COMMONWEALTH OF MASSACHUSETTS
Human Resources Division

2006 FIREFIGHTER EXAM CANDIDATE PREPARATION GUIDE

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INTRODUCTION

This Candidate Preparation Guide has been distributed to help you prepare for the 2006 Commonwealth of Massachusetts Firefighter's Examination process. We are providing this information in recognition of the fact that a considerable amount of the anxiety associated with participation in examinations is related to the novelty of the procedures that candidates encounter. This Guide covers the Written Ability Test, Work Styles Questionnaire, and Life Experience Survey.

The Written Ability Test will consist of approximately 48 multiple-choice questions designed to test a series of abilities, such as, problem sensitivity, reasoning, and comprehension determined to be important to the effective performance of the Commonwealth of Massachusetts Firefighter's job. The Work Styles Questionnaire is designed to assess a candidate's motivational, value-related and attitudinal characteristics. Candidates will be presented with a series of short statements and asked to indicate whether or not they agree with each statement. The Life Experience Survey consists of a series of multiple-choice questions related to the candidate's past history and experience.

From the information presented in this guide, you should be able to get a good feel for the testing situations, the types of questions you will encounter on each test, and a systematic method of study and preparation which you should use in preparing for each test.

You are encouraged to review this Guide as many times as necessary to become comfortable with the information and test-taking strategies presented.

Please note that the order in which the test components are presented in this Guide may NOT be the same order that they will be presented during the actual test administration.

PART I: WORK STYLES QUESTIONNAIRE AND LIFE EXPERIENCE SURVEY

The first part of this Guide deals with the Work Styles Questionnaire and the Life Experience Survey. It is divided into three major sections as follows:

Section I: **General Information**: This section provides you with general information regarding the procedures to be followed when completing the Work Styles Questionnaire and Life Experience Survey.

Sections II & III: **Work Styles Questionnaire and Life Experience Survey**: These sections describe the Work Styles Questionnaire and the Life Experience Survey. A general description of each is provided along with sample questions. Preparation for these two components is very minimal.

PART II: WRITTEN ABILITY TEST

The second part of this Guide deals with the Written Ability Test. It is divided into three major sections as follows:

Section I: **General Test Information**: This section provides you with information that is useful when taking a multiple-choice test of cognitive ability. This section provides suggested test-taking strategies (such as underlining important words in questions), a strategy for analyzing and avoiding errors, and instructions regarding the answer sheet to be used during the actual Written Ability Test.

Section II: **Ability Areas**: This section focuses on the series of ability areas that are likely to be assessed with this test. For each ability area, this section provides a definition, test-taking strategies, sample questions, and explanations of the answers to the sample questions.

Section III: **Practice Exam**: The third section of Part II contains a 19-item practice exam including questions covering all six ability areas and explanations of the answers to these questions. You should take this practice exam after reviewing the written portion of this guide to assess your understanding of the information and test-taking strategies presented. In addition, taking the practice exam will allow you to assess your current level of performance, as well as to identify those ability areas where you will need to focus your study efforts.

PART I: WORK STYLES QUESTIONNAIRE AND LIFE EXPERIENCE SURVEY

SECTION I: GENERAL INFORMATION

When completing the Work Styles Questionnaire and Life Experience Survey, follow these general guidelines:

Make sure you understand the test format and requirements.

1. Read and/or listen to all of the directions carefully. If you have any questions about testing procedures, ask an administrator for assistance before the test begins.

2. Make sure you know how much time you should spend on each component of the examination process. For the Work Styles Questionnaire and Life Experience Survey, you should spend approximately 45 minutes on each test component. **Also, we recommend that you wear a watch in order to keep track of time during the testing session.**

3. Answer every question. Do not leave any questions blank. If you are unsure of how to respond, choose the alternative that most accurately describes your past experiences, behavior or how you feel. Candidates who do not respond to all questions on the Work Styles Questionnaire and Life Experience Survey may be disqualified from the examination process.

Make sure you understand the instructions for using the answer sheet.

All questions included in the Work Styles Questionnaire and Life Experience Survey will be multiple-choice. You will mark your responses to the Life Experience Survey in the Life Experience Survey Section of the answer sheet given to you during the examination. You will mark your responses to the Work Styles Questionnaire in the Work Styles Questionnaire Section of the same answer sheet. Sample portions of an answer sheet are provided on the following pages (4 and 5). These samples can be used to record your responses to the sample questions provided for the Work Styles Questionnaire and Life Experience Survey on pages 4 and 5 of this guide. At the actual test administration, you will be provided with detailed instructions for completing your answer sheet for each examination component.

There are a few points we urge you to keep in mind when marking the answer sheet:

1. Be sure that the number of the question you are working on in the test booklet matches the number of the question you are marking on the answer sheet. That is, if you are on question 39 in the test booklet, be sure you are marking question 39 on the answer sheet.

2. Be sure to place all of your answers on the answer sheet. Do not make any other stray marks or notes on the answer sheet.

If you want to change an answer that you recorded on the answer sheet, erase it completely and clearly fill in the circle corresponding to your new choice.

Select and record only one answer for each question.

Practice these procedures by using the Sample Answer Sheets presented on the following pages to record your responses to the Work Styles Questionnaire and Life Experience Survey sample questions.

SECTION II: WORK STYLES QUESTIONNAIRE

The Work Styles Questionnaire will be administered during the same session as the Written Ability Test and the Life Experience Survey. This questionnaire is an important part of the examination process. In addition to the ability requirements placed upon firefighters in the **Commonwealth of Massachusetts**, successful performance by firefighters requires certain motivational, value-related, and attitudinal characteristics. This questionnaire will be used to identify these important characteristics.

The Work Styles Questionnaire contains a series of short statements. You will read each statement and then decide how you feel about it. Specifically, you will be asked to indicate the extent to which you agree or disagree with the statement (see examples below). You will be instructed to work quickly through the questionnaire, to provide **honest** responses and to avoid spending too much time thinking about how to respond to any single statement. You should spend approximately 45 minutes to complete this questionnaire.

No preparation is necessary (or expected) for this component of the exam. However, the Work Styles Questionnaire will be scored and your score will be combined with your scores on the Life Experience Survey and Written Ability Test to determine your written examination score. Examples have been presented below so that you will know what to expect during the administration of the Work Styles Questionnaire.

In this questionnaire you will be instructed to:

- Rate yourself on a scale from 1 to 5 (see scale below) on a number of phrases or statements.
- Choose the middle answer (Unsure) ONLY when you are truly not sure how to rate yourself.
- Completely fill in the circle corresponding to your rating (1, 2, 3, 4, or 5) for the corresponding item number on your answer sheet.

Strongly Disagree	**Disagree**	**Unsure**	**Agree**	**Strongly Agree**
①	②	③	④	⑤

The following examples are presented only for illustrative purposes and do not actually appear on the questionnaire. These examples are closely representative of the kinds of items that will be included on the Work Styles Questionnaire.

1. I set goals and strive to achieve them.
2. I prefer to work alone.
3. I take time to think about why people do things.
4. I find myself taking control in group situations.
5. I find that it is not necessary to have all of the facts before making a decision.
6. Insults don't bother me.

Your answer sheet will look similar to this:

1. ① ② ③ ④ ⑤
2. ① ② ③ ④ ⑤
3. ① ② ③ ④ ⑤
4. ① ② ③ ④ ⑤
5. ① ② ③ ④ ⑤
6. ① ② ③ ④ ⑤

SECTION III: LIFE EXPERIENCE SURVEY

The Life Experience Survey will be administered during the same session as the Written Ability Test and the Work Styles Questionnaire. The Life Experience Survey is designed to assess characteristics related to each candidate's past history and experience. For each question, candidates will be asked to identify which of several response alternatives best describes their past experience (see examples below). You should spend approximately 45 minutes to complete this survey.

As with the Work Styles Questionnaire, no preparation is necessary (or expected) for this component of the exam, but it will be scored and your score will be combined with your scores on the Work Styles Questionnaire and the Written Ability Test to determine your written examination score. Examples have been presented below so that you will know what to expect during the Life Experience Survey administration.

In this survey, you will be presented with 96 items. These questions pertain to you and your personal experiences, and will cover many different topics. Each question will be followed by 5 alternatives. Please select the response (A through E) that best describes you, and record it on the answer sheet provided. Provide **honest** responses to all questions.

The following examples are presented only for illustrative purposes and do not actually appear on the survey. These examples closely represent the kinds of questions that will be included on the Life Experience Survey.

1. Your previous supervisor would describe you as someone who usually does:
   A. more than your fair share of the work that must be done.
   B. more work than most of your coworkers.
   C. about as much work as most of your coworkers.
   D. almost as much work as most of your coworkers.
   E. less work than most of your coworkers.

2. Within the past two years, how many times have you taken a day off because you did not feel like going to work?
   A. never.
   B. once.
   C. twice.
   D. three times.
   E. more than three times.

3. Since completing your high school education, how many days a month do you spend engaged in some form of community-based activity (e.g., community service, athletics, clubs, drama, etc.) outside of work or school?
   A. 0.
   B. 1 - 2.
   C. 3 - 5.
   D. 6 - 8.
   E. 9 or more.

Your answer sheet will look similar to this:

1. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

2. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

3. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

PART II: WRITTEN ABILITY TEST

SECTION I: GENERAL TEST INFORMATION

A: OBJECTIVES

To Familiarize You with the Ability Areas Covered on the Written Ability Test

The ability areas that will be assessed on the Written Ability Test include Written Expression, Written Comprehension, Problem Sensitivity, Deductive Reasoning, Inductive Reasoning and Information Ordering. This Guide will provide you with definitions of these ability areas and examples of how they apply to the job of an entry-level firefighter.

To Provide You with Test-Taking Strategies for Each of the Ability Areas

This part of the Guide contains strategies to help you answer questions that test each of the ability areas.

To Provide You with Some General Test-Taking Strategies

This Guide suggests general strategies for taking multiple-choice tests, including underlining key words in questions and answering questions that you perceive as easier first.

To Familiarize You with the Procedures and Materials You Will Encounter During the Actual Test

This part of the Guide includes information about the procedures to be followed during the actual Written Ability Test. The sample questions provided in the Ability Areas section will give you a good idea of the kinds of questions to expect. Answering the sample questions will allow you to assess your own ability and identify those ability areas where you should focus your preparation efforts. In addition, answering these sample questions should serve to reduce anxiety or fear of the test situation since much of the fear associated with test-taking situations is related to the novelty of testing. In other words, many applicants simply are not used to taking tests and are not quite sure of what they'll be facing. Giving you this first-hand experience with the test-taking situation should help minimize these fears.

Finally, these materials will show you that all information necessary to answer the questions correctly is contained within the passages in the test. This test is designed to assess abilities, not specific knowledge about firefighting. Any firefighting terminology or procedures that are included in the test will be defined or described so that all candidates have the same information on which to base their answers.

To Provide You with Information About Common Test-Taking Errors and Strategies for Avoiding Them

This part of the Guide explains errors typically made in multiple-choice tests and includes steps for analyzing your own errors and strategies for avoiding the same errors in the future.

This Guide contains a great deal of information. The last thing we want to do is to overwhelm you with too many strategies to think about for each type of question on the actual Written Ability Test. In order to avoid this, there are a couple of things you should keep in mind:

1. The more familiar you become with the strategies suggested in this Guide, the more automatic they will become. **REPETITION** and **PRACTICE** are the keys. The more often you review this Guide, the better prepared you will be.
2. Many of the strategies suggested for each of the ability areas apply only to questions testing those areas. For example, you'll see that the suggestions for dealing with inductive reasoning questions apply only to those types of questions. By becoming very familiar with the ability areas, you will be able to quickly and easily decide which strategies to apply to each type of question.
3. Some of the general test-taking techniques that are relevant to all questions are particularly useful when you cannot answer a question easily. If you are 100% sure of an answer, you should simply fill in the correct answer. However, there are some strategies, such as underlining key words and phrases, that do not take much time and are useful for questions testing almost all ability areas.

B: GENERAL MULTIPLE CHOICE TEST-TAKING STRATEGIES

Make sure you understand the test format and requirements.

1. Read and/or listen to all of the directions carefully.

2. Make sure you know how to correctly mark the answer sheet (see pages 13 and 14). Specific instructions will be provided at the test site.

3. Make sure you know how much time you should spend on each component of the examination process. For the Written Ability Test, you should spend approximately two hours to complete the 48-question test. Recommendations of the amount of time to spend on each component will be provided at the test site and periodic time indications will be given. **Also, we recommend that you wear a watch in order to keep track of time during the testing session.**

4. Test Monitors will be available to help every candidate with testing procedures; however, test monitors will not explain the meaning of any question, define words, or give, in any manner, information which may be of help in answering a question. If you have any questions about testing procedures, ask for assistance before the test begins.

Make sure you understand the question.

1. Read each question carefully. Try to answer the question before you look at the choices. If you know the answer, compare it to the available choices and pick the closest alternative.

2. You will be allowed to write in your test booklet, so you should mark the test questions in a way that make them more easy to read. Specifically:

   a. Use slash marks to break down sentences into small segments. This will make you more attentive to separate ideas in a long sentence. Note the following example which illustrates the use of slash marks.

   Example:

   Before Recommendations of the amount of time to spend on each component will be provided at the test site and periodic time indications will be given.

   Use slash marks to break up complex sentences. Note the statement just made.

   After Recommendations of the amount of time to spend on each component \ will be provided at the test site \ and periodic time indications will be given.

   See how using the slash marks makes it easier to understand what the sentence is about by focusing your attention on the separate ideas presented.

   b. Underline key words that tell what a sentence or passage is about. If you skip the question and come back to it later, your markings can make it easier to remember what the question was about, without reading the full question or passage again. Note the example on the following page which illustrates the use of underlining key words.

Example:

Before Recommendations of the amount of time to spend on each component will be provided at the test site and periodic time indications will be given.

Underline key words. Note the statement just made.

After Recommendations of the amount of time to spend on each component will be provided at the test site and periodic time indications will be given.

See how this helps you focus on the important parts of the sentence. This is particularly helpful when you are looking back and forth between two pieces of information (such as a test question and the answers to the question).

c. Find and circle words which "harden" or "soften" statements.

1) Words such as **all**, **never**, **none** and **every** harden a sentence by indicating that there are no exceptions. As a rule, alternatives with these words have less chance of being correct.

2) Words such as **sometimes**, **may**, **generally** and **possibly** soften a statement and leave more room for the alternative to be correct.

3) **AND** means that one element of the alternative must be present or true, in addition to another element for the alternative to be correct.

4) **OR** means there is a choice of situations. Only one of the elements of the alternative must be present or true for it to be a correct alternative.

Proceed through the questions strategically.

1. Answer questions that you perceive as easier first.

When you go through each question on the Written Ability Test, answer the questions you feel are easier first and leave the ones you feel are more difficult until after you've answered all of the questions you feel are easier. This will prevent you from spending too much time on any one question and ensure that you have the time to respond to, and receive credit for, every question that you can answer correctly. If you are unsure of an answer, you can leave the question blank, making sure to mark the question in the test booklet as one you should return to, and skip the question on the answer sheet. Or, you can record the answer that is most likely correct, but mark this question in the test booklet to return to it later. Don't be afraid to change this answer if, when you return to it, you realize you have misunderstood the question. If, after returning to and thinking about the question in more depth, you are still unsure of the answer, select your first answer.

2. Use the process of elimination.

If you don't know the answer to a question, first eliminate those choices which are clearly wrong. Then, in your test booklet, put a mark next to each remaining choice to indicate what you think about it (e.g., x = not correct; ? = possibly correct; and * = most likely correct). This will save you time by reducing the number of answers you have to re-read and re-evaluate before making your final choice.

3. Tackle difficult questions methodically.

Don't get bogged down if there is a word or sentence you do not understand. You may get the main idea without knowing a specific word or understanding a specific sentence.

4. Take a mental break when needed.

   If you feel that your ability to concentrate is decreasing at any point during the testing period, take a brief mental break. Put down your pencil and take a minute to clear your mind and relax. Of course, you must keep in mind the overall time limit for the test, but a brief mental break may well be worth the time it takes.

5. Answer every question.

   You will not lose any more credit for an incorrect response than you will for no response, so even if you are not at all sure of the correct answer to a question, record a response. If the testing period is about to end and you believe there will be a substantial number of questions (e.g., more than 5 or 10) that you will not be able to complete on the Written Ability Test, reserve some time (e.g., 60 seconds) toward the very end of the testing period to fill in a response to each of these questions. Although your responses may not be correct, the alternative is to leave these questions blank and be assured of getting them wrong.

Use extra time wisely.

If you have extra time at the end of the testing period, go back and review your responses. Make any changes that you feel are necessary. Also, make sure that you have placed your answers on the answer sheet correctly.

C: ERROR ANALYSIS

Strategies for Analyzing and Avoiding Errors

Each one of us has weak areas in our test-taking behavior. It is to your advantage to identify those weak areas before participating in the examination process. The sample questions contained in the Ability Areas section within this Guide are very similar to the questions that will appear on the actual Written Ability Test. After answering these questions and checking them against the answers and explanations, you should complete the Error Analysis Form contained later in this section of the Guide. After completing the Error Analysis Form, focus on the questions you answered incorrectly. This will allow you to identify any major weak areas in your test-taking behavior. **This is called Error Analysis.**

There are several possible reasons for choosing an incorrect response. Seven of these reasons are presented below, along with suggestions for avoiding such errors. Once you've identified the reason for choosing an incorrect response, it will be easier to correct it, in turn making it easier to answer that type of question correctly in the future.

Reasons for Choosing Incorrect Responses

1. Answer sheet errors and guessing errors.

Since there are a limited number of questions on each of the written components, errors related to the improper use of the answer sheet are costly. Check as you mark each answer choice on the answer sheet to ensure you are marking the answer you have chosen. Also, make sure that the number you are responding to on the answer sheet correctly corresponds to the number of the question you are answering. As an additional check, if you have extra time at the end of the testing period, go back over every question and double check your work.

You may also miss questions because you failed to provide an answer or were forced to quickly record an answer before time was called. If either of these things happened, consider why. Possible reasons and suggestions include:

a) You may have missed a question because you skipped it and failed to return to it later. Be sure you use some kind of code to identify skipped questions in your test booklet and remember to return to them before the testing period is over. See an example coding system in the section titled "2. Use the process of elimination" on page 8.

b) You may have lost track of the time and been unaware that the testing period was about to end before you could mark any remaining unanswered questions. Be sure to check your watch every so often so that you can keep track of how much time you have left. If necessary, be sure to save the last 60 seconds or so to mark any unanswered questions.

c) You may have been forced to quickly choose an answer because you spent too much time working on difficult questions, rather than skipping them and saving them for later. Or, if you did skip difficult questions, you may have failed to code the various alternatives as (for example) not correct (x); possibly correct (?); and most likely correct (*) within your test booklet. Thus, you did not reduce the number of alternatives you had to reconsider when you re-read the questions. Be sure that you use a code not only to identify skipped questions, but also to evaluate any alternatives that you do review in order to save some time re-reading and re-evaluating.

2. Misreading a question or answer by overlooking a key word or phrase.

The solution to this problem is underlining. Underlining makes those key words and phrases stand out when choosing an answer. Once you have underlined the key words and phrases in a question, check the details of the possible answers with the details you underlined, one-by-one. If every detail doesn't match, consider that answer suspect and try another, always keeping in mind you're looking for the best possible answer.

3. Not knowing the meaning of one or more key terms.

This is a vocabulary problem. When you come to an unfamiliar word, reread the sentence to determine its meaning without worrying about the meaning of the unfamiliar word. Try to understand the general message of the sentence or paragraph. The meaning of the unfamiliar word should become more clear once you understand the phrases and ideas which surround it.

4. Having difficulty distinguishing between the important and unimportant parts of a question because it is complicated or difficult to understand.

These may be the types of questions you should skip until the end of the test or use the slash mark technique described earlier on page 7 in the General Multiple Choice Test-Taking Strategies section -- divide and conquer! Use slash marks to break the question into smaller parts, then concentrate on one part at a time. When you do go back to these difficult questions, first read the possible answers before reading the question. This tells you what to concentrate on while reading the question. Also, focus on the topic sentences which are usually the first and last sentences in a question. Read these difficult questions twice. The first time, read for the general idea. Do not get stuck on individual words or phrases you do not understand. The second time, read for a more detailed understanding. The first reading will give you the general meaning, so that the second reading will be easier. Finally, picture in your mind what the question is asking.

5. Not being familiar with comparing combinations of information.

This is a problem of re-arranging information in the correct way, making it easier to understand. Underline important pieces of information in the question and then compare this information with the possible answers point-by-point. Also, concentrate on eliminating the wrong answers first.

6. Choosing an answer simply because it "looks" good.

Several factors may cause you to select incorrect answers that "look" good:

a) An incorrect answer may contain an exact phrase from the original question.

b) An incorrect answer may contain a phrase or sentence from the original question, but be presented in a different way. For example, an idea which is rejected in the question may be presented in the answer as an idea that was supported.

c) An incorrect answer may overstate what the question has stated. For example, if the question says, "Some incidents...," the incorrect answer may say, "All incidents..."

Strategies to avoid the tendency to select incorrect answers that "look" good include:

a) 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.

b) Use the method of marking each answer to indicate what you think about it (e.g., not correct (x), possibly correct (?), or most likely correct (*)) before choosing one.

c) Beware of choosing answers based on common sense or previous knowledge and experience. Answer only on the basis of the material presented in the test question itself.

d) Stick strictly to the facts or rules described in the test question itself. Don't select answers that stretch or exaggerate these facts or rules. Circle words such as **only**, **never**, **always**, **whenever**, **all**, etc. to help you pay close attention to words that "harden" or "soften" answers.

e) Beware of answers containing exact words or phrases from the question material. Don't simply assume that such answers are correct.

f) Prepare a defense for your answer. Find something in the test question which will allow you to give a strong defense for your answer.

7. You may not know why you answered a question incorrectly.

Finally, if you are unsure as to why you answered a question incorrectly and don't know why the keyed answer is correct, it would be a good idea to review this Guide again. In addition, talk with someone else who may be taking the test to compare answers and information or ask a tutor, friend or family member for help.

Remember, as you review your answers to the sample questions contained in the Ability Areas section, use the Error Analysis Form to evaluate/diagnose your test-taking behavior.

Instructions for Using the Error Analysis Form

Use the form below to analyze sample questions you answered incorrectly in the Ability Areas section of this Guide. As you work through the Ability Areas section, review each sample question as follows: If you answered the question correctly, place a check mark in the blank within the column labeled "CORRECT?" Then, for each incorrect answer, identify which of the seven reasons presented previously caused you to make the error and mark the appropriate blank in the set of columns labeled "REASONS FOR INCORRECT ANSWERS." Total the number of marks in each column to identify the kinds of errors you are making most often. Examine the ability area listed for each incorrectly answered question to determine those abilities that are giving you the most difficulty. Once you have identified the troublesome ability areas and errors, go back and review the test-taking strategies for the ability areas and the strategies for avoiding errors. Focus on those ability areas and errors that are causing you to choose incorrect answers most often.

Error Analysis Form: Sample Questions

SAMPLE QUESTION NO.	ABILITY AREA	CORRECT?	REASONS FOR INCORRECT ANSWERS						
			1	2	3	4	5	6	7
1	WRIT COMP								
2	WRIT COMP								
3	WRIT EXP								
4	WRIT EXP								
5	INF ORD								
6	INF ORD								
7	PROB SENS								
8	PROB SENS								
9	DED REAS								
10	DED REAS								
11	DED REAS								
12	IND REAS								
13	IND REAS								
TOTAL QUESTIONS CORRECT									
TOTAL FOR EACH TYPE OF ERROR									

D. ANSWER SHEET PROCEDURES

Instructions for Using the Answer Sheet

This section describes the procedures for filling in the answer sheet for the Written Ability Test. All of the questions on the Written Ability Test will be multiple-choice. You will mark your answers in the Written Ability Test Section of the answer sheet that will be given to you during the examination process. A sample portion of this answer sheet is contained on the next page. This sample can be used to record your answers to the questions contained in the Ability Areas section of this Guide. General Instructions for marking the answer sheet during the examination process are provided below.

Practice this procedure by using the Sample Answer Sheet to record your answers to the Ability Areas sample questions.

There are a few points we urge you to keep in mind when marking the answer sheet:

1. Be sure that the number of the question you are working on in the test booklet matches the number of the question you are marking on the answer sheet. That is, if you are on question 12 in the test booklet, be sure you are marking question 12 on the answer sheet.

2. Be sure to place all of your answers on the answer sheet. Do not make any other stray marks or notes on the answer sheet. Instead, use your test booklet for scratch work or to mark questions to return to later. Although you may write in your test booklet, **your score will be based only on the answers that appear on your answer sheet.**

3. Be sure to make pencil marks that are dark and neat when darkening in a response bubble. Pencil marks that are too light may not be detected when scored, so make sure that your pencil marks are dark. Pencil marks that overlap with another response bubble may be counted as a second response and the item will be scored incorrect.

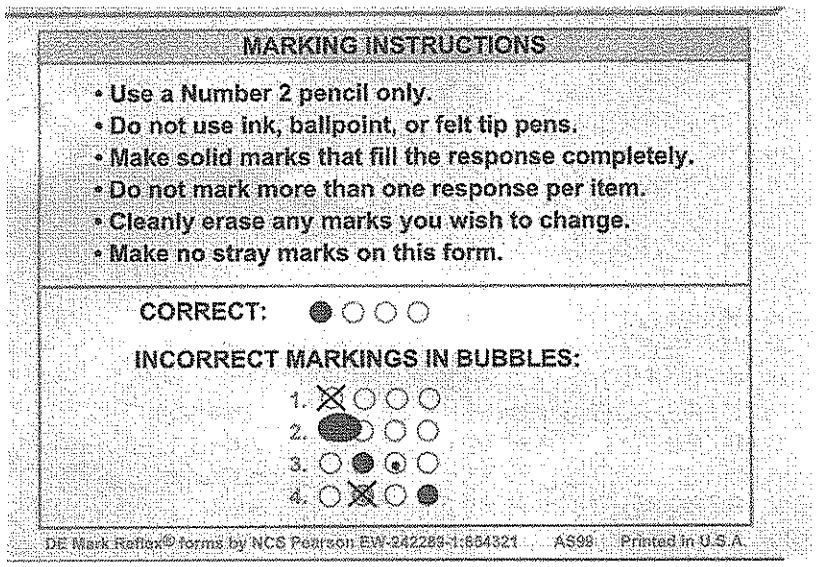
4. Be sure to clean all erasure marks on the scan sheet since dark smudges within any of the response bubbles may be scored as a response. Also, DO NOT put an "X" over an erasure to indicate the answer is incorrect and that you have changed your selection since the "X" and your new selection will be picked up and the item will be scored incorrect.

5. Be sure to ask test monitors at the testing site if you have questions about the correct and incorrect way to mark response bubbles.

Sample Test Answer Sheet

Use this sample portion of the answer sheet provided below to record your answers to the 13 questions contained in the Ability Areas section of this Guide. Since you will not need to use question number 20, we have filled in that question to show you how this answer sheet should be used. Please note that the space provided for questions 14-19 will not be used since there are only 13 sample questions contained in the Guide. You will notice that "circle 2" is filled in to indicate that alternative "B" was selected as the correct answer to question number 20. Also, note that the entire circle has been filled in and that no stray marks extend outside the circle. This is the correct way to record each answer.

1.	Ⓐ Ⓑ Ⓒ Ⓓ	11.	Ⓐ Ⓑ Ⓒ Ⓓ
2.	Ⓐ Ⓑ Ⓒ Ⓓ	12.	Ⓐ Ⓑ Ⓒ Ⓓ
3.	Ⓐ Ⓑ Ⓒ Ⓓ	13.	Ⓐ Ⓑ Ⓒ Ⓓ
4.	Ⓐ Ⓑ Ⓒ Ⓓ	14.	Ⓐ Ⓑ Ⓒ Ⓓ
5.	Ⓐ Ⓑ Ⓒ Ⓓ	15.	Ⓐ Ⓑ Ⓒ Ⓓ
6.	Ⓐ Ⓑ Ⓒ Ⓓ	16.	Ⓐ Ⓑ Ⓒ Ⓓ
7.	Ⓐ Ⓑ Ⓒ Ⓓ	17.	Ⓐ Ⓑ Ⓒ Ⓓ
8.	Ⓐ Ⓑ Ⓒ Ⓓ	18.	Ⓐ Ⓑ Ⓒ Ⓓ
9.	Ⓐ Ⓑ Ⓒ Ⓓ	19.	Ⓐ Ⓑ Ⓒ Ⓓ
10.	Ⓐ Ⓑ Ⓒ Ⓓ	20.	Ⓐ ● Ⓒ Ⓓ



SECTION II: WRITTEN ABILITY TEST ABILITY AREAS

This section of the Guide represents an attempt to orient you to the nature of the questions you will encounter on the Written Ability Test, and to provide you with some useful strategies for responding to these types of questions. This portion of the Guide is organized around the ability areas that will be tested. For each ability area, the following information is provided:

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

Techniques: This section describes the various types of questions that will be used to assess your ability with respect to each of the ability areas. For each type of question, you will be given some strategies to assist you in responding to such questions. For some question types, an illustrative example and explanation is provided to give you a better understanding of the question descriptions and test-taking strategies.

Sample Test Questions: At least two sample test questions are provided for each ability area to be tested. Answers to the sample questions have been provided at the end of each ability section. By answering the sample test questions you can actually assess your understanding of the information and test-taking strategies provided. Responding to the sample questions will also allow you to assess your current level of ability and to identify those ability areas upon which you should focus your preparation efforts. Use the Sample Test Answer Sheet provided on the previous page to record your answers to these sample questions. Also, use the Error Analysis Form on page 12 to assess your test performance.

In summary, the information in this portion of the Guide is being presented to help you become familiar with the kinds of questions you will encounter on the Written Ability Test and to become comfortable with the kinds of strategies you should use when responding to these questions. This information should help to reduce some of the anxiety that typically is associated with test-taking situations.

A. ABILITY AREAS AND ASSOCIATED TEST-TAKING STRATEGIES

1. Written Comprehension

Definition: This is the ability to understand written language. This ability involves understanding individual words as well as patterns of words (sentences and phrases) so it is more than simply vocabulary. It is also the ability to read a sentence or series of sentences and understand the meaning. This ability involves receiving information, not giving it. This ability might be used in reading narrative material, such as a report describing a fire and/or following written instructions.

Techniques: To test written comprehension, you will be provided with a passage describing a fire-related incident or set of firefighting procedures. These passages will be about one-half to a full page in length and will be followed by two or more test questions. These questions will test your understanding of the information presented.

For some candidates, these questions may prove to be difficult simply because of the initial amount of information you'll be given. Some of the techniques you can use on these questions have already been discussed as part of the general test-taking strategies.

1. One of the most useful techniques involves reading the test questions and possible answers before reading the passage to help you identify and focus on the information that is being sought. You may find that you locate the answer to one of the questions related to a passage before you even finish reading the passage for the first time. If so, answer the question right away. As you go from one sentence or paragraph to the next in the initial passage, you may have to glance back at the questions to remind yourself of the specific details for which you are searching.

2. Another extremely useful technique is to circle or underline key words once you have read the questions related to a passage and know what to focus on. For example, if the questions related to the passage seek information about a particular person (e.g., Mr. Jones), then circle or underline Mr. Jones's name when you come to it in the passage, so that you don't waste time looking back through the passage later. Also, use your pencil to make the passage easier to understand by placing slash marks between key phrases.

3. These tend to be time consuming questions which you may not have the chance to read more than once. A third technique is to read for understanding the first time and avoid getting bogged down by individual words that you do not understand. Sometimes you can tell the meaning of a word from the context within which it has been placed, or you may not need to understand the word at all to understand the passage. We caution you, however, do not try to read faster than you can read with comprehension.

4. Try to form a picture in your mind as you read. School books used to teach reading contain many pictures, since pictures aid in comprehension.

5. Ask yourself questions as you read. When you finish reading a paragraph or a long sentence, ask yourself what the paragraph was saying. What was the point of the paragraph or sentence?

It's important to note that most of the suggested strategies for written comprehension questions are directed to helping candidates understand the relatively lengthy passages of information which tend to precede these questions. Thus, these strategies would be useful with any type of question that requires candidates to read and understand a considerable amount of information.

Examples:

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

Firefighters from Engine Company 8 were dispatched to respond to a fire at 10:30 p.m. The fire was at a clothing warehouse in a very busy area of town. Upon arrival at the fire at 10:35 p.m., Firefighter King saw a teenage boy with blonde curly hair, a green tee shirt, blue jeans and white sneakers running from the warehouse. A young girl with long brown hair, a white sweater and green pants came up to Firefighter Watkins and stated that she saw some boy break a basement window in the warehouse and crawl inside. When she saw flames on the first floor she called the fire department. A man in his early thirties, with straight blonde hair, blue jeans and a long-sleeved white shirt, came running up to Firefighter Smith and stated that he owned the warehouse, and that there were large containers of highly flammable cleaning fluids located in the back of the warehouse. A 20 mile per hour wind was blowing from the front of the warehouse to the back and could quickly spread the fire to the back. The firefighters who had been positioned behind the warehouse were moved out and Battalion Chief Smith sent Firefighters Casey and Taylor to clear any people out of the surrounding buildings. Upon investigation, it was discovered that the fire was restricted to several racks of clothes at the front of the warehouse. The fire was put out at 10:45 p.m.

1. According to the preceding passage, the fire most likely was started by:

   A. a teenage boy.
   B. a young girl.
   C. a man in his early thirties.
   D. some highly flammable cleaning fluids that caught on fire.

2. According to the preceding passage, the firefighters who were positioned behind the clothing warehouse were moved out by the Battalion Chief because:

   A. there was no fire, or threat of fire, at the back of the clothing warehouse.
   B. highly flammable cleaning fluids were located at the back of the clothing warehouse.
   C. the fire had spread to the back of the clothing warehouse.
   D. the fire had spread to the buildings surrounding the clothing warehouse.

Answers and Explanations: As suggested above, you should review the questions related to each written comprehension passage before reading the passage itself. You should then circle/underline key words and phrases in the passage which relate to the questions.

1. A is the correct answer. The best answer can be found by reviewing what the passage said about each of the alternatives. The teenage boy was seen running from the warehouse by a firefighter. He also was seen breaking a basement window and crawling inside by a young girl. The fact that there are multiple witnesses to the unusual actions of the teenage boy makes him a good suspect.

The young girl is an unlikely suspect because she called the fire department to report the fire. In addition, when the firefighters arrived, the young girl told one of the firefighters about a teenage boy who also had been seen by one of the other firefighters. Thus, B is not correct.

The man in his early thirties also is not a good suspect because he owned the warehouse and warned the firefighters about the highly flammable fluids. Thus, C is not correct.

Finally, the passage indicates that there were some highly flammable cleaning fluids located in the back of the warehouse. However, it also indicates that the fire was restricted to several racks of clothes at the front of the warehouse and was put out 15 minutes after the firefighters were dispatched. Thus, while the cleaning fluids were in danger of catching on fire, they did not catch on fire and they did not cause the fire. D is not correct.

2. The correct answer is B. The key to this answer can be found in the section of the passage which starts with, "there were large containers of highly flammable cleaning fluids... " and continues to the end of the passage. This part of the passage reveals that given the speed and direction of the wind, the fire (which was located in the front of the warehouse) could be spread to the back of the warehouse where some highly flammable cleaning fluids were stored. On this basis, it can be assumed that the firefighters were moved out from behind the warehouse and asked to clear the surrounding buildings because the cleaning fluids were in danger of catching on fire.

   A is not correct. The part of the passage identified above reveals that there never was any fire in the back of the warehouse, ("the fire was restricted to several racks of clothes at the front of the warehouse."). However, there was a threat of fire in the back of the warehouse, given the direction and speed of the wind and the location of the cleaning fluids.

   C and D are incorrect. The fire "was restricted to several racks of clothes at the front of the warehouse." There was only a threat of fire in the back of the warehouse and in surrounding buildings, due to the direction and speed of the wind and the location of the cleaning fluids.

2. Written Expression

Definition: This ability involves using language in writing to communicate information or ideas to other people. These other people might be other firefighters, fire officers, witnesses, arson suspects, fire victims, or any individuals 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. An example might include documenting the details of an incident in a report or composing a letter to a member of the community.

Techniques: There are two types of written expression questions that you may encounter.

Type 1:

The first type of question (see sample question 3) requires you to identify the most appropriate way to communicate a particular thought or idea to another individual. For these questions, it is important to ensure that the alternative chosen (a) accurately reflects the content of the original idea, and (b) expresses the original idea in the most clear and concise manner.

Type 2:

The second type of written expression question (see sample question 4) requires that you order your thoughts, or statements in a logical sequence so that others will understand you. Such questions start with a list of statements to be made by an individual. For example, the statements may be descriptions of several events that occurred in order at an emergency scene. However, these statements will not be presented in the correct order. The response alternatives will present you with several possible ways to order the statements, only one of which makes sense.

When working with a question like this, look at the content of each sentence separately and determine whether it can stand alone, or whether it must precede or follow another sentence. If it can't stand alone, look for the sentence that contains the information you need. Ask the questions, what happened first and what happened next? Similarly, consider whether there are sentences that the sentence under consideration cannot precede or follow. This also will help to narrow down the choices.

While we suggest that you identify the pairs of sentences that must (or cannot) go together, we'd like to discourage you from attempting to determine the correct order of all of the sentences before checking the response alternatives provided. The reason for this is that there may be several logical ways in which to order the sentences. However, only one correct possibility will be included among the alternatives provided. Instead, we suggest that you work through each of the alternatives presented one-by-one, keeping in mind the sentences that must (or cannot) appear together. Alternatives that are not feasible should be eliminated until you find the one alternative that places the sentences in an appropriate order.

Examples:

Type 1:

3. Captain Lewis sent two firefighters into a home with two stories above ground and a basement, to search for the exact location of a reported fire. The firefighters found that the fire was located in one corner in the rear of the basement. The best way for the firefighters to report this information to Captain Lewis is as follows:

   A. "The fire is located on the lower level, in the rear."
   B. "The fire is located in the southeast corner of the lower level."
   C. "The fire is located in the southeast corner of the basement."
   D. "The fire is located in the rear of the basement."

Type 2:

4. Firefighter Rogers would like to include the following statements in a report about a recent explosion: (These statements are NOT listed in the correct order.)

   1) I quickly treated the pedestrian for the injury.
   2) The explosion caused a glass window in an office building to shatter.
   3) After the pedestrian was treated, a call was placed to the Police Department to ask for help in evacuating the area.
   4) After all the glass settled to the ground, I saw a pedestrian who was bleeding from the arm.
   5) While returning to the firehouse, I heard a loud explosion.

   The most logical order for the above statements to be presented in the report is as follows:

   A. 2, 5, 4, 1, 3.
   B. 5, 2, 4, 3, 1.
   C. 5, 2, 1, 4, 3.
   D. 5, 2, 4, 1, 3.

Answers and Explanations:

3. C is the correct answer. The alternatives differ in two important ways. The first concerns the level of the house on which the fire is located. Alternatives C and D indicate that the fire is in the "basement," thus leaving little room for confusion. In contrast, alternatives A and B use the term "lower level." A firefighter could interpret "lower level," as the basement or as the lowest above-ground level in the house. Since the term "lower level" is more likely to confuse the firefighters than the term "basement," responses C and D are better than responses A and B.

   Second, the alternatives differ in the detail used to describe the area of the basement in which the fire is located. Alternatives B and C use more detail by stating, "in the southeast corner." This detail allows us to break the basement up into four sections and gives us a very specific idea of where the fire is located. In contrast, alternatives A and D use, "in the rear." This allows us to break the basement up into only two sections -- front and rear -- and gives us a less specific idea of where the fire is located.

   Combining the above two ideas, C is the best answer.

4. D is the correct answer for the following reasons:

   Statement 5 must come first because it introduces the incident or topic (the explosion) on which all other statements are based. This allows us to eliminate alternative A.

   Statement 3 must follow statement 1 because 1 discusses the treatment of the injured pedestrian and 3 discusses what happened after the pedestrian was treated. This allows us to eliminate alternative B.

   Statement 4 must follow statement 2 since 2 discusses the shattering of the glass window in the office building and 4 discusses what happened after the glass settled to the ground. However, this information does not allow us to eliminate any alternatives.

   Both statements 1 and 3 must follow statements 2 and 4. This is the case because statements 2 and 4 indicate that the injured pedestrian was not discovered until after the shattered glass settled to the ground while statements 1 and 3 discuss the treatment of the pedestrian and the events that followed this treatment. This allows us to eliminate the only remaining alternative -- C. The only alternative left is D.

3. Information Ordering

Definition: This 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 what the correct order of information is. For example, in a first aid situation, the firefighter must have been instructed or have available a set of instructions concerning what should be done first, second, and so on. This ability also involves the application of specified sequences or procedures to a given situation. This ability would come into play particularly when deciding which set of procedures to follow first, which to follow next, as would be the case if the placement of additional equipment meant reducing traffic flow. Fire personnel should weigh traffic backup against additional resources to fight the fire.

Techniques: There are two types of information ordering questions that you may encounter. Both types of questions usually start off with the relevant rules, procedures, or other items of information.

Type 1:

In the first type of question (see sample question 5), the initial items of information may be presented out of order and applicants may be asked to arrange the information in the most logical order. Sometimes it's just a matter of arranging information in correct time order. At other times, it may be a matter of arranging information in order of importance.

The approach suggested for the first type of information ordering question is similar to the approach suggested for the second type of written expression question. That is, put in order only as much information as you need to answer the question. Don't try to put all of the pieces or items of information in correct order. You could be wasting valuable time doing this because you usually do not need to put all of the items in order to identify the correct answer. Consider only the order shown in each of the response alternatives.

Go through the alternatives one by one. Examine each alternative only as far as the point where you find it to be wrong. Then precede to the next response alternative. If you're not sure which item should be first on the list, you may find it easier to note which item should be last. This will help considerably in eliminating obviously wrong choices. If you don't know what should be first nor last, then go by what you know for sure. In other words, even if you do not know the proper order of all the items, nor which item should come first or last, you may know that one of the items should come after another. If so, you may be able to choose the correct answer by using just those two items to answer the question. **The key thing to remember is that you practically never need to know the correct order of all of the items to answer these questions.**

Type 2:

In the second type of information ordering question (see sample question 6), the initial passage presents the procedures in the order in which they must be performed. Applicants are then given a specific set of events and asked to identify the next step which must be followed (based on the sequence of procedures specified in the initial passage). Such questions require you to closely follow the sequence of procedures presented in the initial passage.

Examples:

Type 1:

5. Suppose that fire medics have arrived at the scene of an automobile accident. One of the victims is lying on the ground. The medics believe that the victim has a severe back injury so they must get the victim to the hospital as soon as possible. The following steps are used to place the victim on a back board. (These steps are NOT listed in the correct order.)

   1. Position the board on the ground next to the victim.
   2. If the victim is not lying on the center of the board, slide the victim to the center.
   3. Roll the victim on his/her side so that the board can be placed underneath him/her.
   4. Roll the victim onto the board.

   The above steps should be performed in the following order:

   A. 1, 2, 3, 4.
   B. 2, 3, 1, 4.
   C. 1, 3, 2, 4.
   D. 3, 1, 4, 2.

Type 2:

6. When a fire truck breaks down, the driver of the truck should first notify the dispatcher of the location and assignment of the truck, the nature of the trouble, and the help needed. If possible, the firefighters should fix the problem themselves. The driver should notify the dispatcher again when the truck is returned to service. The firefighters should then continue with the assignment unless the dispatcher provides other instructions. Upon return to the station, the driver should make the proper entry in the log.

   Consider the following situation:

   A driver of a fire truck has just fixed a small problem with his truck while on an assignment away from the station. According to the procedures described above, the driver or firefighters' next step should be to:

   A. contact the station officer, report the trouble and the truck repair, and wait for further orders.
   B. continue on with the work, and finish the job as assigned.
   C. notify Fire Maintenance that the problem has been fixed.
   D. notify the Dispatcher that the truck has been returned to service.

Answers and Explanations: As suggested earlier, these questions will usually start off with some rules or procedures. You usually will then be asked to do one of two things -- to place the procedures in the appropriate order, or to determine the next step which must be followed based on the sequence of procedures specified. Both types of questions are represented above.

5. The correct answer is D. Several conclusions can be drawn about the procedures presented.

   Since step 2 suggests that the victim is already on the backboard, any statement that suggests the victim is not yet on the board must come before step 2. Since all other steps suggest the victim is not yet on the backboard, all other steps must come before step 2. This allows us to eliminate all of the alternatives except D.

Furthermore, step 4 must follow steps 1 and 3 because step 4 involves rolling the victim onto the backboard and steps 1 and 3 involve preparing the victim to be rolled onto the backboard. Knowing this, however, does not allow us to eliminate any of the incorrect alternatives.

Finally, step 1 must follow step 3. If the board was placed next to the victim before the victim was turned on his/her side, the board would have to be moved again in order to be positioned underneath the victim when the victim is rolled. If the victim is first turned on his/her side, the board can be placed next to the victim's side immediately and would be underneath the victim when the victim is rolled. Knowing this would at least allow candidates to eliminate alternatives A and C.

6. The correct answer is D. When answering this question, you are encouraged to use slash marks to break up the paragraph into the specific steps that must be followed by a driver (or the firefighters) when a truck breaks down. The steps are listed below:

    1. Notify the dispatcher of the location and assignment of the truck, nature of the trouble and help needed.

    2. Fix the problem, if possible.

    3. Notify the dispatcher when the truck is returned to service.

    4. Continue with the assignment unless the dispatcher provides other instructions.

    5. Upon returning to the station, make the proper entry in the log.

    The situation indicates that the driver is at step 2 of the procedure because he/she has just fixed a small problem with the truck while on an assignment away from the station. You are asked to indicate what should be done next. Therefore, the driver must proceed to step 3 and "notify the dispatcher that the truck has been returned to service."

    A is incorrect because the procedure clearly indicates that the dispatcher, not the station officer, is to be contacted and that the firefighters are to continue with the assignment unless they are given other instructions.

    B is incorrect because the procedure clearly indicates that the dispatcher is to be notified that the truck has been returned to service before the firefighters continue on with the assignment.

    C is incorrect because the procedure clearly indicates that the dispatcher, not Fire Maintenance, is to be notified of the truck's return to service.

4. Problem Sensitivity

Definition: This 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. This ability does not include the ability to solve the problem, only the ability to identify or recognize the problem. Examples of this ability might be deciding that additional traffic control personnel are needed or that the crowd that has been gathering is in danger. Another example of this ability might be determining that interpersonal conflict exists within the stationhouse.

Techniques: There are two types of problem sensitivity questions that you may encounter. Problem sensitivity questions will often begin with the presentation of some rules, procedures, or recommended practices followed by the description of an incident or situation in which these rules should be applied. Based on the rules provided, you will be required to do one of two things:

Type 1:

The first type of question (see sample question 7) will often begin with the presentation of some rules, procedures or recommended practices followed by the description of an incident or situation in which these rules should be applied. Based on the applicable rules, you will be required to identify a problem (or the most serious of several problems) in the way the incident was handled. Because the first type of problem sensitivity question typically involves the presentation of a large amount of initial information, many of the suggested strategies for written comprehension questions (e.g., underlining key information) will assist you with these types of questions.

Type 2:

The second type of problem sensitivity question (see sample question 8) will consist of stories or descriptions by victims and witnesses. For these questions, a problem exists when a witness gives information that is different from information supplied by other witnesses.

Examples:

Type 1

7. The following list identifies some of the inspection activities that must be conducted on fire trucks on a daily and weekly basis:

DAILY INSPECTION

Chassis:	Check underneath and clean up.
Battery:	Maintain a charge of 1200 or higher and maintain the water level.
Gauges:	(After the first run of the day) inspect the gas, oil, ammeter, temperature and tachometer.
Engine:	Inspect the oil level and all wire connections. Also clean and dust the engine.

WEEKLY INSPECTION

Body:	All screws, bolts and nuts must be kept tight, especially around the doors, brackets and light frames.
Tires:	Inspect and use the gauge to check pressure.
Brakes:	Maintain all air lines and connections to the wheels.

Consider the following situation:

Firefighter Jackson is assigned to inspect a fire truck which has not been on a run for two days. Jackson forgets to do several things that are listed below. Of the following mistakes, the most serious is that Jackson:

A. did not clean the underside of the chassis.
B. failed to use a gauge to check the air pressure in the tires, although he did visually inspect the tires.
C. did not check to see if the screws on the left side of the truck were tight.
D. failed to check the battery for charge and water level.

Type 2:

8. Firefighter Munsen interviewed four witnesses to an automobile fire that broke out after an accident on Route 1. Each of the witnesses described the incident as follows:

Witness 1 - "As soon as the driver got out of the car, it burst into flames. The fire started in the gas tank."

Witness 2 - "It's a good thing the driver got away before the car was swallowed in flames. The gas tank caught fire right after the collision."

Witness 3 - "After the collision, smoke appeared from under the hood. Then the car became engulfed and the fire caused the gas tank to explode. The driver barely escaped."

Witness 4 - "Just after the accident occurred, the driver was able to escape before the gas tank caught on fire and the car went up in flames."

Given the above information, Firefighter Munsen should recognize that there is a problem with the description given by witness:

A. 1.
B. 2.
C. 3
D. 4.

Answers and Explanations:

7. D is the correct answer. According to the situation described, the fire truck has not been on a run for two days. The battery should be checked every day. If the battery is low or dead, the fire truck will not be able to respond to calls.

   A is not correct because, although the underside of the chassis should be cleaned every day, forgetting to clean the chassis is not as serious a mistake as failing to check the battery.

   B is not correct because, according to the passage, tires need only be checked on a weekly basis. Firefighter Jackson did visually check the tires.

   C is not correct for the same reason as B. Screws, bolts, etc. on the body of the fire truck need only be checked on a weekly basis.

8. C is the correct answer. There is agreement between Witness 1, 2 and 4 that the fire started in the gas tank and not under the hood as described by Witness 3.

   A is not correct because, Witness 1 agreed with both Witnesses 2 and 4 that the fire started in the gas tank.

   B is not correct because, Witness 2 agreed with both Witnesses 1 and 4 that the fire started in the gas tank.

   D is not correct because, Witness 4 agreed with both Witnesses 1 and 2 that the fire started in the gas tank.

5. Deductive Reasoning

Definition: This is the ability to apply general rules or regulations to specific cases or to proceed from stated principles to logical conclusions. An example might be deciding when to use various chemical or mechanical fire extinguishing agents such as foam, wetting agents, fog patterns, etc. Another example might be determining whether a fire is controllable or dangerous, or whether a building is at risk.

Techniques: For the most part, deductive reasoning questions start with some general rules and procedures and require the candidate to apply the general rules to specific cases. There are three types of deductive reasoning questions.

Type 1:

The first type of deductive reasoning question involves the application of a verbal rule or principle to a specific situation (see sample question 9).

Type 2:

The second type of deductive reasoning question involves the application of a quantitative rule presented in tabular fashion to a specific situation (see sample question 10).

Type 3:

The third type of deductive reasoning question involves assigning a specific case to one of several given categories (see sample question 11).

Techniques for Questions based on Verbal or Quantitative Rules and Procedures: The first and second type of questions will start with the presentation of some general verbal or quantitative rules and procedures and require candidates to apply the general rules to specific cases. The general quantitative rules and procedures will be presented in tabular fashion. Rules and procedures are intended to ensure that firefighters make the correct decisions in a wide variety of situations. There are four factors to attend to when answering questions about rules and procedures:

1. **Pay attention to the definite order in which steps are taken.** Many rules and procedures require firefighters to go through a series of actions. There is often a correct order for these actions. Make sure the correct answer has that same sequence of steps.

2. **Pay attention to when a rule or procedure is in effect**. Some rules apply only to certain types of situations or certain periods of time. Make sure the correct answer applies to the situation and time in question.

3. **Pay close attention to exceptions to the rules**. Pay particular attention to any exceptions given in the rule or procedure. Underline key words such as except, unless, if, and only.

4. **Pay attention to completeness.** If a procedure requires that a firefighter do several things, make certain the correct answer allows that all of those things can be done. However, if the question is just focusing on a few things, or on a series of many, make sure the correct answer doesn't eliminate the possibility of the events taking place.

Techniques for Questions Based on the Assignment of a Specific Case to One of Several Given Classifications: The third type of question will start with the presentation of categories or classifications and require the candidate to assign a specific case to one of the given categories or classifications.

1. Determine how the classifications or categories differ.

2. Review the particular incident presented in the question with regard to these differences.

3. Identify the classification or category that matches the particular incident with regard to these differences.

Examples:

Type 1

9. Foam fire streams are used at different concentration levels for fires of various types. Foams designed for Class A fires should be used at one to four percent concentrations. Class B fires require a foam concentration of between four to seven percent, while Class C fires require a concentration of six to nine percent.

   Given the above information, a firefighter who is unsure if a fire is a Class A or Class B fire would be best advised to use a foam concentration of:

   A. Two percent.
   B. Four percent.
   C. Six percent.
   D. Eight percent.

Type 2:

10. A large margin of safety should be allowed when choosing the size of rope to use for a given task. As an example: If a rope is to be used to lift a load of 410 pounds, one should not choose a rope with a breaking limit of 410 pounds. Rather, one should choose a rope with about seven times the breaking limit of the load to be lifted -- that is, with a breaking limit of 2870 pounds. The table below lists the maximum load that can be lifted, and the breaking limits, for several sizes of rope:

Diameter of rope (in inches)	Maximum load that can be lifted (in lbs.)	Breaking limit (in lbs.)
1/4	5	385
3/8	130	910
1/2	230	1610
3/4	520	3640
1 inch	925	6475

According to the information presented above, if a load to be lifted weighs 380 pounds, the size of the rope that should be used to lift this load is:

A. 1/4 inch in diameter.
B. 3/8 inch in diameter.
C. 1/2 inch in diameter.
D. 3/4 inch in diameter.

Type 3:

11. Due to the reliance of firefighting work on water systems, it is important for firefighters to have an understanding of different kinds of water pressure. Water pressures are categorized into the four classes described below:

Class I - The water pressure is static. Water is not moving in pipes and is not emitting from hydrants.
Class II - The water pressure is what can be expected within a water distribution system during normal consumption periods.
Class III - The pressure left in a distribution system, at a specific location, when a quantity of water is flowing. It is that part of pressure not used to overcome friction or gravity while forcing water through pipe, fittings, fire hose, and adaptors.
Class IV - The forward velocity of a water stream which exerts a pressure that can be measured at a discharge opening while the water is flowing.

Consider the following situation:

Firefighter Ogelsby has returned to the firehouse from the scene of a brush fire, feeling very thirsty and decided to get a drink of water. Ogelsby turned the cold water knob but no water came out. According to the preceding passage, the pressure in the faucet could be categorized most accurately as Class:

A. I.
B. II.
C. III.
D. IV.

Answers and Explanations: As noted earlier, these questions often start off with some general rules and procedures and require you to apply the general rules to specific situations.

9. The correct answer is B. The key to question 9 is to determine when the rules presented in the scenario are in effect. The first rule is in effect when a firefighter faces a Class A fire, the second rule is in effect when a firefighter faces a Class B fire and the third rule is in effect when a firefighter faces a Class C fire. In this case, the firefighter is unsure of whether the fire is Class A or Class B. In order to answer this question, candidates

have to compare the rules for Class A and B fires and determine if there is any overlap. The rule presented for Class A fires is that a firefighter should use a foam concentration between one to four percent. The rule presented for Class B fires is that a firefighter should use a foam concentration between four to seven percent. When comparing the two rules for Class A and B fires, candidates should see that there is overlap at four percent. Thus, a firefighter who is unsure if he/she faces a Class A or B fire would be safe to use a foam concentration of four percent.

10. The correct answer is D. The key phrase is "load to be lifted." The information in the table indicates that the maximum load that can be lifted by a 1/2 inch rope is 230 lbs. Thus, it is necessary to move up to the next size of rope (3/4 inch) to lift a load of 380 pounds. Since a 3/4 inch rope can lift a maximum load of 520 pounds, such a rope could safely be used to lift a 380 pound load.

    Candidates may have chosen alternative A (1/4 inch) if they were confusing the breaking limit with the load to be lifted. However, the paragraph above the table clearly states that "one should choose a rope with about seven times the breaking limit of the load to be lifted." Therefore, if candidates used the breaking limit to determine the size of rope needed to lift a load of 380 pounds, they would have been looking for a breaking limit of 380 x 7 or 2660 pounds and still should have chosen alternative D.

11. The key to question 11 is to determine how the classes of water pressure differ, to review the particular incident presented in the question with regard to these differences, and then to identify the class that matches the particular incident with regard to these differences. The major way in which the classes differ involves:

    <u>the classes of water pressure are:</u>

    Class I: the water pressure is static.

    Class II: the pressure is what can be expected during normal consumption periods.

    Class III: the pressure left in a distribution system, at a specific location, when a quantity of water is flowing.

    Class IV: the forward velocity of a water stream.

    The correct answer is A. The water pressure is static. In this incident Firefighter Ogelsby turned the cold water knob but no water came out. All other classes deal with water pressure that is flowing. Specifically Class II involves water pressure that can be expected during normal consumption periods. Class III involves the water pressure left in a distribution system when a quantity of water is flowing. Finally, Class IV involves the forward velocity of a water stream.

6. Inductive Reasoning

<u>Definition</u>: This is the ability to find a rule or concept which fits the situation. This would include coming up with a logical explanation for a series of events which seem to be unrelated. An example of this might be determining the point of origin of a fire. In addition, this ability involves understanding how a string of events might be connected. An example of this might be finding repeated violations of a fire code during building inspections and finding out that all of the buildings are currently owned by the same corporation.

<u>Techniques</u>: Inductive reasoning requires that you notice something common among a series of events or objects. In order to do this, you have to be able to identify the details that are important to answering a question. The majority of questions for inductive reasoning will start with a passage which provides you with all of the information you will need to answer the question. Scan the passage to get an idea of what it is about and then read the questions. More specifically, there are two types of inductive reasoning questions that you may encounter on the examination:

<u>Type 1</u>:

The first type of question (see sample question 12) will require you to derive a general principle based on specific examples.

Type 2:

The second type of inductive reasoning question (see sample question 13) will require you to find something similar about a series of events or objects. In order to do this, you have to be able to identify key information in each of the events or objects described in the passage. Use your pencil to underline or circle this information and compare this key information point-by-point.

Examples:

Type 1:

12. The table below indicates the number of people needed to carry ladders of different lengths.

Ladder length	Number of people needed to carry the ladder
15 feet	1
25 feet	2
35 feet	3
45 feet	4

According to the information presented in the above table, the following statement most accurately describes the relationship between the length of a ladder and the number of people needed to carry that ladder:

A. as the ladder length is increased by 10 feet, the number of people needed to carry it is doubled.
B. as the ladder length is increased by 10 feet, the number of people needed to carry it is tripled.
C. the longer the ladder, the fewer the number of people needed to carry it.
D. the longer the ladder, the greater the number of people needed to carry it.

Type 2:

13. The maintenance log for a fire truck shows the following entries:

Daily Maintenance Log

Date 11/17	**Date 11/18**	**Date 11/19**
Added 5 gallons gas	Added 1 quart oil	Brake fluid added
Brakes squeaked while responding to fire	Turn signal light replaced	Added air to right back tire
Windshield wiper blade replaced	Brakes locked-up during run	Rotated hose (5" line)
Signed Jones	Signed Smith	Signed Peters

Based on the above information, the driver of this fire truck should tell the supervisor that the:

A. electrical system should be checked.
B. brakes should be checked.
C. engine should be checked.
D. tires may need to be replaced.

Answers and Explanations:

12. The correct answer is D. Given the information in the table, D contains the only correct statement: the longer the ladder, the more people needed to carry it.

A is incorrect. The table indicates that it takes one person to carry a 15 foot ladder. The table shows the number of people doubling only when going from a 15 to a 25 foot ladder, because it goes from 1 to 2. With every additional 10 feet, the number of people needed to carry the ladder only increases by 1. If the number of people needed to carry a ladder continued to double as the ladder length increased by 10 feet, the number of people needed to carry a 35 foot ladder would be 4, and the number of people needed to carry a 45 foot ladder would be 8.

B is incorrect. Again, the table indicates that it takes one person to carry a 15 foot ladder. If the number of people needed to carry a ladder tripled as the ladder length increased by 10 feet, the numbers of people needed to carry a 25, 35, and 45 foot ladder would be 3, 9, and 27, respectively.

C is not correct because the description of the relationship between the length of the ladder and the number of people needed to carry the ladder is incorrectly reversed.

13. The correct answer is B. In answering this question, you should look for a pattern across the three days that suggests a problem with one of the things mentioned in the alternatives (the electrical system, the brakes, the engine, or the tires). In other words, you should compare the information listed for the three days, and look for some problem that is repeated in one form or another on all three days. There is an incident involving the brakes on each of the three days. Together, these incidents suggest that the brakes should be checked.

    A is incorrect because there is no real indication of an electrical problem. Although the windshield wiper blade was replaced on 11/17, the incident only involved the blade, not the electrical mechanism which operates the wipers. In addition, although the 11/18 incident involving the turn signal light could have been caused by an electrical problem, it also could have been caused by a burnt-out light bulb that simply needed to be replaced.

    C is incorrect because there is no incident involving the engine on any of the three days.

    D is incorrect because there was only one incident involving one tire on 11/19 (the right back tire needed air). There is no indication that the right back tire (or any other tire) needs to be replaced.

SECTION III: PRACTICE EXAMINATION

A. Practice Examination Instructions

This part of the Preparation Guide contains a practice test consisting of 19 questions that are very similar to the questions that will appear on the actual examination. It will be good practice for you to take this practice examination just as if you were taking the actual examination. You should read and study Section I: Written Ability Test - General Test Information and Section II: Written Ability Test - Ability Areas before you begin.

Note that, although all items related to each ability area were presented together in the Ability Area section of the guide, the items for each area are mixed up throughout this practice examination. The reason for this is because items will also be mixed up throughout the actual examination. This means that applying the suggested test-taking strategies for each ability area will involve a two-step process. First you will need to determine what kind of item you are dealing with. Then, you will need to remember what strategies apply to that type of item. That is why it's important that you become very familiar with the strategies suggested in the Ability Area section of this guide. Of course, some strategies apply to all, or almost all, items.

Use the blank answer sheet on the next page to record your answers to the practice examination. After you have finished this practice examination, compare your answers to those contained in the Answer/Explanations which follow this practice examination and review the explanations provided. Also, fill in the Practice Examination Error Analysis Form. For those questions that you did not answer correctly on your first choice, review the section on Error Analysis and try to determine why you chose incorrect answers.

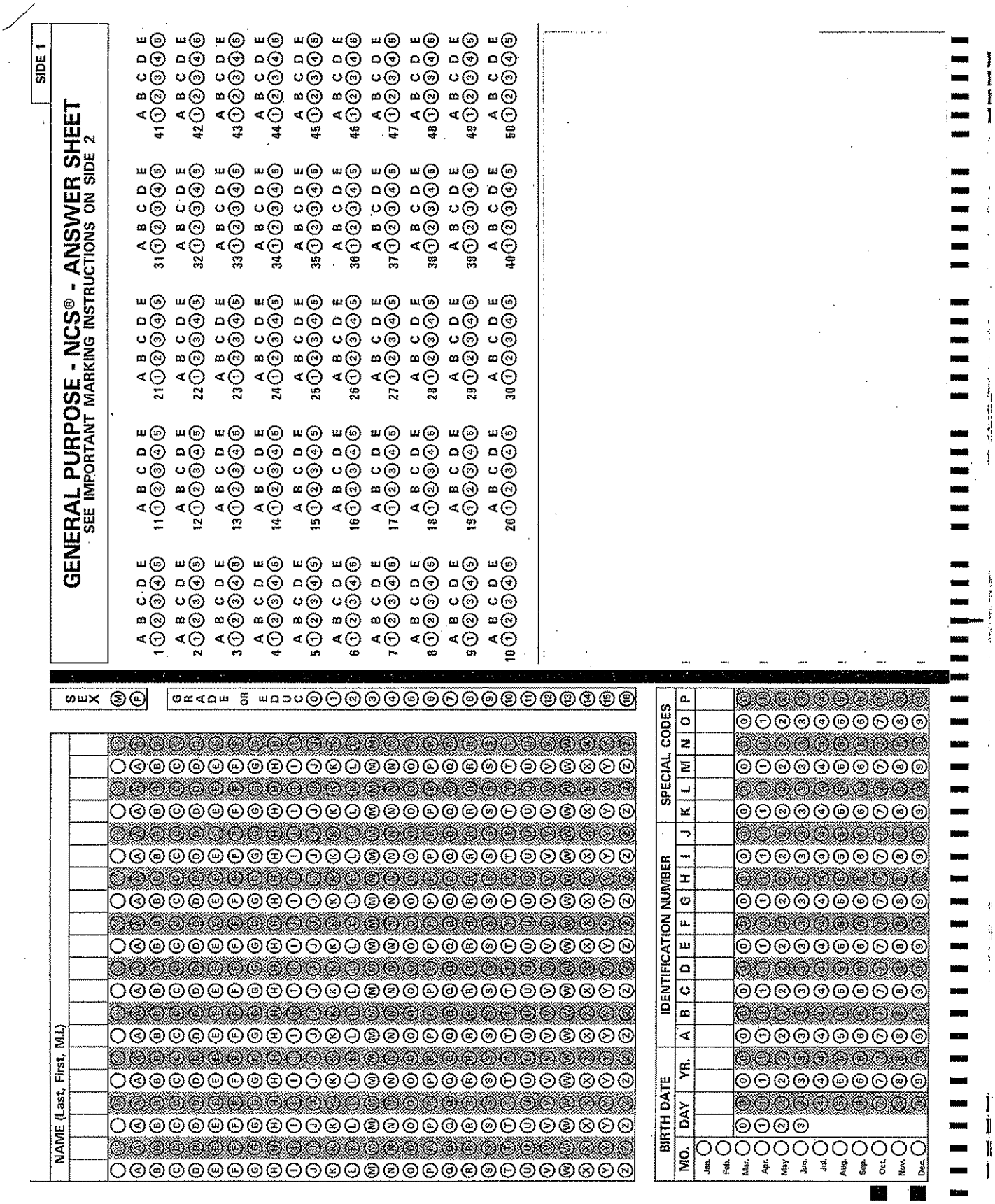
Before you start the practice examination, read the following instructions carefully:

Have a friend or family member time you. On the word "Begin," open the guide to the Practice Examination and begin reading and answering the practice examination questions. Allow yourself 30 minutes to complete the practice examination. On the word "Stop," close the guide. After you have completed the practice examination, check your answers and analyze your errors using the Answer/Explanations and Error Analysis Form.

DO NOT PROCEED TO THE PRACTICE EXAMINATION STARTING ON PAGE 31 UNTIL YOU ARE READY TO TAKE IT!

B. Answer Sheet: Practice Examination

Instructions: Use this answer sheet to record your answers to the practice examination. Use item numbers 1 – 19 on this answer sheet.



C. Practice Examination Questions

DO NOT LOOK AT THIS PRACTICE EXAMINATION UNTIL YOU HAVE REVIEWED THE PREPARATION GUIDE, FOLLOWED THE PRACTICE EXAMINATION INSTRUCTIONS AND ARE READY TO TAKE THE EXAMINATION.

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

At 2:30 a.m. on Saturday, Engine Companies 7 and 12 responded to a call from Mrs. Farrell, an elderly woman living in Cedarbook townhouses, apartment number 731. Upon arrival at Mrs. Farrell's home, Lieutenant Decker noticed no flames or smoke, but smelled a strong burning odor. Lieutenant Decker asked Mrs. Farrell how long she had smelled the odor and if there were any other occupants in her apartment. Mrs. Farrell stated the odor woke her up at 2:15 a.m., just before she called the fire department, and that she lived alone. Lieutenant Decker sent Firefighters Farber and Fulton to investigate the source of the odor. As soon as they entered the living room, dark smoke began to seep up through the heating grates on the floor so they went down to the basement to investigate. Lieutenant Decker took Mrs. Farrell to one of the vehicles outside and sent two other firefighters to awaken and evacuate the individuals in the surrounding townhouse apartments. Upon entering the basement, Firefighters Farber and Fulton immediately discovered the source of the fire. Some old wooden furniture had been stored too close to the furnace and had caught on fire. Firefighter Farber began to put out the flames with the fire extinguisher he had carried in with him. Firefighter Fulton went outside to get additional help.

1. According to the preceding passage, Mrs. Farrell called the fire department because she awoke to:

   A. the sight of flames.
   B. the sight of smoke.
   C. the sound of sparks.
   D. a burning odor.

2. According to the preceding passage, the fire in Mrs. Farrell's apartment had started in:

   A. the heating duct which led into the living room.
   B. some old furniture stored in the basement.
   C. Mrs. Farrell's bedroom.
   D. the furnace.

3. During a visit to the local elementary school, Firefighter Bennett made the following statement to the school children, "Matches are a very dangerous tool and they should not be treated as a toy." According to the preceding passage, to ensure that this statement is clearly understood, it could be stated more simply as follows:

   A. "Don't think of matches as something for fun."
   B. "You can be hurt by matches."
   C. "Matches can destroy things."
   D. "Don't play with matches."

Use the information in the following passage to answer questions 4 and 5.

Any firefighter must be able to identify the severity of a victim's burns to ensure that proper medical attention can be given. In order to classify burns, several factors must be taken into consideration including the victim's age, the location of the body burns, and the extent of the burned surface expressed in percentage of total skin surface. These factors are listed below:

VICTIM'S AGE	LOCATION OF BURNS	PERCENTAGE OF BURNED SKIN SURFACE
Infant	Head	18
	Chest & Abdomen	18
	Back & Buttocks	18
	Left arm	9
	Right arm	9
	Left leg	14
	Right leg	14
Five year old	Head	14
	Chest & Abdomen	18
	Back & Buttocks	18
	Left arm	9
	Right arm	9
	Left leg	16
	Right leg	16
Adult	Head	9
	Chest & Abdomen	18
	Back & Buttocks	18
	Pelvis	1
	Left arm	9
	Right arm	9
	Left leg	18
	Right leg	18

4. A five-year-old child was completely burned on both of her legs and her left arm during a fire in her grandparent's home. According to the preceding table, the percentage of the child's total skin surface which was burned was:

   A. 30.
   B. 35.
   C. 41.
   D. 45.

5. Consider the burn victims described below:

   VICTIM 1: An adult male who is burned on his chest and abdomen, back and buttocks, and left arm.
   VICTIM 2: An infant girl who is burned on her back and buttocks, and both legs.
   VICTIM 3: A middle-aged woman who is burned on her head, back and buttocks, and both arms.
   VICTIM 4: A five-year-old boy who is burned on both arms and both legs.

   According to the preceding table, the victim with the most severe burn (the highest percentage of skin surface damaged) is victim number:

   A. 1.
   B. 2.
   C. 3.
   D. 4.

6. Three fires took place near the Bay Housing Project over a three-week period. All three fires are assumed to be the work of arsonists because, in all three cases, a suspect was spotted running from the residence on fire. The description of each suspect is as follows:

Fire #1. (April 8) - male, White, teenager, around 5'5", about 175 pounds, tattoo on upper left arm, short-sleeve grey shirt, black pants and black shoes.

Fire #2. (April 14) - male, White, teenager, about 5'5", around 145 pounds, white cowboy hat, large scar directly over eyebrow, short sleeve shirt, blue pants, and black shoes.

Fire #3. (April 22) - male, White, teenager, almost 5'5", about 140 pounds, short brown hair, large-sized sunglasses, short sleeve blue shirt, blue jeans and black sneakers.

On April 24, a fourth fire occurs near the Bay Housing Project and a suspect is spotted once again. The description of the suspect is as follows:

Fire #4. (April 24) - male, White, teenager, about 5'5", around 143 pounds, short brown hair, large scar directly over eyebrow, short sleeve grey shirt, black pants and black shoes.

Based upon the description of the suspects in the first three fires, the suspect in fire #4 should also be considered a suspect in fire(s):

A. 1 and 2 only.
B. 1, 2 and 3 only.
C. 2 only.
D. 2 and 3 only.

Use the information in the following passage to answer questions 7 and 8.

One of the duties of emergency medical technicians (EMTs) is to know what to do if they arrive at the scene of a suspicious or unusual death before the arrival of a police officer. When this occurs, the following procedures should be followed:

Four pieces of information should be obtained promptly and transmitted to the police:

1) Name of the deceased, if possible.
2) Address of the crime scene and location of the body.
3) Telephone number where the EMT can be reached.
4) Apparent cause and time of death, if known.

The duties of the first EMT at the scene also include:

1) Making sure that no objects at the scene are moved.
2) Getting names & addresses of witnesses and other people at the scene.
3) Noting the exact position of the body and the condition of the victim's clothing.

7. You and Firefighter Davis are the first two EMTs to arrive on the scene of a deceased person. Upon initial inspection, the circumstances surrounding the death seem suspicious so you begin the appropriate procedures. Firefighter Davis records the victim's name, the apparent cause and time of death, the location of the body, and the address of the crime scene so that she can phone this information in to the police. In the meantime, you attempt to get the names and addresses of all bystanders. You keep watch to prevent any bystander from leaving the scene, or moving any objects at the scene, until the police arrive. According to the preceding passage, although your efforts were helpful, you and Firefighter Davis committed an error by:

A. obtaining the addresses of all bystanders.
B. failing to record any observations about the victim's clothing.
C. failing to record the apparent cause of death.
D. letting some of the bystanders rearrange items at the scene.

8. EMT Reese made the following call to the police from the scene of a possible homicide, "This is John Reese. I'm an emergency medical technician and I'm at an apartment building at 555 Allegheny Street at the scene of a possible homicide. The victim was Jeff McQuade, a 34-year-old white male from River City. We found the body in the main entrance to the apartment building. Mr. McQuade apparently died of multiple stab wounds to the chest about three hours ago. If you need any further information, don't hesitate to call me back. I'll remain here until one of your officers arrives."

According to the preceding passage, EMT Reese forgot to mention the:

A. victim's name.
B. location of the body and the address at which the body could be found.
C. telephone number where Reese could be reached.
D. apparent cause and time of death.

Use the information in the following passage to answer question 9.

Some firefighting equipment is listed and defined below:

1) Backboard - A sturdy piece of board used to prevent injured victims from moving before they are transported.

2) Stretcher - A portable cot on wheels used to transport injured or ill victims.

3) Gasoline Circular Saw - A gasoline engine equipped with blades which is used to cut masonry, steel, etc.

4) Gasoline Hydraulic Hurst Tool - A tool powered by a hydraulic gasoline engine and connected to a pump by a high pressure hose. Used to quickly remove steering wheels, doors, etc. on autos in order to free occupants.

5) Gasoline Handy-Billy - A pump powered by a gasoline engine that is used to draw water from pools, ponds, etc. to put out fires in remote locations or where no other water is available.

6) Oxy-Acetylene Cutting Torch - A device that is used to speed entry (or cut) through steel doors or windows, & in rescue operations involving vehicles, machinery, etc.

9. According to the preceding passage, a gasoline circular saw, gasoline hydraulic hurst tool and oxy-acetylene cutting torch are similar in that they help firefighters to:

A. remove heat, smoke and fumes from the fire area.
B. move victims at the emergency scene.
C. force entry into automobiles, buildings or equipment.
D. supply electricity to equipment used at the emergency scene.

10. Lieutenant Casey made the following statements when describing the types and characteristics of rope used in the fire department. (These statements are NOT listed in the correct order.)

1) Although rope can be made of many different fibers, manila and sisal are two of the more commonly used fibers.
2) Though not as strong as manila, the sisal fiber is used more in making ropes of smaller diameter used most often by the fire department.
3) Rope is an essential item of fire equipment and is carried on all fire trucks.
4) Rope made of this manila has great strength and durability, with a minimum of stretch.

The most logical order for the above statements to be presented is as follows:

A. 1, 4, 3, 2.
B. 3, 1, 4, 2.
C. 3, 4, 1, 2.
D. 4, 3, 2, 1.

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

It is the standard operating procedure to conduct a primary search in all residences that are on fire, or threatened by fire, if the residences can be entered safely. Primary search means firefighters quickly go through all affected areas to ensure the removal or safety of all occupants. Time is the critical factor in the primary search process.

The rescue procedures that are performed after steps have been taken to control the fire are called secondary search procedures. Secondary search means that firefighters thoroughly search the interior of the fire area after initial activities have been conducted to control and ventilate the fire. Thoroughness rather than time is the critical factor in secondary search.

In the case of a very minor fire that clearly poses no hazard to life, a rapid interior search is conducted and "all clear" is reported. In the case where smoke is seen or there is an active fire, efforts to control the fire and rescue occupants are both conducted at the same time in order to gain entry into the structure for a primary search. The primary search is then followed by a secondary search. In the case of a building that is completely engulfed in smoke and flames, the survival of occupants becomes unlikely. In this case, as soon as the fire is under control, a secondary search is made for victims.

Firefighters cannot depend on reports from spectators to determine the exact location, number and condition of victims. Rather, such information is used only to support search efforts.

11. According to the preceding passage, in the case of a fire where a whole building is engulfed in flames, the type of search that should be conducted as soon as the fire is under control is:

A. a primary search.
B. a secondary search.
C. a primary search followed by a secondary search.
D. no search since the survival of occupants is unlikely.

12. According to the preceding passage, the difference between a primary and secondary search is that:

A. a primary search is always conducted; a secondary search is not always conducted.
B. a secondary search is always conducted; a primary search is not always conducted.
C. in a secondary search, time is the most important factor; while in a primary search, thoroughness is the most critical factor.
D. in a primary search, time is the most important factor; while in a secondary search, thoroughness is the most critical factor.

13. During building inspections, the following conditions are often identified as dangers to the safety of the building. Therefore, owners are ordered to remove or correct these conditions:

1) Defective heating or cooking appliances.
2) Dangerous pile-ups of rubbish, waste paper, boxes, shavings, or other flammable materials.
3) Pile-ups of grease in kitchen exhaust ducts.
4) Obstructions to doors and windows that are likely to interfere with the exiting of occupants in the case of fire.
5) Overcrowded conditions caused by permitting the maximum occupancy rate to be exceeded.
6) Designated fire exits that are locked or do not work properly.

Fire Chief Cassidy recently examined the Last Chance Cafe and identified four violations from the list above: 2, 4, 5 and 6. Coincidentally, the day of the inspection was the last day of the tourist season so the owner was preparing to close the store and to remain closed for four months. Despite the circumstances, the Fire Chief instructed the owner to correct the one problem which would still be serious if not dealt with until the Cafe reopened in four months. Under the circumstances, the most serious problem for the vacant restaurant would be violation:

A. 2.
B. 4.
C. 5.
D. 6.

14. Fire Chief Jackson is writing a memo to all Division of Fire personnel prior to introducing new regulations regarding firehouse behavior. Chief Jackson will include the following sentences in the memo. (These sentences are NOT listed in the correct order.)

1. Behavior among the firefighters which reflects mutual respect and fellowship is essential to achieving this atmosphere.
2. Aside from the obvious decline in morale, a breakdown in internal discipline greatly increases the risk of accidents at fires.
3. A major objective of the Division of Fire is to create an atmosphere in the firehouse that is conducive to safe and effective firefighting.
4. Firefighters refusal to share meals together leads to a breakdown in the maintenance of internal discipline.
5. For this reason, the Division sets forth regulations regarding communal activities (e.g., meals) that take place in the firehouse.

The most logical order for the above sentences to appear in the report is:

A. 1, 5, 2, 4, 3.
B. 2, 4, 1, 5, 3.
C. 3, 1, 4, 2, 5.
D. 5, 1, 2, 4, 3.

Use the information in the following passage to answer question 15.

Consider the following information about the hospitals located in Middle County:

Hospital Name	Distance From Renova	Distance From Hatfield	Distance From Hightown	Admittance Limitations
Alpha	30 min.	65 min.	8 min.	No Obstetrics or children (under 18)
Beta	25 min.	45 min.	22 min.	None
Sigma	11 min.	28 min.	51 min.	No children (under 18)

Over the last 48 hours, ambulances responded to four calls in Middle County. The table below provides some information about each of these calls, including the hospital to which each patient was taken.

Call No.	Location	Age of Patient	Type of Patient	Hospital Requested By Patient	Hospital Patient Taken to
1	Hatfield	37	Psychiatric	None	Sigma
2	Hightown	40	General	Beta	Beta
3	Hatfield	6	General	None	Beta
4	Renova	20	Obstetrics	Alpha	Sigma

15. According to the preceding passage, the statement that most accurately reflects Middle County's policy with regard to patients who request specific hospitals is that:

    A. patient requests are ALWAYS honored.
    B. patient requests are NEVER honored.
    C. patient requests are honored ONLY if the requested hospital admits such patients.
    D. patient requests are honored ONLY if the requested hospital happens to be the closest hospital.

Use the information in the following passage to answer questions 16 and 17.

Operations conducted by fire personnel at fire-related incidents include evacuation procedures. Evacuation procedures are designed to remove fire personnel from situations in which their lives are threatened. These procedures are of three types:

Type 1: Emergency Evacuation - This type of evacuation procedure is used in incidents involving such things as the potential collapse of a structure or hazardous materials. All fire personnel inside the involved building or area will immediately evacuate the involved building or area, leaving all equipment in place.

Type 2: Tactical Withdrawal - This type of evacuation procedure is used when going from an offensive (interior attack), to a defensive (exterior attack), strategy. All fire personnel inside the involved building or area will evacuate the involved building or area with all equipment.

Type 3: Sector Withdrawal - After the use of an Emergency Evacuation or Tactical Withdrawal, all fire personnel shall be outside the involved building or area. However, conditions may be hazardous enough to require complete withdrawal from an entire sector (larger area). If so, this type of evacuation procedure is used. If possible, fire trucks (with all personnel aboard) shall immediately leave the sector by a safe route, leaving all equipment behind. Fire truck radios are then to be monitored for further orders.

16. Consider the following situation:

Firefighters had been fighting a fire at a five-story office building for a half hour. Despite their efforts, the building was soon engulfed in flames and several firefighters were forced to leave the building. The Commander in charge of the incident ordered all firefighters to evacuate the building with their equipment and to wait for further instructions regarding an external attack on the building. According to the preceding passage, this situation best represents a(n):

A. Tactical Withdrawal.
B. Tactical Withdrawal followed by a Sector Withdrawal.
C. Emergency Evacuation.
D. Emergency Evacuation followed by a Sector Withdrawal.

17. Consider the following situation:

A railroad car carrying toxic chemicals overturned and exploded into flames just outside the town of Melville. Firefighters from Battalion 5 responded to the incident. Upon discovering that the fire was caused by the explosion of toxic chemicals, the Battalion Chief ordered all personnel in the area to evacuate immediately and to leave any equipment in place. Since the incident involved toxic chemicals, the Battalion Chief then ordered all fire trucks to leave the sector with all personnel. He also took steps to notify residents in the surrounding area of the incident and possible need for evacuation. The Battalion Chief instructed personnel to monitor their radios for further orders. According to the preceding passage, this situation best represents a(n):

A. Tactical Withdrawal.
B. Tactical Withdrawal followed by a Sector Withdrawal.
C. Emergency Evacuation.
D. Emergency Evacuation followed by a Sector Withdrawal.

Use the information in the following passage to answer questions 18 and 19.

The following procedures are used to put out fireplace fires that get out of control. They are listed in the order in which they must be performed:

1) Stretch a canvas cover in front of the fireplace if the fire has not spread to the inside of the room, in order to prevent damage to the room.
2) Use a small hose line or water fire extinguisher to put out the fire in the fireplace.
3) Find out if the fire has extended to the inside of the walls.
4) Make sure the small hose line or extinguisher is ready for further use.
5) If fire is inside the walls, ceilings or floors, tear them open.
6) Use the small hose line or water fire extinguisher to put out any fire found in the walls, ceilings or floors.

18. Firefighters are at the scene of an uncontrolled fireplace fire. They have followed proper procedure and have just found that the fire has extended into the wall. According to the preceding passage, the firefighters' next step should be to:

A. tear open the wall with axes.
B. put out the fire in the fireplace.
C. put out the fire in the wall.
D. make sure the necessary equipment is ready for use.

19. Firefighters are at the scene of an uncontrolled fireplace fire. The fire has NOT spread to the inside of the room so a canvas cover has been stretched in front of the fireplace. According to the preceding passage, the firefighters' next step should be to:

A. determine if fire has extended into the walls, ceilings or floors.
B. tear open the walls, ceilings and floors.
C. put out the fire in the walls, ceilings and floors.
D. put out the fire in the fireplace.

D. Error Analysis Form: Practice Examination

SAMPLE QUESTION NO.	ABILITY AREA	CORRECT?	REASONS FOR INCORRECT ANSWERS						
			1	2	3	4	5	6	7
1	WRIT COMP								
2	WRIT COMP								
3	WRIT EXP								
4	DED REAS								
5	DED REAS								
6	IND REAS								
7	PROB SENS								
8	PROB SENS								
9	IND REAS								
10	WRIT EXP								
11	WRIT COMP								
12	WRIT COMP								
13	PROB SENS								
14	WRIT EXP								
15	IND REAS								
16	DED REAS								
17	DED REAS								
18	INF ORD								
19	INF ORD								
TOTAL QUESTIONS CORRECT									
TOTAL FOR EACH TYPE OF ERROR									

E. Practice Examination Answers/Explanations

The answers to the practice examination are listed below. Explanations of the answers follow this list.

1. D	6. D	11. B	16. A
2. B	7. B	12. D	17. D
3. D	8. C	13. A	18. D
4. C	9. C	14. C	19. D
5. D	10. B	15. C	

Written Comprehension items - 1, 2, 11, and 12.

1. D is the correct answer. As stated in the passage, "Mrs. Farrell stated the odor woke her up at 2:15 A.M., just before she called the fire department, ... "

   Alternative C is incorrect because there was no mention of sparks in the passage.

   Alternatives A and B are incorrect. Although smoke and flames may have been seen, they were seen by the firefighters only after they had begun to investigate the source of the odor reported by Mrs. Farrell. The question asked what awoke Mrs. Farrell and caused her to call the fire department. As noted above, Mrs. Farrell awoke to an odor just before she called the fire department.

2. B is the correct answer. The question asked where the fire started. As stated in the passage, "Firefighters Farber and Fulton immediately discovered the source of the fire. Some old wooden furniture had been stored too close to the furnace and had caught on fire."

   A is incorrect. Smoke from the burning furniture did get into the heating duct and travel up through the grates in the living room. However, the duct and grates were simply the first places where smoke from the fire was noticed. The fire did not start in the duct.

   C is incorrect because there is no mention of fire or smoke in Mrs. Farrell's bedroom at any point in the passage. However, since Mrs. Farrell awoke to the smell of smoke, some candidates may incorrectly assume that the fire started in Mrs. Farrell's bedroom.

   D is incorrect. The wooden furniture caught on fire because it was stored too close to the furnace. However, the fire did not start in the furnace. It started in the furniture.

11. B is the correct answer. The third paragraph of the passage clearly states, "In the case of a building that is completely engulfed in smoke and flames, the survival of occupants becomes unlikely. As soon as the fire is under control, a secondary search is made for victims." This suggests that no primary search is conducted in the case of a building that is completely engulfed because it is unlikely that occupants can be saved. Initial efforts instead should be directed toward controlling the fire after which a secondary search should be conducted for victims.

    A and C are not correct because the portion of the passage quoted above suggests that a primary search is not conducted at any point in time for a building that is completely engulfed in flames.

    D is only partially correct. The portion of the passage quoted above suggests that no primary search is conducted because "the survival of occupants is unlikely." The passage goes on to say that a secondary search should be conducted once the fire is under control. Thus, it is not correct to say that "no search is conducted," only that "no primary search is conducted."

12. D is the correct answer. This answer is clearly supported by statements which are made in paragraphs 1 and 2 of the passage: "Time is the critical factor in the primary search process." and "Thoroughness rather than time is the critical factor in secondary search."

The first part of A (i.e., "a primary search is always conducted") is clearly incorrect given the explanation provided for question 21 which indicates that a primary search is not conducted in buildings that are engulfed in flames. There is not enough information in the passage to indicate whether or not the second part of alternative A (i.e., "A secondary search is not always conducted") is true.

Although the second part of B (i.e., "a primary search is not always conducted"), may be true, again, there is not enough information in the passage to allow us to evaluate the first part of B (i.e., "a secondary search is always conducted.")

Finally, C incorrectly reverses the purposes of the two types of search.

Written Expression items - 3, 10, and 14.

3. D is the correct answer. It correctly reflects the meaning of the original statement in its simplest form.

A is similar in meaning to the correct answer but the correct answer is a little more brief and to the point.

B and C do not include the notion of using matches as a toy or plaything so they do not provide a complete representation of the original statement.

10. The correct answer is B. There are a number of factors important to answering this item correctly. The clearest clues involve statements 4 and 2.

Statement 4 indicates that rope made of manila has great strength and durability. Thus, this statement must follow a statement that introduces what rope is made of. Statement 1 introduces manila and sisal as the kinds of fibers that rope is made of, so statement 1 must precede statement 4.

Statement 2 begins "Though not as strong as manila..." Therefore, statement 2 must follow a statement about the strength of manila. Statement 4 talks about the strength of manila, so 2 must follow 4.

Alternatives C and D do not represent this order, so they are incorrect. Alternatives A and B differ in their placement of statement 3. Alternative A places statement 3 between statements 4 and 2, which are closely related. Statement 3 makes a better introductory statement, as indicated in the correct answer, B.

14. The correct answer is C. Since a reference is made to "this atmosphere" in statement no. 1, it must immediately follow a statement which discusses the atmosphere in the firehouse. Statement no. 3 is the only statement that does this. The only alternative in which statement no. 1 follows statement no. 3 is C.

Further, statement no. 2 should be presented immediately after statement no. 4 because of the discussion of the "breakdown in internal discipline." Again, the only alternative where this occurs is C.

Information Ordering items - 18 and 19.

18. The correct answer is D. The key phrase in this item is "have just found that the fire has extended into the wall." This represents step 3 in the set of procedures so the next step which must be followed is step 4. Step 4 involves making sure the necessary equipment (small hose line or extinguisher) is ready for use.

The incorrect alternative that is most likely to be chosen is A: "tear open the wall with axes." This alternative represents step 5 in the set of procedures. It may seem to make sense to tear open the wall once it has been discovered that the fire has extended into the wall. However, it is important that firefighters first check to ensure that they are prepared to put out any fire that will be uncovered. That is why it is important that they perform step 4 before step 5. The instructions for this item clearly indicate that the procedures are listed in the order in which they must be performed.

19. The correct answer is D. The key phrase in this item is "a canvas cover has been stretched in front of the fireplace." This represents step 1 in the set of procedures so the next step which must be followed is step 2. Step 2 involves using a small hose line to put out the fire in the fireplace.

Problem Sensitivity items - 7, 8, and 13.

7. B is the correct answer. The procedures recommend that the first EMTs on the scene note "the exact position of the body and the condition of the victim's clothing." (See step 3.) In the description of the incident, there was no indication that the victim's clothing was examined.

A is incorrect because there is nothing wrong with obtaining the addresses of all bystanders. In fact, this is recommended in the procedures presented in the passage.

C is incorrect because the description of the incident reveals that the EMTs did record the apparent cause of death. ("Firefighter Davis records... the apparent cause and time of death, ...")

D is incorrect because there was no indication, in the description of the incident, that the EMTs allowed bystanders to rearrange items at the scene. In fact, the description indicates that the EMTs "kept watch to prevent any bystander from ... moving any objects at the scene, until the police arrive."

8. C is the correct answer. Without the phone number where Reese could be reached, the police would have no way of getting back to him.

A, B, and D are all wrong because EMT Reese provided all of these details when he called the police.

13. A is the correct answer. All other violations involve conditions that would make it difficult for customers to exit the restaurant in the event of fire. Since the restaurant is to be closed for four months, these conditions pose no immediate danger and need not be corrected until just before the restaurant reopens. In contrast, violation 2 -- dangerous pile-ups of rubbish, waste and other flammable materials -- pose a danger regardless of whether or not the restaurant is occupied because such materials could catch on fire at any time.

Deductive Reasoning items - 4, 5, 16, and 17.

4. C is the correct answer. According to the figure shown for a five-year-old, burns on both legs (32) and one arm (9) would amount to 41 percent of the child's total skin surface. Candidates may have chosen alternative D if they mistakenly referred to the figure for an adult since two legs (36) and one arm (9) would amount to 45 percent of an adult's skin surface. If candidates mistakenly referred to the figure for an infant, they might have chosen alternative B since two legs (28) and one arm (9) amount to 37 percent of an infant's skin surface.

5. D is the correct answer. The total percentages of skin surface burned are calculated for each victim below:

1. Chest and abdomen (18), back and buttocks (18), left arm (9) = 45
2. Back and buttocks (18), both legs (28) = 46
3. Head (9), back and buttocks (18), both arms (18) = 45
4. Both arms (18), both legs (32) = 50

16/17.

The key to questions 16 and 17 is to identify the various ways in which the classes of evacuation procedures differ. The ways in which the evacuation procedures differ include:

A. The type of situation in which the procedure tends to be used.
B. Whether or not equipment is to be left in place.
C. Whether or not the procedure is typically used after another evacuation procedure or can be performed by itself.

Each type of evacuation procedure is outlined below in terms of these 3 differences:

Emergency Evacuation Procedures

1. Used in situations involving a potential structure collapse or hazardous materials.
2. All equipment is left in place.
3. This procedure can be conducted by itself.

Tactical Withdrawal Procedures

1. Used in situations in which an offensive (interior attack) is being replaced by a defensive (exterior attack) strategy.
2. Personnel take all equipment with them.
3. This procedure can be conducted by itself.

Sector Withdrawal Procedures

1. Used in situations that are so hazardous they require complete withdrawal.
2. All equipment is left behind.
3. This procedure is used after an emergency evacuation or a tactical withdrawal.

16. The correct answer is A. The incident involved a change from an internal attack to an external attack. Firefighters were instructed to take all equipment with them when withdrawing. No additional evacuation procedures were conducted before or after this one. This incident is best classified as a Tactical Withdrawal.

17. The correct answer is D. The incident involved a fire involving hazardous materials. Firefighters were instructed to evacuate the area immediately and to leave all equipment in place. This part of the incident is best classified as an emergency evacuation. Due to the nature of the incident, firefighters were further ordered to leave the area on the fire trucks and to monitor their radios for further orders. This part of the incident is best classified as a Sector Withdrawal. Thus, the best answer is D -- Emergency Evacuation followed by a Sector Withdrawal.

Inductive Reasoning items - 6, 9, and 15.

6. When comparing suspects in questions like this, candidates should focus on those features that cannot be changed easily. This includes sex, race, age, height, weight, and distinguishing characteristics. (Since we are dealing with witnesses' descriptions, there may be minor differences in separate descriptions of the same suspect. Therefore, it should not be assumed that we are dealing with different suspects if the descriptions differ slightly in age, height, or weight.) Features that can be changed relatively easily should be ignored when comparing suspects. Such features include hair and hair color, facial hair, and clothes.

D is the correct answer. Suspects for Fires 2, 3, and 4 have roughly the same "unchanging" features:

Sex = Male. Race = White. Age = Teenager.
Height = 5'5". Weight = 140-145 lbs.
Distinguishing Characteristics = large scar directly over eyebrow.

Although the description of the suspect for Fire #3 does not include the scar, the suspect is reported to have been wearing large sunglasses which easily could have hidden the scar. Thus, Fires #s 2, 3 and 4 may all involve the same suspect.

For a number of reasons, the description of the suspect for Fire #1 suggests a different person is involved in this fire. First, the reported weight is 175 lbs. instead of 140-145 lbs. It's difficult to believe that the same suspect could be described so differently in terms of weight. Furthermore, there is no mention of a large scar over the eyebrow. Finally, the suspect for Fire #1 was described as having a tattoo on his upper left arm. Such a tattoo was not noticed on the suspect for Fire #4 or any of the other fires.

9. C is the correct answer. All three tools listed in this question are used to enter (or cut through) structures and/or free occupants. The key words are "used to cut masonry, steel, etc." (circular saw), "used to remove steering wheels, doors, etc. on autos in order to free occupants" (hurst tool), and "used to speed entry (or cut) through steel doors or windows and in rescue operations" (torch).

A and D are incorrect because they both describe functions that are not served by any of the equipment listed in the passage. The type of equipment, which is not listed, that performs the function described in alternative A is an electric fan and the type of equipment that performs the function described in alternative D is an electric generator.

B is incorrect because it describes the function served by a stretcher.

15. C is the correct answer. Neither A nor B can be correct because, of the two requests made (Beta by caller 2 and Alpha by caller 4), only the first request was granted. Therefore, it would be wrong to say that patient requests are ALWAYS (alternative A) or NEVER (alternative B) honored.

Alternatives C and D provide possible reasons why requests might not be honored. Alternative D suggests that patient requests are honored only if the requested hospital is the closest hospital. Caller 4 requested Alpha Hospital and was transported to Sigma. According to the information in the table, Alpha is the furthest hospital from the city in which the caller was located (Renova) and Sigma is the closest. Thus, a candidate might conclude that D is the correct response. However, caller 2 was transported to the requested hospital (Beta) even though it was not the closest hospital that would accept him. The closest hospital that would have accepted him was Alpha. Thus, the conclusion described in alternative D cannot be correct.

The correct conclusion is C -- patient requests are honored only if the requested hospital admits such patients. This conclusion explains why caller number 4 was not taken to the requested hospital. That is, caller number 4 was an obstetrics case and the hospital that caller number 4 requested (Alpha) does not take obstetrics cases. In addition, the conclusion stated in alternative C also fits with the other patient request situation. Caller number 2 was a general case who requested Beta hospital. Since Beta has no admittance limitations, the request was honored.

CONCLUSION

This Guide represents an attempt to familiarize you with all aspects of the written test, including the items and procedures; as well as to provide some suggestions for preparation. The suggestions provided here are not exhaustive – we encourage you to engage in whatever additional preparation strategies you believe will enhance your chances of performing effectively on the written test and on the job.