

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

Question 1 of 7

If a company builds a bridge knowing that it has a high probability of failure, what fundamental responsibility is that company neglecting?

-
- ☐ **A)** Labor law
 - ☐ **B)** Pride in workmanship
 - ☐ **C)** Project management
 - ☐ **D)** Ethical conduct

Question 2 of 7

What is the act of repeating a process to reach a desired goal or target?

-
- ☐ **A)** Analysis
 - ☐ **B)** Iteration
 - ☐ **C)** Research
 - ☐ **D)** Resolution

Question 3 of 7

Using the formula below, what is the circular pitch (P) of a gear that has 32 teeth and a diameter of 4 inches?

$$\frac{\pi D}{N} = P$$

- ☐ A) 0.32
- ☐ B) 0.25
- ☐ C) 0.39
- ☐ D) 0.27

Question 4 of 7

What factor may change the electrical resistance of a copper wire?

- ☐ A) Temperature
- ☐ B) Malleability
- ☐ C) Color
- ☐ D) Elasticity

Question 5 of 7

What does a caliper measure?

- ☐ A) Mass
- ☐ B) Electricity
- ☐ C) Length
- ☐ D) Volume

Question 6 of 7

Which team strategy involves collecting ideas and feedback from all members?

- ☐ A) Critical thinking
- ☐ B) Collaboration
- ☐ C) Analytical thinking
- ☐ D) Project implementation

Question 7 of 7

What tool can assist in managing a "just in time" manufacturing process to ensure that all products and processes happen on time?

- ☐ A) Gantt chart
- ☐ B) Mind mapping
- ☐ C) Online timers
- ☐ D) Scatter plot

Engineering Sample Test Answer Key

Question	Answer
1.	D
2.	B
3.	C
4.	A
5.	C
6.	B
7.	A