering	Semester: 4th Semester 2023-Summer	Name of the Teaching Faculty: Shri Deepak Patra, Lect. Electrical Engg
Subject: Generation Transmission and distribution(GTD)	No. of Days/week Class Allotted:60	Semester from date: 13/02/2023 to date: 23/05/2023 No of weeks: 14
Class no	Class Date	Theory Topics
1	13.02.2023	Generation of electricity
2	14.02.2023	Generation of electricity from Hydro Power station.
3	15.02.2023	Generation of electricity from Thermal Power station.
4	16.02.2023 (9.00 am – 9.50 am)	.
5	16.02.2023	Generation of electricity from Nuclear, Power station.
6	20.02.2023	.
7	21.02.2023	Introduction to Solar Power Plant (Photovoltaic cells).
8	22.02.2023	TRANSMISSION OF ELECTRIC POWER Layout of transmission and distribution scheme.
9	23.02.2023 (9.00 am – 9.50 am)	Voltage Regulation & efficiency of transmission.
10	23.02.2023	State and explain Kelvin's law for economical size of conductor.
11	27.02.2023	Corona and corona loss on transmission lines.
12	28.02.2023	OVER HEAD LINES Types of supports, size and spacing of conductor.
13	01.03.2023	Types of conductor materials.
14	02.03.2023	State types of insulator and cross arms.
15	06.03.2023 (9.00 am – 9.50 am)	Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
16	06.03.2023	
17	09.03.2023	Simple problem on sag.
18	13.03.2023	PERFORMANCE OF SHORT & MEDIUM LINE PERFORMANCE OF SHORT transmission line
19	14.03.2023	PERFORMANCE OF medium transmission line End condenser method
20	15.03.2023	

21	16.03.2023 (9.00 am – 9.50 am)	PERFORMANCE OF medium transmission line nominal T method
22	16.03.2023	
23	20.03.2023	PERFORMANCE OF medium transmission line nominal π method
24	21.03.2023	
25	22.03.2023	EHV TRANSMISSION EHV AC transmission
26	23.03.2023	Reasons for adoption of EHV AC transmission.
27	27.03.2023	Problems involved in EHV transmission.
28	28.03.2023	HV DC transmission
29	29.03.2023	Advantages and Limitations of HVDC transmission system.
30	03.04.2023	DISTRIBUTION SYSTEMS Introduction to Distribution System.
31	04.04.2023	Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system)
32	05.04.2023	DC distributions. Distributor fed at one End.
33	06.04.2023	Distributor fed at both the ends.
34	10.04.2023	Ring distributors.
35	11.04.2023	AC distribution system.
36	12.04.2023 (9.00 am – 9.50 am)	Method of solving AC distribution problem.
37	12.04.2023	Three phase four wire star connected system arrangement
38	13.04.2023	UNDERGROUND CABLES Cable insulation and classification of cables.
39	17.04.2023	Types of L. T. & H.T. cables with constructional features.
40	18.04.2023	Methods of cable lying.
41	19.04.2023	
42	20.04.2023	Localization of cable faults: Murray loop test for short circuit fault / Earth fault
43	24.04.2023	Localization of cable faults: Varley loop test for short circuit fault / Earth fault

44	25.04.2023	ECONOMIC ASPECTS Causes of low power factor and methods of improvement of power factor in power system.
45	26.04.2023	Factors affecting the economics of generation: (Define and explain) Load curves. Demand factor. Maximum demand.
46	27.04.2023	Load factor. Diversity factor. Plant capacity factor.
47	01.05.2023	Peak load and Base load on power station
48	02.05.2023	TYPES OF TARIFF Desirable characteristic of a tariff.
49	03.05.2023	Explain flat rate, block rate, two part and maximum demand tariff. (Solve problems)
50	04.05.2023	SUBSTATION Layout of LT, HT and EHT substation.
51	08.05.2023	Earthing of Substation, transmission and distribution lines.
52	09.05.2023	
53	10.05.2023	Discussion on probable questions & Answer of Chapter 1
54	11.05.2023	Discussion on probable questions & Answer of Chapter 2
55	15.05.2023	Discussion on probable questions & Answer of Chapter 3
56	16.05.2023	Discussion on probable questions & Answer of Chapter 4
57	17.05.2023	Discussion on probable questions & Answer of Chapter 5
58	18.05.2023	Discussion on probable questions & Answer of Chapter 6
59	22.05.2023	Discussion on probable questions & Answer of Chapter 7 & 8
60	23.05.2023	Discussion on probable questions & Answer of Chapter 9 & 10

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(HOD, Electrical)