



National Craft Assessment and Certification Program
S P E C I F I C A T I O N S

Industrial Insulator V3
INSU_03

Released June 2013

Overview

- Two-hour closed-book examination
- May use a basic function, non-printing calculator
- No extra papers, books, notes, or study materials are allowed
- The minimum passing score is 75
- A Performance Verification is available

Study Materials

All NCCER written assessments are referenced to NCCER's curriculum listed in the content. You may order modules from Pearson (1.800.922.0579) or from NCCER's Online Catalog at www.nccer.org

Assessment Development

All questions are developed and approved by subject matter experts under the direction of NCCER and Prov™, NCCER's testing partner.

Credentials

NCCER will send appropriate credentials to the assessment center for successful completions.

Training Prescription Reports

Each candidate will have access to individual results of the written assessment from Prov's website at www.provexam.com.

Registry

Assessment results will be maintained in NCCER's Registry and become a portable record of the candidate's training and assessment achievements.

Written Assessment Contents:

Content Domain	Number of Questions
Safety [00101-09]	8
Tools of the Trade [19103]	7
Pipe Insulation [19105,19107, 19204]	15
Installation of Insulation [19205, 19206, 19207]	16
Finishes and Adhesives [19208, 19304]	7
Trade Math [19301]	8
Jacketing Fabrication [19310, 19311]	14
Sheet Metal Lagging [19312]	5
Total Number of Questions	80



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Learning Objectives related to Assessment:

Safety	
Registry ID Number:	Module Title and Objectives:
00101-09	Basic Safety
	Recognize hazard recognition and risk assessment techniques.
	Explain fall protection, ladder, stair, and scaffold procedures and requirements.
	Identify causes of accidents and the impact of accident costs.
	Explain the role of OSHA in job-site safety.
	Recognize hazard recognition and risk assessment techniques.
Tools of the Trade	
Registry ID Number:	Module Title and Objectives:
19103	Tools of the Trade
	Identify specific tools required in the insulation trade.
	Choose the correct tool for the specific application.
	Explain the general safety rules for hand tools.
Pipe Insulation	
Registry ID Number:	Module Title and Objectives:
19105	Characteristics of Pipe Insulation
	Understand the relationship between pipe size and sizes of insulation.
	Understand what heat traced pipe is.
19107	Installing Pipe Fittings, Valves and Flanges
	Cut and install mitered segments of insulation to pipe elbows.
	Cut insulation for application to flanged valves.
	Install insulation on pipe flanges.
	Cut and install plug 90 degree ells.
19204	Installing Calcium Silicate/Expanded Perlite Pipe Insulation
	Make accurate cuts in calcium silicate/expanded perlite pipe insulation.
	Install a single layer of calcium silicate/expanded perlite insulation on piping using wire or bands.
Installation of Insulation	
Registry ID Number:	Module Title and Objectives:
19205	Installing Mineral Wool Insulation
	Install mineral wool insulation.
	Identify the characteristics of welded pins, stick pins, and clips.
19206	Installing Rigid Foam and Cellular Glass Insulation
	Measure and cut rigid foam plastic and cellular glass insulation.
	Install and seal rigid foam plastic and cellular glass insulation.
	Understand cryogenic installation methods.
	Understand the roles of expansion joints, contraction joints, and vapor stops.
19207	Installing Board and Block Insulation
	Install board and block insulation.

Finishes and Adhesives	
Registry ID Number:	Module Title and Objectives:
19208	Cement and Fabric Finishes and Mastics
	Identify types of cements.
	Identify types of fabrics and mastics.
	Understand the limitations of cements.
19304	Adhesives and Their Uses
	Identify various types of adhesives and list the most common applications of each type.
	Describe the general application method for contact adhesive.
Trade Math	
Registry ID Number:	Module Title and Objectives:
19301	Trade Math
	Define radius, circumference, diameter, and pi.
	Calculate surface areas of objects when given formulas and measurements.
	Covert fractions to decimals.
	Convert inches to feet and feet to inches.
	Use a scale ruler to convert drawing dimensions to full-size dimensions.