# Unit 1 Test

**Directions:** Select the best answer to each question below.

Learning Cycle 1. The History of Technology

1. Comparing tools made of stone, iron, and bronze: place them in the correct order from least to most durable.

a. Stone, iron, bronze

b. Iron, bronze, stone

**c. Stone, bronze, iron**

d. Bronze, stone, iron

2. Today, the development of tools and machines is based on scientific knowledge and engineering design; however, early in the history of technology, the development of tools and machines was based on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. Technology and mathematics principles

b. The Engineering Design Process

**c. Technical know-how**

d. Positive and negative effects of using technology

3. What is the most significant result based on the development of windmills and waterwheels?

a. The rise and fall of feudalism

b. Humans no longer had to use their muscle to move machines

c. Popularity of money and capitalism

**d. Beginning of mechanical labor**

4. Television is a technological development that occurred during the \_\_\_\_\_\_\_\_.

a. Renaissance

**b. Industrial Age**

c. Paleolithic Age

d. Information Age

5. The microscope is a technological development that occurred during the

**a. Renaissance**

b. Industrial Age

c. Paleolithic Age

d. Information Age

6. Digital photography is a technological development that occurred during the

a. Renaissance

b. Industrial Age

c. Paleolithic Age

**d. Information Age**

7. The printing press is a technological development that occurred during the

**a. Middle Ages**

b. Renaissance

c. Industrial Age

d. Information Age

Learning Cycle 2. Inventions and Innovations: An Evolutionary Process

1. The rate of technological development is \_\_\_\_\_\_\_\_\_\_.

a. Rapidly decreasing

**b. Rapidly increasing**

c. Slowly increasing

d. Slowly decreasing

2. A new and useful tool or process is called an \_\_\_\_\_\_\_\_\_\_?

**a. Invention**

b. Innovation

c. Culture shift

d. Technology transfer

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a series of refinements to an original idea or product.

a. Technology transfer

b. Invention

**c. Innovation**

d. Culture shift

4. What event from the early 1900s had the most significant impact on the development of technology?

a. The development of mechanical labor

**b. The development of the assembly line**

c. The development of steam power

d. The development of electricity

5. Most development of technologies these days is driven by \_\_\_\_\_\_\_\_.

a. Politics

**b. Profit motives**

c. Morals

d. Ethics

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ allow companies and individuals to protect their product designs from being copied and produced without their permission.

**a. Patents**

b. Trademarks

c. Lawsuits

d. Original sketches

Learning Cycle 3. The Role of Research and Development

1. Specific, goal-directed research conducted by a company to design new innovations is called \_\_\_\_\_\_\_\_\_.

a. Engineering design

**b. Research and development**

c. Technical know-how

d. Technology transfer

2. Research and development is used for the following purposes:

a. To reverse-engineer a product and to develop new products

b. To reverse-engineer a product and discover new scientific/technical knowledge

**c. To develop new products and discover new scientific/technical knowledge**

d. To develop new products and improve a company’s operations

3. Product design/development is driven by the \_\_\_\_\_\_\_\_\_\_\_ or the needs of the intended consumer.

a. Consumer

**b. Market**

c. School

d. Company

4. Research and Design is often broken into two categories.

a. Control and Not-controlled

b. Consumer and Non-Consumer

**c. Non-experimental and Experimental**

d. Trend and Fad

Learning Cycle 4. Advertising and Marketing Effects on Technology

1. Which of the following does not contribute to the success or failure of a product?

a. Strength of the economy

b. Latest fads

c. Advertising

**d. Environment**

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is when a designer must make a choice between positive and negative impacts for a product.

a. Principles of design

b. Marketing

**c. Trade-off**

d. Sketching

3. Science, technology, engineering, and mathematics are so closely related that progress in one area often \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. Stunts progress in other areas

b. Stunts progress in one but not all other areas

**c. Promotes advancements in all other areas**

d. Promotes advancement in one other area but not others