The candidates for NICET certification at Level IV in Construction Materials Testing – Asphalt should have the knowledge, experience and skills needed to serve as project managers under the guidance of a registered professional engineer. They perform advanced testing; develop project budget estimates; create complex sampling programs; select the appropriate tests; supervise laboratory and field testing operations; resolve inconsistent specifications; trouble shoot problem areas; evaluate technical data, materials, conditions and give recommendations; estimate materials quantities; supervise and train Levels I, II and III technicians, reviewing their testing procedures and practices; manage equipment maintenance and calibration; manage safety and accreditation programs; and prepare reports.

4.1 Safe Practices
(Questions related to these tasks make up 8-18% of the exam.)
4.1.1 Develop company safety program. 29
4.1.2 Maintain company safety program. 1
4.1.3 Develop site specific job safety plans. 14, 27
4.1.4 Train staff to perform job hazard analysis. 14, 29
4.1.5 Investigate safety issues. 27, 30
4.1.6 Perform radiation safety officer (RSO) duties. 26, 30

4.2 Plans and Specifications
(Questions related to these tasks make up 10-20% of the exam.)
4.2.1 Develop project budget estimates.
4.2.2 Estimate materials quantities
4.2.3 Resolve inconsistent specifications. 1, 13, 31

4.3 Testing of Asphalt Mixes
(Questions related to these tasks make up 15-25% of the exam.)
4.3.1 Perform advanced asphalt mix testing. 9, 10, 12
4.3.2 Evaluate technical data related to asphalt testing. 2, 7, 9, 10, 12, 20

4.4 Asphalt Mix Design
(Questions related to these tasks make up 12-22% of the exam.)
4.4.1 Establish asphalt mix proportions. 1, 25
4.4.2 Select materials used in asphalt mixes. 1
4.4.3 Verify test results of asphalt mix designs. 1, 25
4.4.4 Develop job mix formulas (JMF). 1

4.5 Quality System
(Questions related to these tasks make up 8-18% of the exam.)
4.5.1 Implement changes in industry standard. 4, 5, 6, 8, 18, 22
4.5.2 Create the asphalt testing laboratory quality system. 4
4.5.3 Manage the asphalt laboratory accreditation. 4, 5
4.5.4 Manage the technician training program. 4, 5, 6, 18

4.6 Reporting and Supervision
(Questions related to these tasks make up 17-27% of the exam.)
4.6.1 Finalize asphalt test reports. 3, 4, 10, 11, 12, 16, 21, 23
4.6.2 Develop preliminary recommendations to Engineer in Charge 7, 15, 17, 19, 26
4.6.3 Manage company resources, e.g., employees, schedules, budget, equipment. 4, 13, 18

December 1, 2019  footnote number is linked to a reference on the Selected General References listing