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Department Of electrical and computer Engineering

ENEE2103 CIRCUITS AND ELECTRONICS LABORATORY

Experiment No.9 Prelab

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***I.ZENER DIODE.***

Part1:

Diagram

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Part2:

Diagram

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Part3:

Diagram, schematic

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With dc sweep and Vin=0



Vdc=10V and sweep the resistance

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***II. THE VOLTAGE REGULATED POWER SUPPLY.***

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VOUT=9.33V

V­IN=15V

V­­­Z=4.665V

V­OUT= 2\*V­Z

When I added the load resister to the output the output was=9.3295V

And the current output was=9.33mA

3.

A. for R=680 I got the same voltage for r=1k but the current was =13.72mA

B. for R=470 I got the same voltage for r=1k but the current was =19.85mA

C. for R=220 I got the same voltage for r=1k but the current was =42.41mA

D. for R=100 the PSpice can’t solve it due to low resistance

4. I got the same error for small values

Graphical user interface, text, application

Description automatically generatedGraphical user interface, text, application

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But I think it will be bigger, Vout> Vz

5. when R2=2.2k the output voltage were= 6.7851V

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7. I got the same error because of the 10ohm resister and I can’t calculate anything

8. the 10 ohm resister prevent me from calculating or adding any other component

A picture containing graphical user interface

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