GALGOTIAS UNIVERSITY

ADMISSION NUMBER

School of University Polytechnic

Diploma in Electrical Engineering
Semester End Examination - Jul 2024

Duration : 180 Minutes
Max Marks : 100

Sem II - N1DI202B - Basic Electrical Engg

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Define resistance and its types.	K1(2)
2)	Explain the concepts of step-up transformers.	K2(4)
3)	Explain the concepts of the voltage source and the current source.	K2(6)
4)	Illustrate the electro-magnetic field produced by the flow of electric current.	K3(9)
5)	Illustrate the working principle of an auto-transformer and its applications.	K3(9)
6)	Examine how a transformer operates and its importance in electrical systems.	K5(10)
7)	Analyze the features of DC generators and their applications.	K4(12)
8)	Examine Kirchhoff's laws Are they applicable to both a.c. and d.c. circuits	K5(15)
9)	Analyze how the concepts of voltage, current, resistance, and conductance in electric circuits relate to the concepts of MMF, flux, reluctance, and permeability in magnetic circuits.	K5(15)
10)	Discuss the concept of current growth, decay, and time constant in an inductive (RL) circuit, including mathematical expressions.	K6(18)