

# Maintenance & Trades Tests

## Donnoe & Associates' 2011 Written Test Catalog

Welcome to our **Maintenance & Trades Test Catalog**. We have a total of 11 Maintenance & Trades written test titles, and one performance-oral exam. Titles and alternate forms are listed below, followed by complete test outlines.

One **Entry Level**, and one **Supervisory Level** Written Tests:

Entry Level Maintenance Worker

Maintenance Supervisor

One **Entry Level**, Performance Test:

Entry Level Maintenance Worker Performance Test



Nine **Skilled Worker** Written Tests:

Custodian / Bldg. Maintenance Worker

Automotive Mechanic

Treatment Plant Operator

Sewer Maintenance Worker

Streets and Roads Maintenance

Parks and Grounds Maintenance

Utility Worker I / II

Warehouse Technician

Wastewater Collection System Operator I / II

### **Build-A-Test<sup>SM</sup> From our Test Competencies List or Reference Library**

From our extensive test item bank, we can *Build-A-Test*. Agencies can select from the list of competencies and/or references at the end of this catalog. We can also write new questions to address specific competencies, knowledge or skills based on job analysis information.

We maintain and continually update our competencies test item bank.

## Test Validity

Professional and regulatory guidelines for personnel selection examinations include the Uniform Guidelines on Employee Selection Procedures and the Principles for Validation and Use of Personnel Selection Procedures. These guidelines require that personnel selection exams be validated by what is known as criterion or content validation strategies. Criterion validation is a demonstration that scores on the test are correlated directly with job performance or training academy performance. Content validity focuses on the relationship between the content of the test and the content of the job. Further, validity (criterion and content) considers both exam administration and exam outcome factors.

Most of our exam products including Stock Written Tests, *Build-A-Test* and Custom Written Tests, as well as oral exams, performance exams and assessment centers involve measurement of job knowledge or ability. These types of tests are best supported by content validity. For these tests we work closely with you, our client, to ensure that the content of the test is based on the job (job analysis, consultation on test assembly, and exam review by your subject matter experts). We provide test administration guidance including proctoring directions, and we offer scoring services as well as consultation on test score interpretation and passing scores, all at no additional fee. These steps, ensure that the examinations provided to your agency are valid and will be administered in a fair and consistent manner.

It is also important to note that a valid exam plan will go beyond a written test, and will normally include other elements, such as an oral exam, a performance test or an assessment center. This also includes not placing too much emphasis (exam weights) on measurement of abilities and knowledge through a written test; here we typically recommend that a written test be weighted less than half of the overall exam plan. We would be pleased to assist your agency with exam planning or to provide consultation on how to best use our tests.

# Entry Level Maintenance Worker T-201 and PT-201

The Entry Level Maintenance Worker is a very basic written test. This is useful for agencies that need to make sure that candidates for maintenance worker positions have basic language skills, can follow directions, and understand safety practices. The test outline is shown below.

## Entry Level Maintenance Worker Written Test Form T-201

Items	Description
20	Ability to Read, Understand and Follow Safety Directions
15	Knowledge of Safety Practices and Personal Protective Equipment
10	Basic Math Skills
15	Mechanical Ability

*60 items; 1 hour time limit*

## Entry Level Maintenance Worker Performance Test Form PT-201



Test Station	Performance Test Description
A1	Tree Trimming
A2	Brush Cutting
A3	PVC Pipe Cutting
B	Dig a Post Hole
C	Join Culvert Pipe
D	Operate a Chain Saw
E	Move Dirt
F1	Mix Round-Up
F2	Install a T-Post

### **PT-201 Exam**

*In each test station, candidates are examined for 1) Tool Selection, 2) Tool Use, and 3) Safety Considerations.*

*This is a straight-forward test to administer and score.*

*70+ candidates can easily be examined in one single day, with six raters (one per test station) plus one person to check-in candidates and monitor the process.*

*Exam elements (test stations) can be modified to meet an agency's specific needs for the type of maintenance work to be performed.*

# Maintenance Supervisor T-261

Our Maintenance Supervisor written test is designed for use in any technical or maintenance career field. Basic work organization, supervision and lead work is emphasized. A complete test outline is shown below.

## Maintenance Supervisor Form T-261

Items	Description
20	Ability to Read, Understand and Follow Safety Directions
15	Reasoning and Problem Solving
10	Basic Math Skills
15	Mechanical Ability
20	Work Scheduling
20	General Supervision

# Skilled Maintenance Worker Written Tests

Custodian / Bldg. Maintenance Worker T-221

Automotive Mechanic T-222

Treatment Plant Operator T-223

Sewer Maintenance Worker T-224

Streets and Roads Maintenance T-225

Parks and Grounds Maintenance T-226

Utility Worker I/II T-227

Warehouse Worker T-228

Each of the following seven written tests require specialized training and knowledge. Reading levels are minimal, and commensurate with typical agency job requirements. Complete test outlines are shown below.

## Custodian / Building Maintenance Form T-221

Items	Description
20	Ability to Read, Understand and Follow Safety Directions
35	Maintenance and Custodial Practices
10	Basic Math Skills
15	Mechanical Ability

*80 items; 1 hour 40 minute time limit*

## Automotive Mechanic Form T-222

Items	Description
50	Knowledge of Automotive Mechanics
10	Knowledge of Safety Practices and Personal Protective Equipment
15	Customer Service
25	Mechanical Ability

*100 items; 2 hour time limit*

## Treatment Plant Operator Form T-223

Items	Description
15	Math Skill
15	Knowledge of Safety Practices and Personal Protective Equipment
20	Ability to Read and Follow Safety Directions
50	Knowledge of Treatment Plant Operations

*100 items; 2 hour time limit*

## Sewer Maintenance Worker Form T-224

Items	Description
20	Ability to Read, Understand and Follow Safety Directions
35	Knowledge of Sewer Construction, Repair, and Maintenance
25	Knowledge of Safety Standards
5	Ability to Solve Basic Street Maintenance Problems

*85 items; 1 hour 40 minute time limit*

**Streets and Roads Maintenance**  
**Form T-225**

Items	Description
45	Knowledge of Streets and Roads Maintenance Tools, Techniques and Safety Practices
15	Basic Math Ability
20	Reading Comprehension
<i>80 items; 1 hour 40 minute time limit</i>	

**Parks and Grounds Maintenance**  
**Form T-226**

Items	Description
45	Knowledge of Parks and Grounds Maintenance Tools, Techniques and Safety Practices
15	Basic Math Ability
20	Reading Comprehension
<i>80 items; 1 hour 40 minute time limit</i>	

**Utility Worker I / II**  
**Form T-227**

Items	Description
<b>Utility Worker I</b> <i>80 items; 1 hour 20 minute time limit</i>	
15	Math Skill
15	Knowledge of Safety Practices and Personal Protective Equipment
20	Ability to Read and Follow Safety Directions
30	Tool Identification
<b>Utility Worker II</b> <i>100 items; 1 hour 40 minute time limit</i>	
20	Principles of Water Supply and Hydraulics

**Warehouse Technician**  
**Form T-228**

Items	Description
15	Inventory Control
15	Basic Math
15	Reasoning
15	Public Contact
15	Reading Comprehension
15	Safety Practices
<i>90 items; 2 hour time limit</i>	

**Wastewater Collection System Operator I / II**  
**Form T-229**

Items	Description
15	Math Skill
15	Knowledge of Safety Practices and Personal Protective Equipment
20	Ability to Read and Follow Safety Directions
50	Hydraulics and Mechanical Aptitude
<i>80 items; 1 hour 40 minute time limit</i>	

# **Build-A-Test based on Donnoe & Associates' Competencies Test Library**

From our extensive test item bank, we can *Build-A-Test*<sup>SM</sup> for specific job classifications. Agencies can select from the list of competencies and/or references at the end of this catalog. We can also write new questions to address specific competencies, knowledge or skills based on job analysis information.

## **Test Content / Competency Areas**

Donnoe & Associates' test item bank contains over 8,000 individual test items. Following is an outline of our test item bank, by content area / competency. This is presented in two groups: 1) Aptitude / Ability Test Segments (2,500 test items available), and 2) Referenced Items (5,500 test items available). Referenced items are based on specific reference documents or books, and will measure Knowledge, rather than Aptitude / Ability.

### **APTITUDE / ABILITY TEST ITEM SEGMENTS**

Description of Test Content / Competency Measured by Test Segment

#### **Interpersonal Skills and Workplace Communication**

Interpersonal Skills – Communication in the Workplace

Interpersonal Skills – Customer Service

Interpersonal Skills – Diversity in the Workplace

Interpersonal Skills – Public Contact and Communication

Interpersonal Skills – Teamwork

#### **Language Skills and Reading Comprehension**

Language Skills – Editing for Errors

Language Skills – Grammar

Language Skills – Punctuation

Language Skills – Sentence Ordering

Language Skills – Spelling, General

Language Skills – Spelling, Legal

Language Skills – Vocabulary

Language Skills – Vocabulary, Legal

Reading Comprehension – General

Reading Comprehension – Maintenance and Trades

Reading Comprehension – Public Safety

## **APTITUDE / ABILITY TEST ITEM SEGMENTS**

Description of Test Content / Competency Measured by Test Segment

### **Leadership and Supervision**

- Leadership and Supervision
- Progressive Discipline
- Project Management
- Supervisory Communication
- Training
- Work Scheduling

### **Math Skills and Numerical Problem Solving**

- Analyst and Management Math Skills
- Firefighter Math
- General Office and Business Math
- Police and Corrections Math
- Statistics

### **Mechanical and Trades**

- Automotive Mechanics
- Building Maintenance and Custodial Practices
- Code Checking
- Mechanical Maintenance
- Parks and Grounds Maintenance
- Roads Maintenance
- Safety Practices and Personal Protective Equipment
- Tool Use and Tool Identification

### **Problem Solving**

- Bus Scheduling
- Deductive and Inductive Reasoning
- Determining Eligibility for Services
- Event Planning
- Entry Peace Officer
- Fire Dispatcher
- Inventory Control
- Map Reading

## **APTITUDE / ABILITY TEST ITEM SEGMENTS**

### Description of Test Content / Competency Measured by Test Segment

Mechanical Aptitude

Military Time Conversion

Police Dispatcher

Policy Analysis

Reactive Learning

### **Professional and Administrative Services**

Bookkeeping Accounting and Financial Management, Principles of

Dewey Decimal System, Classification of Library Materials with the

Office Systems – Filing

Interview Techniques

Office Systems – MS Excel Spreadsheet Skills / MS Word Skills

Office Systems – Name and Number Matching

Organizational Behavior and Development

Personnel Policy Interpretation / Personnel Management Knowledge

Principles of Safe Operation of a Commercial Motor Vehicle

### **Miscellaneous Item Banks, Not Otherwise Categorized as Above**

Institutional Food Preparation, Cooking, Sanitation, and Safety

Principles of Chemistry and Laboratory Methods

## **REFERENCED TEST MATERIALS / KNOWLEDGE-BASED ITEMS**

### Description of Test Content / Reference

**Management and Supervision** (Please see our Build-A-Test <sup>SM</sup> Catalog).

**Fire Service References** (Please see our Fire Service Test Catalog).

**Law Enforcement References** (Please see our Law Enforcement Test Catalog).