



## Entry Level Assessment Blueprint

## Construction Masonry - Block



*Test Code: 4025 / Version: 01*

## Specific Competencies and Skills Tested in this Assessment:

### Safety

- Identify and use PPEs (personal protective equipment)
- Demonstrate knowledge of workplace/jobsite safety procedures, including lock-out/tag-out
- Exhibit understanding of OSHA safety standards and MSDS
- Erect and use scaffolds safely
- Display understanding of ladder safety



### Craft Knowledge

- Explain the history of the craft
- Identify job opportunities in the masonry industry
- Identify craft terminology



### Hand and Power Tools

- Identify, use, and properly care for hand tools
- Identify, use, and properly care for power tools



### Materials

- Identify and select materials, including synthetic stone and brick products
- Identify various mortars (M, S, N, O) and cements (Type I, II, III) and their uses
- Identify material sizes

### Blueprints and Specifications

- Read and interpret written specifications
- Identify and interpret lines and symbols
- Read and interpret drawings and plans

### ***Specific Competencies and Skills continued:***

#### **Project Layout**

- Square a building, use of 3-4-5/Pythagorean theory
- Install a corner/story pole and determine heights
- Install a metal door/window frame
- Layout and construct control joints
- Identify and install anchor bolts and masonry fasteners

#### **Block**

- Job site set-up
- Lay block to the line
- Tool off/join units
- Build block leads and corners
- Calculate cuts for various block corners
- Reinforce walls; horizontally and vertically
- Identify various types of specialty block
- Identify and install wall ties and accessories
- Identify and position various types of lintels



#### **Flashing, Weeps, Insulation**

- Install flashing correctly
- Install weep holes correctly
- Install insulation correctly

#### **Math and Measurements**

- Exhibit comprehension of construction masonry-related mathematics
- Exhibit understanding of measurements and conversions
- Estimate/calculate materials needed

***Specific Competencies and Skills continued:***

**Masonry Structure Maintenance**

- Restore and repoint masonry units
- Select and use masonry cleaning agents

**Professionalism**

- Exhibit understanding of communication/leadership skills
- Display understanding of professional ethics and behavior

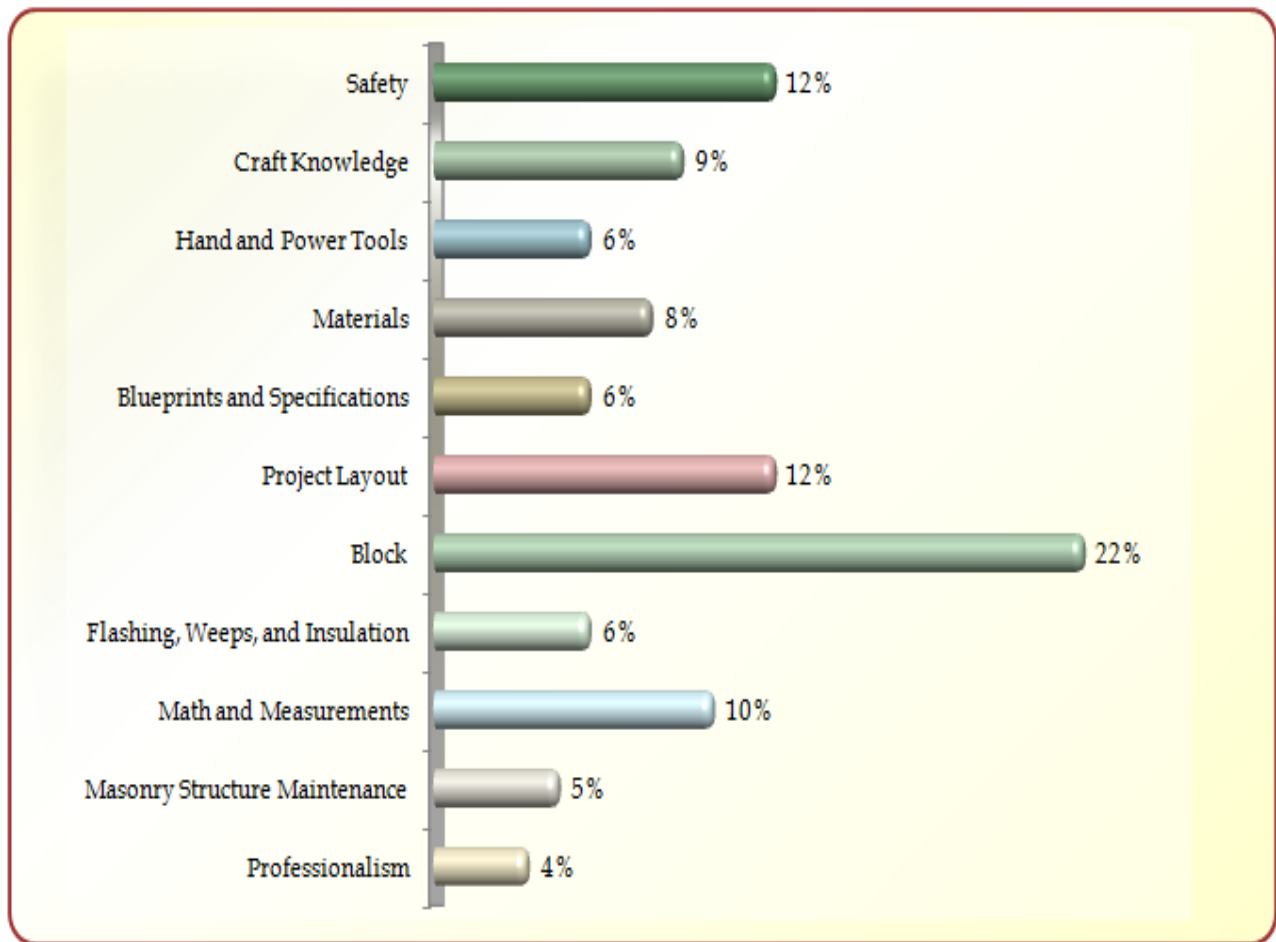


## Written Assessment:

**Administration Time:** 3 hours

**Number of Questions:** 153

### Areas Covered:



## Sample Questions:

To avoid accidents, ladders must be kept away from

- A. walkways and traffic lanes
- B. a level floor
- C. the boiler room
- D. carpeting

A piece of metal used for securing line at both ends of course height is a

- A. brick tie
- B. line block
- C. line pin
- D. brick set

Which of the following is made to resemble a stone?

- A. scored block
- B. sound block
- C. split-faced block
- D. open-end block

Expansion and control joints are used to

- A. provide strength
- B. improve appearance
- C. allow for movement
- D. eliminate movement

A material used to strengthen masonry block cells is called

- A. grout
- B. wythe
- C. keel
- D. thinset

## Performance Assessment:

**Administration Time:** 2 hours and 35 minutes

**Number of Jobs:** 3

### Areas Covered:

#### 20% **Job Layout**

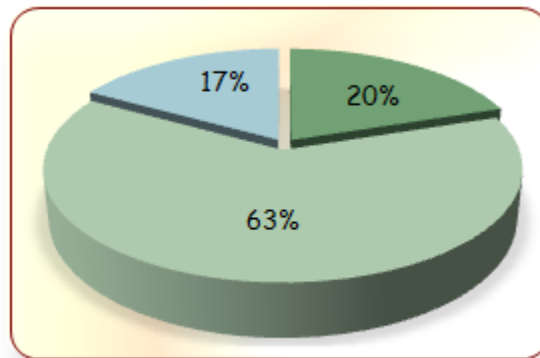
Selection and safe use of tools, project length measured according to drawing specifications, squared the project, and time to complete Job 1.

#### 63% **Construct a Block Wall/Pier in Stretcher/Running Bond**

Level top course; plumb points A, B, C, D, E, and F; corner and wall are square and in range; stayed on coursing dimensions; fullness of joints; maintained proper half-bond; and time to complete Job 2.

#### 17% **Project Jointing**

Jointing, overall project appearance, and time to complete Job 3.



**Sample Job:** Job Layout

**Maximum Time:** 15 minutes

**Participant Activity:** The participant, using appropriate tools, will measure project size according to drawing specification. Snap a chalk line, dry bond the first course using 3/8 inch mortar joints. Mark off dimensions for the project, and square the project.

