

Discipline: ELECTRICAL ENGINEERING	Semester: 4 th Sem.	Name of the Teaching Faculty: MONALISA PANI LECTURER IN ELECTRICAL
Subject: GENERATION TRANSMISSION AND DISTRIBUTION	No. of days/per week class allotted: 4p/week	Semester From: 16/01/2024 TO: 23 /04/2024 No. of weeks: 15 weeks
Week	Class Day	Theory Topics
1 st	16/1/24	GENERATION OF ELECTRICITY Elementary idea on generation of electricity from Thermal Power station
	18/1/24	Hydel Power station
	19/1/24	Nuclear Power station.
	20/1/24	Introduction to Solar Power Plant (Photovoltaic cells).
2 nd	20/1/24	Photovoltaic cell
	23/1/24	Layout diagram of generating stations.
	25/1/24	Layout diagram of generating stations.
	27/1/24	TRANSMISSION OF ELECTRIC POWER Layout of transmission and distribution scheme.
3 rd	29/1/24	Voltage Regulation & efficiency of transmission.
	30/1/24	Kelvin's law for economical size of conductor.
	1/2/24	Kelvin's law for economical size of conductor.
	2/2/24	Corona and corona loss on transmission lines.
4 th	5/2/24	OVER HEAD LINES Types of supports, size and spacing of conductor.
	6/2/24	Types of conductor materials.
	8/2/24	types of insulator cross arms
	9/2/24	Sag in overhead line with support at same level and different level.
5 th	10/2/24	Class test
	12/2/24	Simple problem on sag.
	13/2/24	Numericals
	15/2/24	Sag in overhead line with support at same level and different level.
6 th	19/2/24	
		PERFORMANCE OF SHORT & MEDIUM LINES
	20 /2/24	Calculation of regulation and efficiency.
	22/2/24	Calculation of regulation and efficiency.
7 th	23/2/24	Calculation of regulation and efficiency.
	27/2/24	Numericals
	29/2/24	EHV TRANSMISSION EHV AC transmission.
	2/3/24	Reasons for adoption of EHV AC transmission
8 th	4/3/24	Problems involved in EHV transmission.
	5/3/24	HV DC transmission
	5/3/24	HV DC transmission
	6/3/24	Advantages and Limitations of HVDC transmission system.
9 th	7/3/24	Advantages and Limitations of HVDC transmission system.
	8/3/24	DISTRIBUTION SYSTEMS Introduction to Distribution System.
	11/3/24	Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system)

10 th	12/3/24	DC distributions. Distributor fed at one End.
	13/3/24	Distributor fed at both the ends
	14/3/24	Ring distributors.
	15/3/24	AC distribution system. Method of solving AC distribution problem.
	15/3/24	Three phase four wire star connected system arrangement.
11 th	18/3/24	INTERNAL
	19/3/24	INTERNAL
	20/3/24	INTERNAL
	21/3/24	INTERNAL
12 th	23 /3/24	UNDERGROUND CABLES Cable insulation and classification of cables.
	27 /3/24	Types of L. T. & H.T. cables with constructional features.
	28 /3/24	Methods of cable lying.
	2/4/24	Localization of cable faults: Murray and Varley loop test for short circuit fault / Earth fault.
13 th	3/4/24	Localization of cable faults: Murray and Varley loop test for short circuit fault / Earth fault.
	4/4/24	ECONOMIC ASPECTS Causes of low power factor and methods of improvement of power factor in power system.
	6/4/24	Factors affecting the economics of generation: (Define and explain) Load curves. Demand factor. Maximum demand.
	8/4/24	Load factor. Diversity factor, Plant capacity factor, Peak load and Base load on power station.
14 th	9/4/24	TYPES OF TARIFF Desirable characteristic of a tariff
	11/4/24	Explain flat rate tariff block rate tariff
	15/4/24	two part and maximum demand tariff.
	16/4/24	SUBSTATION Layout of LT, HT and EHT substation.
15 th	18/4/24	Earthing of Substation, transmission and distribution lines.
	19/4/24	Earthing of Substation, transmission and distribution lines.
	22/4/24	Earthing of Substation, transmission and distribution lines.
	23/4/24	Revision

Monalisa Pani
16/04/24
Signature of Teaching Faculty