Reg. No. : | | | | | | | | | | |

Question Paper Code: 35035

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Fifth Semester

Electrical and Electronics Engineering

01UEE505 - PROTECTION AND SWITCHGEAR

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Discuss the need for protective scheme.
2. Identify the different types of faults occurring in power system?
3. Define under frequency relay.
4. Compare static and electromagnetic relay.
5. What are the limitations of Buchholz relay?
6. Define the term burden on CT.
7. What is meant by static relay?
8. Define the Over Current Protection.
9. What is meant by electro negativity of SF_6 gas?
10. What are the basic requirements of a circuit breaker?

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss the nature and causes of faults for the protective system. (16)

Or

(b) Discuss and compare the various methods of neutral earthing. (16)

12. (a) Briefly explain the differential relay, negative sequence relay with neat diagram. (16)

Or

(b) Explain the general working of a relay and derive the fundamental torque equation. (16)

13. (a) Explain with a neat diagram the application of Merz price circulating current principle for the protection of the alternator. (16)

Or

(b) Explain in detail the abnormal running condition of generator. (16)

14. (a) Explain with neat block diagram of the function of synthesis of mho relay using static phase comparator. (16)

Or

(b) List out the numerical relays and describe it briefly. (16)

15. (a) With neat sketch, explain the SF6 circuit breakers. (16)

Or

(b) What are the different methods of testing of circuit breakers? Discuss their merits and demerits. (16)
