

Lesson Plan 2024(S)

Subject :-GTD(Code) TH-4Name of faculty:- AISURYA KUMAR MISHRA

Semester :-4thClass allotted p/w


Branch :- Electrical engg

Discipline	Semester:-4th	From date:-16/01/24 To date:26/04/24	Teaching Aid
Subject:	No. of days/ per week p/w:4	Theory/ Practical –Topics/Lesson	
Week	Date/Period		

1	16/01/24 – 20/01/24	GENERATION OF ELECTRICITY 1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.	White board & marker
2	22/01/24 to 27/01/24	1.2 Introduction to Solar Power Plant (Photovoltaic cells). 1.3 Layout diagram of generating stations	White board & marker
3	29/01/24 To 03/02/24	TRANSMISSION OF ELECTRIC POWER 2.1 Layout of transmission and distribution scheme. 2.2 Voltage Regulation & efficiency of transmission.	White board & marker
4	5/2/24 To 10/2/24	2.3 State and explain Kelvin's law for economical size of conductor. 2.4 Corona and corona loss on transmission lines.	White board & marker
5	12/2/24 To 17/02/24	OVER HEAD LINES 3.1 Types of supports, size and spacing of conductor. 3.2 Types of conductor materials. 3.3 State types of insulator and cross arms.	White board & marker
6	19/02/24 To 24/2/24	3.4 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag) 3.5 Simple problem on sag.	White board & marker
7	26/2/24 To 2/3/24	PERFORMANCE OF SHORT & MEDIUM LINES 4.1. Calculation of regulation and efficiency.	White board & marker
8	4/3/24 To 9/3/24	EHV TRANSMISSION 5.1 EHV AC transmission. 5.1..1. Reasons for adoption of EHV AC transmission. 5.1..2. Problems involved in EHV transmission. 5.2 HV DC transmission. 5.2..1. Advantages and Limitations of HVDC transmission system.	White board & marker
9	11/3/24 To 16/3/24	DISTRIBUTION SYSTEMS 6.1 Introduction to Distribution System. 6.2 Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system) 6.3 DC distributions. 6.3.1 Distributor fed at one End.	White board & marker
10	18/3/24 To 23/3/24	6.3.2 Distributor fed at both the ends. 6.3.3 Ring distributors. 6.4 AC distribution system. 6.4.1. Method of solving AC distribution problem. 6.4.2. Three phase four wire star connected system arrangement.	White board & marker
11	27/3/24 To 30/3/24	UNDERGROUND CABLES 7.1 Cable insulation and classification of cables. 7.2 Types of L. T. & H.T. cables with constructional features. 7.3 Methods of cable lying. 7.4 Localization of cable	White board & marker

		faults: Murray and Varley loop test for short circuit fault / Earth fault	
12	2/4/24 To 6/4/24	ECONOMIC ASPECTS 8.1 Causes of low power factor and methods of improvement of power factor in power system. 8.2 Factors affecting the economics of generation: (Define and explain) 8.2.1 Load curves. 8.2.2 Demand factor. 8.2.3 Maximum demand. 8.2.4 Load factor. 8.2.5 Diversity factor. 8.2.6 Plant capacity factor. 8.3 Peak load and Base load on power station.	White board & marker & smart board
13	8/4/24 To 13/4/24	TYPES OF TARIFF 9.1. Desirable characteristic of a tariff. 9.2. Explain flat rate, block rate, two part and maximum demand tariff. (Solve Problems)	White board & marker
14	15/4/24 To 20/4/24	10. SUBSTATION 10.1 Layout of LT, HT and EHT substation. 10.2 Earthing of Substation, transmission and distribution lines.	White board & marker
15	22/4/24 To 26/4/24	REVISION	White board & marker & smart board

Bikram Keshari Parida
Signature of HOD


Signature of faculty