

## Module 05 Baseline Quiz

Read sections 9.1 - 9.6

1. If the current through a wire is moving from left to right, what directions are the electrons traveling?
  - a) Left to right.
  - b) Right to left
  - c) The electrons are not moving.
  - d) It depends on the material of the wire.
  - e) None of the above.
2. What is Ohm's Law?
  - a) A statement of the conservation of charge; total current into a junction must equal total current out.
  - b) It states that the resistance must always be positive.
  - c) It relates the current through a resistor to the potential difference across it
  - d) It states that power is always dissipated by a resistor
  - e) None of the above.
3. The current for a beam of protons will (circle all that are true)
  - a) be in the same direction as the protons' velocity
  - b) be in the opposite direction as the protons' velocity
  - c) depend on the spacing between the protons
  - d) depend on the speed of the protons
  - e) None of the above.
4. A 200 W blender uses 200 W of electricity when plugged into the wall (120 V). A 900 W blender uses... 900 watt. Which blender has a larger resistance?
  - a) 900 W
  - b) 200 W
  - c) they will have the same resistance.
  - d) it is not possible to tell.
  - e) None of the above.

5. 1. If a conductor is heated up, its resistance will:
  - a) Decrease
  - b) *I ncrease Stay the same.*
  - c) The resistance does not depend on temperature.
  - d) None of the above.
6. 'Drift Velocity' refers to:
  - a) The maximum velocity of free charges in a conductor.
  - b) The average velocity of all charges in conductor.
  - c) The maximum velocity of all charges in a conductor.
  - d) The average velocity of free charges in a conductor.
  - e) None of the above.
7. Which metal has a larger resistivity at 20 degrees Celsius, copper or silver?
  - a) copper
  - b) silver
  - c) they are the same
  - d) None of the above.
8. Which metal has a larger temperature coefficient, platinum or gold?
  - a) gold
  - b) platinum
  - c) they are the same
  - d) None of the above.
9. What is a kilowatt hour?
  - a) A unit of charge
  - b) A unit of current
  - c) A unit of energy
  - d) A unit of power
  - e) None of the above.