



Job Ready Assessment Blueprint

Building Trades Maintenance



Test Code: 3012 / Version: 01

“Measuring What Matters”

Specific Competencies and Skills continued:

Painting and Wall Covering

- Display knowledge of wallpapering
- Display knowledge of painting products and applications



Masonry

- Install moisture barriers
- Lay and repair bricks and blocks
- Form and place concrete
- Install ceramic wall tiles
- Construct and repair retaining walls



Electrical

- Remove/replace electrical equipment and appliances
- Install and troubleshoot low-voltage circuits
- Identify electrical architectural symbols
- Maintain electrical systems and emergency generators
- Remove and replace ground fault circuit interrupters
- Use electrical test equipment appropriately

Specific Competencies and Skills continued:**Plumbing**

- Install and repair dishwashers
- Install and repair piping
- Repair and replace plumbing fixtures
- Replace valves, gaskets, seals, and washers
- Identify plumbing architectural symbols
- Clean waste lines
- Perform weatherization procedures
- Repair and replace hot water heaters
- Repair and replace pumps

**Welding**

- Identify principles of arc welding
- Identify principles of oxyacetylene welding
- Identify principles of wire-feed/MIG welding

General Maintenance

- Change filters
- Exhibit knowledge of caulking techniques
- Weather strip windows and doors
- Repair suspended ceiling/tile

Ground & Equipment Maintenance

- Clean gutters/downspouts
- Maintain power equipment
- Exhibit knowledge of proper lawn mowing techniques
- Seed and sod lawn
- Prune trees and bushes
- Grade topsoil

HVAC

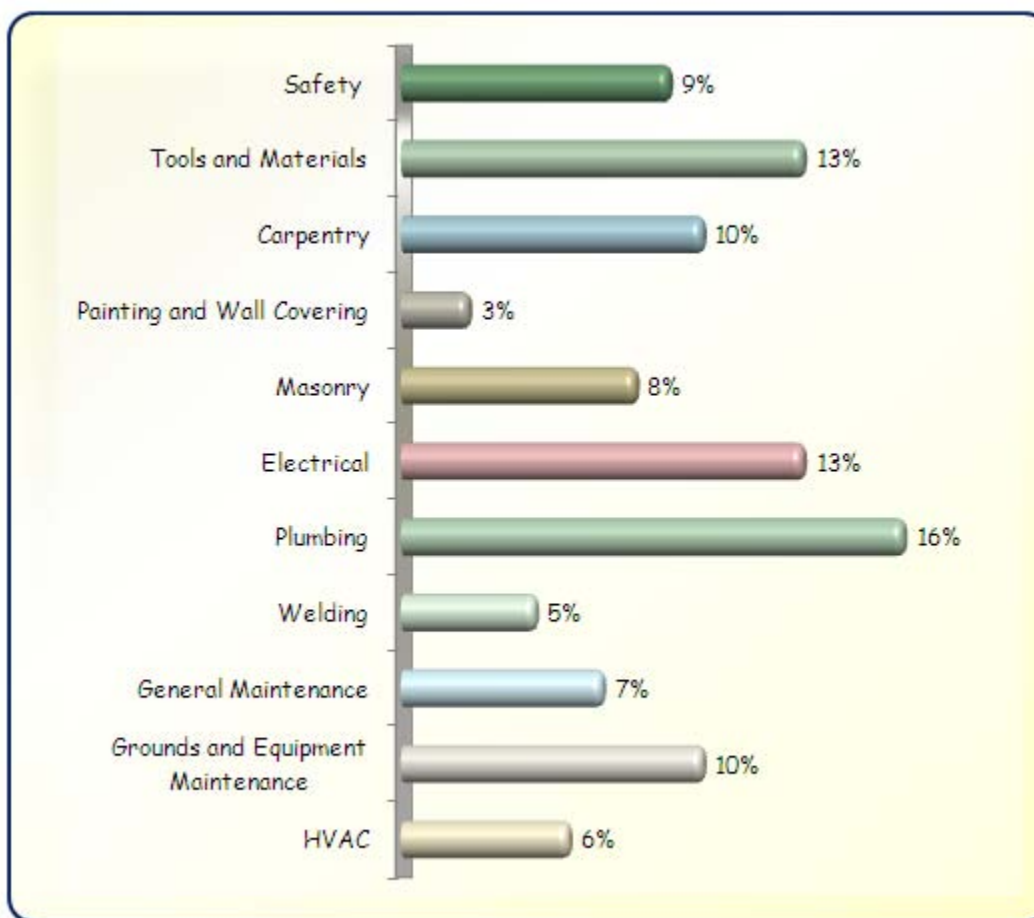
- Maintain HVAC systems
- Demonstrate knowledge of HVAC fundamentals

Written Assessment:

Administration Time: 3 hours

Number of Questions: 179

Areas Covered:



Sample Questions:

A pipe reamer is designed to

- A. make the inside diameter of a pipe larger
- B. remove the burr from a pipe
- C. make the pipe easier to thread
- D. make the outside diameter of the pipe bigger

To prevent screws from splitting the wood,

- A. drill a pilot hole
- B. drive the screws slowly into the wood
- C. lubricate the screws
- D. drive the screws with the grain of the wood

What type of mastic is commonly used when waterproofing a foundation?

- A. asphalt based
- B. cement glue
- C. silicon screed
- D. gravel based

Pipe size is determined by

- A. outside diameter
- B. thickness of the wall
- C. inside diameter
- D. weight

Caulk is a material that

- A. stretches and penetrates
- B. dries and cracks
- C. resists heat
- D. compresses and rebounds



Performance Assessment:

Administration Time: 3 hours

Number of Jobs: 6

Areas Covered:

28% Carpentry - Construct Frame
Selection and use of tools, cutting, techniques for assembly, accuracy of measurements, and appearance of frame.

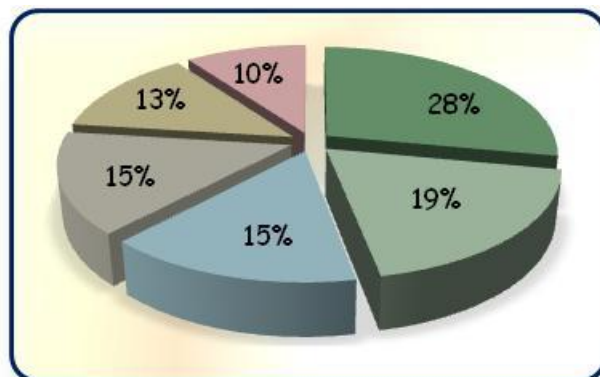
19% Plumbing - Sweat Piping
Use of tools, joining and soldering techniques, accuracy of measurements, piping support, and leak testing.

15% Electricity - Rough Wiring
Mount electrical boxes, install nonmetallic cable, and preparation of wires in box.

15% Dry Wall
Accuracy of measurements and cuts, installation of drywall, and finishing techniques

13% Electricity - Finish Wiring
Installation of switching device, installation of light fixture, and testing of installation.

10% Carpentry - Mortise Hinge
Selection and use of tools and fit and appearance of installed hinge.



Sample Job: Carpentry - Construct a Frame

Maximum Time: 45 minutes

Participant Activity: The test participant will construct a frame containing two types of joints. The frame should be secured to a workbench or table. A drawing is provided in each participant's test booklet.



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

Association for Career
and Technical Education
ACTE
www.acteonline.org



The Pennsylvania Builder's Association utilizes this assessment to assist in determining competencies for granting skill certificates to students graduating from Pennsylvania secondary trade programs that have been endorsed by the Pennsylvania Builders Association (PBA).

PBA's services include support to workforce training and education by linking industry employers with educators to grow the workforce of tomorrow. PBA serves Pennsylvania communities and consumers through its steadfast efforts to protect homeownership rights and advocate for affordable housing options. PBA is affiliated with the National Association of Home Builders.