

SYNERGY SCHOOL OF ENGINEERING, DHENKANAL

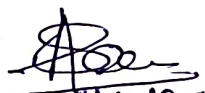
Department:- Electrical Engineering	Semester:- 4th Sem	Name of the teaching faculty:-MANMOHANPANDA
Subject:- Electrical Estimation & Contracting	No. of Days/week class Allotted:-3	No. of weeks:-15 SESSION-2025-2026 SUMMER FROM 22.12.2025 TO 18.04.2026
No. of week	No. of class	Topic to be Taught
1 st	1 st	Introduction class
	2 nd	Electric Installation and Safety Scope and features of National electric code 2011
	3 rd	Types of electrical installation
2 nd	1 st	Fundamental principles for electrical installation
	2 nd	Permit to work, safety instructions and safety practices
	3 rd	Purpose of estimating and costing
3 rd	1 st	Estimation and Costing Meaning and purpose of- Rough estimate
	2 nd	Detailed estimate
	3 rd	Supplementary estimate
4 th	1 st	Annual maintenance estimate and revised estimate
	2 nd	Factors to be considered while preparation of detailed estimate and economical execution of work
	3 rd	Contracts Concepts of contracts
5 th	1 st	Types of contracts
	2 nd	Contractor Role of contractor
	3 rd	Tenders and Quotations , Type of tender
6 th	1 st	Tender notice
	2 nd	Preparation of tender document, and method of opening of tender
	3 rd	Quotation & Quotation format
7 th	1 st	Comparison between tender and quotation
	2 nd	Comparative statement & Format of comparative statement
	3 rd	Order format & Placing of purchasing order
8 th	1 st	Principles of execution of works, planning, organizing and completion of work, Billing of work
	2 nd	Non-Industrial Installations Types of Non-industrial installations-Office buildings, shopping and commercial centre, residential installation, Electric service and supply
	3 rd	Design consideration of electrical installation in commercial buildings
9 th	1 st	Design procedure of installation- steps involved in detail
	2 nd	Estimating and costing of unit
	3 rd	Earthing of commercial installation
10 th	1 st	Design electrical installation scheme of commercial complex
	2 nd	Erection, Inspection and testing of installation as per NEC
	3 rd	Industrial Installation Classification of industrial buildings based on power consumption
11 th	1 st	Drawing of wiring diagram and single line diagram for single phase and three phase Motors
	2 nd	Design consideration in industrial installations
	3 rd	Design procedure of installation-detailed steps

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12th	1st	Design electrical installation scheme of factory/ small industrial unit
	2nd	Preparation of material schedule and detailed estimation
	3rd	Installation and estimation of agricultural pump and flourmill
13th	1st	Public Lighting Installation Classification of outdoor installations streetlight/ public lighting installation
	2nd	Street light pole structures
	3rd	Selection of equipment
14th	1st	Sources used in street light installations
	2nd	Cables , Recommended types and sizes of cable
	3rd	Control of street light installation
15th	1st	Design, estimation and costing of street light
	2nd	Previous year questions discussion
	3rd	Previous year questions discussion

M.M. Panda
21/12/2025

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LECTURER EE


21/12/25
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ELECTRICAL ENGG. DEPT.
SSE, Dhenkanal