

C 80582

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Name

Reg



**EIGHTH SEMESTER B.TECH. (09 SCHEME) (ENGINEERING)
EXAMINATION, APRIL 2015**

EE/PTEE 09 802—POWER SYSTEM PROTECTION AND UTILIZATION

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

1. What you mean by protective relay ?
2. Define arc voltage and recovery voltage of circuit breaker.
3. What are the applications of static relay ?
4. What are the systems of traction ?
5. What is electric heating ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.

6. Explain briefly about Merz-Price protection scheme.
7. Explain different circuit breaker ratings.
8. Compare static relay and electromagnetic relay.
9. What are the advantages of electric heating ?
10. What are the specifications of travelling wave ? Briefly explain.
11. What is dielectric heating ? What are the applications ?

(4 × 5 = 20 marks)

Part C

Answer all questions.

12. Explain about the protection methods of lines and busbars.

Or

13. Explain different protection methods of transformer.
14. Explain the mechanism of lightning discharge. What are the types of lightning stroke ?

Or

Turn over

15. Explain briefly about :

(i) SF6 circuit breaker.

(5 marks)

(ii) Vacuum circuit breaker.

(5 marks)

16. What is over current relay ? Explain different types.

Or

17. (a) Explain amplitude comparator.

(5 marks)

(b) Explain microprocessor based protective relaying.

(5 marks)

18. Explain resistance arc furnaces.

Or

19. (a) Explain high frequency power supply.

(5 marks)

(b) Explain the principle and application of dielectric heating.

(5 marks)

[4 × 10 = 40 marks]