

**LESSON PLAN-2022-2023**  
**SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR**

Discipline- ELECTRICAL	Semester-4TH	Name of teaching faculty-TAPAN SWAIN
<b>SUBJECT- GENERATION ,TRANSMISSION &amp; DISTRIBUTION</b>	<b>No of days/ per week class alloted-5</b>	<b>SEM From date-20.02.2023 No of weeks-</b>
Week	Class day	Theory Topics
		<b>GENERATION OF ELECTRICITY</b>
4TH	2/20/2023	Elementary idea on generation of electricity from Thermal, Hydel, Nuclear power station
	2/21/2023	do
	2/22/2023	Introduction to Solar Power Plant (Photovoltaic cells)
	2/23/2023	do
	2/24/2023	Layout diagram of generating stations
	2/25/2023	do
		Assignments and doubt clearing
	2/27/2023	<b>TRANSMISSION OF ELECTRIC POWER</b>
	2/28/2023	Layout of transmission and distribution scheme
1ST	3/01/2023	Voltage Regulation & efficiency of transmission.
	3/02/2023	State and explain Kelvin's law for economical size of conductor.
	3/03/2023	do
	3/04/2023	Corona and corona loss on transmission lines
2ND	3/06/2023	Assignments and doubt clearing
	3/07/2023	<b>OVER HEAD LINES</b>
	3/09/2023	Types of supports, size and spacing of conductor.
	3/10/2023	Types of conductor materials
	3/11/2023	State types of insulator and cross arms.
3RD	3/13/2023	Sag in overhead line with support at same level and different level.(approximate formula effect of wind, ice and temperature on sag)
	3/14/2023	DO
	3/15/2023	Assignments and doubt clearing
	3/16/2023	Simple problem on sag
	3/17/2023	<b>PERFORMANCE OF SHORT &amp; MEDIUM LINES</b>
	3/18/2023	Classification of transmission line

4TH	3/20/2023	voltage regulation of a transmission line
	3/21/2023	expression for short transmission line
	3/22/2023	phasor diagram
	3/23/2023	expression for medium transmission line for nominal pi network with phasor diagram
	3/24/2023	expression for medium transmission line for nominal T network with phasor diagram
	3/25/2023	<b>EHV TRANSMISSION</b>
5TH	3/27/2023	EHV AC transmission.
	3/28/2023	Reasons for adoption of EHV AC transmission
	3/29/2023	Problems involved in EHV transmission.
	3/31/2023	HV DC transmission
1ST	4/3/2023	do
	4/4/2023	Advantages and Limitations of HVDC transmission system
	4/5/2023	<b>DISTRIBUTION SYSTEMS</b>
	4/6/2023	Introduction to Distribution System.
	4/8/2023	Connection Schemes of Distribution System: (Radial, Ring Main and Interconnected system)
2ND	4/10/2023	DC distributions
	4/11/2023	Distributor fed at one End,Distributor fed at both the end, Ring distributor
	4/12/2023	AC distribution system.
	4/13/2023	do
	4/15/2023	Three phase four wire star connected system arrangement
3RD	4/17/2023	<b>UNDERGROUND CABLES</b>
		Cable insulation
	4/18/2023	classification of cables
	4/19/2023	Types of L. T. & H.T. cables with constructional features
	4/20/2023	do
	4/21/2023	Methods of cable laying
	4/22/2023	Localization of cable faults: Murray and Varley loop test for short circuit fault /Earth fault
4TH	4/24/2023	<b>ECONOMIC ASPECTS</b>
	4/25/2023	Load curves.demandfactor,maximum demand
	4/26/2023	Load factor.diversityfactor,plant capacity factor
	4/27/2023	Peak load and Base load on power station

	4/28/2023	Assignments and doubt clearing
	4/29/2023	<b>TYPES OF TARIFF</b>
1ST	5/1/2023	Desirable characteristic of a tariff.
	5/2/2023	Explain flat rate, block rate, two part and maximum demand tariff
	5/3/2023	problems.
	5/4/2023	<b>SUBSTATION</b>
	5/5/2023	Layout of LT substation
2ND	5/8/2023	Layout of HT substation
	5/9/2023	Layout of EHT substation
	5/10/2023	Earthing of Substation, transmission and distribution lines
	5/11/2023	DO
	5/12/2023	Assignments and doubt clearing
<p>HOD <span style="float: right;">PRINCIPAL</span></p>		