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Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Examination, Fall 2022

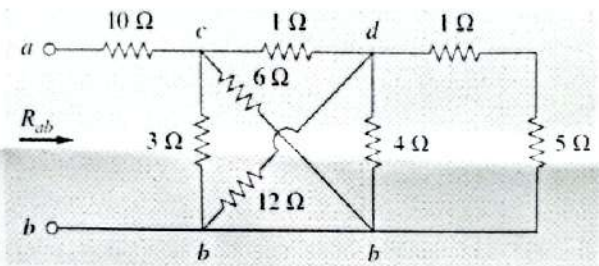
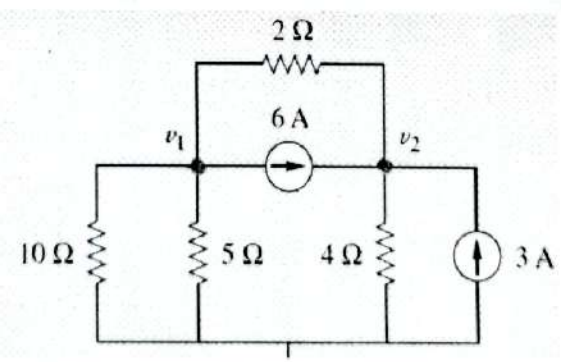
Course Code: CSE132 Course Title: Electrical Circuits

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. 