C 21443

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Name.....

Reg. No.....

EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION APRIL 2017

EE/PTEE 09 802 – POWER SYSTEM PROTECTION AND UTILIZATION

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

Part A

Answer **all** *questions.*

1. What are the difference types of relays in the power system?
2. How do you quench an arc in a circuit breaker?
3. Write the merits of static relay.
4. What are the requirements of an electric tracking system?
5. List the applications of induction arc furnaces?

(5 × 2 = 10 marks)

Part B

Answer any **four** *questions.*

6. Explain the importance of protective schemes employed in power system.
7. Write the essential qualities of protection.
8. Enumerate the basic concepts of insulation co-ordination.
9. Describe shortly about the voltage waves on transmission line?
10. Explain the concept of braking.
11. Write short notes electric heating.

(4 × 5 = 20 marks)

Part C

Answer **all** *questions.*

12. Explain the protective schemes employed to protect formulating and switching effects.

Or

13. Write brief notes on :

    (i) Generator protection.

    (ii) Bus bar protection.

Turn over

14. With a help of neat block diagram, explain the construction, operating principle and advantages of SF6 circuit breaker.

Or

15. Write short notes on :

    (i) Lightning diverters.

    (ii) Surge absorbers.

16. Explain the construction and operating principle of over current relay with directional Scheme with suitable diagram.

Or

17. Describe microprocessor based protective relaying with neat diagrams.

18. Explain the mechanics of train movement.

Or

19. Discuss the principle and application of dielectric heating.

(4 × 10 = 40 marks)