

Register No.

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SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION



Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

INTERNAL ASSESSMENT EXAMINATION – I

VI Semester

B.E-Electrical & Electronics Engineering

19EE605 – Protection & Switchgear

Regulations 2019

A

Duration : 1 Hour 30 Minutes

Date : 21.03.2023

Session: FN

Maximum: 50 Marks

Answer ALL questions

PART A - (5 X 2 = 10 marks)

Q.No	Question	M	CO	BL
1.	Outline the necessity of protective schemes.	2	CO-1	L-2
2.	List the causes for over voltages in a power system.	2	CO-1	L-2
3.	What is the necessity for earthing?	2	CO-1	L-2
4.	State the function of protective relay.	2	CO-2	L-2
5.	What is the purpose of R-X diagram?	2	CO-2	L-1

PART B - (2 X 13 = 26 marks)

6.	(a) Illustrate the various methods of neutral grounding.	13	CO-1	L-2
	OR			
	(b) Develop the protective zone diagram for a sample power system network and explain its functions	13	CO-1	L-3
7.	(a) Outline the construction details and principle of operation of induction type directional over current relay.	13	CO-2	L-2
	OR			
	(b) Elucidate the construction, working of definite distance type impedance relay and time distance impedance relay.	13	CO-2	L-2

PART C –(1 x 14 = 14 Marks)

8.	(a) Categorize the various protective relays used for the power system protection.	14	CO-1	L-4
	OR			
	(b) Estimate the inductance of Peterson coil to be connected between the neutral and ground to neutralize the charging current of overhead line having the line to ground capacitance of 0.15µF. If the supply frequency is 50 HZ and the operating voltage is 132KV. Also, find the KVA rating of the coil.	14	CO-2	L-3

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