

**LESSON PLAN-2020-2021**  
**SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR**

Discipline- ELECTRICAL	Semester- 6TH	Name of teaching faculty-Soumya Ranjan Manthan
SUBJECT- EIE	No of days/ per week class alloted-5	SEM From date-22/4/21 No of weeks-
Week	Class day	Theory Topics
		<b>INDIAN ELECTRICITY RULES</b>
1st	22/4/21	Definitions, Ampere, Apparatus, Accessible, Bare, cable, circuit, circuit breaker
	23/4/21	conductor voltage (low, medium, high, EH), live, dead, danger, Installation, earthing system, span
2nd	26/4/21	General safety precautions, rule 29, 30, 31, 32, 33, 34, 35, 36, 40, 41, 43, 44, 45,46
	27/4/21	General conditions relating to supply and use of energy : rule 47, 48, 49, 50, 51,
	28/4/21	54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70
	29/4/21	OH lines : Rule 74, 75, 76, 77, 78, 79, 80, 86, 87, 88, 89, 90, 91
	30/4/21	DO
		<b>INTERNAL WIRING</b>
		Type of internal wiring, cleat wiring, CTS wiring, wooden casing capping,
1st	05-03-2021	metal sheathed wiring, conduit wiring, their advantage and disadvantages comparison
	05-04-2021	Prepare one estimate of materials required for CTS wiring for small domestic installation of one room and one veranda within 25 m2 with given light, fan & plug points.
	05-05-2021	do
	05-06-2021	do
	05-07-2021	estimate of materials required for conduit wiring for small domestic
2nd	05-10-2021	do
	05-11-2021	concealed wiring for installation of two rooms, one latrine, bath, kitchen & veranda within 80m2
	05-12-2021	do
	13/5/2021	erection of conduct wiring to a small workshop installation about 30m2 and load within 10 KW.
	14/5/2021	do
3rd	17/5/2021	Assignments
	18/5/2021	doubt clearing
		<b>OVER HEAD INSTALLATION</b>

	19/5/2021	line supports, Height of pole, conductor materials, determination of size of conductor for overhead
	20/5/2021	transmission line, cross arms, pole bracket clamps, guys and stays, conductors configurations,
	21/5/2021	spacing and clearances, span lengths, overhead line insulators, types of insulators,
4th	24/5/2021	anti-climbing devices, bird guards, beads of jumpers, jumpers, tee-offs, guarding of overhead lines
	25/5/2021	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
	26/05/2021	do
	27/5/2021	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
	28/5/2021	do
5th	31/5/2021	Prepare an estimate of materials required for HT distribution line (11 KV) within 2 km and load of 2000 KVA maximum and standard spans
1st	06-01-2021	calculation of the size of conductor (from conductor chart), current carrying capacity
	06-02-2021	current carrying capacity and voltage regulation consider action using ACSR.
	06-03-2021	assignments
		<b>ELECTRICAL INSTALLATIONS</b>
	06-04-2021	Electrical installations, domestics, industrial, Wiring System, Internal distribution of Electrical Energy.
2nd	06-07-2021	Methods of wiring, systems of wiring, conductor materials used in cables, insulating materials
	06-08-2021	Types of cables used in internal wiring, multi-stranded cables, voltage grinding of cables,
	06-09-2021	Main switch and distribution boards, conduits, conduit accessories and fittings, lighting accessories
	06-10-2021	fittings, fuses, important definitions, determination of size of fuse – wire, fuse units. Earthing conductor,
	06-11-2021	IS specifications regarding earthing of electrical installations, points to be earthed. Determination of size of earth wire
3rd	14/6/2021	industrial installations. Material required for GI pipe earthing
	16/6/2021	do

	17/6/2021	Aspects of good lighting services. Types of lighting schemes, design of lighting schemes
	18/6/2021	factory lighting, public lighting installations, street lighting, general rules for wiring,
4th	21/6/2021	determination of number of points (light, fan, socket, outlets),
	22/6/2021	determination of total load, determination of Number of sub circuits
	23/6/2021	Assignments
		<b>OVER HEAD SERVICE LINES</b>
	25/6/2021	Components of service lines
5th	28/6/2021	bearer wire, lacing rod. Ariel fuse, service support, energy box and meters etc.
	29/6/2021	Prepare and estimate for providing single phase supply of load of 5 KW (light, fan, socket) to a single stored residential building
	30/6/2021	do
1st	07-01-2021	Prepare and estimate for providing single phase supply load of 3KW to each floor of a double stored building having separate energy meter
	07-02-2021	do
2nd	07-05-2021	service connection to a factory building with load within 15 KW using insulated wire.
	07-06-2021	do
	07-07-2021	load within 15 KW using bare conductor and insulated wire combined.
	07-08-2021	do
	07-09-2021	Assignments
		<b>ESTIMATING FOR DISTRIBUTION SUBSTATIONS</b>
3rd	13/7/2021	Prepare one materials estimate for Pole mounted substation
	14/7/2021	do
	15/7/2021	Prepare one materials estimate for Plinth mounted substation
	16/7/2021	do
4th	19/7/2021	Assignments
HOD		PRINCIPAL