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:	**RE- End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

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

Q.1		**Answer/Solve the following (any Two)**	**Marks**	**Bloom's Level**	**CO**
	a)	Describe the working of bulk oil circuit breakers and analyze its limitations over minimum oil circuit breakers.	8	L2	CO1
	b)	Define the following terms: a. Plug Setting Multiplier b. Restriking voltage c. Time Multiplier Setting d. Total Operating time	8	L1	CO1
	c)	Criticize the working of Electromechanical type overcurrent relays and comment on its limitations over digital overcurrent relays.	8	L4	CO2
Q.2		**Answer/Solve the following (any two)**			
	a)	Describe Backup protection scheme and considering relevant single line diagram, explain the interconnection of primary and backup protection in power system.	8	L1	CO2
	b)	Evaluate the performance of definite time graded overcurrent protection for protection of radially connected systems.	8	L4	CO3
	c)	Compile the working of protection of Y-Y connected transformers using differential protection.	8	L5	CO4
Q.3		**Answer/Solve the following (any two)**			
	a)	Demonstrate the working of stator inter turn 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 power transformers.	9	L3	CO4
	c)	Explain different types of internal causes that can lead to overvoltage in power systems.	9	L2	CO4

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