Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: TY B.Tech	**School of Technology**	**Department: Electrical Engineering**
Course Code: ELE308	**Course Title: Switchgear and Protection**	**Semester : VI**
Day and Date: Friday,11.06.2021	**End Semester Examination**	**Time:2 Hrs. Max Marks:50**

Instructions: 1) All Questions are compulsory.
2) Draw neat diagrams wherever necessary

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following (any Two)**			
a)	Describe the working of SF6 circuit breakers and analyze its advantages over oil circuit breakers.	8	L2	CO1
b)	Define the following terms: a. Pickup current b. Cut off current c. RRRV d. Current chopping	8	L1	CO1
c)	Criticize the working of numerical overcurrent relays and comment on its limitations over induction type overcurrent relays.	8	L4	CO2
Q.2	**Answer/Solve the following (any two)**			
a)	Describe protection zones and considering relevant single line diagram, explain the interconnection of protection zones in power system.	8	L1	CO2
b)	Evaluate the benefits of time graded overcurrent protection for protection of ring connected feeders.	8	L4	CO3
c)	Compile the working of differential protection for protection of Δ-Δ type power transformers.	8	L5	CO4
Q.3	**Answer/Solve the following (any two)**			
a)	Demonstrate the working of Merz prize protection scheme for protection of alternators against stator inter turn faults.	9	L3	CO3
b)	Generalize the major types of faults that can lead to failure of alternators in power generating stations.	9	L3	CO4
c)	Explain the causes for occurrence of overvoltage in power system and comment on protection against over voltages.	9	L2	CO4

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