LESSON PLAN

Name of the Institute:	**C. V. RAMAN POLYTECHNIC**
Department:	**ELECTRICAL ENGINEERING**
Semester/Division/Branch:	**6th SEM/EE**
Subject Name with code:	ELECTRICAL INSTALLATION AND ESTIMATING(TH-1)
Total No. of Class (Required):	**60L+15T**
Faculty Name:	**Mrs. RUPALI BALABANTARAY**

Class No.	*Brief description of the Topic/Chapter to be taught*	Remarks
1	Introduction to Electrical Estimation and estimating.	
2	Detail description of C.Os	
3	Introduction to IE Rules, Definitions , IE Rule 30,31,	
4	IE Rules contd…	
1T	Tutorial Class	
5	IE Rules contd...	
6	IE Rules contd...	
7	IE Rules contd...	
8	IE Rules contd...	
2T	Tutorial Class	
9	IE Rules contd...	
10	IE Rules contd...	
11	IE Rules contd...	
12	Systems of wiring	
3T	Tutorial Class	
13	Internal distribution of electrical energy, methods of wiring & systems of wiriung	

14	Types of internal wiring, cleat wiring, CTS wiring, casing capping wiring, metal sheathed wirung	
15	conduit wiring, advantages and disadvantages of each wiring, comparision and applications.	
16	Wire and cable, conductor, insulation, mechanical protection, types of cables, grading and specification of cables.	
4T	Tutorial Class	
17	General specification of cables, Wiring accessories as main switch, DB, conduits, conduits accessories & fittings.	
18	fuses and earthing details.	
19	Lighting scheme & Types	
20	factory lighting, public lighting	
5T	Tutorial Class	
21	public lighting installations	
22	Design of public lighting	
23	street lighting and lighting calculations.	
24	General rules for lighting, determination of light points	
6T	Tutorial Class	
25	Determination of fan points & solving of problems.	
26	Solving of problems	
27	Guidelines for internal wiring and estimation	
28	Electrical points in houses, Lamp's lumen output table, illumination required at various places	
7T	Tutorial Class	
29	Material estimation with CTS wiring for a 25 square meter small domestic installation,	
30	Material estimation with conduit wiring for a 25 square meter small domestic installation,	
31	Material estimation with concealed wiring for a 80 square meter domestic installation having 2 rooms & etc..	
32	Material estimation with conduit wiring for a 30 square meter small	

	workshop with 10 KW load.	
8T	Tutorial Class	
33	Estimation of house wiring	
34	Different parts of overhead line	
35	line supports, height of pole, cond. material	
36	cross arm, pole bracket and clamp, guys and stays, cond. configuration, spacing and clearaces, span, insulators	
9T	Tutorial Class	
37	L A, danger plate, anti climbing devices, bird guard, beads of jumpers, jumpers, tee-offs, guarding of over head lines	
38	Doing estimation for a LT distribution line with 100 KW load & ACSR conductor.	
39	Definition of following important terms	
40	Pick-up current	
10T	Tutorial Class	
41	Current setting.	
42	Time setting Multiplier.	
43	Doing estimation for a LT distribution line with 100 KW load & ACSR conductor contd..	
44	Estimation for 11 KV HT line of 2000 KVA, 2 KM long with different site conditions.	
11T	Tutorial Class	
45	Estimation for 11 KV HT line of 2000 KVA, 2 KM long with different site conditions. contd...	
46	Estimation for 11 KV HT line of 2000 KVA, 2 KM long with different site conditions. contd...	
47	Service line installation system	
48	Aerial fuse, Different methods of service line installation as for low roof, high roof, junction box system, duplex house etc..	
12T	Tutorial Class	
49	Estimation for service line with 5 KW load in a house.	

50	Estimation for duble storeid building each floor having 3 kw load.	
51	Estimation for duble storeid building each floor having 3 kw load contd...	
52	Estimation for work shop with only cable of load say 15 KW.	
13T	Tutorial Class	
53	Estimation for work shop with only cable of load say 15 KW contd..	
54	Estimation for work shop with over head line and cable of load say 15 KW.	
55	Estimation for work shop with over head line and cable of load say 15 KW contd..	
56	Introduction to sub station, Main equipment of a substation	
14T	Tutorial Class	
57	Working of LA, AB switch, DO fuse 3 phase energy meter etc used in substation.	
58	Pole mounted substation & its estimation of materials	
59	Pole mounted substation & its estimation of materials contd..	
60	plinth mounted substation detail description for experimental study.	
15T	Tutorial Class	

Rupali Balabantaray

Signature of the Faculty

Signature of the H.O.D