

B.E. Power Engineering - Fourth Year - First Semester, Supplementary

PROTECTION and SWITCHGEAR

TIME: THREE HOURS

FULL MARKS: 100

Answer any five questions

1. a) Describe lightning over voltage. 16 [CO1]
b) Discuss the advantages of ZnO surge diverter. 4 [CO1]
2. a) Give a note on air-blast circuit breaker. 14 [CO3]
b) What is RRRV? 6 [CO3]
3. a) Discuss the mechanism of arc extinction in a circuit breaker. 8 [CO3]
b) Discuss about vacuum circuit breaker. 12 [CO3]
4. a) What are the merits and demerits of SF₆ circuit breaker. 14 [CO4]
b) What are the functions of lightning arrester? 6 [CO4]
- 5) Give a note on alternator protection. 20 [CO4]
6. a) Describe the fundamental requirements of protective relay. 8 [CO2]
b) Give a note on transformer protection. 12 [CO2]
- 7) A line to line fault occurs at point F on phases b and c through a fault impedance Z_F .
Find the fault currents. 20 [CO5]