

TE-Sem-VI-old-Electrical

PSE

19/12/15

QP Code : 2092

Duration – 3 Hours

Total Marks assigned to the paper- 100

- N.B.:-** (1) Question No.1 is compulsory.
(2) **Attempt any four questions out of remaining six questions.**
(3) Assume suitable data if necessary and justify the same.

Q 1 a)	Explain the need of biasing in differential protection relay.	5
b)	Explain reactance relay with its characteristic.	5
c)	Discuss the different ratings of circuit breaker.	5
d)	State the advantages of DSP based protection.	5
Q 2 a)	How the generators are protected against loss of prime mover and loss of excitation?	10
Q 2 b)	Define TRV and derive expression for TRV.	10
Q 3 a)	Explain with neat diagram, the working principle of SF ₆ Circuit Breaker.	10
Q 3 b)	Explain the function of main contacts and arcing contacts in case of ACB. What material is used for these contacts?	10
Q 4 a)	Explain microprocessor based protective schemes with neat diagram.	10
Q 4 b)	Explain about short circuit testing of circuit breaker.	10
Q 5 a)	Explain the primary and backup protection with diagram.	10
Q 5 b)	Explain three step distance relaying scheme for protection of transmission line.	10
Q 6 a)	Explain the construction and working of Oil Circuit Breaker.	10
Q 6 b)	Explain the phenomenon of current chopping.	10
Q7 a)	Explain the time setting and plug setting in case of over current relays.	10
Q7 b)	Draw and explain motor protection against single phasing.	10

QP-Con. 12013-15.