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C14-EE-404

**4464**

**BOARD DIPLOMA EXAMINATION, (C-14)**

**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. What is Fuse? List the various materials used for fuse element.
2. List any eight electrical wiring tools.
3. List out different accessories used in conduit wiring system.
4. Draw the single line diagram of an electrical installation of a motor.
5. Write any four general IE rules while preparing internal wiring estimation.
6. Write any four factors on which selection of wiring system depends.
7. List the quantity of material required for 11 kV, 1 km distribution line with a span of 70 m.
8. List the types of earthing and their applications in electrical installation.

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9. Define voltage regulation in transmission and distribution lines.
10. Write the various tests to be conducted before charging a new wiring installation.

### PART—B

15×4=60

**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 briefly CTS wiring systems. Mention its advantages, disadvantages and applications.
12. Explain the wiring layout of a big hotel with four storied building and lift arrangement with a neat diagram.
13. Explain different types of service mains. List any five materials required for service mains.
14. Estimate the quantity of the material required in the execution of the irrigation pump set installation.
15. An LT system runs a distance of 5 km. Span is 40 m. Estimate the quantity of material required for erecting the line.
16. Draw the single line diagram and estimate the quantity of material required for plinth mounted transformer substation.
17. Draw a neat sketch of plate earthing and estimate the quantity of materials required.
18. Write short notes on (i) Rural electrification, (ii) Load survey and (iii) Transformer location and capacity.

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