GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Computing Science and Engineering

Bachelor of Computer Applications
Mid Term Examination - Nov 2023

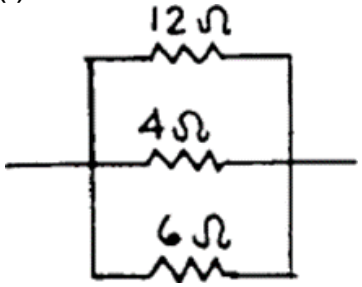
Duration : 90 Minutes
Max Marks : 50

Sem I - E1UA108B - Electronics Workshop

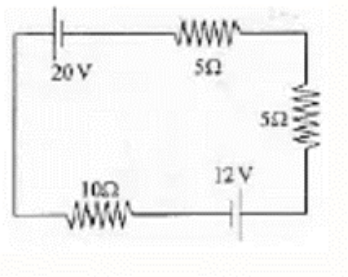
General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	An Electric iron is rated 1000W, 240V. Find the current drawn & resistance of the heating element.	K2	(2)
2)	Why are resistors color-coded?	K1	(3)
3)	List out the characteristics of passive and active components.	K2	(4)
4)	Define node, junction, loop, mesh, branch with suitable examples.	K2	(6)
5)	The following circuit has resistors R1 and R2 connected in series. The resistance values are 5 Ω and 10 Ω respectively. If the voltage across R1 is 4 V, calculate the current through R2 and across the same resistor.	K3	(6)
6)	(i) If the input power to the rectifier is 150 W and output power is 50 W, then what will be the rectifier efficiency of the half-wave rectifier? (ii) Differentiate between mesh and loop. (iii) Differentiate between node and junction.	K3	(9)

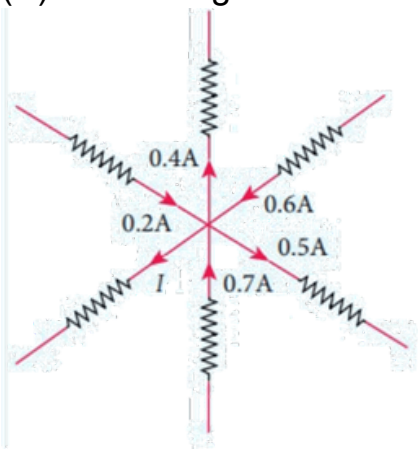
7) (i) Find the total resistance of the three resistors connected in parallel. K4 (8)



(ii) Determine the electric current that flows in the circuit as shown in the figure below.



(iii) From the given circuit find the value of I



8) What is a rectifier? Draw neat waveforms for half wave rectifier and full wave rectifier. K4 (12)

OR

Distinguish between zener and avalanche breakdown. K4 (12)