

*



C09-EE-606

3769

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DEEE - SIXTH SEMESTER EXAMINATION

POWER SYSTEMS - II

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. State the need for transposition of overhead lines.
2. Define short, medium and long Transmission lines.
3. State the importance of HVDC Transmission of power.
4. What are the main components of overhead lines?
5. State the factors affecting the Sag.
6. Name the equipment used in Substation.
7. Classify cables.
8. Distinguish between primary distribution and Secondary Distribution.
9. Write a short note on pilot-wire protection system.
10. Give any three advantages of neutral grounding.

*

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. Derive an expression for the voltage regulation of a short transmission line. 15
12. Explain (a) skin effect, (b) proximity effect and (c) spirality effect. 5+5+5=15
13. (a) What is corona? List out various methods of reducing corona. 10
(b) State the relative merits of indoor and outdoor substation. 5
14. Derive an equation for the approximate method of calculating sag when the supports are at the same level. 15
15. State and explain different methods of improving String Efficiency. 15
16. State the advantages and disadvantages of Radial and Ring Distribution systems. 15
17. Explain protection of parallel feeders using directional Relay. 15
18. Explain the construction and working of Valve type lightning Arrester. 15

★ ★ ★

*