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Series Circuits MCQ Test

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Below is the **Series Circuits MCQ** test that checks your basic knowledge of Series Circuits. This **Series Circuits MCQ Test** contains 20 Multiple Choice Questions. You have to select the right answer to the question. Finally, you can also take the Online Quiz from the Take **Series Circuits Quiz** Button.

Q1. A voltage across a series resistor circuit is proportional to?

- A. The power in the circuit
- **B. The value of the resistance itself**
- C. The amount of time the circuit was on for
- D. The value of the other resistances in the circuit

Q2. Many resistors connected in series will?

- A. Reduce the power to zero
- B. Divide the current proportionally
- **C. Divide the voltage proportionally among all the resistors**
- D. None of the above

Q3. What is the voltage measured across a series short?

- A. Null
- **B. Zero**
- C. Infinite
- D. The value of the source voltage

Q4. If the resistance total in a series circuit doubles, current will:

- A. be doubled
- **B. be halved**
- C. be the same
- D. None of the above

Q5. Power is defined as

- A. work
- B. joules
- **C. the rate at which work is done**
- D. the conversion of energy

Q6. A short circuit has

- **A. No resistance**
- B. No conductance
- C. Low current
- D. None of the above

Q7. In a series circuit, the voltage measured across a short will be

- **A. Zero volts**
- B. Source voltage
- C. Infinite voltage
- D. The normal voltage drop

Q8. The total resistance of a series circuit is equal to the average of all the resistance values.

- A. True
- **B. False**

Q9. Larger resistances drop larger voltages in a series circuit.

- **A. True**
- B. False

Q10. Batteries are generally connected in

- A. Parallel
- **B. Series**
- C. Either series or parallel
- D. None of the above

Q11. Which of the following is the most cost efficient connection?

- **A. Series**
- B. Parallel
- C. Either series or parallel
- D. None of the above

Q12. The individual powers are additive in a series circuit.

- **A. True**
- B. False

Q13. What is the smallest resistor value in a certain five-step R/2R ladder network?

- **A. 2 k?**
- B. 10 k?
- C. 20 k?
- D. None of the above

Q14. if a 6 v and a 9 v source are connected series aiding the total voltage is

- A. 3v
- B. 6v
- C. 9v
- **D. 15v**

Q15. if a 24 v and a 6 v battery are series opposing the total voltage is

- **A. 18 V**
- B. 24 V

- C. 30 V
- D. None of the above

Q16. All the voltage drops and the source voltage added together in a series circuit is equal to

- **A. Zero**
- B. The source voltage
- C. The total of the voltage drops
- D. None of the above

Q17. When one of three series resistors is removed from a circuit and the circuit is connected, the current

- **A. Increases**
- B. Increases by one-third
- C. Decreases by one-third
- D. None of the above

Q18. Is the voltage the same in a series circuit?

- **A. Yes**
- B. No

Q19. A string of resistors in a series circuit will:

- A. Reduce the power to zero
- B. Cause the current to divide
- C. Divide the source voltage in proportion to their values
- **D. None of the above**

Q20. What happens if the series current doubles?

- A. Voltage is doubled
- B. Voltage is reduced
- **C. Resistance is halved**
- D. Resistance is doubled