



**Department of  
Civil Service**

# A Guide to the Written Test

for the

## Director of Facilities Series

# **INTRODUCTION**

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The New York State Department of Civil Service has developed this test guide to familiarize you with some of the written test materials which will be included in the Director of Facilities Series. This test guide provides a general description of the subject areas which will be tested and an explanation of the different types of questions you may see on the test.

Not all subject areas mentioned in this test guide are included in all examinations in this Series. The Examination Announcement will list the subject areas that will be included on the particular test you will be taking.

The Director of Facilities Series written test has an overall time allowance of 8 hours. The tests in the series include a selection from the following subject areas:

1. **Building and grounds maintenance** – These questions test for knowledge of the basic principles, practices, and techniques essential to proper building and grounds maintenance. This may include:
  - preventive maintenance and minor repair of building structures
  - electrical and mechanical systems, including plumbing
  - grounds maintenance
  - establishing and maintaining accident prevention and safety programs.

Questions may cover such areas as:

- maintenance and repair of roofs, windows, walls, floors, masonry, pipes, valves, sanitary systems, electrical wiring, switches, and painting
- operation and maintenance of heating, ventilating, and air conditioning systems, including boiler operation
- lawn, tree, and shrub planting and maintenance
- insect control
- snow and ice removal
- proper use of tools and materials involved in maintenance activities
- safety inspections
- accident investigations
- employee safety training and workplace safety
- identification and safe handling of hazardous substances
- mitigation of unsafe conditions
- proper use of personal protection equipment.

2. **Supervision** – These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

## **INTRODUCTION – CONTINUED**

- 3. Facilities management** – These questions test for knowledge of the methods and materials used in the construction, alteration, maintenance, and repair of physical plant facilities. This may include:
- principles and practices involved in managing a building maintenance and energy conservation program
  - ability to read and understand typical building plans, layouts, and technical specifications
  - ability to calculate accurate estimates of material and labor costs
  - knowledge of typical contract documents
  - ability to oversee construction contracts and to manage contract compliance
  - establishing and maintaining accident prevention and safety programs
  - principles and practices used by administrators when participating in the budget process.

Questions may cover such areas as:

- building structural elements
  - electrical and mechanical systems
  - proper building maintenance techniques, including determining the need for and scheduling repairs
  - energy conservation practices, including optimal heating plant and cooling system operation.
- 4. Administrative supervision** – These questions test for knowledge of the principles and practices involved in directing the activities of a large subordinate staff, including subordinate supervisors. Questions relate to the personal interactions between an upper level supervisor and their subordinate supervisors in the accomplishment of objectives. These questions cover such areas as assigning work to and coordinating the activities of several units, establishing and guiding staff development programs, evaluating the performance of subordinate supervisors, and maintaining relationships with other organizational sections.
- 5. Administrative techniques and practices** – These questions test for a knowledge of management techniques and practices used in directing or assisting in directing a program component or an organizational segment. Questions cover such areas as interpreting policies, making decisions based on the context of the position in the organization, coordinating programs or projects, communicating with employees or the public, planning employee training, and researching and evaluating areas of concern.

The remainder of this test guide explains how you will be tested in each subject area listed above. A **TEST TASK** is provided for each subject area. This is an explanation of how a question is presented and how to correctly answer it. Read each explanation carefully. This test guide also provides at least one **SAMPLE QUESTION** for each subject area. The sample question is similar to the type of questions that will be presented on the actual test. This test guide provides the **SOLUTION** and correct answer to each sample question. You should study each sample question and solution in order to understand how the correct answer was determined.

## **SUBJECT AREA 1**

**BUILDING AND GROUNDS MAINTENANCE** – These questions test for knowledge of the basic principles, practices, and techniques essential to proper building and grounds maintenance. This may include:

- preventive maintenance and minor repair of building structures
- electrical and mechanical systems, including plumbing
- grounds maintenance
- establishing and maintaining accident prevention and safety programs.

Questions may cover such areas as:

- maintenance and repair of roofs, windows, walls, floors, masonry, pipes, valves, sanitary systems, electrical wiring, switches, and painting
- operation and maintenance of heating, ventilating, and air conditioning systems, including boiler operation
- lawn, tree, and shrub planting and maintenance
- insect control
- snow and ice removal
- proper use of tools and materials involved in maintenance activities
- safety inspections
- accident investigations
- employee safety training and workplace safety
- identification and safe handling of hazardous substances
- mitigation of unsafe conditions
- proper use of personal protection equipment.

**TEST TASK:** You will be presented with situations in which you must apply knowledge of building and grounds maintenance practices in order to answer the questions correctly.

### **SAMPLE QUESTIONS:**

Which one of the following terms best describes the additional feed-water that is added to the boiler to compensate for water and steam lost through leakage, evaporation losses, and boiler blowdown?

- A. waste water
- B. condensed water
- C. makeup water
- D. conditioned water

*The correct answer to this sample question is C.*

### **SOLUTION:**

**Choice A** is not correct. *Waste water is water that has been used in washing, flushing, a manufacturing process, or sewage.*

**Choice B** is not correct. *Condensed water is water vapor that has cooled and returned to a liquid state.*

**Choice C is the correct answer to this question.** *Makeup water is supplied to a steam boiler to compensate for loss by evaporation and leakage.*

**Choice D** is not correct. *Conditioned water is water free of dissolved calcium and magnesium (hardness minerals); also referred to as soft water.*

## **SUBJECT AREA 1 – CONTINUED**

Which one of the following technical terms best describes the pipe fitting most generally used to make a right-angle bend in a pipe line?

- A. a union
- B. a reducer
- C. a cap
- D. an elbow

*The correct answer to this sample question is D.*

### **SOLUTION:**

**Choice A** is not correct. A union is a fitting that makes a semi-permanent connection between two pipes and allows quick disconnection for maintenance purposes.

**Choice B** is not correct. A reducer is a fitting that joins two pipes of different diameters.

**Choice C** is not correct. A cap is a fitting that covers the end of a pipe, usually to make the end of the pipe gas or liquid tight.

**Choice D** is the correct answer to this question. An elbow is a fitting installed between two lengths of pipe to allow a change of direction, usually a 90 or 45 degree angle.

Of the following, which one is the best tool to use in removing dead branches above the height of six feet on a tree?

- A. a pole saw
- B. a peavy
- C. a double-bitted axe
- D. a single-bitted axe

### **SOLUTION:**

**Choice A** is the correct answer to this question. A pole saw is used for pruning branches beyond arm's reach.

**Choice B** is not correct. A peavey is a stout lever with a sharp spike used for handling logs.

**Choice C** is not correct. A double-bitted axe is used for felling trees or chopping up branches that have already fallen to the ground from a tree.

**Choice D** is not correct. A single-bitted axe is used to fell trees, chopping branches that have already fallen to the ground, or to split lumber.

## **SUBJECT AREA 1 – CONTINUED**

One of the unit employees you supervise tells you that a new piece of equipment was installed improperly by the vendor that supplied it and presents a potential danger to staff. An examination of the equipment leads you to believe that the equipment may be dangerous to use. This equipment is essential to your unit's work. Which one of the following actions should you take first in this situation?

- A. Report the matter to your supervisor.
- B. Warn your staff to use extra caution when using the equipment.
- C. Withdraw the equipment from use.
- D. Notify the vendor that supplied the equipment and have them repair it if needed.

*The correct answer to this sample question is C.*

### **SOLUTION:**

*This question asks for the action that you should take FIRST in this situation.*

**Choice A** is not correct. If you believe that use of this equipment may cause a potential danger to staff, the equipment must be taken out of use immediately. Notifying your supervisor and/or determining whether there actually is a danger should be done after that.

**Choice B** is not correct. If you believe there is a possible danger to your staff, they should not use the equipment under any circumstances, until an informed determination regarding its safety is made.

**Choice C** is the correct answer to this question. If you believe there may be a possible danger to staff, you should remove the equipment from use immediately. Other appropriate actions can be taken after that.

**Choice D** is not correct. Notifying the vendor that supplied the equipment should be done after the possible danger to staff is eliminated by taking the equipment out of use.

## **SUBJECT AREA 2**

**SUPERVISION** – These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

**TEST TASK:** You will be presented with situations in which you must apply knowledge of supervisory principles and practices in order to answer the question correctly.

### **SAMPLE QUESTION:**

Assume the unit you supervise is given a new work assignment and that you are unsure about the proper procedure to use in performing this assignment. Which one of the following actions should you take **FIRST** in this situation?

- A. Obtain input from your staff.
- B. Consult other unit supervisors who have had similar assignments.
- C. Use an appropriate procedure from a similar assignment that you are familiar with.
- D. Discuss the matter with your supervisor.

*The correct answer to this sample question is D.*

### **SOLUTION:**

*This question asks for the action that you should take **FIRST** in this situation.*

**Choice A** is not correct. *Since this assignment is new for your unit, your staff would not be expected to be more knowledgeable than you about the proper procedure.*

**Choice B** is not correct. *Although discussing this matter with other supervisors may increase your knowledge of the new assignment, similar assignments performed in other units may differ in some important way from your new assignment. Other units may also function differently from your unit, so the procedures used to perform similar assignments may differ accordingly.*

**Choice C** is not correct. *Since this assignment is new for your unit, you would have no way of knowing whether the procedure from a similar assignment is appropriate to use. You would need someone with the appropriate knowledge, usually your supervisor, to determine if the procedure from a similar assignment could be used before you actually employed this procedure in the performance of your new assignment.*

**Choice D is the correct answer to this question.** *Your supervisor is more likely to be informed about what procedure may be appropriate for work that they assign to you than would other unit supervisors or your staff. Even if your supervisor does not know what procedure is appropriate, a decision regarding which procedure to use should be made with their participation, since they have the ultimate responsibility for your unit's work.*

## **SUBJECT AREA 3**

**FACILITIES MANAGEMENT** – These questions test for knowledge of the methods and materials used in the construction, alteration, maintenance, and repair of physical plant facilities. This may include:

- principles and practices involved in managing a building maintenance and energy conservation program
- ability to read and understand typical building plans, layouts, and technical specifications
- ability to calculate accurate estimates of material and labor costs
- knowledge of typical contract documents
- ability to oversee construction contracts and to manage contract compliance
- establishing and maintaining accident prevention and safety programs
- principles and practices used by administrators when participating in the budget process.

Questions may cover such areas as:

- building structural elements
- electrical and mechanical systems
- proper building maintenance techniques, including determining the need for and scheduling repairs
- energy conservation practices, including optimal heating plant and cooling system operation.

**TEST TASK:** You will be presented with situations in which you must apply knowledge related to facilities management to answer the questions correctly.

### **SAMPLE QUESTIONS:**

Which one of the following is the best example of a seasonal load on a building energy system in a public or commercial building?

- A. office equipment
- B. domestic hot water
- C. interior lighting
- D. air conditioning

*The best answer to this sample question is D.*

### **SOLUTION:**

**Choice A** is not correct. The use of office equipment is not affected by the change in seasons, so the electrical demand from this use remains constant across seasons.

**Choice B** is not correct. Domestic hot water use is relatively stable throughout the year, so the energy demand to heat this water remains relatively constant across seasons.

**Choice C** is not correct. Interior lighting use in a public or commercial building is not typically affected by the change in seasons.

**Choice D** is the correct answer to this question. Air conditioning is used during warm weather only, so the energy to run air conditioning systems is needed only in the warm seasons.



## **SUBJECT AREA 3 – CONTINUED**

The building that houses the central offices for the school district is an older building. You have proposed several projects for that building in your budget request for the upcoming fiscal year: If you were asked to postpone one of those projects to a future fiscal year, which one of the following requests would be most appropriate to postpone?

- A. renovation of a 15-year-old sprinkler system in a storeroom used for office supplies and equipment, which is currently in compliance with applicable fire codes
- B. installation of a security system for the door of an unused room, so that it can be used to store confidential records, which are currently kept in filing cabinets in open work areas
- C. replacement of lighting fixtures, which would save enough in energy use to pay for the entire project in five years, at current energy prices
- D. replacement of old carpeting which is torn and threadbare in many places

*The answer to this sample question is A.*

### **SOLUTION:**

**Choice A is the correct answer to this question.** *Although the sprinkler system is 15 years old, it is still in compliance with current fire codes and there is no need to replace it.*

**Choice B is not correct.** *The file cabinets containing the confidential records are currently kept in open work areas, where they may be accessible to unauthorized personnel if employees do not always keep them locked, or where they may be broken into. Certain confidential records are required to be kept secure by law.*

**Choice C is not correct.** *Energy conservation saves money which can add up to a considerable amount over time. Modern fixtures may also provide better lighting as well as cost savings.*

**Choice D is not correct.** *Replacement of the old carpeting is a health and safety issue. Any delay could result in personal accidents and the resulted expenses associated with any injuries incurred.*

In brick veneer on frame construction, the proper technical term for the exterior covering of the studs is

- A. caulking
- B. sheathing
- C. capping
- D. wallboard

*The answer to this sample question is B.*

### **SOLUTION:**

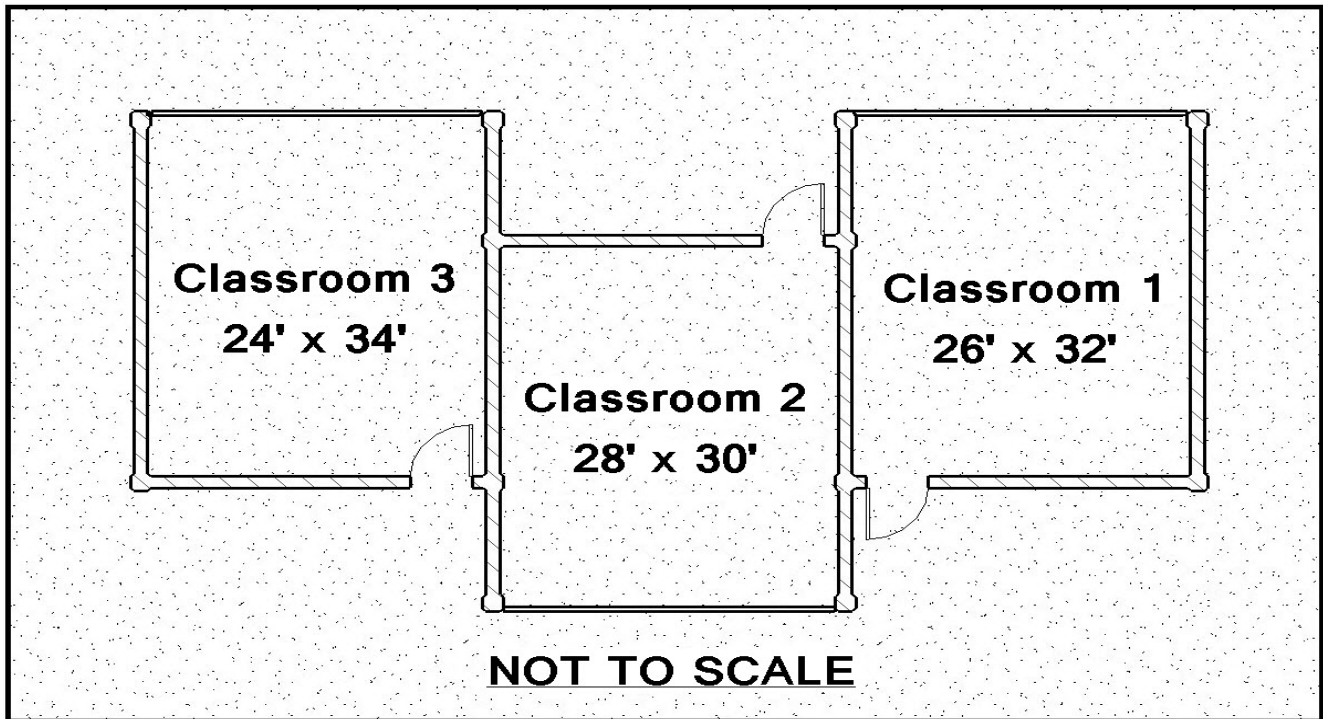
**Choice A is not correct.** *Caulking is a sealant used to close gaps in buildings to provide thermal insulation or to control water penetration.*

**Choice B is the correct answer to this question.** *Sheathing is a layer of boards or plywood sheets applied to the outer structural elements of a building, such as studs, joists, or rafters, to strengthen the building and provide a base for weather proofing or exterior finishes.*

**Choice C is not correct.** *Capping is lumber or molding applied to or above other lumber to hide end grain or to provide protection or finishing.*

**Choice D is not correct.** *Wallboard is any of various rigid sheets of finishing material used in drywall construction to face the interior walls of buildings.*

**SUBJECT AREA 3 – CONTINUED**



Classrooms 1 and 3, shown in the partial floor plan above, must have their tile floors replaced. Which one of the following is the combined floor area of Classrooms 1 and 3?

- A. 1648
- B. 1656
- C. 816
- D. 832

The answer to this sample question is A.

**SOLUTION:**

To answer this question correctly, you must first determine the floor areas of Classrooms 1 and 3 and then add these two areas together. The floor area of a classroom is found by multiplying the length and width dimensions of the room, which are listed just below the name of the classroom in the partial floor plan. The floor area of Classroom 1 is 832 square feet. The floor area of Classroom 3 is 816 square feet. Adding these two areas together results in a combined area of 1648 square feet. **Choice A is the correct answer to this question.**

## **SUBJECT AREA 4**

**ADMINISTRATIVE SUPERVISION** – These questions test for knowledge of the principles and practices involved in directing the activities of a large subordinate staff, including subordinate supervisors. Questions relate to the personal interactions between an upper level supervisor and their subordinate supervisors in the accomplishment of objectives. These questions cover such areas as assigning work to and coordinating the activities of several units, establishing and guiding staff development programs, evaluating the performance of subordinate supervisors, and maintaining relationships with other organizational sections.

**TEST TASK:** You will be presented with situations in which you must apply knowledge of the principles and practices of administrative supervision to answer the questions correctly. You will be placed in the role of a supervisor of a section, which is made up of several units. Each unit has a supervisor and several employees. All unit supervisors report directly to you.

### **SAMPLE QUESTION:**

You have delegated a work project to two unit supervisors and have asked them to collaborate on it. Later, you observe two employees strongly arguing about which one of them is responsible for a certain activity within the work project. The arguing employees work for different units. Which one of the following actions is most appropriate for you to take in this situation?

- A. Intercede in the employees' argument and settle it.
- B. Meet with the unit supervisors of the two employees and inform them of the situation you observed.
- C. Inform one unit supervisor of the situation and ask this supervisor to take care of it.
- D. Set up a meeting that includes both unit supervisors and both employees to resolve the situation.

*The correct answer to this sample question is B.*

### **SOLUTION:**

**Choice A** is not correct. In your position, you supervise properly by giving direction through your unit supervisors. By taking this choice, you are not allowing your unit supervisors to handle a problem involving their staff members. Also, it is not reasonable that you would be able to settle the employees' dispute. Earlier, you delegated the work project to the two unit supervisors, who would be responsible for assigning activities related to the project. The two unit supervisors must deal with the problem.

**Choice B** is the correct answer to this question. The two unit supervisors are collaborating on the work project and therefore giving the assignments. You should meet with them and tell them about the employees' argument. The unit supervisors should be informed about the point of contention and the fact that the two employees had a heated argument. The unit supervisors must then work out a way to handle the situation.

**Choice C** is not correct. Speaking to only one supervisor about the situation means that the second supervisor may be uninformed, or only partly informed, about the situation. You cannot be assured that the first supervisor will include the second supervisor in finding a way to settle the issue. If the first unit supervisor chooses to handle the situation on his own and speak to both employees, this supervisor would be giving direction to one employee from another unit. This is not good supervisory practice. Also, in taking Choice C, you are favoring one supervisor and slighting the other.

**Choice D** is not correct. The unit supervisors need to come up with a way of handling the situation that you observed. To do this, they must be informed without the employees present. Also, by including the employees in the meeting, you may get a replay of their earlier argument, which is not helpful.

## **SUBJECT AREA 5**

**ADMINISTRATIVE TECHNIQUES & PRACTICES** – These questions test for a knowledge of management techniques and practices used in directing or assisting in directing a program component or an organizational segment. Questions cover such areas as interpreting policies, making decisions based on the context of the position in the organization, coordinating programs or projects, communicating with employees or the public, planning employee training, and researching and evaluating areas of concern.

**TEST TASK:** You will be presented with situations in which you must apply knowledge of administrative principles and practices in order to answer the questions correctly.

### **SAMPLE QUESTION:**

A training program in your agency has received a number of negative evaluations from the participants. You have been asked to determine whether changes should be made to the training program in response to these evaluations. Which one of the following actions should you take FIRST in making this determination?

- A. Review the training methods.
- B. Review the content of the training materials.
- C. Review the goals of the training program. \*
- D. Review the evaluations with the training instructor.

*The correct answer to this sample question is C.*

### **SOLUTION:**

*This question asks for the action that you should take FIRST in determining whether changes should be made to the training program.*

**Choice A** is not correct. Reviewing the training methods may result in changes to the program if the methods are faulty or inappropriate. But you cannot evaluate the methods unless you have a context against which these materials can be evaluated. You must first become familiar with the training goals before you can evaluate the training methods.

**Choice B** is not correct. Reviewing the content of the training materials may result in changes to the program if the content is not appropriate. But you must first know what the goals of the training program are before you can evaluate the appropriateness of the training content.

**Choice C** is the correct answer to this question. The most important consideration in determining whether changes should be made to the training program is determining whether the program met its training goals. You must first become familiar with those goals before you can make this determination.

**Choice D** is not correct. Although you may eventually review the evaluations with the training instructor, you must first become familiar with the goals of the training to provide a context against which you can discuss the content of the participant evaluations.

## **TEST SECURITY**

The test you will be taking is the property of the New York State Department of Civil Service. Candidates may not remove test material from the test site and may not reproduce, reconstruct, or discuss the test content with others. Unauthorized possession or disclosure of the test material is prohibited by law and punishable by imprisonment and/or a fine. Additionally, candidates may be disqualified from appointment to the positions for which the examination is being held and from being a candidate for any civil service examination for five years. After you take the test, other individuals may want to talk with you about the test. You should not discuss the questions and answers, even in general terms. You should be careful that you do not inadvertently violate test security and put yourself at risk.

### **CONCLUSION**

Your attitude and approach to the test will influence how well you perform. A positive attitude will help you do your best.

#### **Before the test ...**

- Study and review this guide to familiarize yourself with what the test will cover.

#### **On the day of the test ...**

- Arrive at the test site on time.
- Bring your Admission Notice, two No. 2 pencils, a photo ID containing your signature, a quiet lunch or snack, and any other **allowed** materials.
- Do **NOT** bring this test guide to the test site.

#### **At the test site ...**

- Do **NOT** bring cell phones, beepers, headphones, or any electronic or other communication devices to the test site.
- The use of such devices anywhere on the grounds of the test site (this includes the test room, hallways, restrooms, building, grounds, and parking lots) could result in your disqualification.

#### **During the test ...**

- Read and follow all directions on your Admission Notice, test booklets, answer sheets, and Candidate Directions.
- Follow the Monitor's instructions.
- Keep track of the time.

#### **After the test ...**

- Do **NOT** remove any test materials from the test room.
- Do **NOT** paraphrase, reconstruct, or reproduce the test material in any way.
- Do **NOT** discuss the test material with others.

It is the policy of the New York State Department of Civil Service to provide reasonable accommodation to ensure effective communication of information to individuals with disabilities. If you need an auxiliary aid or service to make the information available to you, please contact the New York State Department of Civil Service Public Information Office at (518) 457-9375.



# Department of Civil Service

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