

LESSON PLAN

2-25/18

NAME OF FACULTY	SAVINDER MALIK
DISCIPLINE	ELECTRICAL ENGINEERING
SEMESTER	4TH
SUBJECT	ESTIMATING AND COSTING IN ELECTRICAL ENGINEERING
LESSON PLAN DURATION	15 WEEKS (FROM JANUARY 2018 - APRIL 2018)

17/1/18
Sh Bijendra

THEORY					
WEEK	LECTURE DAY	TOPIC	WEEK	LECTURE DAY	TOPIC
1st	1	Introduction: Purpose of estimating and costing	7th	2	Problems
	2	Proforma for making estimates.		3	Domestic installations; description of various tests to test the wiring installation before commissioning
	3	Preparation of materials schedule		4	Standard practice as per IS and IE rules
	4	Costing, Price list		1	Planning of circuits, sub-circuits and position of different accessories, electrical layout
2nd	1	Preparation of tender document	8th	2	Preparing estimates including cost as per schedule rate pattern and actual market rate
	2	Net price list, Market survey		3	Industrial installations; relevant IE rules and IS standard practices
	3	Overhead charges, Labour charges		4	Planning, designing
	4	Electrical point method		1	Estimation of installation for single phase motors of different ratings
3rd	1	Fixed percentage method,	9th	2	Electrical circuit diagram, starters
	2	Contingency, profit,		3	Preparation of list of materials
	3	Purchase system, enquiries,		4	Estimating and costing exercises on workshop with single-phase
	4	Comparative statements, orders for supply		1	3-phase motor load and the light load (3-phase supply system)
4th	1	Payment of bills.	10th	2	Service line connections estimate for domestic upto 10 KW and
	2	Tenders - its constituents, finalization, specimen tender		3	Industrial loads upto 20 KW from pole to energy meter
	3	Problems		4	Problems
	4	Cleat wiring		1	Transmission and distribution lines - overhead
5th	1	Batten wiring	11th	2	Transmission and distribution lines - underground
	2	Casing capping wiring		3	Problems
	3	Conduit wiring,		4	Planning and designing of lines with different fixtures
	4	Comparison of different wiring systems,		1	Earthing etc.
6th	1	Selection and design of wiring schemes for particular situation	12th	2	Based on unit cost calculations
	2	Selection of wires and cables		3	Substation: Types of substations,
	3	Wiring accessories		4	Substation schemes and components
	4	Use of protective devices i.e. MCB, ELCB etc.		1	Estimate of 11/0.4 KV pole mounted substation up to 200 KVA rating
	1	Use of wire-gauge and tables		2	Methods of Earthing of substations

13th	3	Key Diagram of 66 KV/11KV and 11 KV/0.4 KV Substation	15th	1	Domestic installations; description of various tests to test the wiring installation before commissioning
	4	Single line diagram,		2	Standard practice as per IS and IE rules.
14th	1	Layout sketching of outdoor,		3	Planning of circuits, sub- circuits and position of different accessories, electrical layout
	2	Indoor 11kV sub-station		4	Preparing estimates including cost as per schedule rate pattern and actual market rate
	3	33kV sub- station	<i>Maliv</i> <u>16 Jan. 18</u>		
	4	Problems			