

Quiz 1, 13<sup>th</sup> Oct. 2022  
Time: 10 minutes, Marks=9

EE454 Power System Protection  
Session 2019 (7th Semester)

Reg. No \_\_\_\_\_

Circle the Most suitable option for MCQs. Cutting/Over-writing is not allowed.

1	In power system relaying, backup protection should be slow as compared to the primary protection; the purpose of this is to allow a) Heavy fault current to flow in the system b) Backup relay to operate before the primary relay c) Circuit breakers to trip automatically d) All of the above e) Both a & b f) Both b & c g) Both a & c h) None of the above	1.5	CLO1
2	Every power system element must be in a zone of protection, so that a) Every fault causes heavy current flow b) Every fault operates a duplicate and a backup relay c) Every fault leads to operation of some protection device d) All of the above e) None of the above	1.5	
3	The common house-hold circuit breaker, as shown in the accompanying figure, operates on the basis of a) Frequency sensing b) Phase Angle Comparison c) Differential comparison d) Level Detection e) Distance Measurement f) Receiving trip signal from a protection Relay g) None of the above	1.5	
4	A transmission system circuit breaker, similar to the one shown here, operates on the basis of a) Frequency sensing b) Phase Angle Comparison c) Differential comparison d) Level Detection e) Distance Measurement f) Receiving trip signal from a protection Relay g) None of the above	1.5	
5	A CT does not behave exactly according to its mentioned name plate ratio because a. Of current flowing in its magnetization branch b. Of saturation in transformer core c. Of heavy copper losses in the transformer secondary coil d. Of heavy copper losses in the transformer primary e. None of the above	1.5	
6	In a CCVT, resonance is achieved between an additional inductor L and the capacitive branch of the CCVT – the purpose of this is to a. Remove harmonics in the secondary voltage b. Remove phase angle error in the secondary voltage c. Remove transformer non-linearity issues in the secondary voltage d. All of the above e. None of the above	1.5	

