

T.E Electrical V - CBSGS

(3 Hours)

[Total Marks : 80

- N.B.: 1) Question No.1 is compulsory.
2) Attempt any three questions remaining five questions.
3) Draw neat diagrams wherever it is necessary.

1. Answer the following :

- a) Explain loss of excitation in case of generator.
b) Explain primary, back up and remote backup protection of relay.
c) What is time grading and current grading used in protection system?
d) Where and why isolators, contractors and circuit breakers are used in power system? 20
2. a) What are the different types of fault that occur in Induction motor? Explain motor protection against single phasing. 10
b) Explain with neat diagram construction and working principle of MOCB. 10
3. a) With a neat diagram, explain working principle of induction disc relay with its application. 10
b) Name the different types of fault that occur in transformer. Explain differential protection for star delta transformer. 10
4. a) Explain construction & working of Air circuit breaker. 10
b) Explain REF protection for alternator. How 100% winding is protected in an alternator. 10
5. a) What are the protections provided for rotor of an alternator. 10
b) What are the different types of distance relay and explain characteristics of V-1 and R-X plane of impedance relay. 10
6. Write Short note on the following : 20
a) Comparators
b) High resistance and low resistance method
c) Instrument Transformer
d) HRC Fuse
