

**DIPLOMA IN ELECTRICAL ENGINEERING
(DELVI)**

Term-End Examination

December, 2017

00609

**BIEE-036 : ELECTRICAL INSTALLATION
AND SYSTEMS**

Time : 2 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is allowed.

1. What is a Tender ? Finalize a specimen tender indicating all the constitutes. 10

2. Three light points each with a one-way switch are to be wired. Switches are to be provided in different places. Draw the following : 2×5=10
 - (a) Schematic diagram
 - (b) Wiring diagram in looping-in system

3. What are the different types of wiring available for electrical installation ? Give a comparative analysis between Batten and Conduit wiring. 5+5=10

4. What are the different types of Substations ? Explain any one of them in detail. 10

5. Design a bakelite sheet for a switch panel board which contains four switches, one 5A socket and one fan regulator. The necessary switches and socket outlet are flush mounting. The fan regulator is to be mounted on the board. The outside dimensions of accessories are shown in Figure 1.

10

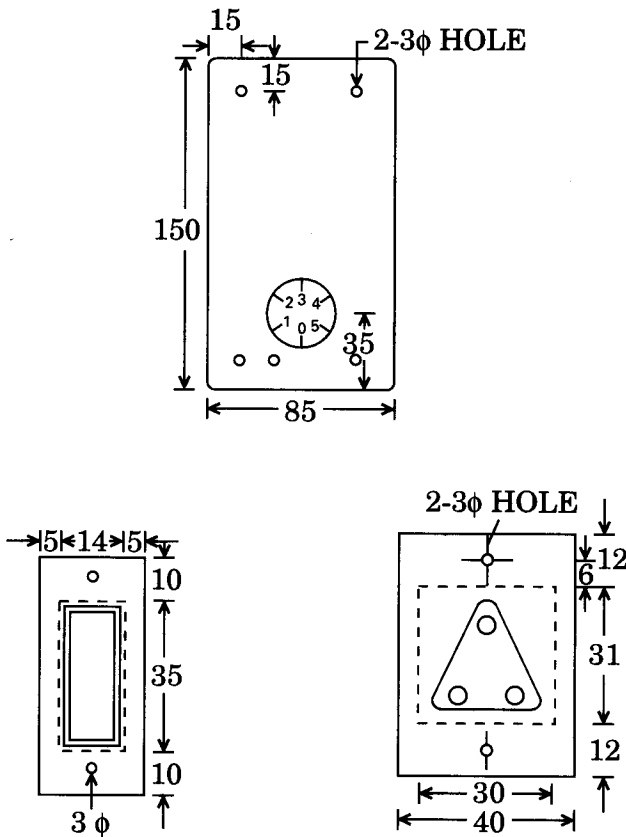


Figure 1

6. Prepare a list of materials and propose the estimating and costing for a workshop with 3-phase motor and light load. 10
7. Develop an estimate for service line connection of a domestic consumer having overhead connection from pole to energy meter. 10
8. What are the different types of earthing ? Explain earthing based on unit cost calculation. 10
9. Write short notes on any *two* of the following : $2 \times 5 = 10$
- (a) Selection of Wires and Cables
 - (b) Labour Charges for Estimation and Costing
 - (c) Pole Mounted Substation
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