

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

Discipline- <b>ELECTRICAL</b>	Semester-6TH	Name of Teaching faculty- ANIL KU. SAHOO
SUBJECT- EIE	No of days/ per week class allotted-5	SEM From date-2/20/2023 No of weeks-
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY TOPICS</b>
		<b>INDIAN ELECTRICITY RULES</b>
4TH	2/20/2023	Definitions, Ampere, Apparatus, Accessible, Bare, cable, circuit, circuit breaker
	2/21/2023	conductor voltage (low, medium, high, EH), live, dead,danger, Installation, earthing system, span
	2/22/2023	General safety precautions, rule 29, 30, 31, 32, 33, 34, 35, 36, 40, 41, 43, 44, 45,46
	2/23/2023	General conditions relating to supply and use of energy : rule 47, 48, 49, 50, 51,
	2/24/2023	54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70
	2/25/2023	OH lines : Rule 74, 75, 76, 77, 78, 79, 80, 86, 87, 88, 89, 90, 91
	2/27/2023	<b>INTERNAL WIRING</b>
	2/28/2023	Type of internal wiring, cleat wiring, CTS wiring, wooden casing capping,
1ST	3/01/2023	metal sheathed wiring, conduit wiring, their advantage and disadvantages comparison
	3/02/2023	Prepare one estimate of materials required for CTS wiring for small domestic installation of one room and one verandah within 25 m2 with given light, fan & plug points.
	3/03/2023	do
	3/04/2023	do
2ND	3/06/2023	Estimate of materials required for conduit wiring for small domestic
	3/07/2023	do
	3/09/2023	concealed wiring for installation of two rooms, one latrine, bath, kitchen & verandah within 80m2
	3/10/2023	do
	3/11/2023	Erection of conduct wiring to a small workshop installation about 30m2 and load within 10 KW.
3RD	3/13/2023	do
	3/14/2023	Assignments
	3/15/2023	doubt clearing
	3/16/2023	<b>OVER HEAD INSTALLATION</b>
	3/17/2023	line supports, Height of pole, conductor materials, determination of size of conductor for overhead
	3/18/2023	transmission line, cross arms, pole bracket clamps, guys and stays, conductors configurations,
4TH	3/20/2023	spacing and clearances, span lengths, overhead line insulators, types of insulators,
	3/21/2023	anti-climbing devices, bird guards, beads of jumpers, jumpers, tee-offs, guarding of overhead lines
	3/22/2023	Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum standard spans involving calculation of the size of conductor (from conductor chart) current carrying capacity and voltage regulation consideration using ACSR
	3/23/2023	do

	3/24/2023	Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consideration using ACSR
	3/25/2023	Prepare an estimate of materials required for HT distribution line (11 KV) within 2 km and load of 2000 KVA maximum and standard spans
5TH	3/27/2023	calculation of the size of conductor (from conductor chart), current carrying capacity
	3/28/2023	current carrying capacity and voltage regulation consider action using ACSR.
	3/29/2023	<b>ELECTRICAL INSTALLATIONS</b>
	3/31/2023	Electrical installations, domestics, industrial, Wiring System, Internal distribution of Electrical Energy.
1ST	4/3/2023	Methods of wiring, systems of wiring, conductor materials used in cables, insulating materials
	4/4/2023	Types of cables used in internal wiring, multi-stranded cables, voltage grinding of cables,
	4/5/2023	Main switch and distribution boards, conduits, conduit accessories and fittings, lighting accessories
	4/6/2023	Fittings, fuses, important definitions, determination of size of fuse – wire, fuse units. Earthing conductor,
	4/8/2023	IS specifications regarding earthing of electrical installations, points to be earthed. Determination of size of earth wire
2ND	4/10/2023	Industrial installations. Material required for GI pipe earthing
	4/11/2023	do
	4/12/2023	Aspects of good lighting services. Types of lighting schemes, design of lighting schemes
	4/13/2023	factory lighting, public lighting installations, street lighting, general rules for wiring,
	4/15/2023	determination of number of points (light, fan, socket, outlets),
3RD	4/17/2023	determination of total load, determination of Number of sub circuits
		Assignments
	4/18/2023	<b>OVER HEAD SERVICE LINES</b>
	4/19/2023	Components of service lines
	4/20/2023	Bearer wire, lacing rod. Ariel fuse, service support, energy box and meters etc.
	4/21/2023	Prepare and estimate for providing single phase supply of load of 5 KW (light, fan, socket) to a single stored residential building
	4/22/2023	Prepare and estimate for providing single phase supply load of 3KW to each floor of a double stored building having separate energy meter
4TH	4/24/2023	do
	4/25/2023	Service connection to a factory building with load within 15 KW using insulated wire.
	4/26/2023	do
	4/27/2023	Load within 15 KW using bare conductor and insulated wire combined.
	4/28/2023	do
	4/29/2023	Assignments
1ST	5/1/2023	<b>ESTIMATING FOR DISTRIBUTION SUBSTATIONS</b>
	5/2/2023	Prepare one materials estimate for Pole mounted substation
	5/3/2023	do
	5/4/2023	Prepare one materials estimate for Plinth mounted substation
	5/5/2023	do

