

1401**October 2024**

Time – Three hours
(Maximum Marks: 100)

- [N.B.** 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. Write about the choice of site for locating a thermal power plant.
2. What is hybrid renewable energy system?
3. What is sag in overhead transmission lines?
4. What is Ferranti effect?
5. Define string efficiency.
6. Classify underground cables based on voltage level.
7. State the essential features of switchgear.
8. Define re-striking voltage.
9. What is inverse time relay?
10. What is the necessity of neutral grounding?

[Turn over.....]

PART – B

11. (a) Draw the schematic arrangement of a Diesel power plant and explain.
(Or)
(b) Explain the principle of Wind power generation.
12. (a) State the types of supports used in overhead system and explain with necessary diagrams.
(Or)
(b) Draw the schematic diagram of a HVDC converter station and explain.
13. (a) Explain strain, shackle and stay insulators with necessary sketches.
(Or)
(b) With neat diagram, explain about pressure cables. State their advantages and disadvantages.
14. (a) Explain the construction and working of Earth Leakage Circuit Breaker (E.L.C.B) with neat diagram.
(Or)
(b) Draw and explain about the expulsion type lightning arrester. State its advantages and disadvantages.
15. (a) With a diagram, explain the working of differential relay.
(Or)
(b) Explain about reactance grounding with a diagram and vector diagram.