

**Level I Content Outline****Technician Trainee**

The candidate for NICET certification at Level I in Transportation Construction Inspection – Highway Construction Inspection should have the knowledge and experience to:

Follow simple technical instructions from, provide assistance to, and learn inspection procedures and responsibilities from more experienced transportation construction inspectors and engineers.

1.1 Plans and Specifications

(Questions related to these tasks make up 30-35% of the exam.)

- 1.1.1 Recognize and use standard construction terminology. 2, 4, 10
- 1.1.2 Identify purposes and roles of various project documents. 10, 11
- 1.1.3 Match locations on plans to locations on the site. 2
- 1.1.4 Locate and understand information on project drawings. 2, 10
- 1.1.5 Identify project documents that specify types of project work. 10, 11
- 1.1.6 Locate information in agency/owner standards and specifications. 2, 3, 4, 10

1.2 Measurement and Surveys

(Questions related to these tasks make up 20-25% of the exam.)

- 1.2.1 Identify and use U.S. Customary and Metric units of measure for length, area, volume, weight, mass, temperature, pressure, and strength, and convert one U.S. Customary unit to another, or one Metric unit to another. 10, 16
- 1.2.2 Perform arithmetic calculations, and calculate areas and volumes of simple geometric shapes, including maintaining the correct precision. 2, 10, 12, 16
- 1.2.3 Measure dimensions and compare with plans and specifications. 3, 4, 10
- 1.2.4 Identify survey stakes and markers, and interpret notation. 15, 16
- 1.2.5 Use drawing scales to determine distances. 5, 10

1.3 Tools and Equipment

(Questions related to these tasks make up 10-15% of the exam.)

- 1.3.1 Identify tools and equipment used by inspectors for inspections, testing, and reporting. 3, 4, 10, 15, 16
- 1.3.2 Identify tools and equipment used by surveyors. 15, 16
- 1.3.3 Identify tools and equipment used in construction. 4, 7, 10, 12

1.4 Personal Safety

(Questions related to these tasks make up 10-12% of the exam.)

- 1.4.1 Use appropriate personal protective equipment (PPE) for the construction site. 13, 14
- 1.4.2 Identify and report potential safety hazards. 10, 14
- 1.4.3 Identify sources of safety information and requirements. 13, 14

1.5 Site Operations

(Questions related to these tasks make up 10-20% of the exam.)

- 1.5.1 Identify components of work zone traffic control. 11
- 1.5.2 Identify construction activities. 3, 10
- 1.5.3 Identify, and verify the presence of, erosion and sediment control components. 4, 10
- 1.5.4 Identify, and verify the presence of, types of utility markings. 1, 6