

#### **Chicago Firefighter Examination™ Preparation Guide**

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#### Introduction

This study guide has been developed to introduce you to the Chicago Firefighter Exam™ (CFE™). If you read through this guide carefully, you will have a better understanding of what strategies will help you to prepare for the test. You will learn about the types of questions that will be asked on the test, and you will have an opportunity to practice answering those questions. Thank you for choosing our guide; we hope that it will serve as a valuable tool to help you achieve your goal of serving the community.

The exam consists of a series of multiple-choice questions and behavioral statements designed to test important cognitive abilities and behavioral orientations/propensities that are necessary for effective job performance as a firefighter.

In developing the CFE™, a group of experts from firefighting agencies throughout the United States identified many of the tasks essential to the performance of the job of a firefighter. From these tasks, nine essential areas for entry-level testing were determined. These nine areas are as follows:

- Verbal comprehension
- Verbal expression
- Problem sensitivity
- Deductive reasoning
- Inductive reasoning
- Information ordering
- Stress tolerance
- Team orientation
- Motivation/attitude

These nine test areas have been clustered or grouped into two sections on the CFE™, a cognitive and a behavioral section. The cognitive section, which includes verbal comprehension, verbal expression, problem sensitivity, deductive reasoning, inductive reasoning and information ordering, is the first part of the exam, which consists of a total of 74 questions. Questions assessing stress tolerance, team orientation and motivation/attitude are clustered together to form the behavioral section of the CFE™, which consists of a total of 50 items.

You will have a total of two-and-one-half hours  $(2-\frac{1}{2} \text{ hours})$  to complete both sections of the CFE<sup>TM</sup>.

The selection process for firefighters is very competitive, and higher scores on the entrance exam will increase your chances of being hired by a firefighting agency.

Although you are not required to read or use this study guide, we encourage you to do so. The more you prepare for the test, the more likely you are to improve your score.

We hope this booklet will help you to become better prepared, and we wish you the best of luck on the examination.



### General Exam Information



#### **Objectives of this Study Guide**

There are several objectives that we would like to accomplish with the use of this study guide. They are outlined for you below.

## I) To help you become acquainted with the types of questions included in the exam.

This study guide will provide you with a better understanding of the nature and format of questions that will appear on the CFE™. The exam is designed to be a measure of your job-relevant cognitive abilities and behavioral orientations. You will be tested on six separate cognitive abilities: verbal comprehension, verbal expression, problem sensitivity, deductive reasoning, inductive reasoning and information ordering. You will also be tested on several job-related behavioral characteristics.

A definition of each of the cognitiveability areas and an explanation of how they apply to the job of an entry-level firefighter will be provided in this guide. In addition, sample test questions are also provided in each measurement area to give you a good idea of the types of questions to expect. You will also be provided with recommendations to improve your performance in each cognitive-ability area.

We encourage you to become acquainted with the different measurement areas and question formats that will appear on the exam. After you have read and absorbed all of the information, you will be

ready to proceed to the sample test that can be found in the last section of this guide. The test consists of 70 questions that test your cognitive abilities in the six areas mentioned above. Treat your practice exam as though it were the actual test. Complete the practice test within the recommended time limit and do not look at the answers in advance. After you have completed the practice test, use the answer key to determine your score.

### 2) To inform you of the rules governing the testing process.

This guide will provide you with information about what you will be allowed to bring with you when you take the exam. Also included is information about what is expected of you and what you can expect from the test proctors. It is a good idea to be aware of the rules before the day of the test so that you will not be distracted during the actual administration and can focus all of your efforts on doing well on the exam.

### 3) To provide you with some general test-taking strategies.

It is very important to pay close attention to this section of the study guide. The general test-taking strategies presented in this guide can help to ensure that you work as efficiently and effectively as possible on the exam. Following these general test-taking strategies may help to improve your overall score on the CFE™. You will also be provided with strategies to help you improve your skills in each of the cognitive-ability areas. These tips will be provided in the sections devoted to each area of the test.

### 4) To provide specific instructions for completing the exam answer sheet.

Because the CFE™ is computer-scored, you will mark your answers on a scannable answer sheet. If you do not mark your answers in the correct spaces on the answer sheet, you will not receive credit for what might otherwise have been correct answers.

# 5) To provide you with information about common test-taking errors and strategies for avoiding them.

This guide explains errors typically made by test-takers in multiple-choice exams and includes steps for analyzing your own errors and suggestions for avoiding the same errors in the future.

Important Note: Do not memorize the practice questions and answers provided in this book. Any question that has been released will not be used again. You may run into questions that will be very similar to ones provided in this guide, but you will not be tested with any of these exact questions.



#### Tips for the Day of the Exam

#### Preparation for the exam.

You will increase your chances of obtaining your best score if you spend some time preparing for the exam. This includes reading this study guide and finding out as much as possible about the exam ahead of time, trying to avoid becoming overly anxious about the exam and using good test-taking strategies.

#### • Your physical well-being.

Get a good night's sleep before the exam. Try to ensure that you are in the best possible condition both physically and mentally on the day of the exam.

#### • Arrive early.

It is crucial that you arrive on time! Punctuality will demonstrate your enthusiasm for a career in firefighting. You may need to make advance arrangements for such things as childcare and a ride to the test site. It would also be wise to anticipate traffic delays in traveling to the test site and to allocate extra travel time to ensure an early arrival even with delays. Give yourself ample time to settle in at the test site.

#### • Confidence.

The more confident you are in your abilities, the more likely you are to do well on the exam. Try to stay focused so that you don't end up reading sentences and answer choices over and over again. You want to take control of the exam by feeling confident in your skills. Try to relax and concentrate on the exam you are about to take.

#### • Attitude.

This exam is an opportunity for you to show your skills and abilities, and a positive attitude can have an impact on increasing your test score. There are a few ways to fine-tune your attitude about taking this exam:

- I) Look at this exam as a challenge but try not to get "stressed out" by thinking about it too much.
- 2) Remember that passing this exam is usually the first step in the entry-level selection process, but it is not the only piece of information used to make a hiring decision.
- 3) Remember that by using this study guide and practicing your strategies, you can be more prepared for the exam.

#### **Basic Test Rules**

- Promptness is mandatory for admittance to the test on the date and time scheduled.
- 2) Photo identification is often mandatory for admittance to the test.
- 3) Due to the security measures that will be in place, only authorized candidates will be admitted to the test site.
- 4) You may want to bring a watch with you to monitor your time during the test. No other supplies will be permitted at the test site. Calculators will NOT be allowed at the test site.
- 5) Paging devices, portable phones, cameras, and other electronic equipment and communication devices will not be permitted during testing. If you choose to use an unauthorized

communication device in violation of testing guidelines, your test will be collected and considered invalid.

6) It is strictly prohibited for you to leave the test site with any test materials. All test materials supplied must be returned before you exit the test site.

### General Strategies for Taking the CFE™

• Listen Carefully.

The exam administrator will provide you with complete instructions for taking the exam. Be sure that you pay close attention to all test instructions. It is extremely important that you completely understand the directions before the exam begins.

#### Note start and end times.

Just before the test administrator begins the test, make a note of the time that the test will actually begin and the time that the test will end.

#### • Keep track of time.

It is important that you keep track of your time so that you are able to pace yourself throughout the exam. You do not want to run out of time and leave questions unanswered. Since the score on the cognitive portion of your exam will be based on the total number of correct answers, you will want to work both quickly and efficiently. It is also important that you keep track of time so that you are able to allot a few minutes to guess on any unanswered questions at the end of the exam.

#### • Remain calm.

It is important that you remain calm throughout this exam so that you are able to work most effectively. You can't allow yourself to become nervous or confused by a few difficult or challenging questions. There are going to be times when you are not going to know the answer, and neither will other individuals taking the exam. If you believe that you have not done well on any particular type of question, try to remain calm and focus on doing your best for the rest of the exam.

### Read each question and answer option carefully.

Be sure that you understand what the question requires of you. Keep in mind that incorrect answers are sometimes designed to divert or distract you from the correct response. Carefully read each answer option. Even if the option contains exact words or phrases from an accompanying passage, this does not guarantee that the option will be the correct answer.

#### Read for meaning.

Don't get stuck on words or sentences you do not understand. You may be able to get the main idea from a sentence or paragraph without understanding the individual words or the individual sentences.

#### Watch out for words that are sometimes designed to mislead!

Watch out for answer options that contain the words "only," "always," "never" and "all." Make sure that you carefully read any passages accompanying the question to determine whether the answer option is accurate or an exaggeration. This does not mean that any answer option

containing the words listed above is automatically incorrect. Again, you must carefully read to determine the validity of an answer option.

#### Try to answer the question correctly before you look at the answers given.

If you know the answer, compare it to the available choices and pick the choice closest in meaning to the answer you have in mind.

#### Answer easy questions first.

It is important that you answer the easy questions first on this exam. By doing so, you will afford yourself more time to spend on the difficult questions if necessary. Seek out questions you can answer. If there are particular kinds of questions that you feel most comfortable with, answer those questions first. For example, if you are particularly good at reading comprehension, then find those items first and complete them.

### • Don't waste time on questions you can't do.

If you believe that you are not able to answer a question, then skip it. It is better to skip a difficult question than to spend a lot of time on it and not be able to complete other exam questions.

#### Mark your exam booklet.

Mark in your exam booklet those questions that you have skipped so that you are able to come back to them later in the exam. Marking questions that you have skipped in your test booklet will help to ensure that you have answered all of the questions by the time the examination period has ended. Keep in mind that you must mark the correct answer on your answer sheet

to receive credit, regardless of what is written in your exam booklet.

• Use a process of elimination.

If a situation presents itself where you are unable to answer a question, use a process of elimination to narrow your options. First, eliminate any answers that are clearly wrong. Then determine how you feel about the remaining choices. If you believe that some answers are more correct than others, indicate that on your exam booklet. Later in the exam, you may have an opportunity to come back to these questions and answer them without having to read the entire question again.

#### Guessing.

Remember that you should pace yourself so that you can read and carefully consider each question. However, keep in mind that only correct answers will be counted as part of your score; therefore, a guess would be better than a space left blank on your answer sheet. You will not be further penalized for a wrong answer, and you may just guess the right answer. If you see that you are running out of time, mark the remaining spaces with the same answer. Statistically, some of these answers may be right. Of course, it is always better to make an educated guess rather than a wild guess. Using the process of elimination, make a guess from the choices that remain. The odds of guessing a right answer will increase if you can choose between two or three options rather than four or five.

#### • Extra time.

If you finish the exam before the time period is over, review your answers and make any changes that are necessary. Also make sure that you have marked your answers on the answer sheet correctly.

### Strategies for Analyzing and Avoiding Errors

Four common causes for choosing incorrect responses are presented to you below, along with suggestions for avoiding these errors. Reading through this section carefully can help you identify and correct any major weaknesses in your test-taking behavior.

#### I) Answer sheet errors.

 Reason: You may have missed a question because you skipped it and failed to come back to it later.

**Suggestion:** Be sure you mark skipped questions in your exam booklet and remember to go back to them before the end of the exam period. Also, if you happen to have extra time before the test period ends, use this time to check your answers.

 Reason: You may have missed a series of questions because you have marked them on the wrong spaces on the answer sheet.

Suggestion: If you skip questions, it is possible that you could fill in the wrong spaces on your answer sheet. During the exam, concentrate on completing the answer sheet properly so that the number of the question you are working on corresponds with the number that you fill in on the answer sheet. If possible, take a few minutes at the end of the exam to double-check that you have filled in the correct circles in the appropriate spaces on your answer sheet.

#### 2) Misreading a question or answer.

 Reason: This may occur because you overlooked a key word or phrase.

**Suggestion:** When choosing an answer, underline key words and phrases that stand out. Once you have underlined the key words and phrases, check the details of the possible answers with the details you underlined, one by one. Always keep in mind that you are looking for the best possible answer with the most accurate details.

### 3) Not knowing the meaning of key words.

 Reason: This is a problem with breadth of vocabulary.

Suggestion: When you come to an unfamiliar word, reread the sentence to determine the general, overall meaning of the sentence. This is known as "reading for meaning." The meaning of the unfamiliar word should become clearer as you begin to understand the phrases and ideas that surround it. Before the test, spend some time reading newspapers, books or other sources of your choice. When you encounter words that you don't understand, look them up in a dictionary or write the definition of the word in a notebook.

### 4) Choosing an answer because it "looks" good.

 Reason: An incorrect answer may contain an exact phrase from the original passage.

**Suggestion:** Beware of answers containing exact words or phrases from the accompanying passage.

 Reason: An incorrect answer may overstate information that was presented in the accompanying passage. For example, if the passage says, "Some incidents...", an incorrect answer may say, "All incidents..."

**Suggestion:** Stick strictly to the facts described in the accompanying passage itself. Don't be drawn to answers that stretch or exaggerate these facts or rules. This is the time to watch out for words such as "only," "never," "always," "whenever," "all," etc.

#### Other suggestions:

- Have an answer in mind before you look over the alternatives. This will make you less likely to choose an answer that just looks good.
- Beware of choosing answers based on common sense or previous knowledge and experience. Answer ONLY on the basis of the material presented in the exam question itself.

### Instructions for Using the Answer Sheet

This section describes the procedures used to fill in the answer sheet during the actual exam. All of the questions on the examination will be multiple-choice. You will mark your answers on the scannable answer sheet included with the CFE™, and detailed instructions on how to use it will be outlined for you at that time. A sample of the answer sheet has been provided below for your review.

# Things to consider when marking the answer sheet:

A B C D E

A B C D E

(A) (B) (C) (D) (E)

A B C D E

ABCDE

f A f B f C f D f E

A B C D E

(A) (B) (C) (D) (E)

2. (A) (B) (C) (D) (E)

- Make heavy black marks that fill the circles completely.
- Erase any answers you wish to change completely.
- Do not make any other marks on the answer sheet.
- You will notice that for question 10 on the sample answer grid, the circle marked "A" has been filled in. This indicates that alternative "A" has been selected as the correct answer for question 10. This is the correct way to mark your answer sheet. The reason that we ask you to take such care in marking your answer sheet is that the computer is not able to recognize other marks such as checks (√), X's, partially filled-in circles, etc. If the computer encounters poorly erased or incomplete responses or stray marks on your answer sheet, you may not receive credit for a correct answer.
- Use a #2 pencil ONLY. Pencil is required to complete the answer sheet because a computer will be reading these marks. Do not use ink or ballpoint pens.
- Place all of your answers on the answer sheet. You may use your exam booklet

- as scratch paper, but keep in mind that only answers on the answer sheet will be scored.
- There are five alternatives (A, B, C, D and E, or I, 2, 3, 4 and 5) listed on the answer sheet for each question. Please be sure that you mark your answer in the appropriate column. You may want to go back and check your answers periodically to be sure that you have placed your answer in the correct column.

#### **Areas of Measurement**

#### **Cognitive-Ability Areas**

The information presented in this section of the study guide will assist you in becoming familiar with the structure of the cognitive-abilities section of the exam. A brief definition of each cognitive ability is presented along with sample questions to orient you to the different question formats. You will also find useful tips to help you improve your performance in each of these areas.

It is important to note that all the jobrelated questions presented in this area are
designed to measure your basic verbal
comprehension, verbal expression, problem
sensitivity, deductive reasoning, inductive
reasoning and information ordering abilities.
Some questions will present specific
firefighting procedures. While these
questions are presented in a
firefighting context, no prior
knowledge of firefighting is required
to answer any question on this test.
You should answer all questions in this
section solely on the basis of the
information presented in the

question. Further, it should be noted that procedures and definitions contained in test questions are not necessarily those of any particular or specific firefighting agency.

Following is the format that will be used to familiarize you with the areas of measurement on the examination:

#### Definition

In this section, each ability is defined, and you are provided with examples of how the ability applies to the job of an entry-level firefighter.

#### General Information

This section describes the various types of questions that will be used to assess your ability with respect to the six cognitiveability areas.

#### Sample Questions

In each of the ability areas, sample questions are provided to illustrate the types of questions that may appear on the  $CFE^{TM}$ . By answering the sample exam questions, you can assess your understanding of the information.

#### Tips

For each ability area, suggestions will be provided to help you improve your cognitive abilities before you take the exam. If you know that you typically perform poorly on a certain skill, then follow these tips in order to practice and strengthen your skills.

#### **Verbal Comprehension**

#### Definition

Verbal comprehension is the ability to understand language, either written or spoken. This ability involves both the understanding of individual words as well as patterns of words (sentences and phrases). This is the ability to hear a description of an event and understand what happened. This is also the ability to read a sentence or series of sentences and understand the meaning. This ability might be used in reading narrative material, such as an incident report or the fire safety code, listening to descriptions of events, places or people, receiving radio communications, or following verbal work orders.

#### General Information

Questions in this section are presented in a variety of different formats. You are asked to read over a few descriptive paragraphs and answer the questions that follow. The subject matter will vary from one passage to the next.

These types of questions can be more time-consuming than other questions because there is a great deal of material to read. You should read through the material carefully so that you may correctly answer the questions that follow.

#### Sample Questions

Use the information in the following passage to answer sample questions 1-2.

At 4:53 p.m., Firefighters McVoy, Brewer and Larson arrive at the scene of a fire in a single-family home at 821 W. Willie Avenue. Tanya Walters, who lives in the

home, frantically informs Firefighter Brewer that her three-year-old son, Gregory, and her husband. Steven, are still inside the house. She claims that Gregory and Steven had been on the second floor taking a nap while she was in the basement folding laundry. When she heard the smoke alarm, she ran upstairs to the living room and saw smoke coming down the second floor stairway. She wanted to go upstairs to search for her son and her husband, but the smoke was too thick. She ran next door to call the fire department and hoped that Steven and Gregory would be outside when she returned. Tanya tells Firefighter Brewer that she is worried that Gregory and Steven might be trapped in her son's bedroom.

Firefighter Brewer attempts to reassure Tanya while Firefighters McVoy and Larson place a 12-foot single ladder against the exterior wall of the home. They climb up the ladder and enter the second floor of the home through Tanya's bedroom window. Two minutes later, Firefighter McVoy climbs back down the ladder with Gregory in her arms. Steven and Firefighter Larson quickly follow Firefighter McVoy down the ladder.

Tanya rushes to greet Gregory and Steven, who are frightened but otherwise all right. Gregory and Steven are transported to the hospital and treated for smoke inhalation and minor burns.

- I) What was Tanya doing when she heard the smoke alarm?
  - a. Taking a nap with her husband and son.
  - b. Folding laundry in the basement.

- c. Talking on the phone in her bedroom.
- d. Visiting her next-door neighbor.
- e. Searching the house for her husband and son.
- 2) Tanya told Firefighter Brewer that she is worried that Gregory and Steven might be trapped in \_\_\_\_\_.
  - a. the basement
  - b. Tanya's bedroom
  - c. the living room
  - d. the family room
  - e. Gregory's bedroom

The answers to sample questions I and 2 are as follows:

- I. B
- 2. E

The answers to sample questions I and 2 are taken directly from the descriptive scenario. If you have trouble determining the correct answer, *carefully* reread the passage for clues.

#### Tips

 Before the test day, read entire newspaper articles for practice.
 Underline important details and ideas and notice different points of view and types of supporting evidence. After you have finished the article, try to summarize the main point of the article and the different arguments that may have been presented. Look over the words and sentences you have underlined. Were they the most important words and ideas? As you continue to practice this exercise, you will become a more efficient reader, and you will read with greater comprehension.

- One strategy you may find helpful is to read the questions before you read the selection. The questions will tell you what important details you need to notice as you read the passage.
- Make sure that you read each question very carefully. Many candidates make mistakes on reading comprehension questions because they misunderstand the question.
- Read all of the answer choices carefully.
   Try to eliminate incorrect answers until you are left with only one possible answer. If you have more than one possible answer, reread the passage.

#### **Verbal Expression**

#### Definition

Verbal expression is defined as the ability to use language (either verbal or written) to communicate information or ideas to other people. These other people might include other firefighters, fire officers, witnesses, arson suspects, fire victims or any individual with whom the firefighter might come in contact. This ability includes vocabulary, knowledge of distinctions among words, and knowledge of grammar and the way words are ordered.

#### General Information

These questions will ask you to choose words or phrases that will be grammatical in the context of a sentence.

#### Sample Questions

For sample question 3, please choose the appropriate word or phrase to complete the following sentence.

- 3) After the fire was extinguished, the firefighters \_\_\_\_\_ a final search of the building for additional victims.
  - a. performed
  - b. did perform
  - c. performs
  - d. had performed
  - e. will perform

For sample question 4, identify which one of the underlined words is spelled incorrectly.

- 4) Firefighters should be <u>trained</u> to <u>recognize</u> the <u>symptoms</u> of and <u>initial</u> treatments for <u>cardeac</u> distress.
  - a. trained
  - b. recognize
  - c. symptoms
  - d. initial
  - e. cardeac

The answers to sample questions 3 and 4 are as follows:

- 3. A
- 4. E

Sample questions 3 and 4 are measuring one's ability to use language to communicate information or ideas to other people. Based on the information provided for you in the sentence, you must answer sample questions 3 and 4 using the alternative that makes the most sense and

gives the correct meaning to the sentence or choose the word that is spelled incorrectly.

#### Tips

- If you are not familiar with terms such as "singular," "plural," "active voice" and "passive voice," we recommend that you consult a good grammar guide, such as Gerald P. Mulderig's The Heath Handbook, so that you are able to analyze the sentences in the test questions to understand what elements are required to complete the sentence grammatically.
- As before, be sure to read! If you read well-written material, you will become more comfortable with different types of sentence structures. As you read newspapers, magazines and books, practice locating the subjects and verbs of various sentences. Try to determine why a particular kind of verb is required to complement a particular kind of subject.

#### **Problem Sensitivity**

#### Definition

Problem sensitivity is the ability to recognize or identify the existence of problems. It involves both the recognition of the problem as a whole and the elements of the problem. An example might include the identification of interpersonal conflict within the station house.

#### General Information

You will be asked to read a short passage. You will then have to determine what is most likely to be the main problem

in the situation that is presented in the passage. You may also be asked to determine what problem would most likely arise from the conditions presented in the passage or what step you would take to address the problem.

#### Sample Questions

Use the information in the following passage to answer sample question 5.

Personnel from your fire department were dispatched to the scene of a motor vehicle crash. There were two vehicles involved in this incident, and a pedestrian was also injured. A red 2002 Hyundai Sonata, driven by Bethany Foster, was stopped at a traffic light, and Ms. Foster intended to make a left turn. Her car was rear-ended by a white 2004 Chevrolet Cavalier, driven by Mrs. Tania Richter. The force of the collision pushed Ms. Foster's car forward into the intersection and caused her to strike a pedestrian, Gary Hoffman.

Ms. Foster was wearing her seatbelt at the time of the accident. She complained of bruises and neck pain. Her lower lip was also bleeding; paramedics at the scene speculated that she had bitten it in the crash. There were two passengers in her car—her husband, Daniel, sitting in the front passenger seat, and her nine-year-old son, Geoff. Both passengers were wearing their seat belts. Daniel claimed to be uninjured. Geoff complained of a sharp pain in his right shoulder.

Mrs. Richter was traveling alone in her car. She was wearing her seat belt at the time of the crash. She complained of neck pain and a sharp pain in her right wrist. She suspected that her wrist was injured and possibly fractured when her driver's side airbag deployed.

Gary Hoffman was unconscious when paramedics arrived; he had a large cut on the back of his head that was bleeding profusely. His right arm was bent at an unnatural angle.

- 5) Based on the information given in the paragraphs, \_\_\_\_\_ would appear to be the most seriously injured individual.
  - a. Bethany Foster
  - b. Tania Richter
  - c. Gary Hoffman
  - d. Daniel Foster
  - e. Geoff Foster

### For sample question 6, please choose the MOST serious problem listed.

- 6) Your fire department is notified of the following five events on the same day. Of these events, which should be considered the MOST serious or MOST urgent?
  - a. Notification of a malfunctioning hydrant.
  - b. A request to set up an appointment for a fire alarm system inspection in a new industrial building where hazardous chemicals will be stored.
  - c. Several calls regarding a pile of burning leaves in a vacant lot.
  - d. An EMS call regarding a child who fell off his bike and possibly broke his clavicle.
  - e. A confirmed fire on the fifth floor of a high-rise apartment building.

The answers to sample questions 5 and 6 are as follows:

- 5. C
- 6. E

The answers to sample questions 5 and 6 are based on one's ability to identify the elements of a problem situation. Information is presented in each passage to give you clues about the problem situation. For example, in sample question 5, Gary Hoffman's lack of consciousness, profusely bleeding head wound and possibly broken arm suggest injuries that are more serious than those incurred by the other participants in the crash. In sample question 6, a confirmed fire in a large building that is populated by many people would be the most serious or urgent problem.

#### Tips

- You will need to rely on your common sense to answer most of these questions. But make sure that you read the situation and answer options carefully and look for important details. Carefully examine the answers and make sure that you pick the answer that relates most closely to the details presented in any accompanying passages.
- If you are asked to imagine what would be the first step you would take to solve a problem, you may find it helpful to imagine the consequences that would arise if you followed each answer choice.

#### **Deductive Reasoning**

#### Definition

Deductive reasoning is the ability to apply general rules or regulations to specific situations or to proceed from stated principles to logical conclusions. An example might be the decision to use one chemical or mechanical fire-extinguishing agent over another or one medication over another.

#### General Information

Questions in this section will present you with a passage that explains some firefighting policies or other guidelines. You will then be given a specific situation related to the policies/guidelines, and you will have to decide the best course of action based on what you know about the information presented in the passage.

#### Sample Questions

### Use the following information to answer sample questions 7-8.

The following is a list of the six most common categories of medications that are relevant to patient care:

Analgesics: prescribed for temporary pain relief, fever control and the reduction of inflammation.

Antiarrhythmics: prescribed for the treatment of heart-rhythm disorders.

Anticonvulsants: prescribed for prevention and control of seizures.

Antidiabetic agents: prescribed to help maintain healthy blood-sugar levels in hypoglycemic (low blood sugar) patients

and to provide insulin, which allows the body to regulate the metabolism of sugar.

Antihypertensives: prescribed for the reduction of high blood pressure by relaxing the sympathetic nervous system, which in turn relaxes the walls of the arteries and arterioles.

Bronchodilators: prescribed to provide relief of bronchial asthma and other allergies affecting the respiratory system by relaxing the smooth muscles of the bronchial tubes.

- 7) According to the information about the medications described previously, if a person is having trouble breathing due to dust and pollen, what category of medication would be prescribed?
  - a. Analgesics
  - b. Antiarrhythmics
  - c. Anticonvulsants
  - d. Antihypertensives
  - e. Bronchodilators
- 8) On a windy fall day, a child playing at recess sprains her right ankle. The school nurse would prescribe to treat the child.
  - a. analgesics
  - b. antiarrhythmics
  - c. anticonvulsants
  - d. antihypertensives
  - e. bronchodilators

The answers to sample questions 7 and 8 are as follows:

- 7. E
- 8. A

These sample questions are dependent upon distinct information provided in the passage about the six most common categories of medications relevant to patient care, which are used to treat very specific medical symptoms. You are asked to apply your knowledge of medications from the passage and apply it to a specific situation. For example, in sample question 7, the only medication described that treats allergies is bronchodilators.

#### Tips

- Be sure to read carefully both the policies/guidelines and the questions.
   Occasionally there will be irrelevant details in both the general policies/guidelines and the specific situations, so make sure to match up important details carefully and disregard the information that does not help you answer the question.
- Other times, you may have to combine policies/guidelines to find the right answer.
- You may be able to practice your deductive reasoning skills by looking at a set of rules or policies. They could be school regulations, office policies at your current job, city ordinances, etc. Try to imagine situations in which a person could either follow or violate the rule. What parts of the rule(s) would you cite if you had to defend someone or issue a reprimand?

#### **Inductive Reasoning**

#### Definition

Inductive reasoning is the ability to find a rule or concept that fits the situation. It

also involves understanding how a string of events might be connected. One example of this ability is determining the point of origin of a fire or finding repeated violations of a fire code during building inspections.

#### General Information

For questions in this section, you will be provided with a text passage, table or a chart. You will be asked to make general conclusions based on the information provided in the passage, table or chart. What trends do you notice? Have specific strategies been successful or unsuccessful?

#### Sample Questions

### Use the following passage to answer sample questions 9-10.

Last Saturday, Martin was helping his friend Lewis move into his new apartment. When they were moving Lewis' bookshelf up the stairs of the apartment building, Lewis lost his grip, and Martin fell down the stairs. The bookshelf landed on top of Martin and pinned him to the floor at the bottom of the stairs. Lewis immediately called 911.

Engine 19 was the first to arrive at the scene. Firefighter Romano's initial assessment determined that Martin was conscious but that he appeared to have suffered a mild concussion and was experiencing a headache and nausea. Based on this assessment, Firefighter Romano suspected that Martin was not seriously injured. Firefighters Romano and Azcona lifted the bookshelf off of Martin and examined him further. The examination did not reveal any serious external injuries; however, Firefighter Azcona noticed that Martin seemed to be guarding his right wrist and complained that it hurt him to

move it. The position of his wrist suggested that Martin might have fractured it. When Firefighters Romano and Azcona attempted to move Martin to a stretcher, he told the firefighters not to move him because the slightest movement increased his nausea. Firefighter Romano explained to Martin that it was necessary to move him to the stretcher so they could transfer him to the hospital. Firefighters Romano and Azcona then moved Martin to the stretcher as quickly as possible to avoid causing him any more pain and discomfort than was necessary. Firefighter Azcona then stabilized Martin's wrist with a splint, and together Firefighters Romano and Azcona moved Martin to the ambulance that had arrived while they were stabilizing him.

While in route to the emergency room, a detailed physical exam was conducted to determine the extent of Martin's injuries. Vital signs were checked first; his blood pressure was 125/80, and his pulse was 115. These findings, along with the details of Martin's injuries, were radioed to physicians at the emergency room. When they arrived at the hospital, Martin was taken immediately to the x-ray room. The technicians working in the x-ray room determined that Martin had not fractured his wrist but that it was badly sprained.

- 9) Why did Firefighter Romano suspect that Martin was not seriously injured?
  - a. Because Martin did not appear to have any internal injuries.
  - b. Because the bookshelf was not very heavy.
  - c. Because Martin was being assisted by a friend.
  - d. Because Martin was conscious, and his concussion appeared to be mild.
  - e. Because Martin could speak.

- 10) An appropriate title for this passage would be .
  - a. "Moving Day"
  - b. "Mechanisms of Injury"
  - c. "The Symptoms of Internal Injuries"
  - d. "Patient Assessment and Prehospital Care"
  - e. "The Importance of Assessing Vital Signs"

The answers to sample questions 9 and 10 are as follows:

9. D

10. D

In sample question 9, information was presented on Martin's injuries, which gives you some clue as to the reasoning behind Firefighter Romano's assessment.

Sample question 10 asks that you look at all of the information presented and determine the main point or theme of the passage. It may be valuable to reread the passage to determine the main theme. Rereading the answers to the questions and thinking about the passage may also give you some insight into the main theme.

Tips

 Be sure to examine carefully every aspect of the passages, charts or graphs provided and every part of the answer options. If you misread a number or a label, you obviously will not be able to reach the correct conclusion.  You can practice your inductive reasoning skills by looking through a newspaper or a magazine for a passage, chart or graph. Instead of reading the article or an explanation of the chart or graph, try forming your own conclusions about the data. Then read the article to see if you have reached a valid conclusion.

#### **Information Ordering**

#### Definition

Information ordering is the ability to apply rules to a situation for the purpose of putting the information in the best or most appropriate sequence. In order to use this ability, rules or instructions must exist for the person to know the correct order of information. It involves the application of specific sequences or procedures to a given situation. An example of the use of this ability might be when a firefighter is deciding which set of procedures to follow first and which to follow thereafter.

#### General Information

For the information ordering section, the questions will ask you to place five or six statements in either chronological or logical order. The statements could be part of a set of first aid instructions or statements from accident victims. You may also be asked which statements come before or after other statements.

#### Sample Questions

Use the information in the following passage to answer sample questions 11-12.

Firefighters are not only taught how to extinguish fires, they are also taught how to treat those injured in a fire. It is important that they learn to treat serious injuries, such as burns, broken bones, cuts and abrasions, heart failure, and breathing problems. Because these medical emergencies are likely to occur at the site of a fire, basic first aid is an essential part of the job. Surprisingly, firefighters do not commonly deal with burns. The more common injuries at a fire site involve respiratory problems, heart failure and shock.

If an individual has no heartbeat or pulse, a firefighter should first remove the victim from the path of the fire and then initiate CPR (cardiopulmonary resuscitation). Once a victim's heartbeat and breathing are restored, other injuries can be treated. Degrees of seriousness in descending order are bleeding wounds, shock and broken bones. Minor cuts and abrasions would, of course, have the lowest priority.

- (1) Of the conditions listed below, which would be the one that should be treated last?
  - I. Deep bleeding wound
  - 2. Heart failure
  - 3. Sprained ankle
  - 4. Shock
  - 5. Minor cuts
  - a. I
  - b. 2
  - c. 3
  - d. 4
  - e. 5

- 12) Determine the order in which you would treat the injuries listed in sample question 11.
  - a. 5, 2, 3, 1, 4
  - b. 2, 1, 4, 3, 5
  - c. 3, 2, 4, 1, 5
  - d. 1, 2, 5, 4, 3
  - e. 4, 1, 2, 5, 3

The answers to sample questions 11 and 12 are as follows:

- II. E
- 12. B

Sample questions 11 and 12 address the order of treatment for medical conditions based on information presented in the passage. It may be helpful to re-read the passage and write down the order of the medical conditions as they are presented to you.

#### Tips

- Look for word clues in the statements, such as "before" and "after." See if any of the statements pair up in some way.
- To practice information ordering, obtain a copy of a policy, a recipe, assembly instructions—something that clearly must be done in a certain order. Cut out the individual steps or instructions. Mix them up and then see if you can rearrange them so that they are once again in their original, or most logical, order.

#### **Behavioral-Orientation Section**

The information presented in this section of the study guide will assist you in becoming familiar with the structure of the Behavioral-Orientation section of the exam. Sample statements are provided to orient you to the different item formats.

The items appearing in this section are significantly different from the questions appearing in the cognitive-ability section in terms of design and requirements for your response. It is important to note that the statements in this section are not scored in terms of correct or incorrect answers. These items are presented as a series of statements for you to respond to by marking the answer that best fits your opinion. The following five-point scale is provided for you to record your response to each statement presented:

- I Strongly Agree
- 2 Agree
- 3 Neither Agree nor Disagree
- 4 Disagree
- 5 Strongly Disagree

There are no obviously "correct" or "incorrect" responses to these types of items as there are for the cognitive questions. The goal of the behavioral-orientation component of the CFE™ is to compare your attitudes and behavioral propensities to those of successful firefighters. Individuals with higher scores on this section of the CFE™ are more likely to possess the requisite behavioral predispositions to be a successful entry-level Chicago firefighter. That said, attempting to answer in ways you think successful firefighters should answer these questions will likely result in your score

being lower than it would have been had you responded honestly.

Your response should be an indication of how you feel about the statement that is presented. You should respond honestly to each statement. A good guideline for answering these types of items is to put down the first response that feels right. Overanalyzing the statement or looking for hidden meaning can often cause you to misunderstand the statement and respond in a manner that does not reflect your true behavioral orientation.

#### Honest Responding

There are many sources that claim to teach or coach candidates how to best respond to "personality" or "behavioral" components of entry-level firefighter exams. Some preparation companies may claim they have determined optimal responses for the behavioral-orientation section of the Chicago Firefighter Exam. Such claims are false and have no basis in reality. This section has been included to caution you against this type of responding.

The CFE™ has been designed in such a way that individuals who follow "taught" strategies, or try to "game" the system, score lower on this section of the exam. That is, responding in ways that you think "look good" or are taught to you, but are not indicative of your actual feelings, attitudes or behaviors will result in your scoring lower on this section of the exam. There are no systematic patterns of responding that beat the system. Attempting to do so will result in a lower score than would have been achieved by responding honestly.

This section of the study guide has been included to provide you with accurate

information about the behavioralorientation section of the CFE™ so that all
candidates can do their best on the exam.
Our goal is to simply find the best
candidates for the City of Chicago. We do
not want quality candidates to fall victim to
misleading claims or preconceived notions
about how to gain an advantage on the
examination by "gaming" the system. It is
our goal that all individuals perform at their
peak levels. Therefore, we provide you with
accurate strategies that will lead to your
best performance in the tips section below.

#### Tips

To score optimally, the best strategies are to:

- I) Use the full range of answer option choices (Strongly Agree to Strongly Disagree). All option choices will result in a maximum point value at least one or more times on this section of the exam. At times, many option choices could result in the same maximum point value for the same statement.
- 2) Respond to each statement honestly and candidly. Try to not overthink the statements; the best responses for you is the one that comes to mind first. The strategy of "going with your instincts" will ensure that you score at your highest level on this section of the exam.

#### Sample Behavioral-Orientation Statements

Please rate the sample behavioralorientation statements using the scale previously provided. Be as open and honest as you can when making your ratings. Remember, there are no correct or incorrect answers.

- I) I am sometimes nervous around friends whom I have not seen for a long time.
- 2) I enjoy trying to make others feel comfortable in new situations.
- 3) When I am uncertain of how to do a task, I will usually ask for clarity.
- 4) I am more assertive than most of my friends.
- 5) Most people feel stressed when they get home from work or school.

#### Tips

It is very important that you complete this section of the examination, as your score is based on BOTH the cognitive portion of the exam and the behavioral-orientation section. If you do not answer this section of the examination you cannot possible pass the exam. If you are worried about your time, one strategy may be to answer this section of the examination first. Keep your time on this section limited to the first 30 minutes and then spend the remainder of your time on the cognitive ability section.

#### **Practice Exam**

### Before Taking the Practice Exam

On the following pages, you will find a 70-question sample examination, consisting entirely of cognitive-ability questions. The actual test consists of 74 cognitive-ability items and 50 behavioral-orientation items and must be completed in two-and-a-half hours (150 minutes). Because the practice test has fewer items than the number of cognitive-ability items that will appear on the actual test, we recommend that you spend no more than two hours (120 minutes) completing this practice test so that you can recreate the conditions of the real exam as accurately as possible. Try, if possible, to take this examination in a quiet room with few distractions. We also recommend that you complete the entire test before consulting the answer key. In other words, the best way to prepare for the exam is to treat this practice test as if it were the real thing!

#### After Taking the Practice Exam

Following the exam will be an answer key so that you can check your answers. If you find that you have answered a question incorrectly, go back to that question and try to figure out why you did not originally choose the correct answer. In addition to the answer key, you are provided an explanation of how to identify the correct answer for each of the questions in the practice test. Make a mental note if you seem to be making the same types of mistakes repeatedly, then try to formulate a new strategy for answering those questions. You may also wish to consult the tips listed in this study guide to improve your skills in each of the cognitiveability areas tested to find a new questionanswering strategy or to learn how to practice a certain skill.

# Good luck on the CFE™ and in your firefighting career with the City of Chicago!

#### Chicago Firefighter Exam - CFE™ Practice Examination

### Questions 1-2 are based on the passage below.

Engine 13 is dispatched at 9:38 a.m. to the scene of a car accident at the intersection of Elm and Forest. They arrive at the scene at 9:45 a.m. and find that a pick-up truck broadsided a compact car. The driver of the compact car, a female in her midthirties, is trapped in the car.

Firefighters Royer and Brown work to extricate the driver from the vehicle. Firefighter Blair checks on the driver of the truck, a male in his late forties. Firefighter Hamrick directs the flow of traffic until the police arrive.

The police arrive at the accident scene at 9:51 a.m., and an ambulance arrives at 9:53 a.m. Firefighters Royer and Brown remove the driver's side door from the compact car and successfully free the trapped driver by 9:57 a.m.

The driver of the compact car is loaded into the ambulance at 9:58 a.m. and arrives at St. Andrew's Hospital at 10:05 a.m. She is treated for minor injuries and released. The driver of the truck did not sustain any injuries.

- I) Which firefighter directed traffic until police arrived?
  - a. Firefighter Royer
  - b. Firefighter Brown
  - c. Firefighter Hamrick
  - d. Firefighter Blair
  - e. Firefighter Green

- 2) At what time did the police arrive at the scene?
  - a. 9:51 a.m.
  - b. 9:53 a.m.
  - c. 9:57 a.m.
  - d. 9:58 a.m.
  - e. 10:05 a.m.

### Question 3 is based on the passage below.

Firefighters are called to the scene of a garage fire at 157 South Deerfield Road. The garage is not attached to the home, and the fire is quickly contained.

Firefighter Robbins speaks to the owner of the home, Mr. Reynolds, and asks if he knows how the fire may have started. Mr. Reynolds tells Firefighter Robbins that he had some old firecrackers stored in the garage. He also states that he saw some neighborhood kids playing around by the garage earlier in the afternoon.

Firefighter Robbins enters the garage to see if he can find any other clues as to how the fire started. In the garage, he finds a few burned firecrackers, an overturned box and a few used matches.

- 3) How did the fire most likely start?
  - a. Mr. Reynolds had a gas leak in his car that was ignited by a disregarded match.
  - b. Kids from the neighborhood left a burning cigarette in the garage.
  - c. Mr. Reynolds intentionally started the fire, using matches.
  - d. Kids from the neighborhood were playing with firecrackers in Mr. Reynolds' garage and started the fire.
  - e. There is no apparent cause for the fire.

### Use the information in the following passage to answer questions 4-8.

A driver of a gray BMW who is traveling over the speed limit on the highway loses control of the vehicle, crosses the median and collides with an oncoming car, a red Toyota. Several drivers who witness the accident pull over to assist those involved in the accident. A woman in her late thirties uses her cell phone to call 911.

Firefighters arrive at the scene and assess the situation. They find the driver of the BMW, a man in his early forties, unconscious and bleeding. The driver of the Toyota, a woman in her early twenties, is conscious but is complaining of pain in her chest and abdomen. Her car had an airbag that was deployed.

The firefighters determine that the driver of the BMW must be extricated from the vehicle so that his injuries can be assessed and treated. They cautiously remove the driver from the vehicle and discover that the driver had sustained a deep cut on his left arm. Shortly after they finish the assessment, the driver regains consciousness and is able to communicate how he feels.

The driver of the Toyota is able to step out of the vehicle without assistance. The firefighters assess her condition again after she is out of the car and continue to monitor her condition until an ambulance arrives.

Both drivers were transported to the hospital for their injuries and were released later that same day.

- 4) What is MOST likely to have caused the Toyota driver's injuries?
  - a. The airbag.
  - b. The steering wheel.
  - c. The windshield.
  - d. The driver's side door.
  - e. The dashboard.
- 5) What is an appropriate title for the passage?
  - a. "The Dangers of Speeding."
  - b. "Assessing Accident Victims' Injuries."
  - c. "The Dangers of Airbags."
  - d. "How to Treat a Deep Wound."
  - e. "Witnesses Can Save Lives."
- 6) Which of the following is an accurate description of the driver of the Toyota?
  - a. A man in his late forties.
  - b. A man in his early forties.
  - c. A woman in her late thirties.
  - d. A woman in her early thirties.
  - e. A woman in her early twenties.
- 7) What is the MOST likely reason that the driver of the BMW lost control of his vehicle?
  - a. He was speeding.
  - b. He was drunk.
  - c. He fell asleep.
  - d. He hit the median.
  - e. He was on his cell phone.
- 8) What injury did the driver of the BMW sustain?
  - a. A cut on his right leg.
  - b. A cut on his left leg.
  - c. A cut on his right arm.
  - d. A cut on his left arm.
  - e. An abdominal injury.

### Use the information in the following passage to answer questions 9-11.

There are four classes of fires. The following is a description of each.

<u>Class A</u>: This type of fire involves ordinary combustibles; wood, paper and rubber are some common examples of these combustibles. Water is commonly used to cool these materials when they are burning. Class A foams can also be used.

<u>Class B</u>: This type of fire involves flammable and combustible liquids and gases. Gasoline, oil and paint are examples of these types of liquids. Oxygen exclusion, by using a smothering or blanketing effect, is the most effective way of extinguishing these types of fires.

<u>Class C</u>: This type of fire involves energized electrical equipment. Computers, household appliances and transformers are examples of this type of equipment. The fastest way to extinguish these types of fires is to de-energize high-voltage circuits and then fight the fire. Halon and carbon dioxide are used to control this type of fire.

<u>Class D</u>: This type of fire involves combustible metals. Aluminum, titanium and potassium are some examples of these types of metals. Different extinguishing agents are used to control fires caused by the ignition of each type of metal. Water and other common means of extinguishing fires are not effective in fighting this type of fire.

- 9) Firefighters are called to a fire at a warehouse. The warehouse is a storage area for a local paint manufacturer and contains paints and oils produced by the company. What class of fire are the firefighters battling?
  - a. Class A
  - b. Class B
  - c. Class C
  - d. Class D
  - e. Cannot be determined
- 10) Firefighters are dispatched to a fire at an office building. The fire began when a transformer overheated. What method would be BEST for the firefighters to use to fight this fire?
  - a. Use a smothering effect to create oxygen exclusion.
  - b. Use water to control the fire and then de-energize the transformer.
  - c. Use a Class A foam.
  - d. De-energize the high-voltage circuits and use halon to control the fire.
  - e. Use carbon dioxide and then deenergize the transformer.
- II) Firefighters are battling a Class A fire. What method should they use to fight the fire?
  - a. De-energize the high voltage circuits.
  - b. Use halon to control the fire.
  - c. Use a blanketing effect.
  - d. Use water to cool the material.
  - e. Use carbon dioxide to control the fire.

### Use the information below to answer questions 12-13.

The American Burn Association has three categories of burns:

- Catteger res			<b>T</b>
Category	Percent	Area	Type of
	of Body	Burned	Exposure
	Burned		
Major	25% or	Hands,	Electric
	greater	face, feet	or
		or	inhalation
		genitalia	
Moderate	15-25%	All areas	Non-
		except	electric
		hands,	and non-
		face, feet	inhalation
		or	
		genitalia	
Minor	15% or	All areas	Non-
	less	except	electric
		hands,	and non-
		face, feet	inhalation
		or	
		genitalia	

- 12) Firefighters respond to a car fire. They find a man who has burns covering 20 percent of his body. The burns are on his arms and chest. What category of burns has he suffered?
  - a. Major
  - b. Moderate
  - c. Minor
  - d. Electric
  - e. Inhalation

- 13) A woman is found at the scene of a house fire. She has burns covering 30 percent of her body, including parts of her face and hands. What category of burns does the woman have?
  - a. Major
  - b. Moderate
  - c. Minor
  - d. Electric
  - e. Inhalation

### Use the information in the following passage to answer questions 14-18.

Locating the fire within a structure can often be a difficult task. Firefighters must rely on clues given at the scene. Smells can often tell firefighters what type of material is burning. Different materials have distinct odors when burned.

Smoke color can also provide aid to firefighters in locating a fire. Burning paper and cloth produces a light gray smoke; furniture gives off a dark gray smoke when it is burned; wood produces a medium brown smoke when it is burned.

The color of the smoke is slightly different in different lighting and weather conditions. In cold weather (temperatures below 10 degrees F), almost all smoke appears to be white. While fires that involve wood appear to be darker brown in the daylight, the smoke would appear to be lighter at night compared to the dark sky.

When a building is especially large, it can be difficult to locate a fire. In these cases, firefighters can use methods that will allow them to speed up the time it takes to locate the fire. One method is for firefighters to go to the roof of the structure and look

down the walls of the structure to see where smoke might be seeping out of windows.

Another method that can be used when attempting to locate a fire is feeling the walls and doors within the structure. Hot walls or doors, or walls or doors that have discoloration and blistering, can indicate that the fire is close.

- 14) What is the best title for this passage?
  - a. "The Colors of Smoke."
  - b. "How to Locate a Fire."
  - c. "Fighting Fires With Heavy Smoke."
  - d. "Firefighting Techniques."
  - e. "Unusual Odors in Fires."
- 15) In daylight and warm temperatures, smoke from \_\_\_\_\_ is light gray and smoke from \_\_\_\_\_ is dark gray.
  - a. paper; furniture
  - b. furniture; paper
  - c. furniture: wood
  - d. wood; furniture
  - e. paper; wood
- 16) What color is the smoke that is given off by burning furniture when the temperature is over 10°F and it is daylight?
  - a. Light brown
  - b. Dark brown
  - c. Light gray
  - d. Dark gray
  - e. White

- 17) Which would produce a smoke that appears as white smoke?
  - a. Wood burned at twilight in warm weather.
  - b. Paper burned in daylight in temperatures above 10°F.
  - c. Furniture burned at night in warm weather.
  - d. Cloth burned in the day in temperatures above 10°F.
  - e. Wood burned in daylight in temperatures below 10°F.
- 18) Which of the following was NOT a method described for locating fires?
  - a. Looking at the sides of the building from the roof to find smoke that is seeping out.
  - b. Listening for the sound of water in buildings that have sprinklers.
  - c. Looking for walls and doors that are discolored or blistering.
  - d. Smelling for materials that produce a distinct odor when burned.
  - e. Looking at the color of smoke that is produced.

### Use the information in the following passage to answer questions 19-21.

Engine Company 12 was dispatched to a fire at 4:18 p.m. at a local shopping complex. A security guard called 911 and reported that he saw smoke coming from the back of one of the stores in the complex. The shopping plaza is located at the corner of Sheffield and Byrne.

Engine Company 12 arrived at the scene at 4:24 p.m. The firefighters found a small amount of smoke coming from the back of a women's clothing store. They evacuated the clothing store and the adjacent stores.

The evacuation was complete at 4:28 p.m. The firefighters then proceeded to look for the source of the smoke. The firefighters found a small fire in a trashcan in the stockroom of the clothing store.

The firefighters were able to put the fire out quickly using a hand-held fire extinguisher by 4:33 p.m. After the fire was extinguished, the firefighters examined the contents of the trashcan to determine what caused the fire to ignite. In the trashcan they found a discarded cigarette.

Firefighter Jansen spoke to the owner and employees of the women's clothing store. He explained that the fire was started by a discarded cigarette. He explained that it is important to dispose of cigarette butts properly. Engine Company 12 left the shopping plaza and returned to the station house at 5:14 p.m.

- 19) What time did the firefighters extinguish the fire?
  - a. 4:18 p.m.
  - b. 4:24 p.m.
  - c. 4:28 p.m.
  - d. 4:33 p.m.
  - e. 5:14 p.m.
- 20) Who reported the fire?
  - a. The owner of the women's clothing store.
  - b. The owner of an adjacent store.
  - c. The security guard.
  - d. Firefighter lansen.
  - e. A passing shopper.

- 21) What did the firefighters do BEFORE they looked for the source of the smoke?
  - a. Talked to the store's owner.
  - b. Talked to the security guard.
  - c. Extinguished the fire.
  - d. Evacuated the women's clothing store and adjacent stores.
  - e. Searched the contents of the trashcan.

### Use the information in the following passage to answer questions 22-25.

There are five types of building construction. Below is a description of each of these types.

Type I: This type of construction is fire-resistive. The materials used in this type of structure are either noncombustible or limited combustible. These structures are compartmentalized, which helps retard the spread of the fire. The contents of these structures are the greatest hazards in this type of construction.

Type II: This type of structure is noncombustible or limited combustible. It is made primarily from noncombustible or limited combustible materials, but other types of materials may be used in limited quantities. The contents of these structures are also the greatest concern in this type of building, but the failure of the roof is also a concern.

Type III: This type of structure is ordinary construction. The exterior walls in these structures use noncombustible or limited combustible materials. The interior walls are constructed from wood. The spread of fire and smoke through concealed spaces is the primary concern in this type of construction.

Type IV: This type of structure is heavy-timber construction. The exterior and interior walls are constructed of noncombustible or limited combustible materials. Beams and floors are made of solid or laminated wood. The large amount of combustible material due to the structural timbers and contents of the structure are the primary hazard concerns.

<u>Type V</u>: This is wood-frame construction. The exterior walls are made primarily from wood. The spread of fire to other structures is a great concern when fighting fires in this type of structure.

- 22) Firefighters are fighting a fire in a structure that is made primarily from noncombustible or limited combustible materials with other types of materials used in limited quantities. What type of construction is the building?
  - a. Type I
  - b. Type II
  - c. Type III
  - d. Type IV
  - e. Type V
- 23) Firefighters are fighting a fire in a structure where their primary concern is the spread of smoke and fire through concealed spaces. What type of construction is the structure?
  - a. Type I
  - b. Type II
  - c. Type III
  - d. Type IV
  - e. Type V

- 24) Firefighters are fighting a fire in a structure that has Type V construction. What is the primary concern in fighting a fire in this type of structure?
  - a. The contents of the structure.
  - b. The spread of smoke and fire through concealed spaces.
  - c. The spread of fire to other structures.
  - d. The large amount of combustible material due to the structural timbers.
  - e. The failure of the roof.
- 25) In Type IV construction, \_\_\_\_ and \_\_\_ are made of solid or laminated wood.
  - a. interior walls; beams
  - b. interior walls; floors
  - c. exterior walls; floors
  - d. interior walls; exterior walls
  - e. beams; floors

### Use the information in the following passage to answer questions 26-28.

Firefighters need to wear specialized clothing to protect them from the uncontrolled heat that they encounter when fighting a fire. There are five features that are used to evaluate this clothing.

Thermal resistance refers to the ability of material to provide a protective barrier between the heat and the body by reducing the amount of external heat that passes through the material to the body.

Thermal capacity is the ability of material to absorb and store heat. This feature works well until the maximum heat capacity is reached, and it then gives off heat to the wearer.

Reflectivity is the ability of the material to reflect radiant heat. Light-colored or polished fabrics reflect heat better than dark or rough surfaces.

Flammability is the ease of ignition of the material. Firefighters often wear noncombustible garments that will burn but do not ignite quickly.

Durability is the characteristic of the garment that makes it resistant to falling apart when subjected to excessive heat. When the garment falls apart, it loses its protective features.

- 26) Which feature of the garment refers to its ability to absorb and store heat?
  - a. Thermal resistance
  - b. Thermal capacity
  - c. Reflectivity
  - d. Flammability
  - e. Durability
- 27) The thermal resistance of a garment refers to its \_\_\_\_\_.
  - a. resistance to falling apart
  - b. ability to provide a protective barrier
  - c. ability to store and absorb heat
  - d. ability to reflect radiant heat
  - e. ease of ignition

- 28) The fire chief orders protective clothing that has high thermal resistance, a high thermal capacity, low reflectivity, high durability and is not flammable. What is the greatest concern regarding these garments?
  - a. They allow a lot of heat to reach the body.
  - b. They will not reflect a high level of radiant heat.
  - c. They can only absorb and store a low level of heat.
  - d. They will fall apart easily when exposed to extreme heat.
  - e. They will ignite easily.

### Use the information in the following passage to answer questions 29-31.

School fires present some unique problems for firefighting. One of the primary problems facing firefighters at the scene of a school fire is the amount of confusion. With so many people being evacuated, it is often difficult to determine whether or not everyone is safely out of the building. Children are shaken by these events, and they do not behave in a rational manner, creating more concerns for the firefighters. Because of these concerns, it is very important for firefighters to search the building.

Ventilation is also important. Firefighters should ventilate the school to conduct smoke and heat away from escape routes, making rescue efforts easier. Firefighters should also place lines to prevent the fire from entering stairways or corridors. This may allow firefighters to isolate the fire to one area of the school.

In older schools, firefighters need to be cautious of the ventilation ducts. These ducts can be means by which the fire spreads even though they may not be visible.

Firefighters need to be aware of the special concerns that are present at a school fire. Being aware of these problems can help firefighters prepare for them.

- 29) Which is NOT discussed as a concern in school fires?
  - a. The ventilation ducts in older buildings.
  - b. Confusion at the scene.
  - c. The difficulty in determining whether or not everyone is out of the school.
  - d. The large open spaces of gyms and cafeterias.
  - e. The irrational behavior of children.
- 30) What would be the most appropriate title for the preceding passage?
  - a. "Unique Problems of School Fires."
  - b. "Children Who Do Not Behave Rationally."
  - c. "The Ventilation Systems of Old Buildings."
  - d. "Preparation for Firefighters."
  - e. "Preventing School Fires."
- 31) Why is it important for firefighters to search the building?
  - Because firefighters need to conduct smoke and heat away from escape routes.
  - b. Because firefighters need to properly ventilate the school.
  - c. Because children do not behave in a rational manner in these situations.
  - d. Because it is difficult to determine whether or not everyone is safely out of the building.
  - e. Both c and d.

### Use the following passage to answer questions 32-33.

Firefighters use different lifts for different situations. The seat lift/carry is used when two firefighters are available to carry the victim. Following are the steps for the seat lift/carry in no particular order.

- I. Carry victim to safety.
- 2. Situate the victim in a seated position.
- 3. Lift victim, using your legs.
- 4. Position the victim's knees so that both of you can put a hand under the victim's knees.
- 5. Place your hand under the victim's knees and put your arm across the victim's back.
- 32) What is the logical order of the above statements?
  - a. 5, 1, 3, 2, 4
  - b. 1, 3, 5, 2, 4
  - c. 5, 2, 4, 3, 1
  - d. 2, 4, 5, 3, 1
  - e. 2, 1, 4, 5, 3
- 33) According to the above statements, what should the firefighters do after they put their arms around the victim's back?
  - a. Carry the victim to safety.
  - b. Situate the victim in a seated position.
  - c. Lift the victim.
  - d. Position the victim's knees.
  - e. Place their hands under the victim's knees.

### Use the information below to answer questions 34-37.

Rope Fiber Characteristics

Туре	Melting Point	Resistance to Electrical Conductivity	Resistance to Acids	Resistance to Oil
Nylon	480°F	Poor	Good	Good
Polyester	500°F	Good	Good	Good
Polyethylene	275°F	Good	Good	Good
Polypropylene	330°F	Good	Good	Good
Cotton	N/A	Poor	Poor	Poor

- 34) A firefighter is using a rope that melts at 330°F, has good resistance to electrical conductivity, acid and oil. What type of rope is he using?
  - a. Nylon
  - b. Polyester
  - c. Polyethylene
  - d. Polypropylene
  - e. Cotton
- 35) Which of the following ropes has the worst resistance to acids?
  - a. Nylon
  - b. Polyester
  - c. Polyethylene
  - d. Polypropylene
  - e. Cotton

- 36) Firefighters are using a rope at a fire in an office building. The rope begins to melt when the temperature in the building reaches 500°F. What type of rope are they using?
  - a. Nylon
  - b. Polyester
  - c. Polyethylene
  - d. Polypropylene
  - e. Cotton
- 37) Which type of rope has poor resistance to electrical conductivity but has good resistance to acids and oils?
  - a. Nylon
  - b. Polyester
  - c. Polyethylene
  - d. Polypropylene
  - e. Cotton

### Use the information in the following passage to answer question 38.

Firefighter Wood is concerned with the odd behavior of Firefighter Barrowski. Firefighter Barrowski is normally an outgoing and friendly individual. Lately Firefighter Wood has noticed that he is withdrawn and agitated. Firefighter Barrowski has been spending an unusual amount of time at the fire station. He has taken every available shift and often comes in on his days off. Firefighter Barrowski always talked about what he and his wife did on their vacations and days off. Now he never talks about her and refuses to answer when other firefighters inquire about how his wife is doing.

- 38) Based on the information given in the paragraph above, what is the most likely reason for Firefighter Barrowski's behavior?
  - a. Financial problems
  - b. Marital problems
  - c. Alcohol problems
  - d. Physical illness
  - e. Boredom

### Use the information in the following passage to answer questions 39-41.

There have been a large number of fires in the area recently. The following are descriptions of each fire:

House: (July 18) – The cause of the fire was determined to be a candle that was left unattended. There was substantial damage to the living room and kitchen, but damage to the rest of the house was limited because firefighters were able to contain the fire.

Office building: (July 23) –The cause of the fire was determined to be faulty wiring. The third and fourth floors suffered from fire and smoke damage. The first and second floors suffered water damage.

Restaurant: (August 4) – The cause of the fire was found to be a grease fire that began in the kitchen. The stove on which the fire originated was destroyed, but there was no damage outside the kitchen.

<u>Factory:</u> (August 10) –The cause of the fire has not yet been determined. Much of the machinery and structure of the factory was destroyed because it took firefighters over five hours to contain the blaze.

<u>High School:</u> (August 12) –The cause of the fire was determined to be a Bunsen burner in a chemistry lab. The lab had fire damage, and adjacent rooms suffered water damage.

- 39) Which fire caused the least amount of damage?
  - a. House
  - b. Office building
  - c. Restaurant
  - d. Factory
  - e. High School
- 40) Which fire took over five hours to contain?
  - a. House
  - b. Office building
  - c. Restaurant
  - d. Factory
  - e. High School
- 41) What was the cause of the fire in the office building?
  - a. A burning candle.
  - b. A grease fire.
  - c. A Bunsen burner.
  - d. Faulty wiring.
  - e. The cause has not yet been determined.

### Use the information in the following passage to answer questions 42-44.

Specific types of fires require specific types of water streams. There are three types of water-stream patterns: solid, fog and broken.

A solid stream is designed to produce a water stream that is very compact and produces little spray. There are several advantages to using a solid stream. Solid streams maintain better visibility, have a

greater reach and greater penetration power than other types of streams. The solid stream also is less likely to disturb thermal layering of heat and gases than other types of streams. The solid stream does have disadvantages. It cannot be used for foam application, and it does not allow for different stream-pattern selections.

A fog stream is composed of very fine water droplets to expose the maximum water surface for heat absorption. There are several advantages to the fog stream. The discharge pattern of the fog stream can be adjusted. The amount of water being used can be controlled. It aids in ventilation and dissipates heat. The fog stream also has disadvantages. It cannot reach as far as solid streams. It is susceptible to wind currents and may contribute to fire spread.

A broken stream breaks the water into coarsely divided drops. There are several advantages to the broken stream. It absorbs more heat per gallon than solid streams. It has greater reach and penetration than a fog stream. The main disadvantage of this type of stream is that it can conduct electricity.

- 42) Which of the following is an advantage of a solid stream?
  - a. It absorbs more heat per gallon.
  - b. It has a greater reach.
  - c. It can be used in foam application.
  - d. It allows for different stream patterns to be selected.
  - e. The amount of water being used can be controlled.

- 43) What is the main disadvantage of a broken stream?
  - a. It does not have as much reach as a fog stream.
  - b. It absorbs less heat than a solid stream.
  - c. It does not allow for different stream patterns to be selected.
  - d. It cannot be used in foam application.
  - e. It can conduct electricity.
- 44) Firefighters are battling a fire at an apartment building. The firefighters are most concerned about visibility in the structure. What type of stream(s) should they use?
  - a. Solid stream or fog stream.
  - b. Broken stream or fog stream.
  - c. Fog stream only.
  - d. Solid stream only.
  - e. Broken stream only.

## Choose the word that is spelled correctly to complete the following sentences.

- 45) Burning chemicals often emit \_\_\_\_\_\_ substances, which can cause serious health problems for those who are exposed.
  - a. tosic
  - b. tosek
  - c. toxik
  - d. toxic
  - e. toxec

		at the scene of a fire.
	b. c. d.	considerations considerations conciderations conciderations concederations
47)	ofte	achieve maximum water supply, it is en best to attach multiple hoselines ween the and the fire np.
	b. c. d.	hidrante hidrant highdrant hydrante hydrant
48)	pro plai	st departments have standard ocedures, which are predetermined ns on how emergencies will be dled.
	b. c. d.	opurating opperating operating oppurating opirating
49)	driv he/: me	nen driving a fire, the ver must be cognizant of the fact that she has little control over the way mbers of the public react towards n/her.
	a. b. c. d. e.	apparatus aparatous apparatous aparatus aperatous

46) Saving lives is always one of the first

50) Pumping engines usually have an 54) Emergency medical service vehicles that shows the temperature of the commonly respond to fire and coolant in the engine. hazardous materials incidents to treat and transport injured civillians and to a. indecater stand by in case an emergency b. indicator responder needs medical assistance. c. indikator d. inndicator a. hazardous e. indicatir b. incidents c. civillians 51) Getting the fire engine into the station d. responder requires the driver to be skilled in e. assistance the vehicle. Choose the appropriate word or a. maneuvering phrase to complete the following b. manuvering c. manuvearing sentences. d. mannuvering 55) There many different types of e. mannuevering cutting tools used in the fire service. 52) It is important to obtain a assessment of the damage caused by the a. is fire. b. was c. are d. will a. preesice b. precyse e. had c. presise d. precise 56) The firefighters who had saved the lives of two young children who had been e. pricice trapped in the backseat of a car after a For questions 53-54, please identify serious car accident received an award which one of the underlined words is the mayor. spelled incorrectly. a. to 53) The <u>vaccum</u> test is <u>performed</u> to check b. at the priming device, pump and hard c. from intake hose for air leaks. d. by e. for

a. vaccumb. performedc. deviced. intakee. leaks

57) The alarm the firefighters when it	62) Handling a nozzle on a large-size	
rang early in the morning.	hoseline can be accomplished by	
<i>o</i> ,	three firefighters than one firefighter.	
a. waken	and a management and management	
b. woken	a. more easily	
	b. easier	
c. wake		
d. woke	c. more easy	
e. woked	d. most easier	
	e. easily	
58) Hose should to the fire floor by	63) The cause of the fire to be a	
the stairway.	smoldering cigarette.	
•	Smoraering eiger ecce.	
a. have been brung	a. believed	
b. be brought	b. believing	
c. have brang	c. is believed	
d. be bring		
e. have bring	d. had believed	
c. Have bring	e. has believed	
59) Firefighter Wells began decent	64) A training film that examined two types	
down the ladder.	of hazardous materials situations	
	to the recruits at the academy.	
a. their	to the recruits at the academy.	
b. there	a. were shown	
c. them		
d. her	b. was shown	
e. hers	c. showed	
e. Hers	d. was showed	
(0) The five engine envised economists	e. had been showed	
60) The fire engine arrived sooner than		
·	65) The commission is prepared to give	
	opinion.	
a. is expected		
b. will be expected	a. their	
c. expected	b. they're	
d. it been expected	c. there	
e. was to been expected	d. it's	
'		
61) By the first week of May, the chief	e. its	
the new budget to the commission for	(A) F: 6 1 .	
approval.	66) Firefighter Carol is taller than	
аррі Очаі.		
90 L 1 200 L	a. me	
a. will have submitted	b. I	
b. have submit	c. us	
c. had submit	d. all of them	
d. has submitted	e. we be	
e. is submitted		
	1	

67)	7) In the firehouse, Firefighter Green was than the other firefighters.		
	b. c. d.	more lively livelier lively the liveliest most lively	
68)	8) Firefighter Lewis that the structure was unsafe.		
	b. c. d.	known know knew knowed new	
69)	69) The garage began to in the middle of the night.		
	b. c. d.	burned burnt burn burns burning	
70) The firefighters discussed the problems the department was facing.			
	b. c. d.	that what of from for	

# **Answer Key**

Question	Answer
I	
2	A
3 4	D
4	A
5	C A D A B E A
6	E
7	A
8 9	D
	В
10	D D B
11	D
12	В
13	Α
13 14 15 16	A B
15	Α
16	D
17	E
18	В
19	D
20	С
20 21 22 23 24 25 26 27 28	A D E B D C D B C C C E B
22	В
23	С
24	С
25	E
26	В
27	В
28	В
29	D
30	A
31	E
32	D C
33	C
34	D
35	E
36	В
37	A B
38	В
39	C
40	D
41	D

Question	Answer
42	В
43	E
44	D
45	D
46	A E C A B
47	E
48	С
49	Α
50	В
51	A D
52	D
53 54	A C C C D B D C A A A C
54	С
55	С
56	С
57	D
58	В
59	D
60	С
61	Α
62	Α
63	С
64	В
65	E
66	В
67	В
68	С
69	C
70	Α

# **Explanation of Answer Key**

### **Questions I-2**

Verbal Comprehension

The answers to practice questions 1-2 were taken directly from the descriptive scenario. If you have trouble determining the correct answers, *carefully* reread the passage for clues.

### **Question 3**

Inductive Reasoning

In practice question 3, information was presented regarding burned firecrackers and matches that were found in the garage as well as witness information relating to the possible use of those items. One can reasonably conclude that those items were likely used by the children to start the fire.

### **Question 4**

Inductive Reasoning

In practice question 4, information was presented about the injuries of the driver as well as the fact that the airbag was deployed. One can reasonably conclude that the airbag was the cause of those injuries.

### **Question 5**

Inductive Reasoning

Practice question 5 asks that you look at all of the information presented and determine the main point or theme of the passage. You will notice that four of the five paragraphs reference the injuries of victims. It follows that the theme of the passage is related to the victims' injuries. It may be valuable to reread the passage to determine the main theme. Rereading the answers to the questions and thinking about the passage may also give you some insight into the main theme.

#### **Question 6**

Verbal Comprehension

The answer to practice question 6 was taken directly from the descriptive scenario. If you have trouble determining the correct answer, *carefully* reread the passage for clues.

#### **Question 7**

Inductive Reasoning

In practice question 7, information was presented regarding the driver's speed as well as the fact that he lost control of the vehicle. One can reasonably conclude that the driver's speed caused him to lose control of the vehicle.

# Verbal Comprehension

The answer to practice question 8 was taken directly from the descriptive scenario. If you have trouble determining the correct answer, *carefully* reread the passage for clues.

# Questions 9-11

# **Deductive Reasoning**

The answers to practice questions 9-11 are dependent upon distinct information provided in the passage about the four classes of fires. You are asked to apply your knowledge of fire classes from the passage and apply it to a specific situation. For practice question 9, fires involving paints and oils are classified as Class B fires.

For practice question 10, fires involving energized electrical equipment, such as transformers, are considered Class C fires. As stated in the passage, the fastest way to extinguish Class C fires is to de-energize high-voltage circuits and then fight the fire using halon and carbon dioxide. Therefore, de-energizing the transformer and then using halon to control the fire is the appropriate way to fight the fire described in practice question 10.

For practice question II, a Class A fire is described as a fire that involves ordinary combustibles, such as wood, paper and

rubber. The passage states that water is often used to cool these materials when they are burning. Therefore, using water is the most appropriate method for fighting Class A fires.

### **Questions 12-13**

# **Deductive Reasoning**

The answers to practice questions 12-13 are dependent upon distinct information provided in the chart regarding the three categories of burns. You are asked to apply the information contained in the chart to specific situations in the practice questions. In the situation described in practice question 12, the victim has burns covering 20 percent of his body, and the burns are on his arms and chest. Because 20 percent is between 15 and 25 percent and the burns are NOT on his hands, face, feet or genitalia, the victim's burns are classified as "moderate."

In the situation described in practice question 13, the victim has burns covering 30 percent of her body, including parts of her face and hands. Because the burns cover more than 25 percent of her body and she has burns on her face and hands, her burns are considered "major."

# Inductive Reasoning

Practice question 14 asks that you look at all of the information presented and determine the main point or theme of the passage. Each paragraph in the passage discusses clues that may assist in locating the source of a fire. The passage mentions odors, smoke and heat as specific clues. It may be valuable to reread the passage to determine the main theme. Rereading the answers to the questions and thinking about the passage may also give you some insight into the main theme.

# **Questions 15-17**

# **Deductive Reasoning**

The answers to practice questions 15-17 are dependent upon distinct information provided in the passage. Regarding practice questions 15-16, the passage indicates that the color of the smoke produced depends upon the type of material that is burning. The passage also indicates how these colors change when the temperature is below 10 degrees Fahrenheit or when it is nighttime. Because these specific conditions (cold temperature and lack of daylight) are listed as conditions that alter the original smoke color listed, one can reasonably assume that the original smoke color listed applies when temperatures are warm (over 10 degrees Fahrenheit) and when it is daylight. Therefore, the answers to practice questions 15 and 16 can be taken directly from the second paragraph of the passage,

in which the smoke colors for different materials are discussed.

For practice question 17, the passage states that almost all smoke appears to be white when the temperature is less than 10 degrees Fahrenheit, and white smoke is not mentioned anywhere else in the passage. Therefore, the correct answer is "E," which is the only answer option that specifies that the temperature is below 10 degrees Fahrenheit.

#### **Ouestion 18**

# Verbal Comprehension

Practice question 18 asks you to choose the answer that describes a method that is NOT mentioned in the passage. All of the answer options are discussed in the passage for purposes of locating a fire within a structure except for answer option "B." Because the sound of water from sprinklers is not mentioned anywhere in the passage, "B" is the correct answer.

#### **Questions 19-20**

### Verbal Comprehension

The answers to practice questions 19-20 were taken directly from the descriptive scenario. If you have trouble determining the correct answers, *carefully* reread the passage for clues.

# Information Ordering

Practice question 21 addresses the order of events that occurred after a fire started at a local shopping complex. The question asks you to identify which action the firefighters performed BEFORE they looked for the source of the smoke. The correct answer is "D" because evacuating the women's clothing store and adjacent store is the only action from the list that firefighters performed before looking for the source of the smoke. The firefighters performed all of the other actions AFTER they looked for the smoke except for answer "B," talking to the security guard. Based on the information given in the passage, the firefighters did not talk to the security guard, so answer "B" is incorrect.

### **Questions 22-23**

### **Deductive Reasoning**

The answers to practice questions 22-23 are dependent upon distinct information provided in the passage regarding the five types of building construction. For practice question 22, structures that are made primarily from noncombustible or limited combustible materials with other types of materials used in limited quantities are considered to be Type II structures.

For practice question 23, the spread of fire and smoke through concealed spaces is the primary concern in structures of

ordinary construction. Structures that are made of ordinary construction are classified as Type III structures. Therefore, the primary concern in Type III structures is the spread of fire and smoke through concealed spaces.

### **Questions 24-27**

# Verbal Comprehension

The answers to practice questions 24-27 were taken directly from the descriptive scenarios. If you have trouble determining the correct answers, *carefully* reread the passages for clues.

### **Question 28**

# Deductive Reasoning

Practice question 28 asks you to identify the greatest concern regarding the protective clothing ordered by the fire chief. Because the thermal resistance, thermal capacity and durability of the clothing are high, there is little reason to be concerned about the amount of heat that reaches the body, the amount of heat that is absorbed and stored, or the likelihood that the garment will fall apart. Also, because the clothing is not flammable, there is not a great concern that the clothing will ignite. Because the garments have low reflectivity, however, they have a decreased ability to reflect radiant heat, which is cause for concern. Therefore, the correct answer is "B."

# Verbal Comprehension

Practice question 29 asks you to choose the answer that describes a concern that is NOT discussed in the passage about school fires. All of the answer options are discussed in the passage except for answer option "D." Because the large open spaces of gyms and cafeterias is not mentioned anywhere in the passage, "D" is the correct answer.

### **Question 30**

# Inductive Reasoning

Practice question 30 asks that you look at all of the information presented and determine the main point or theme of the passage. It may be valuable to reread the passage to determine the main theme. Rereading the answers to the questions and thinking about the passage may also give you some insight into the main theme.

### Question 31

# Verbal Comprehension

The answer to practice question 31 was taken directly from the descriptive scenario. If you have trouble determining the correct answer, *carefully* reread the passage for clues.

### Question 32-33

# Information Ordering

Practice questions 32-33 address the order of operations regarding the use of the seat lift/carry method. Practice question 32 asks you to place the steps of the seat lift/carry method in logical order. The first step that you would perform would be to situate the victim in a seated position. Then you must position the victim's knees before you can actually place your hand under the knees and put your arm across the victim's back. Then, you must lift the victim before carrying him/her to safety. Therefore, the correct answer is "D."

Practice question 33 asks you to identify which action firefighters should perform directly after putting their arms around the victim's back. Based on the logical order of the steps, which was established in practice question 32, the correct response is to lift the victim.

### Question 34-37

### Deductive Reasoning

The answers to practice questions 34-37 are dependent upon distinct information provided in the chart regarding characteristics of different types of rope fiber. Practice question 34 describes the characteristics of a rope that is being used by a firefighter and asks you to identify the type of rope based on those characteristics. Because the rope has a melting point of 330

degrees Fahrenheit, the only possible correct answer is polypropylene. The fact that the rope has good resistance to electrical conductivity, acid and oil support this conclusion.

Practice question 35 asks you to identify which type of rope has the worst resistance to acids. According to the chart, all of the rope fibers have "good" resistance to acids except for cotton, which is described as having "poor" resistance to acids.

Therefore, the correct answer is "E," cotton.

Practice question 36 informs you of the melting point of a rope that is being used by a firefighter and asks you to identify the type of rope based on this characteristic. Because a polyester rope is the only rope on the chart that has a melting point of 500 degrees Fahrenheit, it is the only possible correct answer.

Practice question 37 describes several characteristics of a rope and asks you to identify the type of rope that possesses those characteristics. The rope is described as having poor resistance to electrical conductivity. According to the chart, both nylon and cotton have this characteristic. The rope is further described as having good resistance to acids and oils. Nylon possesses all three of the characteristics described in the question, but cotton has poor resistance to both acids and oils.

Therefore, the correct answer is "A," nylon.

### **Question 38**

**Problem Sensitivity** 

The answer to practice question 38 is based on one's ability to identify the elements of a problem situation. The information in the passage offers clues about Firefighter Barrowski's problem. Based on the unusual amount of time that Firefighter Barrowski is spending at the fire station coupled with his refusal to answer questions about his wife, one can reasonably assume that Firefighter Barrowski's change in behavior is related to marital problems.

# **Question 39**

Inductive Reasoning

Practice question 39 asks you to determine which fire caused the least amount of damage based on the descriptions provided in the passage. The house fire is described as having substantial damage to the living room and kitchen. The fire at the office building had damage on four floors. The restaurant fire destroyed the oven on which the fire originated but caused no damage outside the kitchen. The fire at the factory destroyed a lot of machinery as well as much of the structure. The fire at the high school had fire damage to the chemistry lab as well as water damage to the adjacent rooms. Even

though the restaurant fire destroyed the stove on which it started, the restaurant suffered the least amount of damage overall because the fire only caused damage to one room.

# **Questions 40-43**

# Verbal Comprehension

The answers to practice questions 40-43 were taken directly from the descriptive scenarios. If you have trouble determining the correct answer, *carefully* reread the passages for clues.

### **Question 44**

# **Deductive Reasoning**

The answer to practice question 44 is dependent upon distinct information provided in the passage regarding the three types of water-stream patterns. Solid streams are described as having the ability to maintain better visibility. Neither the description of the fog stream nor that of the broken stream mentions anything about visibility. Therefore, the answer is "D," solid stream only.

### Questions 45-52

#### Verbal Expression

Practice questions 45-52 ask you to fill in the blank with the correct spelling of the missing word. One way to prepare yourself for this section on the actual test is to

review the spellings of words that are commonly used in the firefighting industry. You may also want to review basic spelling and phonetics rules, including the formation of plural nouns and the use of various suffixes.

### **Questions 53-54**

# Verbal Expression

Practice questions 53-54 ask you to identify which of the underlined words is misspelled. One way to prepare yourself for this section on the actual test is to review the spellings of words that are commonly used in the firefighting industry. You may also want to review basic spelling and phonetics rules, including the formation of plural nouns and the use of various suffixes.

### **Questions 55-70**

## Verbal Expression

Practice questions 55-70 ask you to fill in the blank with the word or phrase that correctly completes the sentence. These questions measure one's ability to use language to communicate information or ideas to other people. Below is an item-by-item explanation that explains the grammatical rationale behind the correct answer.

Practice question 55 needs a verb to complete the sentence. "Will" and "had"

are not verbs that fit in this context and are therefore incorrect. Because the subject in the sentence, "types," is plural, the verb must also be plural. "Is" and "was" are both singular and are therefore incorrect. The only correct answer is "C," "are."

Practice question 56 is missing a preposition. Given the context of the sentence, "from" is the only preposition that makes sense.

Practice question 57 needs a singular verb to complete the sentence because the subject of the sentence is "alarm." Because the word "rang" shows that the event occurred in the past, the missing verb must also be in the past tense. The past tense of "wake" is "woke." Therefore, the correct answer is "D."

Practice question 58 is missing the verb. Based on the format of the sentence, the verb must be passive because the hose is not the subject (i.e., the hose is not the performing the action of bringing); therefore, "C" and "E" are incorrect because, aside from being improperly conjugated, they are active verbs. The correct answer is "B" because the other options are grammatically incorrect. The correct present perfect form in passive voice would be "have been brought," not "have been brung" (answer "A"). Answer "D" uses an incorrect form of the correct

answer; the correct form appears in answer "B," "be brought."

Practice question 59 is missing a pronoun. Because the pronoun is referring only to Firefighter Wells, the pronoun must be singular. The correct answer is "D."

The correct answer to practice question 60 is "C," "expected." Because the event occurred in the past, which is evidenced by the word "arrived," "A" and "B" are not possible answers. "D" should be "it was expected," and "E" should be "was to be expected."

The correct answer to practice question 61 is "A," "will have submitted." None of the other phrases offered as answer options are correctly conjugated except for "D," "has submitted." This answer, however, is incorrect because the chief has not submitted the budget yet.

The correct answer to practice question 62 is "A," "more easily," because "easily" is an adverb that describes "accomplished." The word "more" is necessary because of the comparison between three firefighters and one firefighter.

The correct answer to practice question 63 is "C," "is believed." None of the other answer options make sense, given the context of the sentence.

Practice question 64 is missing a verb. Given the context of the sentence, the verb must be passive because the film is not the subject (i.e., the film is not performing the action of showing). Therefore, answer "C" is incorrect because "showed" is in the active voice. Also, the verb must be singular because there is only one film, so "A" is incorrect. Answers "D" and "E" are improperly conjugated, so "B" is the only correct answer.

The correct answer to practice question 65 is "E" because, even though there is presumably more than one person on the commission, the word "commission" is a collective noun and is therefore treated as a singular noun. The possessive form of "it" is "its." "It's" is only used as a contraction for "it is."

The correct answer to practice question 66 is "B." The missing pronoun is not the object of a verb or preposition in the sentence; rather, it is a subject. The complete sentence would read, "Firefighter Carol is taller than I am tall." Although "am tall" is not included in the written portion of the sentence, you should mentally complete sentences that call for a pronoun after "than" or "as" in order to choose the

correct pronoun. Because the missing pronoun is a subject, rather than an object, answer options "A," "C" and "D" must be excluded because they are objective pronouns. Answer option "E" is incorrect because you would not say "We be tall."

The correct answer to practice question 67 is "B," "livelier." Adjectives of two syllables or less usually form the comparative by adding —er. Lively is not an exception to this rule. Practice question 67 involves a comparative because two components are being compared. Even though Firefighter Green is being compared to all of the other firefighters, "the other firefighters" is functioning as a collective noun and therefore is treated as a singular noun.

Practice question 68 is missing a verb. Despite the use of the word "was," the blank can be filled in by a verb in either the present or past tense. The verb, however, must be singular because the subject, Firefighter Lewis, is singular. The singular present tense of "know," however, is "knows," which is not offered as an answer option. Answer "B," "know," is the plural form of the verb and is therefore incorrect. The singular past tense form of "know" is "knew," so "C" is the correct answer.

The missing word in practice question 69 must be the infinitive form of the verb because of the word "to." The infinitive is "burn," so "C" is the correct answer.

The correct answer to practice question 70 is "A," "that." "That" is used to introduce restrictive clauses, which limit or define the antecedent's meaning. In this sentence, "that the department was facing" defines the problems that the firefighters discussed.



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