

EEM44 Generation, Transmission and Switch Gear

736

REG. NO

OCTOBER 2021

Time: Three hours

Maximum Marks: 75

- Note:
1. Answer ALL the questions in PART-A (1 mark each)
 2. Answer any ONE question from each unit in PART-B (3 marks each)
 3. Answer any ONE question from each unit in PART-C (10 marks each)
 4. The question paper contains TWO Pages

PART-A (1x10=10)

1. Write any two renewable energy sources.
2. What is diversity factor?
3. State kelvin's law.
4. What is meant by regulation of a transmission line?
5. List the tests to be conducted on insulator.
6. State any two cables for 3 phase service.
7. State two types of air blast circuit breaker.
8. State any two methods of protection against lightning.
9. List the fundamental requirements of relays.
10. What are the advantages of neutral grounding?

PART-B (3x5=15)

UNIT-I

11. What are the factors to be considered while selecting a site for nuclear power plant?
12. Mention the advantages of interconnected system.

UNIT-II

13. What is Ferranti effect?
14. List the advantages of transmission line.

UNIT-III

15. What are the properties of good insulators?
16. Classify the UG cables.

UNIT-IV

17. Define rate of rise of re-striking voltage.
18. What are the classification of fuses?

UNIT-V

19. Draw typical characteristics of inverse time relay and give a brief account on it.
20. Write short notes on equipment grounding.

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PART-C (10x5=50)

UNIT-I

21. Draw the schematic diagram of thermal power plant and explain.
22. Explain about hybrid solar PV system with sketches.

UNIT-II

23. Draw and explain the schematic diagram of HVDC transmission.
24. Draw and explain the layout of AC power supply scheme.

UNIT-III

25. Explain the methods of improving the string efficiency of the suspension insulator.
26. Explain three methods of laying underground cables.

UNIT-IV

27. Explain with neat sketch the construction and operation of SF₆ circuit breaker.
28. Explain the construction and working of expulsion type lightning arrester.

UNIT-V

29. Explain the operation of induction type non directional over current relay.
30. Explain resistance grounding with neat sketches and phasor diagram.
