

True/False Questions

1. T /F_____ The amount of electricity used in solderless breadboards (max voltage 5V) can cause a heart attack?

True **False**

2. T /F_____ The function of a fuse or circuit breaker is to interrupt the flow of electricity if the circuit becomes "overloaded"?

True **False**

3. T /F_____ The purpose of the "third wire" on a three-pronged plug is to "ground" leaking or stray electricity?

True **False**

4. T /F_____ A person usually offers the most resistance to electricity?

True **False**

5. T /F_____ When you unplug a tool, you should pull the electrical cord?

True **False**

6. T /F_____ You should never leave a running machine unattended, however, you can leave powered breadboard unattended because there is no moving parts there?

True **False**

7. T /F_____ You do not need to wear eye protection when using a powered breadboards.

True **False**

Multiple choice questions

8. Which of the following problems can faulty electrical equipment cause?

A. Shock.
B. Fire.
C. Explosion.
D. All of the above.

9. Which statement is TRUE about low voltage circuits (5 - 9 V)

A. At low voltages (5-9V), the major risk is the risk of burns from high current short circuits.
B. Electrical circuits with low voltages (5-9V) cannot cause short circuits, because the voltage is too low.
C. Even low voltages (5-9V) circuit can supply 20 amps of current ,that is why there is a major risk for human to get heart attack or shock.
D. All of the above.

10. The ratings for four typical domestic appliance fuses are given below. Which is the **safest fuse** to use for an appliance with a normal **operating current of 2A**?
- A. 13A
 - B. 3A**
 - C. 8A
 - D. 5A
11. Which statement is **TRUE** about mains electricity in our classroom?
- A. The voltage is a little bigger than a battery
 - B. Wet skin has a bigger resistance than dry skin
 - C. The current flow is usually similar to triple batteries in a torch
 - D. A fuse should melt if a significantly higher than normal current flows**
12. Which of the following statements is **NOT** correct?
- A. Electricity always travels to ground.**
 - B. Electricity tries to travel to ground.
 - C. Electricity takes the path of least resistance.
 - D. Electricity travels in a complete circuit.
13. A current even as low as _____ can be felt by the body.
- A. 1 Amp
 - B. 6 Volts
 - C. 1 mAmp**
 - D. 6 Ohms
14. Which part of the human body offers the most resistance to electricity?
- 1. Fingers
 - 2. Toes
 - 3. Wet skin
 - 4. Thick and/or dry skin**
15. The greater the body's resistance to electricity, the _____ amount of harm to the person.
- A. Less**
 - B. Greater
 - C. Resistance has no effect on electricity
 - D. Equal
16. Which of the following are electrical hazards?
- A. Flammable materials near electrical equipment and/or static electricity
 - B. Damaged insulation on wires, broken plugs, and overheated appliances
 - C. Overloaded circuits
 - D. All of the above are electrical hazards.**
 - E. Only A and B are electrical hazards.**
 - F. Only B and C are electrical hazards.**