

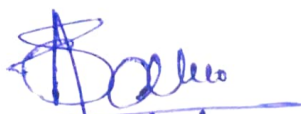
Discipline :-Electrical Engineering	Semester:- 4thsem	Name of the teaching faculty:- MANMOHAN PANDA
Subject:- Generation Transmission & Distribution	No. of Days/week class Allotted :-4	No. of weeks:-15 SESSION- 2024-2025 SUMMER
No. of week	No. of class	Topic to be Taught
1 st	1 st	Introduction class
	2 nd	GENERATION OF ELECTRICITY Elementary idea on generation of electricity from Thermal Power Station with layout diagram
	3 rd	Elementary idea on generation of electricity from Hydroelectric Power station with layout diagram
	4 th	Elementary idea on generation of electricity from Nuclear Power station with layout diagram
2 nd	1 st	Introduction to Solar Power Plant with layout diagram
	2 nd	TRANSMISSION OF ELECTRIC POWER Lay out of transmission and distribution scheme
	3 rd	Voltage Regulation & efficiency of transmission
	4 th	Kelvin's law for economical size of conductor
3 rd	1 st	Corona and corona loss on transmission lines
	2 nd	OVERHEAD LINES Types of supports ,size and spacing of conductor
	3 rd	Types of conductor materials
	4 th	Types of insulator and cross arms
4 th	1 st	Sag in overhead line with support at same level
	2 nd	Sag in overhead line with support different level
	3 rd	Approximate formula effect of wind, ice and temperature on sag
	4 th	Simple problem on sag
5 th	1 st	PERFORMANCE OF SHORTLINES Calculation of regulation and efficiency
	2 nd	PERFORMANCE OF MEDIUMLINES Calculation of regulation and efficiency
	3 rd	EHV TRANSMISSION EHV AC transmission

	4 th	Reasons for adoption of EHVAC transmission
6th	1 st	Problems involved in EHV transmission
	2 nd	HV DC transmission
	3 rd	Advantages and Limitations of HVDC transmission system
	4 th	DISTRIBUTION SYSTEMS Introduction to Distribution System.
7th	1 st	Connection Schemes of Distribution System:(Radial, Ring Main & Inter connected system)
	2 nd	DC distributions Distributor fed at one End.
	3 rd	Distributor fed at both the ends
	4 th	Ring distributors
8th	1 st	AC distribution system
	2 nd	Method of solving AC distribution problem
	3 rd	Three phase four wire star connected system arrangement
	4 th	UNDERGROUND CABLES Cable insulation and classification of cables
9th	1 st	Types of L.T cables with constructional features
	2 nd	Types of H.T cables with constructional features
	3 rd	Methods of cable lying
	4 th	Localization of cable faults: Murray and Varley loop test for short circuit fault
10th	1 st	Localization of cable faults: Murray and Varley loop test for Earth fault
	2 nd	ECONOMIC ASPECTS Causes of low power factor
	3 rd	Methods of improvement of power factor in power system
	4 th	Factors affecting the economics of generation
	1 st	Load curves
	2 nd	Demand factor

11th	3 rd	Maximum demand
	4 th	Load factor
12th	1 st	Diversity factor
	2 nd	Plant capacity factor
	3 rd	Peak load and Base load on power station
	4 th	TYPES OF TARIFF Desirable characteristic of a tariff
	5 th	Explain flat rate, block rate tariff
13 th	1 st	Explain two part and maximum demand tariff
	2 nd	Problems related to Tariff
	3 rd	SUBSTATION Layout of LT substation
	4 th	Layout of HT substation
14 th	1 st	Layout of EHT substation
	2 nd	Earthing of Substation
	3 rd	Earthing of transmission lines
	4 th	Earthing of distribution lines
15 th	1 st	Solving of Previous year Questions
	2 nd	Solving of Previous year Questions
	3 rd	Solving of Previous year Questions
	4 th	Solving of Previous year Questions

M.M. Panda
29/01/2025

PREPARED BY
MANMOHAN PANDA
LECTURER EE


29/01/2025
HOD EE.