

Instrumentation Technician V4

AEN12TINST04

Updated March 2020

Focus Statement

An Instrument Technician lays out, fabricates, installs, and performs leak testing on tubing and piping systems. The technician also installs instruments and instrument stands and interprets instrument construction drawings, specifications, and any other resource documents. The instrument technician is expected to exhibit basic mechanical and mathematical skills and to demonstrate good safety practices, especially electrical safety.

Overview

- Two-hour closed-book examination
- May use a basic function, non-printing calculator
- May use the downloadable Instrumentation Formula sheet found on the Instrumentation craft page of the NCCER website
- No extra papers, books, notes or study materials are allowed

Minimum passing score is 75.

Performance Verification

A corresponding hands-on Performance Verification is available.

NCCER Curriculum

All NCCER knowledge assessments are referenced to NCCER's curriculum modules as listed on this specification sheet. You may order books and modules from Pearson by visiting www.nccer.org/order-books-modules/.

Assessment Development

All questions are developed and approved by subject matter experts under the direction of NCCER.

Credentials

Upon successful completion of the knowledge assessment or performance verification, credentials can be viewed and printed by the individual or assessment program through their NCCER Account.

Score Report and Training Prescription

Each candidate will have online access to their assessment results including their overall score and recommended training through their NCCER Account.

Written Assessment Contents:

Module ID	Content Domain/Module Title	Number of Items
12107-14	Instrument Drawings and Documents, Part One	6
12108-14	Gaskets, O-Rings, and Packing	4
12109-14	Lubricants, Sealants, and Cleaners	4
12110-15	Temperature, Pressure, Level, and Flow	6
12111-14	Tubing	4
12115-14	Instrumentation Safety Practices	4
12116-14	Electrical Systems for Instrumentation	4
12119-14	Craft-Related Mathematics	4
12202-15	Instrument Drawings and Documents, Part Two	4
12204-16	Process Control Theory	4
12205-16	Detectors, Secondary Elements, Transducers, and Transmitters	6

Instrumentation Technician V4
AEN12TINST04
Updated March 2020

Written Assessment Contents:

Module ID	Content Domain/Module Title	Number of Items
12206-16	Controllers	4
12207-16	Control Valves, Actuators, and Positioners	6
12209-16	Switches and Photoelectric Devices	4
12210-15	Instrument Air Filters, Regulators, and Dryers	4
12302-15	Layout and Installation of Tubing and Piping Systems	4
12303-15	Clean, Purge, and Test Tubing and Piping Systems	4
12304-14	Inspect, Handle, and Store Instrumentation Materials	4
12305-16	Instrumentation Electrical Circuitry	4
12306-16	Grounding and Shielding of Instrumentation Wiring	4
12402-16	Instrument Calibration and Configuration	4
12410-16	Proving, Commissioning, and Troubleshooting a Loop	4
33205-10	Test Equipment	4

Total Number of Items

100