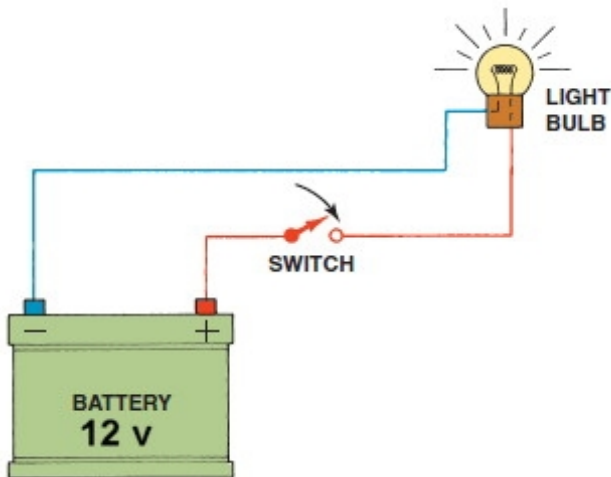


MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) If two insulated wires were to melt together where the copper conductors touched each other, the type of failure would be called a(an) _____. 1) _____
 A) Floating ground B) Short-to-voltage
 C) Open D) Short-to-ground
- 2) An open circuit _____. 2) _____
 A) May be caused by high resistance B) May be caused by a blown fuse
 C) Both A and B D) Neither A nor B
- 3) In an open circuit _____. 3) _____
 A) No voltage is present B) No current will flow
 C) Both A and B D) Neither A nor B
- 4) A complete circuit that is continuous from source through loads and back to ground has _____. 4) _____
 A) Congruency B) Continuity C) Both A and B D) Neither A nor B
- 5) A complete circuit has _____. 5) _____
 A) A return path B) A power side electrical path
 C) An electrical load device D) All of the above
- 6) The bulb in this circuit has a resistance of 50 ohms. How much current will flow when the switch is closed? 6) _____

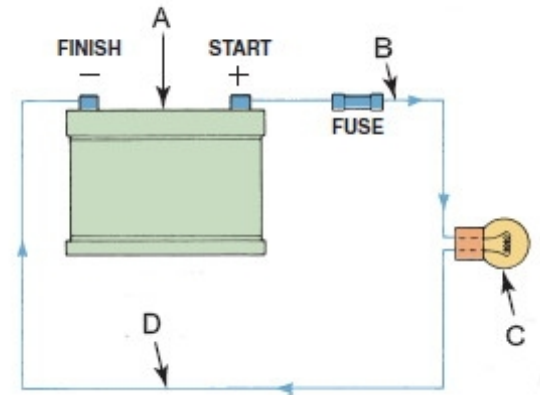


- A) Not enough information B) 0.24 amps
 C) 24 amps D) 4.167 amps
- 7) It requires _____ volt(s) to push 1 ampere through 1 ohm of resistance. 7) _____
 A) 2 B) 1 C) 12 D) None of these
- 8) A circuit with a short to voltage may cause _____. 8) _____
 A) Improper operation of loads in the circuit B) Other circuits to malfunction
 C) Both A and B D) Neither A nor B

- 9) In a circuit with high resistance _____.
- A) No electrical device will function
 B) Electrical loads may still operate but less efficiently
 C) Both A and B
 D) Neither A nor B
- 9) _____
- 10) High resistance in a circuit _____.
- A) Reduces current flow through the circuit
 B) May cause a fuse to blow
 C) Both A and B
 D) Neither A nor B
- 10) _____
- 11) Corrosion on electrical terminals may cause _____.
- A) Lights to be dimmer than normal
 B) Increased current flow in the circuit
 C) Both A and B
 D) Neither A nor B
- 11) _____
- 12) If 200 amperes flow from the positive terminal of a battery and operate the starter motor, how many amperes will flow back to the negative terminal of the battery?
- A) Cannot be determined
 B) Zero
 C) About one-half (100 amperes)
 D) 200 amperes
- 12) _____
- 13) If 12 volts are being applied to a resistance of 3 ohms, _____ amperes will flow.
- A) 3
 B) 36
 C) 12
 D) 4
- 13) _____
- 14) A vehicle circuit is powered by 12 volts. The technician measures 1 amp of current flow. What is the resistance of the circuit?
- A) 10 ohms
 B) 0.08 ohms
 C) 12 ohms
 D) 1 ohm
- 14) _____
- 15) A resistance of 2200 ohms is the same as _____.
- A) 2200000 ohms
 B) 220 ohms
 C) 2200 volts
 D) 2.2KΩ
- 15) _____
- 16) An electrical protection device is usually a(an) _____.
- A) Electrical load device
 B) Switch
 C) Wire
 D) Fuse
- 16) _____
- 17) A circuit with excessive current flow _____.
- A) May create excess heat in conductors
 B) May cause a fuse to blow
 C) Both A and B
 D) Neither A nor B
- 17) _____

18) Which component in this electrical circuit is considered the "load"?

18) _____



A) B

B) D

C) C

D) A

19) A loose ground connection _____.

19) _____

- A) Causes less power to be available to the electrical components
- B) Causes reduced current flow
- C) Both A and B
- D) Neither A nor B

20) A sheet metal screw holding a metal body panel has pierced the insulation of a wire and is touching the copper wire. This would cause a _____.

20) _____

- A) Short to power
- B) Short to ground
- C) High resistance
- D) None of these

21) High resistance in an electrical circuit can cause _____.

21) _____

- A) Dim lights
- B) Clicking of relays or solenoids
- C) Any of the above
- D) Slow motor operation

22) If the voltage increases in a circuit, what happens to the current (amperes) if the resistance remains the same?

22) _____

- A) Cannot be determined
- B) Remains the same
- C) Increases
- D) Decreases

23) A shorted circuit _____.

23) _____

- A) Could cause an open circuit
- B) Always causes the fuse to blow
- C) Both A and B
- D) Neither A nor B

24) The electrical path to ground may be completed by _____.

24) _____

- A) The vehicle frame
- B) The metal body of the vehicle
- C) Both A and B
- D) Neither A nor B

25) What is the symbol for voltage used in calculations?

25) _____

- A) R
- B) EMF
- C) I
- D) E