

(These items were developed by teachers for the Technical Skills Assessment. Below is a sample item for each program standard.)

Question 1 of 13

Who is responsible for the death of a human if a teleoperated robot was involved and mechanical design or software failures were NOT identified?

- A) Designer
- B) Manufacturer
- C) Owner
- D) Operator

Question 2 of 13

How many connections are REQUIRED between analog ground and digital ground in a single circuit?

- A) Three
- B) None
- C) Two
- D) One

Question 3 of 13

What material property has the MOST influence on a robot in transporting a payload?

- A) Strength
- B) Density
- C) Luminosity
- D) Speed

Question 4 of 13

What program module is NOT a component of a typical PLC?

- A) I/O
- B) Animation
- C) Input
- D) Memory

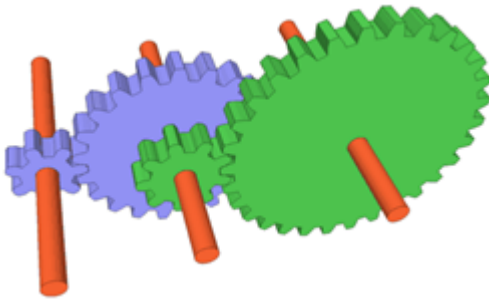
Question 5 of 13

What is the MAIN focus when designing a new system?

- A) Maintenance
- B) Speed
- C) Safety
- D) Strength

Question 6 of 13

The left rear gear is the input and the right forward gear is the output. What impact does this gear ratio have?



- A) Increase speed
- B) Increase power
- C) Increase torque
- D) Increase pressure

Question 7 of 13

Which view gives the BEST representation of an object from all angles?

- A) Side
- B) Geometric
- C) Isometric
- D) Front

Question 8 of 13

What is the mechanical advantage of a robotic arm (lever) that requires an input force of 10 pounds and can lift an object that weighs 40 pounds if using the formula "mechanical advantage equals output force/input force?"

- A) 4
- B) .4
- C) 40
- D) 400

Question 9 of 13

What is this connector? (Shared via Google Drive)



- A) Centronics
- B) Parallel
- C) SCSI
- D) USB

Question 10 of 13

What type of sensor is NOT used to detect force?

- A) Strain gauge
- B) Scale
- C) Torque sensor
- D) Thermocouple

Question 11 of 13

What machine is used for subtractive manufacturing?

- A) 3D printer
- B) Injection molding
- C) Resin printer
- D) CNC

Question 12 of 13

What Computer-Aided Design (CAD) is used to develop a robotics application?

- A) Microsoft
- B) PLC
- C) SolidWorks
- D) Java

Question 13 of 13

What OSHA Safety Awareness Fundamentals (SAF) component works BEST with safety gate relays?

- A) Soft starter
- B) Start relay
- C) E-stop buttons
- D) AC stop

Automation and Robotics Sample Test Answer Key

Question	Answer
1.	D
2.	D
3.	A
4.	B
5.	C
6.	C
7.	C
8.	A
9.	D
10.	D
11.	D
12.	C
13.	C