



**DIPLOMA IN ELECTRICAL ENGINEERING AND
ELECTRIC VEHICLE TECHNOLOGY**

CENTRALIZED QUESTION BANK

1030234440- ELECTRICAL CAD DESIGN

**DIRECTORATE OF TECHNICAL
EDUCATION GOVERNMENT OF
TAMILNADU**

DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025

Course:Electrical Engineering and Electric Vehicle Technology

Subject :Electrical CAD Design

QP Code :1030234440

Time :3 Hours

Date :

Session:

Max Marks:100

Answer The Following Questions

1. Draw the following symbols using AutoCAD: Relay, Fluorescent Lamp, Ceiling Fan, Exhaust Fan, One Way Switch, 5A Socket Outlet with Switch, Energy Meter, Star Delta Starter, DC Shunt Motor, Step Down Transformer, PN Junction Diode, BJT, AND Gate and OR Gate.
2. Draw the single line diagram of Three phase MCB Distribution Board by using Auto CAD.
3. Draw the panel wiring diagram of Horizontal bus bar arrangement with Incoming and Out going Switch boards using by Auto CAD.
4. Draw the single line diagram of typical Medium Voltage with following feeders using by Auto CAD.
Incoming: One from EB and Another from DG with Inter lock.
Outgoing: 12 Outgoing feeders with various loads.
5. Estimate the quantity of Materials and Cost required for a single Bedroom residential Building (1BHK).
6. Estimate the quantity of Materials and Cost required for Irrigation Pump wiring 5 HP Induction Motor.
7. Estimate the quantity of Materials and Cost required for Industrial power wiring Having four machines.
8. Estimate the quantity of Materials and Cost required for street light service having 12 Lamp slight fittings.
9. Draw the Mush Winding Diagram of a Three Phase Induction Motor using by Auto CAD.
10. Draw the Winding Diagram of Lap Connected DC Armature with Commutator Connections and Brush Positions using by Auto CAD.

11. Draw the single line diagram of 110KV / 11KV Receiving Substation using by Auto CAD.
12. Draw the Single Line Diagram of Fire Alarm Riser Arrangement in typical Multi-Storey Building using by Auto CAD.

Allocation of Marks

Sl.No	Description for CAD	Marks	Description for ESTIMATION	Marks
1.	Aim & Apparatus Required	05	Aim & Apparatus Required	05
2.	Manual Drawing	10	Pipe Layout & Load Calculation	15
3.	Circuit using CAD software	45	Wiring Diagram & Material Calculation	25
4.	Printout	10	Schedule of Materials With Cost	25
5.	MQC From Theory Portions	20	MQC From Theory Portions	20
6.	Viva Voice	10	Viva Voice	10
	TOTAL MARKS	100	TOTAL MARKS	100