National University of Modern Languages
(NUML)

Assignment # 02 Fall 2023

Date: -23-Oct- 2023

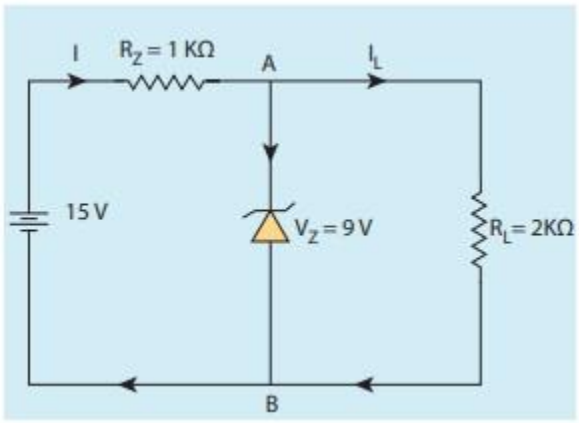
Program: Applied Physics Class & Section: BSCS-1

Course Code & Name: _____ Duration till: 27-Oct-2023

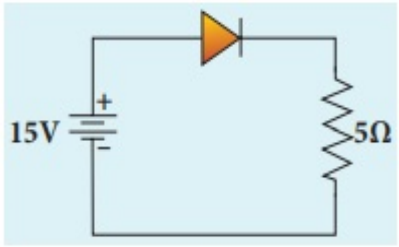
Instructor's Name: _____ Total Marks: 4 **Marks**

Attempt all questions:

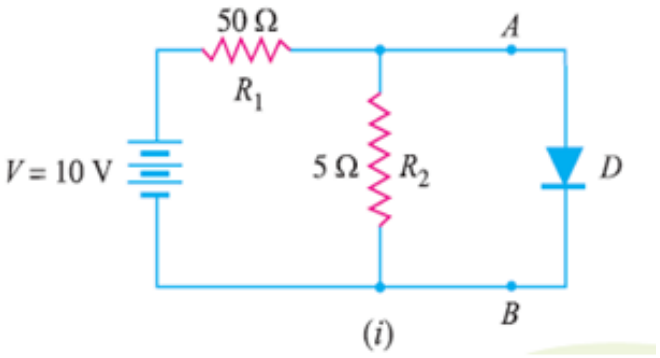
Q 1) : Find the current through the Zener diode when the load resistance is 1 KΩ. Use diode approximation. (**Mark 1**)



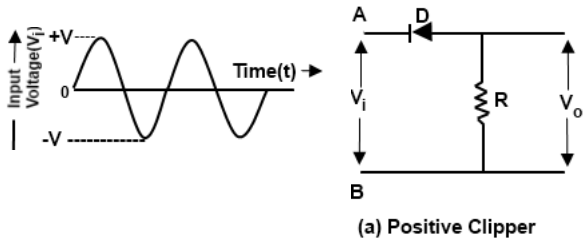
Q2): An ideal diode and a 5 Ω resistor are connected in series with a 15 V power supply as shown in figure below. Calculate the current that flows through the diode. (**Mark 1**)



Q3): Find the current through the diode in the circuit shown in Fig. Assume the diode to be ideal. **(Mark** 1**)**



Q4): Sketch the shape of the output voltage waveform for this ”clipper” circuit, assuming an ideal diode with no forward voltage drop: **(Mark** 1**)**



(a) Positive Clipper

***** Good Luck*********