Daffodil International University
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Midterm Examination, Fall 2022
Course Code: CSE132   Course Title: Electrical Circuits
Level: 2   Term: 1   Batch: 60

Time: 1:30 Hrs   Full Marks: 25

Answer all the following Three questions
[All portions of each question must be answered sequentially]

Q1.	a.	Define a Branch in an electrical circuit.	5x1 =5	CO1
	b.	Show the DC and AC current in time domain.		
	c.	Recall the name of few active electrical elements.		
	d.	Show the electrical quantities of a short circuit.		
	e.	What do you mean by the Voltage Divider Rule (VDR)?		

Q2.	a.	Explain each step and derive the general equation of Current Divider Rule (CDR).	2x5 =10	CO2
	b.	There are different resistances in a motherboard circuit. Explain each step and find out the equivalent resistance of the following circuit.		

Q3.	a.	Using Nodal Analysis, solve the following circuit to find out the node voltages.	2x5 =10	CO3
	b.	Using Mesh Analysis, solve the following circuit to find out the loop currents.		