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C09-EE-404

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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DEEE - FOURTH SEMESTER EXAMINATION

ELECTRICAL INSTALLATION AND ESTIMATION

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define service main. List the types of service mains in common use.
2. Draw the circuit for series- parallel connection of two lamps.
3. Write any four general IE rules while preparing internal wiring estimation.
4. State the purpose of earthing. List the methods of reducing earth resistance.
5. List any eight components of overhead line and state their use.
6. List any four factors which decide the size of conductor in overhead lines.
7. What is meant by load survey?
8. What is the importance of I.E.Rules in electrical supply and distribution system?

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9. State the importance of plant maintenance.
10. State the role of maintenance engineer.

PART—B

Instructions : (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the construction and working of fluorescent lamp with a neat connection diagram. 15
12. Explain the wiring layout of a big hotel with four-storied building and lift arrangement with neat diagram. 15
13. Prepare an estimate for submersible pump installation. 15
14. Estimate the quantity of material required for the installation of a 400 kVA, 11 kV/400 V, 3-phase substation with a neat sketch. 15
15. Draw a neat sketch of Plate earthing and estimate the quantity of materials required. 15
16. (a) An LT system runs a distance of 5 km . Span is 40m. Estimate the quantity of material required for erecting the line. 10
(b) Explain the procedure for conducting earth continuity test in an electrical installation with a neat circuit diagram. 5
17. Write short notes on the following : 15
 - (i) Transformer location
 - (ii) Transformer capacity in village electrification
18. Explain the causes of industrial electrical accidents and their remedies. 15

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