

Course No: EQUP 2208  
Course Title: Electronics 1  
Date: 13 /03 /2017  
No. of Questions: (4)  
Time: 1 hours  
Using Calculator (Yes)

University of Palestine



Midterm Exam  
2016/2017  
Total Grade: 15

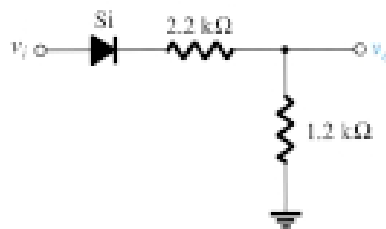
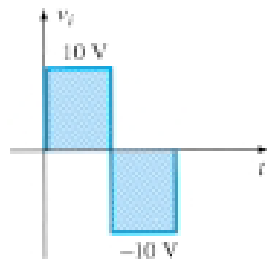
Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

**Question One:**

**10 Pts**

A) Compare the characteristics of silicon and a germanium diode and determine which you would prefer to use for most practical applications. 5 Pts.

B) Determine  $V_o$  of the following Fig. for the input shown. 5 Pts.



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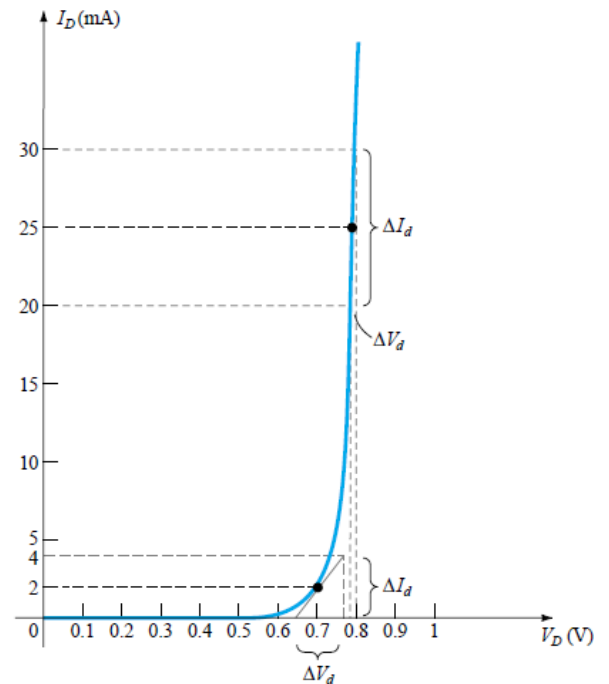


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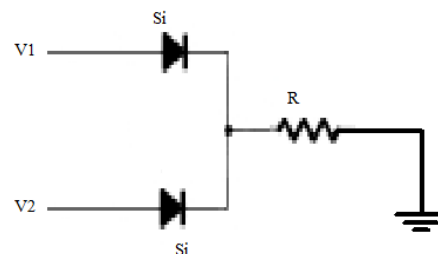
**Question Two: 10 Pts**

A) Determine the static or dc resistance of the commercially available diode of Fig. at a forward current of 2 mA. 5 Pts.



B) In the circuit below, determine the state of each diode "which diode conducts" for the following voltages:

- a)  $V_1 = 0, V_2 = 0.$
- b)  $V_1 = 0.7, V_2 = 0.$
- c)  $V_1 = 10, V_2 = 10.$
- d)  $V_1 = 0, V_2 = 10.$



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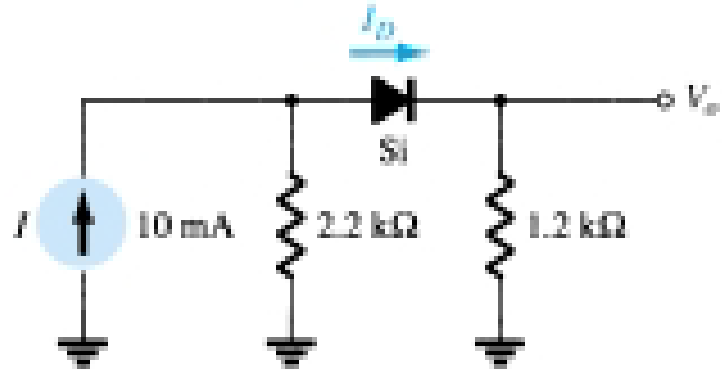
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**Question Three:**

**5 Pts**

Determine  $V_o$  and  $I_D$  for the networks of the following Fig.



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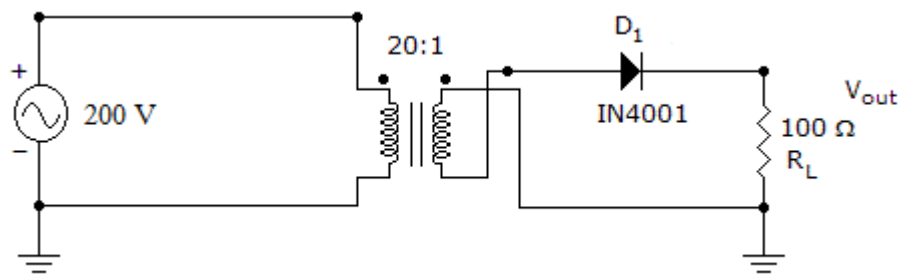
**Question Four:**

**5 Pts**

What is the output voltage for this half-wave rectifier?

What is the type of transformer?

Draw the output signal?



End of Questions  
*Good Luck*