

218**October 2017**

Time - Three hours
(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 are the essential features of switch gear?
2. What is base load? Give one example.
3. State any two elements of transmission line.
4. What is primary transmission?
5. State any two cables for 3-phase service.
6. State any two faults in UG cables.
7. State two types of air blast circuit breakers.
8. State any two types of static relays.

PART - B

9. Explain the function of surge tank.
10. Write short notes on nacelle of a wind mill.
11. What are the limitations of Kelvin's law?
12. Explain briefly the skin effect.
13. Explain string efficiency.
14. What is the classification of cables?
15. What are the classifications of fuses?
16. Mention the types of grounding.

PART – C

17. (a) Explain the construction and working of nuclear power station with neat sketch.

(Or)

- (b) Explain about hybrid solar PV system with sketch.

18. (a) Draw and explain the layout of AC power supply scheme.

(Or)

- (b) Draw and explain the schematic diagram of different types of links used in HVDC transmission.

19. (a) Explain the methods of improving the string efficiency of the suspension insulators.

(Or)

- (b) Explain the three methods of laying underground cables.

20. (a) Explain the construction and working of vacuum circuit breaker with neat sketch.

(Or)

- (b) Explain the construction and working of liquid type fuse with neat sketch.

21. (a) Explain the operation of a differential relay with neat sketch.

(Or)

- (b) Explain resistance grounding with neat sketch and phasor diagram.
