



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

INDUSTRIAL MAINTENANCE, ELECTRICAL & INSTRUMENTATION TECHNICIAN (IMEIT40)

Released August 2010

Overview

This written assessment is a two-hour closed-book examination. You will be permitted to use a basic function, non-printing calculator during the examination. The assessment center will provide any necessary pencils. No extra papers, books, notes or study materials are allowed in the testing area.

Study Material

All NCCER written assessments are referenced to NCCER curriculum listed in the content. You may order modules from Pearson (800.922.0579) or from NCCER's Online Catalog at www.nccer.org.

Assessment Development

All questions on each assessment have been developed and approved by subject matter experts from the respective craft. Assessment development and administration is under the direction of ProvTM, NCCER's testing partner.

Training Prescription Reports

Each candidate will have access to individual results of the written assessment from Prov's website at www.provexam.com. This training prescription will include the overall score and results by topic area.

Credentials

NCCER will send appropriate credentials (certificate, wallet card and official transcript) to the assessment center upon successful completion of the written assessment.

National Registry

Assessment results will be maintained in NCCER's National Registry and become a part of each candidate's training records. These records are stored and become a portable record of the candidate's training and assessment achievements.

Focus Statement

A journey-level IM E & I Technician should:

- Have a thorough knowledge of basic electrical/electronic, pneumatic, hydraulic, and mechanical fundamentals
- Have a working knowledge of safety and electrical hazards
- Have a knowledge of mechanical/electrical isolation of stored energy
- Identify tools, equipment, and best practices for performing electrical and instrumentation maintenance
- Interpret drawings, specifications, and other resource documents
- Have a thorough knowledge of both process and craft-related mathematics

- Maintain, repair, and install electrical and instrumentation system components
- Be familiar with networks and process control systems

Written Assessment Contents:

Module Number	Module Name	Number of Questions
00101-04	Basic Safety	4
00106-04	Basic Rigging	4
40103-07	Fasteners and Anchors	4
40105-07	Gaskets and Packing	4
40201-08	Industrial Safety for E&I Technicians	4
40203-08	Electrical Theory	4
40204-08	Alternating Current	4
40206-08	Flow, Pressure, Level, and Temperature	4
40207-08	Process Mathematics	4
40209-08	Tubing	4
40210-08	Clean, Purge, and Test Tubing and Piping Systems	4
40211-08	Instrument Drawings and Documents, Part One	4
40213-08	Conductor Terminations and Splices	4
40302-09	Electronic Components	4
40303-09	E & I Drawings	4
40305-09	Distribution Equipment	4
40309-09	Layout and Installation of Tubing and Piping Systems	4
40311-09	Hydraulic Controls	4
40312-09	Pneumatic Controls	4
40402-09	Basic Process Control Elements, Transducers and Transmitters	4
40403-09	Instrument Calibration and Configuration	4
40404-09	Pneumatic Control Valves, Actuators, and Positioners	4
40405-09	Performing Loop Checks	4
40406-09	Troubleshooting and Commissioning a Loop	4
40407-09	Process Control Loops and Tuning	4
40408-09	Data Networks	4
40409-09	Programmable Logic Controllers	4
40410-09	Distributed Control Systems	4
Total Number of Questions		112

The cut score is 75.

The corresponding Performance Verification is PVEIMT.