AGNEL INSTITUTE OF TECHNOLOGY AND DESIGN
ASSAGAO, GOA-403 507

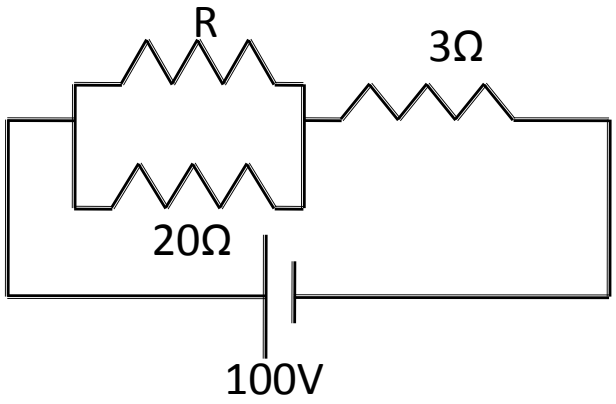
INTERNAL TEST – I

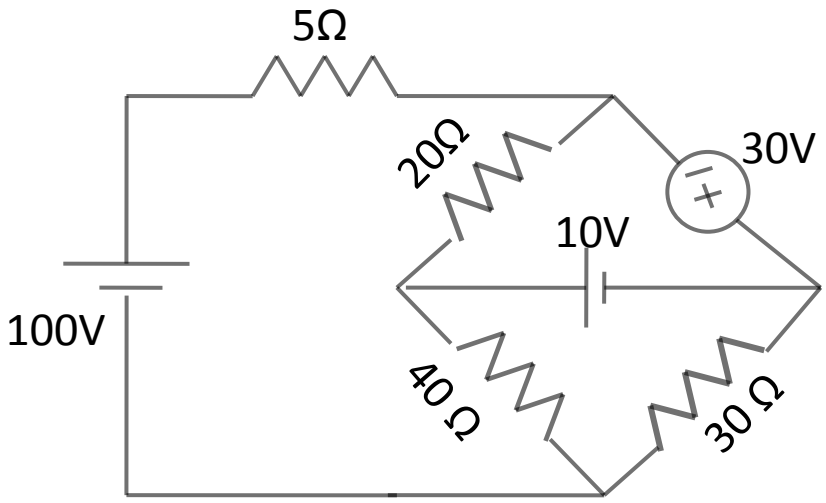
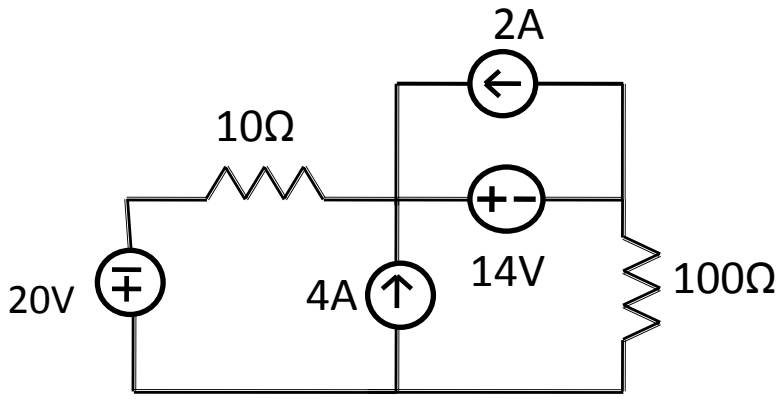
Sem – I **Subject: BASIC ELECTRICAL AND ELECTRONICS ENGINEERING** Max.Marks: 25
Date: 15-12-20 Duration: 1 hour

Read the following instructions for answering BEE IT I:

1. Students have to write the answers on plain paper. **Details like Name, Roll no, Subject and the students signature should be present on top corner of every page of answer sheet.**
2. After completing the paper, student has to scan and mail the answer paper in pdf format to **vh@aitdgoa.edu.in** within 1hour i.e. between 12:00 pm-0l:00 pm
3. The pdf file should be named as "**Students Roll No_Subject_IT1.pdf**" eg. "**20CO0l_BEE_IT1.pdf**". Tools like Cam scanner can be used for scanning the answer sheet.

Answer all Questions

1.	A resistance R is connected in parallel in a circuit comprising of 20Ω and 3Ω. The total power dissipated in the circuit is 1000W and the applied voltage is 250V. Calculate R. 	2	(CO1) (CO3)

2.	Find the loop currents using Mesh Analysis. 	5	(CO1) (CO3)
3.	Find the current through the 100Ω using superposition theorem. 	5	(CO1) (CO3)
4.	Explain PN junction diode characteristics with neat diagram. Differentiate between the avalanche and zener breakdown mechanism in a pn junction diode.	5	(CO1) (CO2)
5.	Obtain the expression for ripple factor and rectification efficiency of a full wave rectifier.	8	(CO1) (CO3)

Faculty Name

Vijaya Hadfadkar