

# School of Electrical Electronics and Communication Engineering

Electrical Engineering

ETE - Jun 2023

Time : 3 Hours

Marks : 50

## SEM VI - BEE02T3006 - Power System protection

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Compare overcurrent relay and distance relay in terms of its application and operation. K2 CO3 (2)
2. Illustrate the operation of a circuit breaker and its operation. K2 CO5 (2)
3. List the type of faults, which is disturbed the power system network operation due to abnormal conditions. K1 CO1 (2)
4. Illustrate time-setting multiplier (TSM) and its necessity in the mechanism of a relay. K2 CO4 (2)
5. Find the differences between overload current and short circuit current in the electric networks. K1 CO2 (2)
6. Choose the basic essential qualities of a relay with proper justification, which is required to operate a relay efficiently. K3 CO1 (5)
7. Inspect the factors, which to be considered for the protection of a transformer during the design of a differential relay. K4 CO3 (6)
8. Construct the principle operation of primary and back-up protection schemes with a suitable diagram. K3 CO2 (5)
9. Inspect the protection scheme used to protect a transformer against internal short circuit faults. K4 CO3 (8)
10. Interpret the causes of loss of excitation phenomenon in the synchronous generator and also provide a suitable protection scheme with justification. K5 CO4 (8)
11. Evaluate the essential operation the air blast circuit breaker with their application and a suitable diagram. K5 CO5 (8)