



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SESSION: 2022-2023 (EVEN SEMESTER)

### LESSON PLAN

NAME OF THE STAFF : TEJASWINI G V

COURSE CODE/TITLE : 18EE822 / ELECTRICAL ESTIMATION AND COSTING

SEMESTER/YEAR : VIII / IV

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
<b>MODULE 1</b>							
1	<b>Principles of Estimation:</b> Introduction to Estimation and Costing	L+D	LCD	1	1	13/2/2023	13/2/23
2	Electrical Schedule, Catalogues,	L+D	LCD	1	2	13/2/2023	13/2/23
3	Market Survey and Source Selection, Recording of Estimates,	L+D	LCD	1	3	14/2/2023	14/2/23
4	Determination of Required Quantity of Material, Labour Conditions	L+D	LCD	1	4	14/2/2023	14/2/23
5	Determination of Cost Material and Labour, Contingencies, Overhead Charges, Profit,	L+D	LCD	1	5	20/2/2023	20/2/23
6	Purchase System, Purchase Enquiry and Selection of Appropriate Purchase Mode	L+D	LCD	1	6	20/2/2023	20/2/23
7	Comparative Statement, Purchase Orders, Payment Of Bills, Tender Form	L+D	LCD	1	7	21/2/2023	27/2/23
8	General Idea about IE Rule, Indian Electricity(IE) Act and IE Rules- 29,30,45,46,47,50,51,54,55,77 and 79.	L+D	LCD	1	8	21/2/2023	27/2/23
<b>MODULE 2</b>							
9	<b>Wiring:</b> Introduction, Distribution of energy in a Building, PVC Casing and Capping, Conduit Wiring	L+D	LCD	1	9	27/2/2023	28/2/23

10	Desirabilities of Wiring. Types of cables used in Internal Wiring, Multi Strand Cables,	L+D	LCD	1	10	27/2/2023	28/2/23
11	Voltage Grading and Specification of Cables. Wiring (continued): Main Switch and Distribution Board,	L+D	LCD	1	11	28/2/2023	6/3/23
12	Conduits and its accessories and Fittings. Lighting Accessories and Fittings, Types of Fuses,	L+D	LCD	1	12	28/2/2023	6/3/23
13	Size of Fuse, Fuse Units, Earthing Conductor. Internal Wiring: General rules for wiring,	L+D	LCD	1	13	6/3/2023	7/3/23
14	Design of Lighting Points (Refer to Seventh Chapter of the Text Book), Number of Points, Determination of Total Load	L+D	LCD	1	14	6/3/2023	7/3/23
15	Number of Sub -Circuits, Ratings Main Switch Distribution Board and Size of Conductor, Current Density, Layout	L+D	LCD	1	15	7/3/2023	14/3/23
16	Problems	L+D	BB,PS	1	16	7/3/2023	14/3/23
<b>MODULE 3</b>							
17	<b>Service Mains:</b> Introduction, Types,	L+D	LCD	1	17	20/3/2023	21/3/23
18	Estimation of Underground and Overhead Service Connections.	L+D	LCD	1	18	20/3/2023	21/3/23
19	Design and Estimation of Power Circuits	L+D	LCD	1	19	21/3/2023	27/3/23
20	Introduction, Important Considerations Regarding Motor Installation Wiring,	L+D	LCD	1	20	21/3/2023	27/3/23
21	Input Power, Input Current to Motors,	L+D	LCD	1	21	27/3/2023	28/3/23
22	Rating of Cables, Rating of Fuse	L+D	LCD	1	22	27/3/2023	3/4/23
23	Size of Condit, Distribution Board Main Switch and Starter.	L+D	LCD	1	23	28/3/2023	3/4/23
24	Problems	L+D	BB,PS	1	24	28/3/2023	10/4/23

**MODULE 4**

25	<b>Estimation of Overhead Transmission and Distribution Lines:</b> (Review of Line Supports, Conductor Materials, Size of Conductor for Overhead Transmission Line, types of insulators	L+D	LCD	1	25	4/4/2023	10/4/23
26	Cross Arms, Pole Brackets and Clamps, Guys and Stays, Conductors Configuration Spacing and Clearances, Span Lengths	L+D	LCD	1	26	4/4/2023	11/4/23
27	Lightning Arrestors, Phase Plates, Danger Plates, Anti Climbing Devices,	L+D	LCD	1	27	10/4/2023	18/4/23
28	Bird Guards, Beads of Jumpers, Muffs, Points to be Considered at the Time of Erection of Overhead Lines, Erection of Supports,	L+D	LCD	1	28	10/4/2023	18/4/23
29	Setting of Stays, Fixing of Cross Arms, Fixing of Insulators, Conductor Erection. Repairing and Jointing of Conductors, Dead End Clamps,	L+D	LCD	1	29	11/4/2023	19/4/23
30	Positioning of Conductors and Attachment to Insulator s, Jumpers, Tee-Offs, Earthing of Transmission Lines	L+D	LCD	1	30	11/4/2023	19/4/23
31	Guarding of Overhead Lines, Clearances of Conductor From Ground, Spacing Between Conductors, Important Specifications.	L+D	LCD	1	31	24/4/2023	24/4/23
32	Problems	L+D	BB,PS	1	32	24/4/2023	24/4/23
<b>MODULE 5</b>							
33	<b>Estimation of Substations:</b> Main Electrical connection	L+D	LCD	1	33	25/4/2023	25/4/23
34	Graphical Symbols for Various Types of Apparatus	L+D	LCD	1	34	25/4/2023	25/4/23
35	Graphical Symbols for Various Types of circuits Elements on Substation main Connection Diagram	L+D	LCD	1	35	2/5/2023	29/4/23

36	Single Line Diagram of Typical Substations	L+D	BB	1	36	2/5/2023	29/4/23
37	Single Line Diagram of Typical Substations	L+D	BB	1	37	8/5/2023	9/5/23
38	Equipment for Substation	L+D	LCD	1	38	8/5/2023	9/5/23
39	Substation Auxiliaries Supply	L+D	LCD	1	39	9/5/2023	11/5/23
40	Substation Earthing.	L+D	LCD	1	40	9/5/2023	11/5/23

**Total No. of Lecture Hours = 40**

**Total No. of Tutorial Hours = 00**

**Total No. of Revision Hours = 00**

	<b>Mode of Assignment and instructions*</b>	<b>Date</b>
Assignment 1	Assignment Questions - First Internal Assessment Syllabus	3/3/2023
Assignment 2	Assignment Questions- Second Internal Assessment Syllabus	6/4/2023
Assignment 3	Assignment Questions- Third Internal Assessment Syllabus	28/4/2023

**Course in charge**

**Head of the Department**

**Principal**