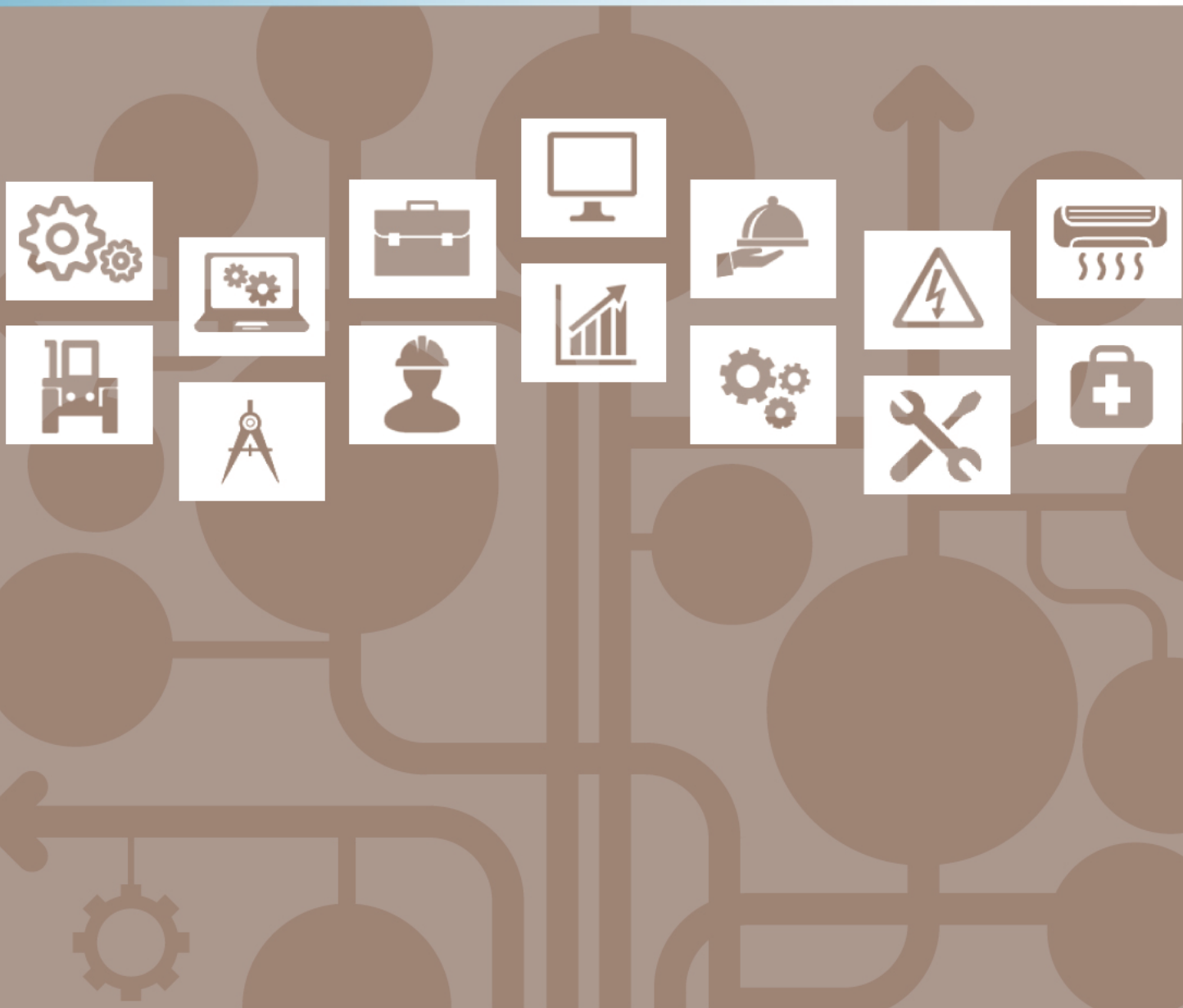




Entry Level Assessment Blueprint

Engineering Technology Foundations



Test Code: 1092 / Version: 01

Specific Competencies and Skills Tested in this Assessment:

Engineering Career Awareness

- Describe engineering fields
- Identify job functions in engineering
- Describe ethics related to engineering

Safety

- Explain and demonstrate the proper use of personal protective equipment (PPE)
- Discuss engineering safety

Teamwork

- Identify the roles and responsibilities of engineering design team members
- Identify characteristics of an effective design team

Materials

- Select the correct materials and components for specific functions
- Test materials for specific characteristics

Production Process

- Explain quality control
- Identify engineering measurement tools and instruments
- Identify statistical process controls



Software

- Discuss word processing and presentation software
- Describe and demonstrate the process for using CAD in a design solution
- Identify and interpret spreadsheet data for engineering applications

Specific Competencies and Skills continued

Engineering Principles

- Describe statics principles in engineering
- Describe mechanical systems principles
- Describe electricity principles
- Identify components and applications of fluid power principles
- Describe principles and applications of thermodynamics

Design Process

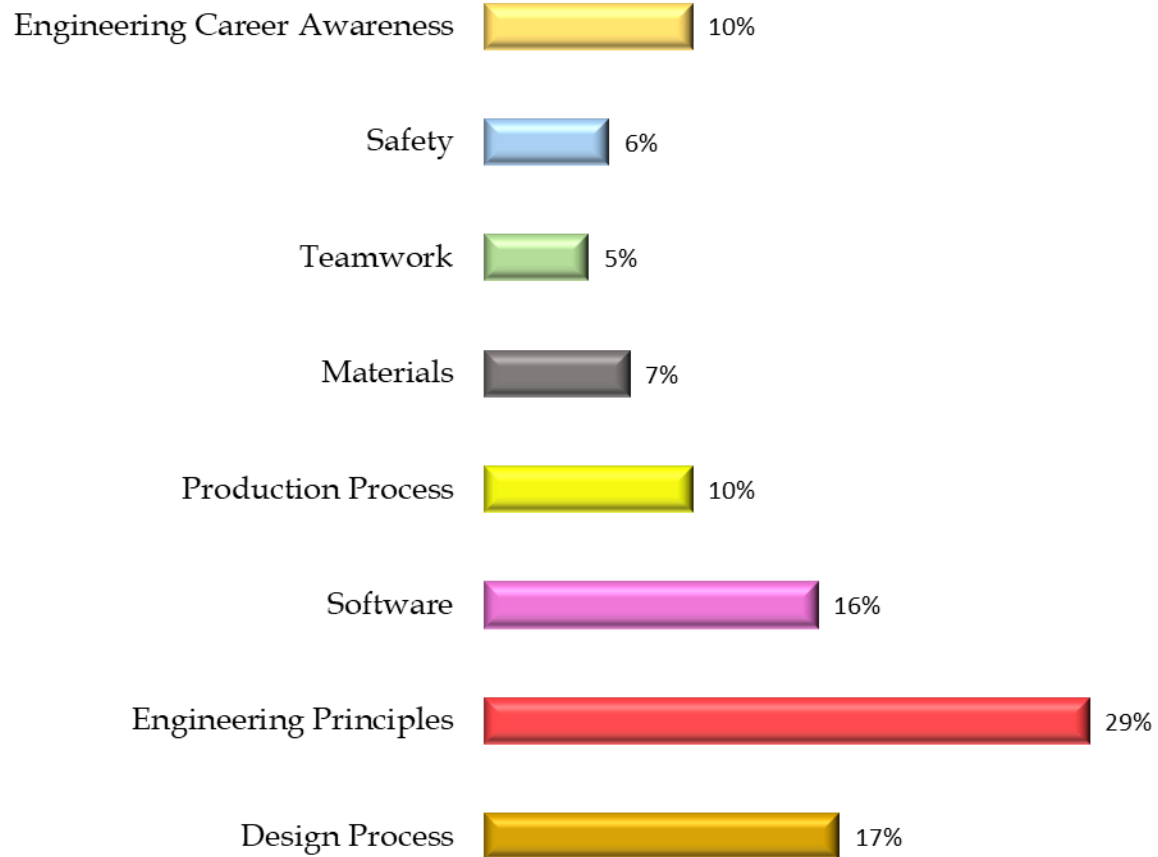
- Identify the components of the design process
- Identify the elements of a well-written problem statement
- Describe the process of brainstorming
- Build a prototype from working drawings using appropriate materials
- Test prototype to defined criteria

Written Assessment:

Administration Time: 2 hours

Number of Questions: 82

Areas Covered:



Sample Questions:

An engineer who deals with surveying is called a/an _____ engineer.

- A. mechanical
- B. electrical
- C. industrial
- D. civil

The amount that a dimension may vary is called

- A. leeway
- B. clearance
- C. tolerance
- D. variability

To double the size of an object in a CAD drawing, use the _____ command.

- A. query
- B. scale
- C. find
- D. search

The AC voltage wave form is called a _____ wave.

- A. cosine
- B. full
- C. half
- D. sine

The original sample of a product or process used in research and development is called the

- A. originator
- B. prototype
- C. instigator
- D. pattern