

## MODEL QUESTION PAPER - I

Time: Three hours

Maximum Marks: 100

[N.B: (1) Answer all questions in PART - A.

(2) Answer division (a) or division (b) of each question in PART - B.

(3) Each question carries 3 marks in PART - A and 14 marks in PART - B]

### PART - A

1. What is meant by load factor?
2. List the advantages of interconnected grid system.
3. State the different types of supports used in transmission line.
4. Explain briefly the Ferranti effect.
5. What are the properties of good insulators?
6. State the classification of cables.
7. Mention the classification of circuit breakers.
8. What are the essential features of switch gear?
9. What is static relay?
10. What are the advantages of Neutral grounding?

### PART - B

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

(or)

- (b) Explain the operation of gas power plant with neat sketch.

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

(or)

b) Derive an expression for the sag in a transmission line conductor suspended between two supports at the equal level and at unequal level.

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

(or)

b) Explain the methods of laying of underground cables.

14. a) Explain with a neat sketch the construction and working of SF6 circuit breaker.

(or)

b) Explain the construction and working of HRC cartridge Fuse.

15. a) Explain with neat sketch the construction and working of induction type over current relay.

(Or)

b) Explain with block diagram the basic elements used in static relay.