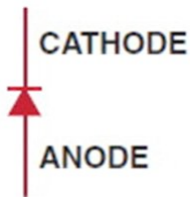


Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) To forward bias a silicon diode the _____. 1) _____
- A) voltage at the anode must exceed the voltage at the cathode by 0.5 to 0.7 volt
 - B) voltage at the cathode must exceed the voltage at the anode by 0.3 to 0.5 volt
 - C) voltage at the anode must exceed the voltage at the cathode by 0.3 to 0.5 volt
 - D) anode must be connected to a resistor (300–500 ohms) and 12.0 volts, with the cathode also connected to 12.0 volts

- 2) What does this symbol represent? 2) _____



- A) A diode
 - B) A relay
 - C) A zener diode
 - D) An LED
- 3) A transistor can _____. 3) _____
- A) switch on and off
 - B) amplify
 - C) throttle
 - D) do all of the above
- 4) It is OK to touch the terminals of electronic components as long as you are wearing leather shoes. 4) _____
- A) True
 - B) False
- 5) Clamping diodes _____. 5) _____
- A) are connected into a circuit with the positive voltage source to the cathode and the negative voltage to the anode
 - B) are called despiking diodes
 - C) can suppress transient voltages
 - D) are all of the above

- 6) A diode installed across a coil with the cathode toward the battery positive is called a(n) _____. 6) _____
- A) clamping diode
 - B) forward-bias diode
 - C) SCR
 - D) transistor
- 7) A DC-DC converter changes a DC voltage to a higher or lower AC voltage. 7) _____
- A) True
 - B) False
- 8) The arrow in a symbol for a semiconductor device _____. 8) _____
- A) points toward the negative
 - B) points away from the negative
 - C) is attached to the emitter on a transistor
 - D) Both A and C are correct.
- 9) N-type material is silicone doped with which of these? 9) _____
- A) phosphorous
 - B) arsenic
 - C) antimony
 - D) any of these
- 10) "Breakdown voltage" is the voltage at which a Zener diode will do which of these? 10) _____
- A) Allow reverse current to flow
 - B) Stop the flow of reverse current
 - C) Sustain damage as a result of current overload
 - D) Stop the flow of either forward or reverse current

Answer Key

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- 1) A
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- 2) A
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- 3) D
Page Ref: 554
- 4) B
Page Ref: 560
- 5) D
Page Ref: 549
- 6) A
Page Ref: 550
- 7) B
Page Ref: 558
- 8) D
Page Ref: 554
- 9) D
Page Ref: 546
- 10) A
Page Ref: 549