

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Tools and Safety Quiz (Answer Key)

1. Why is safety important in an engineering lab?
  - a. There are often power tools and heavy machines being used.
  - b. There can be many potential fire hazards.
  - c. Hand tools and electronics can be dangerous if used improperly.
  - d. All of the above.**
2. When must you follow safety rules?
  - a. Only when a teacher tells me to.
  - b. Only when my robot is on and being tested.
  - c. Only when I'm using power tools.
  - d. All the time.**
3. What clothing is acceptable to wear in an engineering lab?
  - a. Shorts and flip-flops.
  - b. A hoodie with long sleeves.
  - c. Long pants and closed-toe shoes.**
  - d. Jewelry, Laniards, or other dangling accessories.
4. What must you immediately report to your teacher?
  - a. Hazards.
  - b. Unsafe work conditions.
  - c. Accidents or injuries.
  - d. All of the above.**
5. When are you allowed to work on a robot?
  - a. When the robot is on and idling.
  - b. When the robot is off and is sitting on a table or workbench.**
  - c. When the robot is on and being used for testing.
  - d. When the robot is off and is in the testing area.
6. What must you do before beginning to test your robot?
  - a. I must alert anyone around my robot that I will be testing.
  - b. I must stay a safe distance away from my robot.
  - c. I must move the robot to a safe testing location.
  - d. All of the above.**
7. If a part of your robot is getting overly hot during testing, what do you do?
  - a. I do nothing and continue testing.
  - b. I leave the robot on but stop testing.
  - c. I turn the robot off and give the robot a break.**
  - d. I turn off the robot, remove the overheating part, and throw it away.
8. If a part of your robot is smoking, sparking, or giving off a strange smell during testing, what do you do?
  - a. I immediately turn off the robot and alert my teacher.**
  - b. I alert my teacher but leave the robot on.
  - c. I turn the robot off but don't alert my teacher.
  - d. I do nothing and continue testing.

9. What can you do with your robot while it is turned on?
- a. **I can test my robot.**
  - b. I can work on the structure of my robot.
  - c. I can work on the electronics of my robot.
  - d. I can do all of the above.
10. If your hardware is damaged, what should you do?
- a. I should keep using the hardware.
  - b. I should take it upon myself to find new hardware.
  - c. **I should alert my teacher and have them replace it.**
  - d. I should steal hardware from my neighbors.
11. Which of the following is not an example of a hand tool?
- a. A hammer.
  - b. **A drill.**
  - c. A screwdriver.
  - d. Pliers.
12. Which of the following tools could be used in place of a hammer?
- a. A drill.
  - b. A wrench
  - c. Pliers
  - d. **No other tool should be used in place of a hammer.**
13. Why are power tools dangerous?
- a. **Power tools are faster and more powerful than hand tools.**
  - b. Power tools are heavy and can crush your fingers.
  - c. Power tools have sharp blades that can cut you.
  - d. Power tools aren't dangerous.
14. Which piece of protective gear must you wear when using power tools?
- a. A pair of protective gloves.
  - b. **A pair of safety goggles.**
  - c. A dust mask.
  - d. A hard hat.
15. Which of the following correctly lists the tools included in your Robits kit?
- a. Wrench, screwdriver, pliers.
  - b. Allen key, screwdriver, hammer.
  - c. Allen key, wrench, screwdriver.
  - d. **Wrench, Allen key, hex driver.**