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October 2018

<u>Time - Three hours</u> (Maximum Marks: 75)

- [N.B: (1) Q.No. 8 in PART A and Q.No. 16 in PART B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B
 - (2) Answer division (a) or division (b) of each question in PART C.
 - (3) Each question carries 2 marks in PART A, 3 marks in Part B and 10 marks in PART C.]

PART - A

- 1. What is the purpose of economiser?
- 2. What is load curve?
- 3. State any two line supports.
- 4. What is regulation?
- 5. State any two types of suspension insulators.
- 6. State any two faults occurring in the cables.
- 7. State any two types of oil circuit breakers.
- 8. State any two types of neutral grounding.

PART - B

- 9. Explain briefly yawing system.
- 10. Explain the function of anemometer and wind vane in wind mill.
- 11. What is the necessity of neutral earthing?
- 12. Explain briefly the Ferranti effect.
- 13. What are the properties of good insulators?
- 14. What are the requirements of cables?
- 15. Mention the classification of circuit breakers.
- 16. Explain Kelvin's law.

[Turn over.....

PART - C

17. (a) Draw the schematic diagram of thermal power plant and explain.

(Or)

- (b) Explain the working of a solar energy power plant with a neat sketch.
- 18. (a) Explain any two conductor materials.

(Or)

- (b) Draw and explain the schematic diagram of HVDC transmission.
- 19. (a) What are the tests to be conducted on an insulator? Explain each.

(Or)

- (b) Explain with a neat diagram, the construction of any one type of underground cable.
- 20. (a) Explain with a neat sketch the construction and working of SF6 circuit breaker.

(Or)

- (b) Explain the construction and working of semi enclosed re-wirable fuse with a neat sketch.
- 21. (a) Explain with diagram, the construction and working of an induction type non-directional over current relay.

(Or)

(b) Explain resonant grounding with phasor diagram.