Curriculum Pre/Post Test Unit 5

1. The best way to design a VEX robot is to pick up the tools and materials and start building.

A. True
B. False

2. Which of the following steps of the Engineering Design process is not considered part of strategic design?

A. Understand
B. Define
C. Explore
D. Ideate

3. Design tradeoffs should be made on _____ when designing a competitive robot.

A. Aesthetics
B. Design elegance
C. A winning strategy
D. Shock value

4. Which of the following is not a good way to analyze the game?

A. Determine different ways to score points
B. Determine different way to stop opponents from scoring points
C. Determine the maximum score in a match
D. Determine which team has the fastest robot

5. If a goal can only hold 10 balls and there are 20 balls on the field, each scored ball is worth 5 points, what is the max score of the game?

A. 25
B. 50
C. 75
D. 100

6. What is term used for the comparison between the level of task difficulty and benefit gained from successfully completing the task?

A. Risk analysis
B. Cost benefit analysis
C. Objective analysis
D. Strategic analysis

7. Speed, Power, Agility, Low Center of Gravity are examples of what?
A. Robot Qualities
B. Robot Functionalities
C. Robot Behaviors
D. Robot Abilities

8. An example of a robot functionality would be:
A. Speed
B. Picking up an object
C. Power
D. Large wheels

9. Which of the following is not a factor when doing a cost benefit analysis?
A. How much the crowd will cheer
B. How long it takes to complete a task
C. The precision required for the task
D. How much distance does it take to do the task

10. Prioritization of tasks requires two separate lists to be made: one list of qualities and one list of____?
A. Strengths
B. Achievements
C. Functionalities
D. Drive Train Designs