Started on	Thursday, 12 October 2017, 1:11 PM
State	Finished
Completed on	Thursday, 12 October 2017, 3:51 PM
Time taken	2 hours 40 mins
Grade	**10.0** out of 10.0 (**100**%)

Question 1

Correct

Mark 2.0 out of 2.0

Which of the following would cause the ripple voltage at the output of a power supply to increase?

Select one:

- a. Reducing the amplitude of the input voltage
- b. None of these ✓
- c. Increasing the size of the load resistance
- d. Increasing the size of the filter capacitor
- e. Increasing the frequency of the input voltage

The correct answer is: None of these

Correct

Marks for this submission: 2.0/2.0.

Question 2

Correct

Mark 2.0 out of 2.0

One of the most useful applications for diodes is in DC power supplies, which convert an AC input voltage into a DC output voltage.

Select one:

- (•) True ✓
- ( ) False

The correct answer is 'True'.

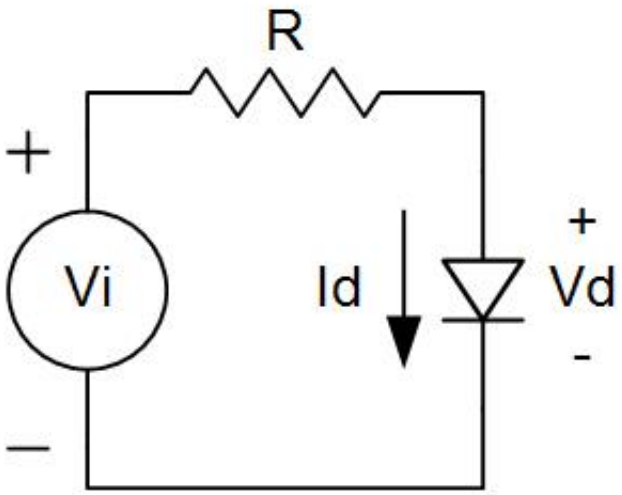
Correct

Marks for this submission: 2.0/2.0.

Question 3

Correct

Mark 2.0 out of 2.0



For the diode circuit shown, what will the small-signal resistance of the diode be in Ohms? To find the bias point needed for your small signal analysis use the constant voltage model for the diode with Vd = 789mV. Also use Vi = 11.4V, R = 6.9kΩ and Vt = kt/q = 26mV.

Answer: 16.91 ✓

The correct answer is: 16.9

Correct

Marks for this submission: 2.0/2.0.

Question 4

Correct

Mark 2.0 out of 2.0

Which of the following would cause the ripple voltage at the output of a power supply to increase?

Select one:

- a. Reducing the frequency of the input voltage ✓
- b. Increasing the size of the load resistance
- c. Increasing the size of the filter capacitor
- d. Reducing the amplitude of the input voltage
- e. All of these

The correct answer is: Reducing the frequency of the input voltage

Correct

Marks for this submission: 2.0/2.0.

Question 5

Correct

Mark 2.0 out of 2.0

Once a Zener diode breaks down in the reverse direction, the current through it only changes slightly as the voltage across it varies.

Select one:

- True
- False ✓

The correct answer is 'False'.

Correct

Marks for this submission: 2.0/2.0.