Blooket | Question Set - Answer Key

Name
Date
Class

Exercise: Dynamic Electricity

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1. **What is the unit of electric current?**

   a) Couloumb
   b) Ampere ✔
   c) Volt
   d) Ohm

2. **The formula Q=I×t is used to calculate:**

   a) Voltage
   b) Current
   c) Resistance
   d) Charge ✔

3. **Which of the following is necessary for current to flow in a circuit?**

   a) An open-loop circuit
   b) A battery and a switch ✔
   c) No potential difference
   d) Absence of resistance

4. **According to Ohm's Law, if voltage increases while resistance remains constant, the current will:**

   a) Increase ✔
   b) Decrease
   c) Remain the same
   d) Stop flowing

5. **In a series circuit, the current:**

   a) Is divided among the branches
   b) Has multiple paths to follow
   c) Is the same in all components ✔
   d) Depends on resistance only

6. **The total resistance in a series circuit can be calculated using:**

   a) V = I x R
   b) Q = I x t
   c) Rs= R1 + R2 ✔
   d) 1/Rp= 1/R1 + 1/R2

7. **Which device is used to measure the current in a circuit?**

   a) Volmeter
   b) Ammeter ✔
   c) Galvanometer
   d) Ohmmeter

8.

In a parallel circuit, the total resistance can be calculated using the formula:

a) $V=I \times R$

b) $1/Rp= 1/R1 + 1/R2$ ✔

c) $Rs= R1 + R2$

d) $Q=I \times t$

9. Kirchhoff's First Law states that:

a) Current is the same across all resistors

b) The total voltage in a closed circuit is zero

c) The sum of currents entering a junction equals the sum of currents leaving the junction ✔

d) Voltage remains constant across a junction

10. Which statement about the movement of charge is correct?

a) Negative charges move naturally along the electric field

b) Positive charges naturally move in the direction of the electric field ✔

c) Positive charges require work to move along the electric field

d) Work is never required to move charges

11. Find the total resistance in a parallel circuit if R1 = 8 Ω and R2 = 24 Ω.

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12. Find the total resistance in a simple circuit if R1= 27 Ω and R2= 36 Ω.

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6 Ohm or 6 Ω

63 Ohm or 63 Ω