**NRG 948** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2015 Written Drive Test**

Which drive positions interest you? Circle all that apply.

Primary Driver Manipulator Human Player

**Choose one answer for each question.**

**PART I: Safety**

1. Drive teams know that it is appropriate to enter the field to set their robot up when:
   1. The robots from the previous match have stopped moving.
   2. A green light turns on over the driver stations.
   3. Other teams enter the field.
   4. All four members and the robot are at the side of the field and ready.
   5. None of the above
2. Which of the following is permitted on the game field between matches?
   1. Standing on the step in the middle of the field to wave to your parents.
   2. Sitting on a tote to help you to better line up the robot.
   3. Dancing to the song “YMCA” if there is a dance break
   4. Quietly cutting a few wires on an opponent’s robot
   5. None of the above.
3. While setting up and driving the robot, all drive team members must wear:
   1. Safety goggles
   2. Hard Hats
   3. Their Red Jumpsuits
   4. All of the above
   5. None of the above
4. During a match, a foul will be called for:
   1. Sticking your arm through the noodle hole
   2. Throwing a tote to another alliance member
   3. Grabbing a noodle off the field that you accidently dropped
   4. All of the above
   5. None of the above

**Part II: Setting up for a match**

1. As you enter the game arena with the robot, you may:
   1. Enter from either entry gate.
   2. Use a tether to drive your robot into position.
   3. Start as soon as the previous match comes to an end.
   4. None of the Above
   5. All of the above
2. While setting your robot into position, you may NOT:
   1. Precisely line your robot up in the desired position.
   2. Discuss placement with alliance partners
   3. Move yellow totes so that they are placed in the robot’s favorite spot.
   4. All of the above.
   5. None of the above.
3. While setting up your robot, you must:
   1. Move quickly and efficiently.
   2. Place your robot in the ideal position.
   3. Greet the referee.
   4. All of the above.
   5. None of the above.
4. Your robot’s “ready to start” position may not
   1. Be in the auto-zone
   2. Be in the landfill area
   3. Include holding a game piece
   4. All of the above
   5. None of the above

**III. Autonomous Phase**

1. During autonomous, players may
   1. Step close to the consoles for a good view
   2. Move totes next to the chutes
   3. Discuss strategy
   4. All of the above
   5. None of the above
2. What are the autonomous points if an alliance does all of the following:

* Gets all three yellow totes into the auto zone, two stacked and one standing alone
* Gets two of the three recycling bins into the auto zone
* Gets all three robots into the auto zone
  1. 6
  2. 9
  3. 10
  4. 12
  5. None of the above

1. What are the autonomous points for an alliance that does all of the following:

* Gets all three yellow totes into the auto zone, with a bin on top.
* Gets the other two bins into the auto zone, lying on their sides.
* Stacks two gray bins in a scoring zone – stacked.
* Leaves one robot in the auto zone
  1. 20
  2. 24
  3. 28
  4. 34
  5. None of the above

1. The autonomous period lasts
   1. 10 seconds
   2. 15 seconds
   3. 20 seconds
   4. 25 seconds
   5. None of the above

**IV. Tele-op play**

1. The human player
   1. Is the only one who can touch game pieces
   2. May hold a tote chute open for an alliance partner’s human player
   3. May move around to the side of the field to better place totes
   4. All of the above
   5. None of the above
2. Humans throwing game pieces:
   1. Totes may never be thrown – ever.
   2. Noodles may be thrown by the human player.
   3. Coaches may not throw any game pieces.
   4. All of the above
   5. None of the above.
3. Robots throwing game pieces over the step:
   1. Totes may be thrown.
   2. Noodles may be thrown.
   3. Bins may be thrown.
   4. All of the above
   5. None of the above
4. Where can gray totes be stacked in order to score points during teleop?
   1. The step
   2. The landfill
   3. The scoring platform
   4. All of the above
   5. None of the above
5. Where can recycling containers be set to score points?
   1. Directly on the step
   2. The step on top of a tote
   3. Directly on a scoring platform
   4. All of the above
   5. None of the above
6. Where can pool noodles be placed to score points?
   1. Loose in the landfill
   2. In a recycling bin in the landfill
   3. In a recycling bin on a scoring platform (no tote)
   4. All of the above
   5. None of the above
7. What is the minimum number of totes our alliance must contribute to a coopertition stack?
   1. Zero
   2. One
   3. Two
   4. Three
   5. Four
8. For a coopertition stack, our alliance places three yellow bins on the stack and the other alliance stacks one more on top of it. How many points does each alliance get?
   1. No points are awarded for the match: Coopertition is scored seperately
   2. 30 for our alliance, 10 for theirs
   3. 20 for each alliance
   4. 40 for each alliance
   5. None of the above
9. If the other alliance sets a stack of three yellow totes on the coopertition step and we set a stack of two yellow totes next to it, what is our alliances coopertition score?
   1. 10 for each alliance
   2. 30 for their alliance, 20 for our alliance
   3. 30 for their alliance, 10 for our alliance
   4. 20 for each alliance
   5. None of the above
10. How many points is this worth if stacked in a single stack on a scoring zone during teleop:

3 gray totes; 1 recycling bin, 1 pool noodle in a recycling bin

* 1. 12
  2. 18
  3. 24
  4. 30
  5. None of the above

1. How many points is this worth if stacked in a single stack on a scoring zone during teleop:

6 gray totes; 1 recycling bin

* 1. 18
  2. 24
  3. 30
  4. 36
  5. None of the above

1. How many points is this worth if stacked in a single stack on a scoring zone during teleop:

8 gray totes; 2 recycling bins (side-by-side on top of the 8 totes), 1 pool noodle in one of the recycling bins

* 1. 60
  2. 66
  3. 72
  4. 80
  5. None of the above

**V. Post game**

1. Once you are cleared to enter the field after a match, how much time do you have to clear your robot?
   1. 30 seconds
   2. 60 seconds
   3. 90 seconds
   4. 120 minutes
   5. No specific time, just be quick about it.