Rajiv Gandhi University of Knowledge Technologies

Weekly Test 2 – Introduction to Electronics

Date: 25-08-2012 **Time:** 30 Min

Course: E2Sem1_(CSE-ECE) **Max Marks:** 10

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1. The ratio of the PIV's of "*centre tap rectifier*" to "*Bridge rectifier*" is.

(a) 2

(b) 1

(c) 0.5

(d) None of these

2. Find the current through the diode in mA, assume diode is ideal. Refer figure-2.

(a) 180

(b) 0

(c) 200

(d) 220

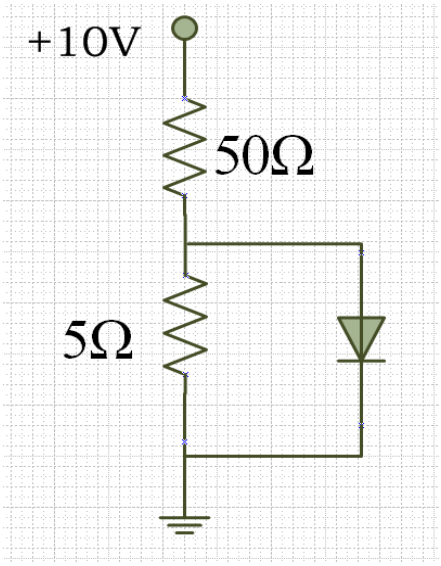

Figure-2

3. Find the current through the diode under steady state condition. Refer figure-3.

(a) 0.6 A

(b) 0 A

(c) 1 A

(d) 2 A

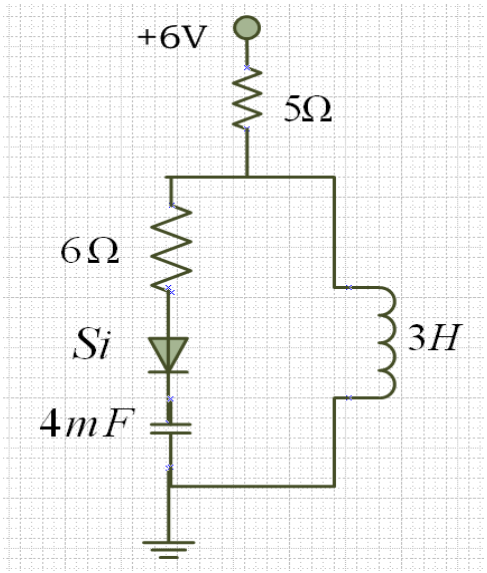

Figure-3

4. A HWR supplies $50V$ DC to a load of 800Ω, forward resistance of diode is 25Ω. Find input AC voltage (maximum value) required to achieve the given output.

(a) 50V

(b) 100V

(c) 162V

(d) 81V

5. Compute the PIV for the diode D_1 in the given circuit. Assume diodes D_1 and D_2 as ideal diodes. Refer figure-5.

(a) 10V

(b) -10V

(c) 0V

(d) 1V

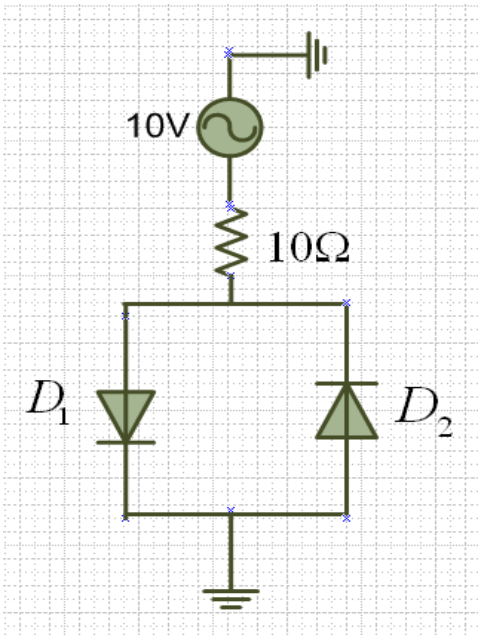

Figure-5

6. Ripple factor can be reduced in case of *"centre tap rectifier"* by which one of the following approach.

(a) Connecting capacitor in parallel with load resistor

(b) Connecting inductor in series with load resistor

(c) Both **a** & **b**

(d) None of these

7. Zener diode can be mostly used as.

(a) Voltage regulator

(b) Photodiode

(c) Rectifier

(d) Filter

8. Compute the ratio of RMS value of half wave rectified sinusoidal voltage and Average value of full wave rectified sinusoidal voltage.

(a) $\pi/4$

(b) $\pi/2\sqrt{2}$

(c) $\pi/2$

(d) $\pi/\sqrt{2}$

9. Which waveform has highest ripple factor.

(a) Pure sinusoidal waveform

(b) Triangular waveform

(c) Square waveform

(d) Full wave rectified sinusoidal waveform

10. Find the current through the 2Ω resistor in amperes. Assume all diodes are practical one and have zero forward resistance.

(a) 0

(b) 0.3

(c) 0.9

(d) 0.35

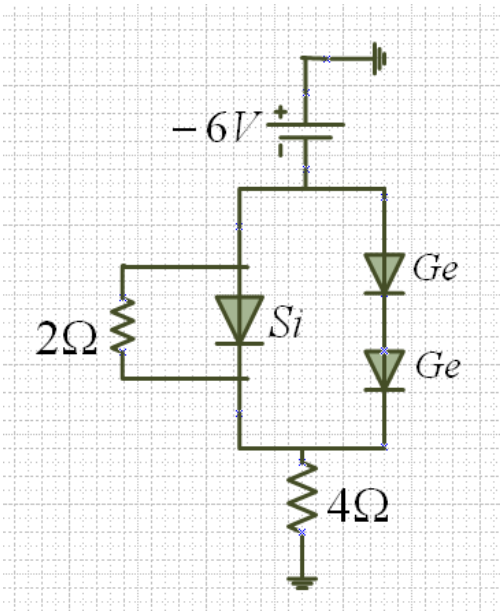

Figure-10

1. (a)

2. (c)

3. (b)

4. (c)

5. (c)

6. (c)

7. (a)

8. (a)

9. (a)

10. (b)