Discipline :Electrical Engineering	Semester:- 4th sem	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
1st	1st	Introduction class
	2nd	**GENERATION OF ELECTRICITY** Elementary idea on generation of electricity from Thermal Power Station with layout diagram
	3rd	Elementary idea on generation of electricity from Hydroelectric Power station with layout diagram
	4th	Elementary idea on generation of electricity from Nuclear Power station with layout diagram
2nd	1st	Introduction to Solar Power Plant with layout diagram
	2nd	**TRANSMISSION OF ELECTRIC POWER** Lay out of transmission and distribution scheme
	3rd	Voltage Regulation & efficiency of transmission
	4th	Kelvin's law for economical size of conductor
3rd	1st	Corona and corona loss on transmission lines
	2nd	**OVERHEAD LINES** Types of supports ,size and spacing of conductor
	3rd	Types of conductor materials
	4th	Types of insulator and cross arms
4th	1st	Sag in overhead line with support at same level
	2nd	Sag in overhead line with support different level
	3rd	Approximate formula effect of wind, ice and temperature on sag
	4th	Simple problem on sag
5th	1st	**PERFORMANCE OF SHORTLINES** Calculation of regulation and efficiency
	2nd	**PERFORMANCE OF MEDIUMLINES** Calculation of regulation and efficiency
	3rd	**EHV TRANSMISSION** EHV AC transmission

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

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

M.M. Panda
29/01/2025

PREPARED BY

MANMOHAN PANDA

LECTURER EE

29/01/2025

HOD. EE.