

# NOCTI

## Job Ready Assessment Blueprint

### Building Construction Occupations



Test Code: 2011 / Version 01

**“Measuring What Matters”**

## Specific Competencies and Skills Tested in this Assessment:

### Safety and General Knowledge

- Identify appropriate on-the-job safety issues
- Identify trade-related tools

### Carpentry

- Identify, estimate, and construct wood floor framing
- Identify, estimate, and construct wood wall framing
- Identify, estimate, and construct ceiling and roof framing
- Identify, estimate, and install roof coverings
- Identify, estimate, and install exterior finishes
- Identify, estimate, and install interior finishes
- Identify, estimate, and install exterior windows and doors

### Masonry

- Identify, estimate, and install footings and foundations
- Identify, estimate, and install brick and block
- Identify, estimate, and install concrete flatwork

### Electrical

- Identify, estimate, and install electrical service
- Identify, estimate, and install rough electrical
- Identify, estimate, and install finish electrical



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

**Plumbing**

- Identify, estimate, and install rough plumbing
- Identify, estimate, and install finish plumbing



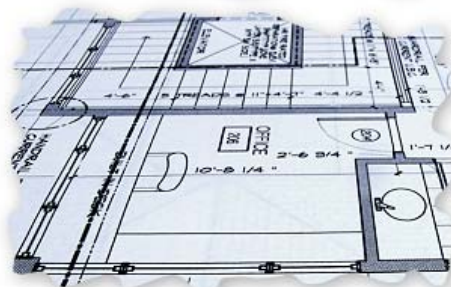
**Energy Efficiency**

- Identify, estimate, and install insulation
- Identify, estimate, and install waterproofing



**Blueprints and Construction Math**

- Identify blueprint terms
- Read architect's scale
- Layout building foundation
- Perform calculations of construction related math

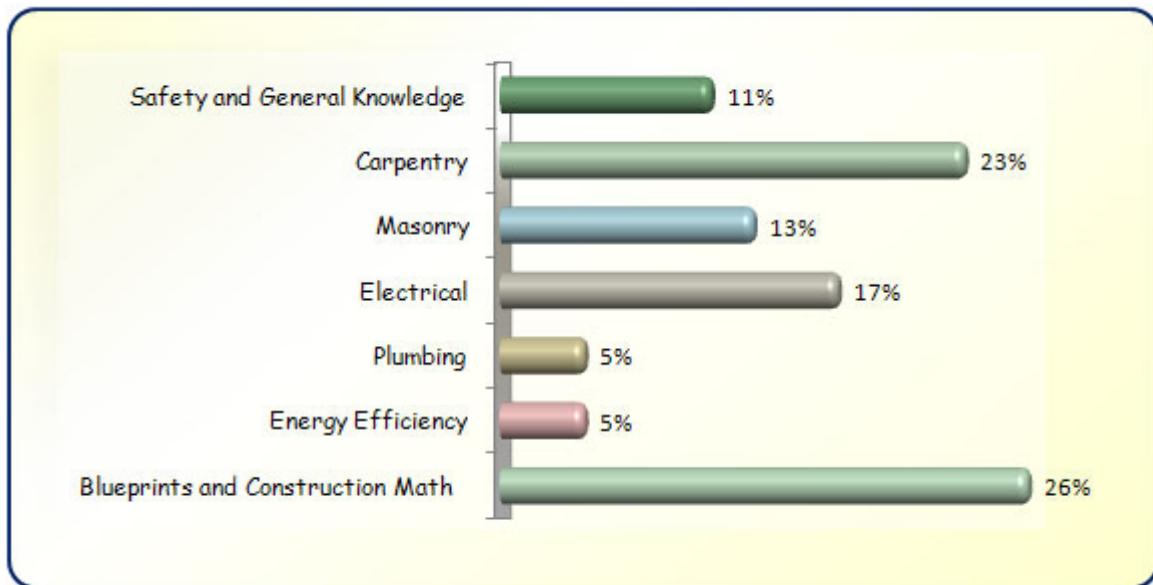


## Written Assessment:

Administration Time: 3 hours

Number of Questions: 121

### Areas Covered:



**Sample Questions:**

On a building construction site, the general purpose of a hardhat is to

- A. shield a worker from cold temperatures
- B. identify the different workers
- C. provide protection from the sun
- D. provide protection to the worker's head



How many blocks are needed for a 5-course corner lead?

- A. 5
- B. 10
- C. 15
- D. 20

An electrical panel shall be provided with a minimum depth of \_\_\_\_\_ clear working space.

- A. 12 inches
- B. 30 inches
- C. 46 inches
- D. 52 inches

How many square feet of floor space are in a room 14 feet x 20 feet?

- A. 255 square feet
- B. 280 square feet
- C. 302 square feet
- D. 390 square feet

The wall area of a living room which measures 16 feet long x 22 feet wide and 8 feet 6 inches high is

- A. 582 square feet
- B. 646 square feet
- C. 688 square feet
- D. 732 square feet

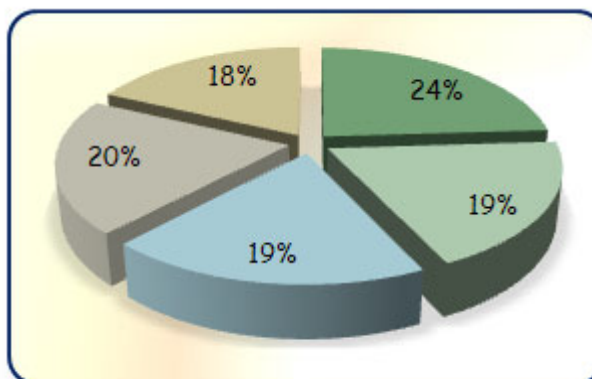
## Performance Assessment:

**Administration Time:** 2 hours and 15 minutes

**Number of Jobs:** 5

### Areas Covered:

**24% Soldering and Threading Pipe**  
Joint preparation, soldering technique, length of copper tubing, soldered joints, finished project, threading technique, pipe threads, length of iron pipe, use of tools, followed directions, safety, and timeliness of job.



**19% Rafter Layout**  
Placement of rafter crown, rafter length, overhang length, bird's mouth location, configuration and layout, tail plumb and ridge plumb cut mark, use of tools, followed directions, safety, and timeliness of job.

**19% Stair Layout**  
Placement of stringer crown, number of risers and treads, riser height, tread depth, layout of stringer, riser and tread return, riser and tread deduction, use of tools, followed directions, safety, and timeliness of job.

**20% Rough and Finish Electrical**  
Setting of boxes, cable choice and installation, pre-wire boxes, choice of switch, installation of switch, choice of receptacles, switch and receptacle box connections, use of tools, followed directions, safety, and timeliness of job.

**18% Block Wall Construction**  
Layout of project to specifications, length and height of wall, straightness and face of wall, wall plumb and level, fullness of joints, joints finished or tooled properly, use of tools, followed directions, safety, and timeliness of job.

**Sample Job:** Rafter Layout

**Maximum Time:** 20 minutes

**Participant Activity:** The participant will lay out a common rafter for a structure. They will show proper location of bird's mouth and mark tail plumb cut and rive plumb cut marks (will not cut the rafter).



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.