CASTLE Section 5 Quiz

This is a preview of the draft version of the quiz

Started: Apr 24 at 7:42am

Quiz Instructions

Question 1 — 1 pts

How does the current (aka 'flow rate of charge') in a parallel circuit divide?

- if the resistors on each branch are not identical, more charge flows through lowest resistance branch
- always equally
- if the resistors are not equal, more charge flows to the higher resistor's branch
- none of these

Question 2 — 1 pts

Two different circuits have two identical resistors and an identical battery, but one is configured as parallel while the other is series. Which will have the greatest charge flow rate through the battery?

- parallel
- series
- equal flow rate for both

Question 3 — 1 pts

Two different circuits have two identical resistors and an identical battery, but one is configured as parallel while the other is series. Which will have the greatest equivalent resistance?

- series
- parallel
- they have the same equivalent resistance

Question 4

1 pts

A battery supplies a constant current to a circuit regardless of the circuit's resistance.

- True
- False

Question 5

1 pts

For the life of a battery, it supplies a nearly constant electric pressure difference to a circuit when connected.

- True
- False

Question 6

1 pts

When resistors are in series, a difference in electrical pressure (aka Voltage) across resistors with varying levels of resistance is necessary to produce a constant charge flow rate (aka Current).

- True
- False

Question 7

1 pts

Adding a wire in parallel to a bulb results in a 'short circuiting' of the bulb and it will not light.

- True
- False

Question 8

1 pts

When two bulbs of unequal resistance are placed in series, the flow rate through the bulbs are _____.

- equal
- unequal
- impossible to know

Question 9

1 pts

When two bulbs of unequal resistance are placed in series, the electrical pressure (voltage drop) across the bulbs are _____.

- unequal
- equal
- impossible to know

Question 10

1 pts

When two bulbs of unequal resistance are placed in series, the bulb with _____ resistance is brighter.

- higher
- lower

Question 11

1 pts

When two bulbs of unequal resistance are placed in series, if one bulb lights but the other one does not, the one that does not light is not producing any heat or light.

- True
- False

Question 12

1 pts

If a bulb burns out that is placed in series with other bulbs in a circuit, the other bulbs will still light up.

- True
- False

Question 13

1 pts

Voltmeters should always be connected in parallel.

- True
- False

Question 14 1 pts

Ammeters should be placed in series.

- True
- False

Question 15 1 pts

Ammeters should have essentially zero resistance while voltmeters should have infinite resistance.

- True
- False

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