

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:

- Decrease
- Increase Stay the same.*

c) The resistance does not depend on temperature.

d) None of the above.

6. 'Drift Velocity' refers to:

- The maximum velocity of free charges in a conductor.
- The average velocity of all charges in conductor.
- The maximum velocity of all charges in a conductor.
- The average velocity of free charges in a conductor.
- None of the above.

7. Which metal has a larger resistivity at 20 degrees Celsius, copper or silver?

- copper
- silver
- they are the same
- None of the above.

8. Which metal has a larger temperature coefficient, platinum or gold?

- gold
- platinum
- they are the same
- None of the above.

9. What is a kilowatt hour?

- A unit of charge
- A unit of current
- A unit of energy
- A unit of power
- None of the above.