

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



PROGRESS REGISTER Session-2022-2023

Discipline: Electrical Engg.

Semester: 6th Subject: Electrical Installation and Estimating

Name of the Teaching Faculty: Durga Prasad Biswal

Sec-B

Subject: Electrical Installation and Estimating No. of Days/per week class allotted 5

Semester From Date : 16/02/2023 To Date : 3/03/2023 No. of Weeks : 3

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
16/02/2023	IF Rule (1956) Definition of electrical quantity	Definition of ampere, Apparatus, Bare, Conduit CB, Cable	Definition of ampere, apparatus Bare, Conduit CB, cable etc.	Dhig 16/2/23
17/02/2023	Cut-out, Conduit, Dead Earthing system General Safety Precaution rule.	Definition of Cut-out Dead, Earthing danger	Definition of Conduit, Installation Span, Switch Gear, Rule-29, 30, 31	Dhig 17/2/23
20/02/2023	Rule-34, 35, 36, 40, 41, 43, 44, 45, 46, General condition relating to supply	Rule 34, 35, 36, 40, 41, 43, 44, 47, 48, 49, 50, 51, 54, 55	Discussion of Rule 34 to 55	Dhig 20/2/23
21/02/2023	Rule-56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70	Rule-56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70	Discussion of Rule 58 to 70	Dhig 21/2/23
23/02/2023	Electrical Installation of domestic and industrial wiring system	Wiring system, internal distribution of electrical energy, methods of wiring	Maincut, Sub-main cut, sub-cut Tree system DB system	Dhig 23/02/23
24/02/2023	System of wiring wire and cable Conductor material used in cable	System of wiring, wire and cable Conductor material used in cable	Tree system Joint box system Cu, Al, Insulation type	Dhig 24/2/23
25/02/2023	Cable Classification multi-stranded cable	Cable Classification, multi-stranded cable	VIR cable, CTS/TRS cable PVC cable weather proof cable, XLPE	Dhig 25/2/23
27/02/2023	Specification of Cable, Accessories MS, DB, Lighting Accessories	Cable Specification, MS, DB Lighting accessories	Classification on no. of core, Stranded, Core, DB, SB, Switch etc.	Dhig 27/2/2023
28/02/2023	Fuses, Important definition, Classification	Fuses, Important Definition, it's Classification	Fuse, Fuse wire Current rating operation of fuse Cut-out fuse cartridge fuse	Dhig 28/2/23
2/3/2023	Earthing System Types of earthing	Earthing System Types of earthing	Earthing, Resistance of earth, points to be earthed, pipe earthing plate earthing	Dhig 2/3/23
3/03/2023	Lighting Scheme Aspects of good lighting scheme	Aspects of good lighting scheme, types of lighting	Illumination level, Space/height ratio, UF, MF, Direct lighting, indirect lighting	Dhig 3/3/23

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Semester From Date: 4/3/2023 To Date: 21/3/2023 No. of Weeks: 3

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
4/3/2023	Factory lighting	Factory lighting	General requirements, General lighting Standard	<u>D. S.</u> 4/3/23
6/3/2023	Public lighting Street lighting	Public lighting Street lighting	Terminology in Public & Street lighting	<u>D. S.</u> 6/3/23
9/3/2023	Standard practice for domestic wiring	Standard practice for domestic wiring	Load Calculation, main switch, DB, Voltage drop	<u>D. S.</u> 9/3/23
10/3/2023	Types of internal wiring, Cleat wiring	Types of internal wiring, Cleat wiring	Cleat wiring, CTS/TEU wiring, casing capping, Conduit wiring	<u>D. S.</u> 10/3/23
11/3/2023	CTS wiring	CTS wiring	Batten wiring, advantage, disadvantage, Line clip, gutters RB, ceiling wire	<u>D. S.</u> 11/3/23
13/3/2023	Prepare one estimate of material for CTS wiring	Prepare of one estimate of material for CTS wiring	Line and layout diagram, rating of load, MSRB, cable size	<u>D. S.</u> 13/3/23
14/3/2023	metal sheathed wiring system	metal sheathed wiring system advantage, disadvantage	metal sheathed wiring system	<u>D. S.</u> 14/3/23
16/3/2023	Conduit wiring, Conduit accessories and fitting	Conduit wiring conduit accessories and fitting	Surface type concealed type RB, Bend, Corner, Saddle	<u>D. S.</u> 16/3/23
17/3/2023	Prepare one estimate of material for surface conduit wiring	Prepare one estimate of material for surface conduit wiring	Line and layout diagram, Load Data, Current Calculation, Voltage drop	<u>D. S.</u> 17/3/2023
18/3/2023	Prepare one estimate of material for concealed wiring system	Estimate of material for concealed wiring system	Load Data, Current Calculation voltage drop, Cable size	<u>D. S.</u> 18/3/23
21/3/2023	Warden casing casing wiring system	Warden casing casing wiring system	Size of warden casing casing, advantage, disadvantage	<u>D. S.</u> 21/3/23

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Semester From Date: 23/3/2023 To Date: 10/4/2023 No. of Weeks: 2

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
23/3/2023	Work shop wiring	Workshop wiring	Standard Practice Starting Current Calculation, MS, BDB	<u>P. B. S.</u> 23/3/23
24/3/2023	Prepare one estimate of work shop	prepare one estimate of work shop	Line and layout, starting current, starter, MS, BDB, Conductor Calc	<u>P. B. S.</u> 24/3/23
25/3/2023	OH line rule	OH line rule	OH line rule	<u>P. B. S.</u> 25/3/23
27/03/2023	Main components of OH line, line support	Main components of OH line, line supports	Poles, Cross-arms, V & straight cross-arm	<u>P. B. S.</u> 27/03/23
25/3/2023	Factors affecting the height of poles, conductor material	Factors affecting the height of pole, Conductor material	Line voltage, power, Transmission line length, AI, ACSR	<u>P. B. S.</u> 28/3/23
31/3/2023	Determination of size of conductor, guys & stays	Determination of size of conductor guys & stays	Current calculation voltage drop, voltage regulation guys & stays	<u>P. B. S.</u> 31/3/23
3/4/2023	Conductor configuration span, line insulators	Conductor configuration, span, line insulators	ACSR, AAC, AAAC, pin, Shackle, Deck insulator	<u>P. B. S.</u> 3/4/23
4/4/2023	Lighting Arrestor	Lighting Arrestor	Rid gap, air gap, horn gap function	<u>P. B. S.</u> 4/4/23
6/4/2023	LT distribution line - 10kV with standard span 11m line	Estimate of material for LT distribution line	No. of poles, Insulators, Total length of conductor, earthing	<u>P. B. S.</u> 6/4/23
5/4/2023	HT distribution line problem. Load - 200kVA Voltage - 11kV, length - 100m	HT distribution line problem (Estimation)	No. of poles, Current calculation Insulators, Cable Calculation	<u>P. B. S.</u> 8/4/23
10/4/2023	Tutorial class	Tutorial class	Tutorial class	<u>P. B. S.</u> 10/4/23

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Semester From Date: 11/4/2023 To Date: 28/4/2023 No. of Weeks: 2

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (In brief)	Signature of Teacher
11/4/2023	Components of service line, bearer wire, lacing rod	Components of service line, bearer wire, lacing rod, U-clamp	Classification of service line, bearer wire, lacing rod	<u>D. Bis</u> 11/4/23
13/4/2023	Standard Practice	Standard Practice	Standard Practice for 1 ϕ service line	<u>D. Bis</u> 13/4/23
15/4/2023	Prepare one estimate of material required for 1 ϕ service line to 15kW load	Prepare one estimate of material required for 1 ϕ connection to 15kW line	Line and layout Current, cable calculation, Bearer wire	<u>D. Bis</u> 15/4/23
17/4/2023	Tutorial class	Tutorial class	Tutorial class	<u>D. Bis</u> 17/4/23
18/4/2023	Prepare one estimate of material required for double stand building of 15kW	Prepare one estimate of material for double stand building	Line and layout diagram, Current calculation, Cable calculation	<u>D. Bis</u> 18/4/23
20/4/2023	Tutorial class	Tutorial class	Tutorial class	<u>D. Bis</u>
21/4/2023	Standard practice for 3 ϕ service line	Standard practice for 3 ϕ service line	Standard practice for 3 ϕ service line	<u>D. Bis</u> 21/4/23
24/4/2023	Prepare one estimate material required for 15kW load	Prepare one estimate of material required for 15kW load	Line and layout cable calculation U-clamp	<u>D. Bis</u> 24/4/23
25/4/2023	Tutorial class	Tutorial class	Tutorial class	<u>D. Bis</u> 25/4/23
27/4/2023	Prepare one estimate of material for service connection to 15kW load with horizontal run	Prepare one estimate of material required for 15kW load	Cable calculation, Current calculation	<u>D. Bis</u> 27/4/23
28/4/2023	Tutorial class	Tutorial class	Tutorial class	<u>D. Bis</u> 28/4/23

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Semester From Date: 29/4/2023 To Date: 20/5/23 No. of Weeks: 3

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
29/4/2023	Sub- station	Sub- station	Sub- station. Types of Substation	P. Bis 29/4/23
11/5/2023	Standard Practice	Standard Practice	Standard Practice	P. Bis 11/5/23
2/5/2023	Pole mounted Substation	Pole mounted Substation	Length of Pole. M.S. Channel, LA, Insulator	P. Bis 2/5/23
4/5/2023	prepare one estimate of material for 1KVVA T/F	prepare one estimate of material for 1KVVA T/F	11m - TTT pole MS Channel, AB switch Cable	P. Bis 4/5/23
6/5/2023	Tutorial Class	Tutorial Class	Tutorial Class	P. Bis 6/5/23
8/5/2023	Plinth mounted Substation	Plinth mounted Substation	KVA required for Plinth mounted Substation. M.S. Channel. AB switch	P. Bis 8/5/23
9/5/2023	prepare one estimate of material required for 1kvvt plinth mounted Substation.	prepare one estimate of material required for 1kvvt Substation	Current calculation Cable calculation. Height of pole	P. Bis 9/5/23
11/5/2023	Tutorial class	Tutorial Class	Tutorial Class	P. Bis 11/5/23
12/5/2023	Prepare one estimate of material required for farmer connection	prepare one estimate of material required for farmer connection	Pole requirement Cable requirement size of pole, insulator	P. Bis 12/5/23
13/5/2023		Tutorial Class	Tutorial Class	P. Bis 13/5/23
20/5/2023		Tutorial Class	Tutorial Class	P. Bis 20/5/23

