Register No. | | | | | | | | | | | |

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 – II

II Semester

Common to B.E-Computer Science and Engineering, B.E-Computer Science and Design & B.E-Computer Science and Technology

19EE101 – Basic Electrical and Electronics Engineering

Regulations 2019

Duration : 1 Hour 30 Minutes

Date : 27.06.2023 Session: FN Maximum: 50 Marks

Answer ALL questions

PART A - (5 X 2 = 10 marks)

Q.No	Question	M	CO	BL
1.	Name the type of motor used in conveyor systems.	2	CO-2	L -2
2.	The primary and secondary voltages of a 25kVA power transformer are 2200V and 220 V respectively. The transformer has 56 turns in the secondary. Calculate the number of turns in the primary.	2	CO-2	L -3
3.	Distinguish between electrical grounding and earthing.	2	CO-3	L -2
4.	Mention any four safety measures to be followed to avoid electrical accidents.	2	CO-3	L -2
5.	List the types of electrical wiring.	2	CO-3	L -2

PART B - (2 X 13 = 26 marks)

6.	(a)	With necessary diagrams explain the construction and operating principle of a single phase transformer.	13	CO-2	L-2
		OR			
	(b)	(i) Derive the EMF equation of single phase transformer.	7	CO-2	L-2
		(ii)A 20kVA, single-phase transformer has 200 turns in the primary and 40 turns in the secondary. The primary is connected to 1000V, 50Hz supply. Determine (a) The secondary voltage on open circuit (b) The current flowing through the two windings on full-load (c) The maximum value of flux.	6	CO-2	L-3
7.	(a)	Explain the necessity of electrical grounding. Discuss the different types of grounding in detail.	13	CO-3	L-2
		OR			
	(b)	Discuss the need for wiring, tools required and its types in detail.	13	CO-3	L-2

PART C –(1 x 14 = 14 Marks)

8.	(a)	Explain the construction and working of single phase induction motor in detail.	14	CO-3	L-2
		OR			
	(b)	Design the electrical wiring layout for a 2BHK residential building using DT concept.	14	CO-2	L-4