

Time: 3 Hours

Total Marks: 80

- N.B. 1) Question No.1 is Compulsory.  
2) Attempt any three questions from remaining five questions.  
3) Figures to right indicate full marks.

1. Attempt the Following:-

- (a) Explain the properties of SF 6 gas that make it suitable for arc quenching. (5)
- (b) Explain loss of Excitation in case of transformer. (5)
- (c) Where and why isolators, contactors and circuit breaker are used in power system. (5)
- (d) Explain the different types of fault occur in transformer. (5)

- 2.a) What are the protection provided for rotor of an alternator. (10)
- b) Draw and explain a scheme for motor against single phasing. (10)

- 3. a) Explain restricted earth fault protection of alternator. How 100% winding is protected? (10)
- b) Explain construction & working principle of Vacuum circuit breaker. (10)

- 4. a) what are the different types of fuse available .explain the constructional detail of HRC fuse with its advantages over other types. (10)
- b) Explain the differential protection given to delta star power transformer. (10)

5. Write a short note on.

- a) Electromagnetic relay (5)
- b) DC relay (5)
- c) power swing (5)
- d) Frequency relay (5)

- 6. a) what type of protection provided for induction motor. (10)
- b) Explain protection provided for different types of bus zones. (10)

\*\*\*\*\*