

Department of Electrical Engineering

Branch: Electrical Engineering	Semester: 6th	Name of the Lecturer: Snigdha Dash
Subject: TMEM	No of classes alloted in a week: 6	Duration of Semester: 04.02.02025 - 17.05.2025
Week	Class Day	Theory Topic
1st	1	Installation, Commissioning and Testing of Machine: Inspection of arrival of machine
	2	inspection procedure before its installation
	3	Generalized procedure of installation of Electrical machines
	4	Generalized procedure of installation of Electrical machines
	5	Electric wiring for motors and switch gears
	6	Electric wiring for switch gears
2nd	1	General requirement for Electric Installation according to Indian Electricity rules
	2	General requirement for Electric Installation according to Indian Electricity rules
	3	Necessity of starters and relays for both DC and AC machines
	4	Necessity of starters and relays for both DC and AC machines
	5	Testing before giving supply and testing report
	6	Testing before giving supply and testing report
3rd	1	Installation, Commissioning and Testing of Transformer: Basic idea on dispatch, inspection, storage and handling of transformer.
	2	Civil construction feature regarding connection like ventilation, noise level, space for free movement
	3	Foundation and drainage of oil
	4	Cabling and cable box for transformer
	5	Provision for fire protection
	6	Provision for bushing support location of switch gear
4th	1	Steps for commissioning fitting of all accessories
	2	Filling of oil, drying out
	3	Charging the breather with fresh silica gel
	4	Cleaning of bushing, fixing of conductor & cables
	5	earthing of tank and cover, neutral earthing
	6	Fixing of protection circuits and setting of relays
5th	1	Installation, Commissioning & Testing of Sub-station: Design and planning of indoor substation
	2	General requirement of layout of indoor substation with key diagram
	3	Consideration of safe operation of substation
	4	Installation of outdoor substation: Selection of site, transport & receipt of transformer, checking of insulation resistance of the winding
	5	testing of transformer oil, protection fittings, construction of mounting, earthing arrangement and final commissioning
	6	Testing and commissioning of substation. 3.5.1. Installation of control and relay panels. 3.5.2. Preliminary preparation
6th	1	Sequence card for erection of switch gear equipments, Location of place
	2	Unpacking, Foundation
	3	Erection, Relays
	4	Bus-bar earthing connection, Earthing connection to main cable, Safety precaution

6th	5	Installation of outdoor circuit breaker: Receipt and storage, Civil works. Various steps for installation
	6	Pre-commissioning tests
7th	1	Maintenance: Fundamental of maintenance
	2	Preventive maintenance and planning. [Daily, Weekly, Monthly, Half-yearly and Yearly maintenance], Advantages of Preventive maintenance
	3	Breakdown maintenance: List of tools / instruments and materials used for maintenance
	4	Making or Preparing Maintenance schedule of DC machines
	5	Making or Preparing Maintenance schedule of Induction machines
	6	Making or Preparing Maintenance schedule of Synchronous machines
8th	1	Making or Preparing Maintenance schedule of Transformer
	2	Making or Preparing Maintenance schedule of Transmission line, Distribution lines & Underground cables
	3	Making or Preparing Maintenance schedule of Circuit breakers, Switch gear and protective relays and substations
	4	Making or Preparing Maintenance schedule of SF-6 circuit breakers
	5	Making or Preparing Maintenance schedule of Batteries in substation
	6	Previous Semester Question Discussion

Signature of the
Lecturer

Signature of the
H.O.D.