# Comprehensive Examination Battery Entry-Level Firefighter Candidate Orientation Guide:

# **Rochester Fire Department**

**CEB-PST** 

(2<sup>nd</sup> Ed.)

Reading Ability, Mathematical Reasoning, Map Reading, Human Relations, and Practical/Reasoning Skills

Provided by Fire & Police Selection, Inc. (FPSI)—2015

This Guide is intended for a <u>single use</u> guide and has a 2007 Copyright License. Reproducing, communicating or making photocopies of <u>any</u> of the material contained herein is against FPSI policy and federal Copyright laws.



#### Nature of the Job

Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries, or perform other vital functions.

During duty hours, firefighters must be prepared to respond immediately to a fire or any other emergency that arises. Because fighting fires is dangerous and complex, it requires organization and teamwork. At every emergency scene, firefighters perform specific duties assigned by a superior officer. At fires, they connect hose lines to hydrants, operate a pump to send water to high pressure hoses, and position ladders to enable them to deliver water to the fire. They also rescue victims and provide emergency medical attention as needed, ventilate smoke-filled areas, and attempt to salvage the contents of buildings. Their duties may change several times while the company is in action. Sometimes they remain at the site of a disaster for days at a time, rescuing trapped survivors and assisting with medical treatment.

Firefighters have assumed a range of responsibilities, including emergency medical services. In fact, most calls to which firefighters respond involve medical emergencies, and about half of all fire departments provide ambulance service for victims. Firefighters receive training in emergency medical procedures, and many fire departments require them to be certified as emergency medical technicians.

Firefighters work in a variety of settings, including urban and suburban areas, airports, chemical plants, other industrial sites, and rural areas like grasslands and forests. In addition, some firefighters work in hazardous materials units that are trained for the control, prevention, and cleanup of oil spills and other hazardous materials incidents. Workers in urban and suburban areas, airports, and industrial sites typically use conventional firefighting equipment and tactics, while forest fires and major hazardous materials spills call for different methods.

In national forests and parks, *forest fire inspectors and prevention specialists* spot fires from watchtowers and report their findings to headquarters by telephone or radio. Forest rangers patrol to ensure travelers and campers comply with fire regulations. When fires break out, crews of firefighters are brought in to suppress the blaze using heavy equipment, hand tools, and water hoses. Forest firefighting, like urban firefighting, can be rigorous work. One of the most effective means of battling the blaze is by creating fire lines through cutting down trees and digging out grass and all other combustible vegetation, creating bare land in the path of the fire that deprives it of fuel. Elite firefighters, called smoke jumpers, parachute from airplanes to reach otherwise inaccessible areas. This can be extremely hazardous because the crews have no way to escape if the wind shifts and causes the fire to burn toward them. Between alarms, firefighters clean and maintain equipment, conduct practice drills and fire inspections, and participate in physical fitness activities. They also prepare written reports on fire incidents and review fire science literature to keep abreast of technological developments and changing administrative practices and policies.

## **Working Conditions**

Firefighters spend much of their time at fire stations, which usually have features common to a residential facility like a dormitory. When an alarm sounds, firefighters respond rapidly, regardless of the weather or hour. Firefighting involves risk of death or injury from sudden cave-ins of floors, toppling walls, traffic accidents when responding to calls, and exposure to flames and smoke. Firefighters may also come in contact with poisonous, flammable, or explosive gases and chemicals, as well as radioactive or other hazardous materials that may have immediate or long-term effects on their health. For these reasons, they must wear protective gear that can be very heavy and hot.

Work hours of firefighters are longer and vary more widely than hours of most other workers. Many work more than 50 hours a week, and sometimes they may work even longer. In some agencies, they are on duty for 24 hours, then off for 48 hours, and receive an extra day off at intervals. In others, they work a day shift of 10 hours for 3 or 4 days, a night shift of 14 hours for 3 or 4 nights, have 3 or 4 days off, and then repeat the cycle. In addition, firefighters often work extra hours at fires and other emergencies and are regularly assigned to work on holidays. Fire lieutenants and fire captains often work the same hours as the firefighters they supervise. Duty hours include time when firefighters study, train, and perform fire prevention duties.

## **Employment**

According the United States Fire Administration, nearly 70 percent of fire companies are staffed by volunteer firefighters. Paid career firefighters held about 282,000 jobs in 2002. First-line supervisors/managers of firefighting and prevention workers held about 63,000 jobs; and fire inspectors held about 14,000.

About 9 out of 10 firefighting workers were employed by municipal or county fire departments. Some large cities have thousands of career firefighters, while many small towns have only a few. Most of the remainder worked in fire departments on Federal and State installations, including airports. Private firefighting companies employ a small number of firefighters and usually operate on a subscription basis.

In response to the expanding role of firefighters, some municipalities have combined fire prevention, public fire education, safety, and emergency medical services into a single organization commonly referred to as a public safety organization. Some local and regional fire departments are being consolidated into countywide establishments in order to reduce administrative staff and cut costs, and to establish consistent training standards and work procedures.

## Training, Qualification, and Advancement

Applicants for municipal firefighting jobs generally must pass a written exam; tests of strength, physical stamina, coordination, and agility; and a medical examination that includes drug screening. Workers may be monitored on a random basis for drug use after accepting employment. Examinations are generally open to persons who are at least 18 years of age and have a high school education or the equivalent. Those who receive the highest scores in all phases of testing have the best chances for appointment. The completion of community college courses in fire science may

improve an applicant's chances for appointment. In recent years, an increasing proportion of entrants to this occupation have had some postsecondary education.

As a rule, entry-level workers in large fire departments are trained for several weeks at the department's training center or academy. Through classroom instruction and practical training, the recruits study firefighting techniques, fire prevention, hazardous materials control, local building codes, and emergency medical procedures, including first aid and cardiopulmonary resuscitation. They also learn how to use axes, chain saws, fire extinguishers, ladders, and other firefighting and rescue equipment. After successfully completing this training, they are assigned to a fire company, where they undergo a period of probation.

A number of fire departments have accredited apprenticeship programs lasting up to 5 years. These programs combine formal, technical instruction with on-the-job training under the supervision of experienced firefighters. Technical instruction covers subjects such as firefighting techniques and equipment, chemical hazards associated with various combustible building materials, emergency medical procedures, and fire prevention and safety. Fire departments frequently conduct training programs, and some firefighters attend training sessions sponsored by the U.S. National Fire Academy. These training sessions cover topics including executive development, anti-arson techniques, disaster preparedness, hazardous materials control, and public fire safety and education. Some States also have extensive firefighter training and certification programs. In addition, a number of colleges and universities offer courses leading to 2- or 4-year degrees in fire engineering or fire science. Many fire departments offer firefighters incentives such as tuition reimbursement or higher pay for completing advanced training.

Among the personal qualities firefighters need are mental alertness, self-discipline, courage, mechanical aptitude, endurance, strength, and a sense of public service. Initiative and good judgment are also extremely important because firefighters make quick decisions in emergencies. Because members of a crew live and work closely together under conditions of stress and danger for extended periods, they must be dependable and able to get along well with others. Leadership qualities are necessary for officers, who must establish and maintain discipline and efficiency, as well as direct the activities of firefighters in their companies. Most experienced firefighters continue studying to improve their job performance and prepare for promotion examinations. To progress to higher level positions, they acquire expertise in advanced firefighting equipment and techniques, building construction, emergency medical technology, writing, public speaking, management and budgeting procedures, and public relations.

Opportunities for promotion depend upon written examination results, job performance, interviews, and seniority. Increasingly, fire departments use assessment centers, which simulate a variety of actual job performance tasks, to screen for the best candidates for promotion. The line of promotion usually is to engineer, lieutenant, captain, battalion chief, assistant chief, deputy chief, and finally to chief. Many fire departments now require a bachelor's degree, preferably in fire science, public administration, or a related field, for promotion to positions higher than battalion chief. A master's degree is required for executive fire officer certification from the National Fire Academy and for State chief officer certification.

#### Job Outlook

Prospective firefighters are expected to face keen competition for available job openings. Many people are attracted to firefighting because it is challenging and provides the opportunity to perform

an essential public service, a high school education is usually sufficient for entry, and a pension is guaranteed upon retirement. Consequently, the number of qualified applicants in most areas exceeds the number of job openings, even though the written examination and physical requirements eliminate many applicants. This situation is expected to persist in coming years.

Employment of firefighters is expected to grow about as fast as the average for all occupations through 2012 as fire departments continue to compete with other public safety providers for funding. Most job growth will occur as volunteer firefighting positions are converted to paid positions. In addition to job growth, openings are expected to result from the need to replace firefighters who retire, stop working for other reasons, or transfer to other occupations.

Layoffs of firefighters are uncommon. Fire protection is an essential service, and citizens are likely to exert considerable pressure on local officials to expand or at least preserve the level of fire protection. Even when budget cuts do occur, local fire departments usually cut expenses by postponing equipment purchases or not hiring new firefighters, rather than through staff reductions.

#### Overview

This written test associated with this orientation guide for the entry-level firefighter recruitment process consists of a variety of sub-tests designed to measure critical constructs required for successful job performance as a firefighter. The components of this test have been developed and validated by firefighters and Fire Captains who have experience performing the essential functions of the firefighter job. Each construct measured by this test has been carefully linked to a national job description and identified as a critical skill or ability necessary for performance of the job.

The entry-level firefighter written test is called the Comprehensive Examination Battery with Practical Skills Test (CEB/PST). Constructs measured by the CEB/PST Test include:

- Reading Ability—15 items
- Mathematical Reasoning—20 items
- Map Reading—15 items
- Human Relations—30 items (to include: interpersonal skills, teamwork, commitment, honesty, integrity, emotional stability)
- Reasoning Skills—28 items (to include: reasoning, vocabulary, mechanical aptitude, and spatial rotation)

Subject-matter experts in our validation workshops have endorsed every item on the test and have confirmed that the reading level of the passages and the test items are appropriate based upon the materials found on the job and in the academy.

## How to Prepare for the Test

All of the constructs measured on the CEB/PST are based upon basic skills and abilities that a minimally qualified applicant should possess. There are a variety of preparatory publications available that *may* be helpful to those candidates who could use a refresher in basic reading, math skills, map reading, human relations, and reasoning skills. FPSI <u>cannot</u> endorse any particular national publication in terms of preparing for the CEB/PST Test that was not created by FPSI.

#### Test Yourself for Success with FPSI's CEB/PST Practice Test Items

Listed in the back of this study guide are sample questions from the five constructs being measured on the written test. These sample test items are very similar to the types of items found on the actual CEB/PST Test.

## **Prepare for Your Test Day**

One way to help alleviate any apprehension you might have about the test is to visit the site, if possible, where the test will be administered. This will allow you to become familiar with the setting and the location of the testing. Obtain directions to the test site and determine the parking situation prior to the day of the test.

If you do visit the testing site in advance, be aware that on the day of the test administration your movements to certain areas of the building where the test is being held might be restricted. Do not make absolute plans on where you want to sit or which restroom you wish to use. Just familiarize yourself with the location and the facilities. You will be instructed on the test day of any limitations on your movements during the test session.

Carefully read all of the instructions and directions you receive from the agency conducting the test and follow them. Failure to follow the instructions may affect your score or even eliminate you from the testing process.

## The Day of the Test

Arrive early on the day of the test. Applicants who are late are often denied permission to take the test. Be sure to bring all materials and/or information that the testing agency requested you to bring. For example, many testing agencies require that you bring some form of government issued photo identification such as a driver's license or a state identification card. Failure to bring required materials might result in your NOT being able to take the test. Wear comfortable clothing in layers so you can remove layers if the room becomes too warm or add layers if there is air conditioning or a cold draft. This strategy will help you to be comfortable throughout the exam. You can also use your sweater or jacket to cushion your seat in the test room if it is too hard or uncomfortable. Even though you should dress comfortably, you should also keep in mind that this test is part of the overall selection process. Check with the agency that is administering this test to see if there are any dress requirements.

When you are given the test instructions on the test day, you will be informed how much time you have to answer the questions. Take your watch off and put it on the table in front of you where you can see it. This will help you to keep track of your time and progress. You should be supplied with all materials you need to respond on the test, including test answer forms, scratch paper, and pencils. Leave all of your test preparation materials or notes outside of the testing area. You may NOT refer to any other study materials during the test.

Once you begin to take the test, make sure you clearly mark your answers to each corresponding question. If you skip any questions during the test, make sure you continue to put your answers next to the correct answer number on the answer sheet. It is easy to put answers next to the wrong question

number on the answer sheet if you do not pay close attention. When you have reached the end of the test, make certain to go back and check that you have answered ALL of the questions.

During the test, you will be instructed to choose the "best" or "most correct" alternative from four to five different alternatives. Most applicants find it helpful to read the entire question and all of the alternatives before choosing the best or most correct alternative. It is better to read all of the alternatives as you may find one that is a better answer than the one you first thought was correct.

If you have time after you have answered all of the questions, go back and review your answers. You may have recalled something later that may help you to correctly answer earlier questions.

**DO NOT LEAVE ANY ANSWERS BLANK.** You are scored on the number of correct answers you give in response to the questions. In other words, you will be penalized for any answers left blank. Even if you are not certain of a correct answer, you **SHOULD GUESS** at what the correct answer might be. Try to eliminate alternatives that you know are wrong and guess from the ones that remain. This will increase your chances of guessing the correct answer. Answers left blank will NOT be counted towards the number of correct responses in your final score.

It is important to try to make a good impression throughout the entire testing process since command level officers and administrators from the department that are administering this test sometimes visit the test site on the day of the test. Horseplay and loud joking before or after the test may create a poor impression of your ability to properly perform the job of a firefighter officer. You should also remain quiet during the test unless you have permission to do otherwise from those who are administering the test.

#### **Dealing with Anxiety**

The CEB/PST Test is <u>not</u> a measure of your self-worth or your intelligence. This is a test designed to measure your levels of reading ability, math skills, map reading skills, human relation competencies, and general reasoning ability. If you have performed poorly on other tests in the past, that does not necessarily mean you will perform poorly on the CEB/PST Test. Because, unlike many other types of tests, the CEB/PST Test was designed to measure a variety of critical skills and abilities that are essential to successful firefighter job performance in a way that does not overestimate the importance of cognitive skills and other constructs which, historically, result in lower passing rates.

There are no trick questions on the CEB/PST Test. Each and every question on the test can be answered based upon basic skills and abilities you should have developed throughout your life.

We certainly wish you the best of luck with your endeavors to become an entry-level firefighter!

# **Reading Section**

For this section of the test, you will read a one-page passage containing fire-related material and will then answer five (5) multiple-choice questions for each passage. All of the answers for these questions are found in the corresponding reading passage. You are encouraged to read the fire passage first and then answer the questions. You are allowed to refer back to the passage if needed.

Proceed to the next section when you are finished.

## **Ladder Usage--Questions 1-5**

Proper climbing angle, 70 degrees, allows safety while climbing and working on the ladder. To determine the 70 degree angle, take the height to be laddered, divide this by 5, and add 2. Place the foot of the ladder this number of feet away from the building and adjust the extension of the ladder to reach the desired location. For example, to determine proper foot placement of a ladder to reach 30 feet high,  $30 \div 5 = 6$ , and then 6 + 2 = 8. Therefore, with the ladder placed eight feet from the building, a 70 degree climbing angle would be obtained. The ladder is extended to reach a location 30 feet above the ground.

When placed at a proper climbing angle, a 35 foot ladder will reach less than 35 feet up the side of a building. Another method for determining a safe and proper climbing angle is as follows: place the toes of your shoes at the spur plate of the ladder; then with both arms outstretched, the fingers should rest on the rung most level to the shoulders.

When climbing a ladder, a firefighter should climb with a straight back and at arms length from the ladder. Pushing with leg power rather than pulling with arm strength has proven most efficient. With arms straight and hands resting lightly on the rungs, the firefighter should look straight ahead and only occasionally look up.

Only a limited number of people can safely be on a ladder at the same time. The rule of thumb regarding the number of people on a ladder at a given time is as follows. Basically, for each 10 foot section of ladder, one person is allowed. The following is the recommended safety work load for fire department ladders.

10 to 16 feet	1 person
20 to 26 feet	2 people
30 to 35 feet	3 people
40 to 50 feet	4 people

When sizing up a fire scene, it is very important that the ladder length estimates are correct. To help with this determination, a firefighter should allow 12 feet for each story and three feet as the distance from the floor to the window sill. Ladders requiring two or more individuals to *spot and raise* are under the command of the person located at the foot of the ladder, away from the bed.

That person gives the command for preparation and execution for all movements. This is done to increase the efficiency of the movements and to avoid confusion and possible injury.

Normally ladders are carried parallel to the ground with one beam above the other by two or more people. The ladder is carried with the firefighter's arm extended through the rungs. The beam rests on the firefighter's shoulder. The exception is the one man straight-side ladder. When only one firefighter is carrying a ladder, the ladder is carried in the middle for increased convenience and maneuverability.

1.	When calculating the distance to place a ladder away from a building, you should take height to be laddered and divide by and add			
	A.	5, 2		
	B.	5, 3		
	C.	6, 2		
	D.	6, 3		
2.		An alternate method for determining the appropriate climbing angle is to place your toes at the spur plate of the ladder and rest your outstretched arms and fingers on the rung		
	A.	most level with your head		
	B.	most level with your shoulders		
	C.	most level with your eyes		
	D.	above your shoulders		
3.	The	The maximum number of people who could safely stand on 24 foot ladder at one time is		
	A.	one		
	B.	two		
	C.	three		
	D.	four		
4.		When determining the appropriate ladder length, the firefighter should allow feet for each story.		
	A.	eight		
	B.	ten		
	C.	twelve		
	D.	fourteen		
5.		The firefighter should allow feet at the distance from the floor to the window sill when determining the appropriate ladder length.		
	A.	2		
	B.	$2\frac{1}{2}$		
	C.	3		
	D.	$3\frac{1}{2}$		

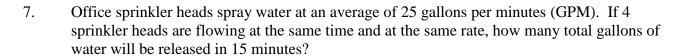
# **Math Section**

For this section of the test, you will answer five (5) fire-related math questions. These math questions require basic mathematic calculations and you will not need a calculator. Calculators are not allowed for this test. You may not use any scratch paper for this test. YOU ARE FREE TO WRITE IN THIS TEST BOOKLET TO MAKE YOUR CALCULATIONS.

Proceed to the next section after you are finished.

6.	A firefighter determines that 350 feet of hose is needed to reach a particular building.	If the
	hoses are 60 feet in length, what is the <u>minimum</u> number of lengths of hose needed?	

- A. 3
- B. 4
- C. 5
- D. 6



- A. 100
- B. 315
- C. 375
- D. 1,500
- 8. What is the total weight of four firefighters who weigh 202 pounds, 186 pounds, 133 pounds and 211 pounds?
  - A. 682
  - B. 712
  - C. 732
  - D. 742

9. An adult victim has one-quarter (1/4) of his back burned, all of his arm burned, and half (1/2) of his head burned. Using the burn chart below, determine what percent (total) of the victim is burned.

Entire Back: 20% Entire Front: 20% Entire Head: 15% Entire Arm: 15%

What percent of the victim is burned?

- A. 25.5%
- B. 27.5%
- C. 30.5%
- D. 35.5%
- 10. The fire captain asks you to lay out hose line. The hose line comes in 85-foot sections. How many 85-foot sections will you need in order to lay out 1,150 feet of hose line?
  - A. 10
  - B. 12
  - C. 14
  - D. 16

# **Human Relations Section**

For this section of the test, you will read one short fire-related situation and will then answer <u>two</u> multiple-choice questions relating to that situation. You will be asked to identify <u>both</u> the "most appropriate" response and the "least appropriate" response.

#### For example:

You are transporting an injured and intoxicated male who has a large amount of money protruding from his pocket. While transporting him to the emergency room you notice that the money falls out of his pocket.

- A. Pretend you didn't see the man drop the money.
- B. Wait until you go back outside and take the money if nobody else has found it.
- C. Pick up the money and give it to the emergency room staff for safekeeping.
- D. Pick up the money and place it next to the victim's hand.
- 1. WHAT IS THE **MOST** APPROPRIATE RESPONSE? C
- 2. WHAT IS THE **LEAST** APPROPRIATE RESPONSE? B

Proceed to the next section after you are finished.

John is a new firefighter at a station for the first time where there is a food fund. This fund is used to pay for lunch and dinner for the firefighters. At the beginning of the shift, \$6.00 is paid into the fund and a "check mark" is placed next to each firefighter's name. By eating meals together, teamwork is built. John forgets to bring his \$6.00 for the shift. What is the best way for Firefighter John to handle this situation?

- A. John should leave the station quickly and run to the nearest bank.
- B. John should place a check mark on the chart and pay for his food later.
- C. John should not eat with the rest of the group since he couldn't pay the \$6.00.
- D. John should ask another firefighter if he could borrow \$6.00 for the day.
- 11. WHAT IS THE **MOST** APPROPRIATE RESPONSE?
- 12. WHAT IS THE **LEAST** APPROPRIATE RESPONSE?

Firefighter Green is a new firefighter and feels left out when the other firefighters talk at the station. He feels that the other firefighters ignore him on purpose and treat him as if he's not part of the team. What is the best way for Firefighter Green to handle this situation?

- A. Firefighter Green should take interest in the conversations and spend time getting to know the other firefighters.
- B. Firefighter Green should tell his supervisor that the other firefighters are ignoring him.
- C. Firefighter Green should ignore the other firefighters and allow time to pass before doing anything.
- D. Firefighter Green should confront the other firefighters and ask why they are ignoring him.
- 13. WHAT IS THE **MOST** APPROPRIATE RESPONSE?
- 14. WHAT IS THE **LEAST** APPROPRIATE RESPONSE?

Firefighter Garcia finished the fire academy at the top of his class and acted arrogant about his accomplishment. After receiving his station assignment, he put very little effort into station and district drills. Firefighter Garcia was perceived as an arrogant know-it-all. This perception prompted his fellow firefighters to treat him as a non-team player. What is the best way for Firefighter Garcia to handle this situation?

- A. Firefighter Garcia should continue with his work and not address the issue.
- B. Firefighter Garcia should try to participate a little more with the other firefighters.
- C. Firefighter Garcia should apologize for his attitude and make an effort to learn new concepts.
- D. Firefighter Garcia should inform his supervisor that the other firefighters are picking on him.
- 15. WHAT IS THE **MOST** APPROPRIATE RESPONSE?
- 16. WHAT IS THE **LEAST** APPROPRIATE RESPONSE?

Your partner pulls the fire truck out of the truck room to wash it and a compartment door is severely damaged because it has been left open. You see this and recall that you left the compartment door open. You know that your partner will be blamed for this and that it was not entirely his fault. What is the best way to handle this situation?

- A. You should tell your partner to always check the compartment before pulling the engine out.
- B. You should tell your partner that you left the door open and suggest that you both discuss this accident with your supervisor.
- C. You should begin working on another task and wait for your partner to discuss the accident with you.
- D. You should inform your supervisor that your partner damaged the vehicle.
- 17. WHAT IS THE **MOST** APPROPRIATE RESPONSE?
- 18. WHAT IS THE **LEAST** APPROPRIATE RESPONSE?

While on a fire safety inspection at a local high school, a teacher approaches you and asks if you can help build a bonfire at the football game. The teacher has received permission from the fire department and school principal so long as a firefighter is present. You agree to be present at the bonfire. After talking further, you discover that the game is on your scheduled day off. What is the best way to handle this situation?

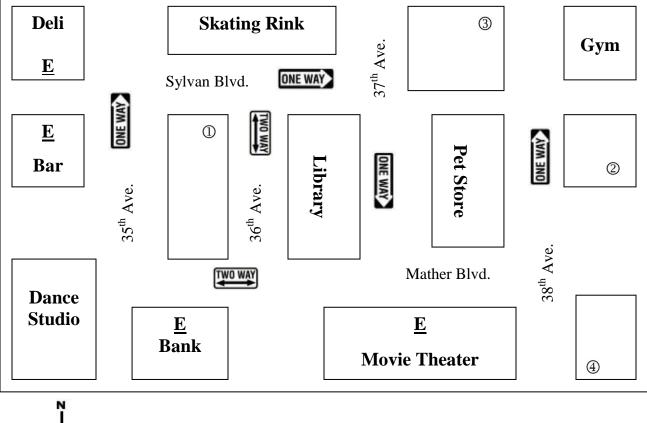
- A. Inform the teacher that you cannot attend the bonfire as you are not scheduled to work.
- B. Encourage the teacher to proceed without a firefighter as you have already approved the site.
- C. Attend the bonfire considering that your entire department will be represented by your actions.
- D. Ask a fellow firefighter to attend the bonfire in your absence.
- 19. WHAT IS THE **MOST** APPROPRIATE RESPONSE?
- 20. WHAT IS THE **LEAST** APPROPRIATE RESPONSE?

# **Map Reading Section**

For this section of the test, you will answer five (5) job-related map reading ability questions.

You are allowed to review your responses to any test section with any remaining time.

#### **DIRECTIONS:** Use the following map to answer questions 21-25





- 21. You are facing South on 37<sup>th</sup> Ave. and turn west on Mather Blvd. The next one way street you will reach is \_\_\_\_\_.
  - A. 38<sup>th</sup> Ave.
  - B. 36<sup>th</sup> Ave.
  - C. 35<sup>th</sup> Ave.
  - D. Sylvan Blvd.

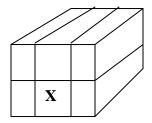
- 22. Which direction does Corner 4 face?
  - A. Southeast
  - B. Southwest
  - C. Northeast
  - D. Northwest
- 23. Which intersection is Corner 1 located at?
  - A. 35<sup>th</sup> Ave. and Mather Blvd.
  - B. 36<sup>th</sup> Ave. and Sylvan Blvd.
  - C. 35<sup>th</sup> Ave. and Sylvan Blvd.
  - D. 36<sup>th</sup> Ave. and Mather Blvd.
- 24. What is the most direct route to take from the entrance of the Deli to the entrance of the Bank without violating traffic laws? \*NOTE: The entrance is indicated by  $\underline{\mathbf{E}}$ .
  - A. Go east on Sylvan Blvd., south on 35<sup>th</sup> Ave., and east on Mather Blvd.
  - B. Go east on Sylvan Blvd., south on 37<sup>th</sup> Ave., and west on Mather Blvd.
  - C. Go east on Sylvan Blvd., south on 36<sup>th</sup> Ave., and east on Mather Blvd.
  - D. Go east on Sylvan Blvd., south on 36<sup>th</sup> Ave., and west on Mather Blvd.
- 25. What is the most direct route to take from Corner 4 to Corner 1 without violating traffic laws? \*NOTE: The entrance is indicated by  $\underline{\mathbf{E}}$ .
  - A. Go north on 38<sup>th</sup> Ave. and west on Sylvan Blvd.
  - B. Go north on 38<sup>th</sup> Ave., west on Mather Blvd., and north on 36<sup>th</sup> Ave.
  - C. Go north on 38<sup>th</sup> Ave., west on Mather Blvd., north on 35<sup>th</sup> Ave., and east on Sylvan Blvd
  - D. Go north on 38<sup>th</sup> Ave., west on Mather Blvd., north on 37<sup>th</sup> Ave., and west on Sylvan Blvd.

# **Reasoning Skills Section**

For this section of the test, you will answer five (5) job-related reasoning ability questions. Some of these questions require basic mathematic calculations and you will not need a calculator. Calculators are <u>not</u> allowed for this test. You may <u>not</u> use any scratch paper for this test. YOU ARE FREE TO WRITE IN THIS BOOKLET TO MAKE YOUR CALCULATIONS.

You are allowed to review your responses to any test section with any remaining time.

Often, firefighters must tell if there is a fire in the next apartment in a building by feeling the walls (including the ceiling and floor) to see if they are hot. Each block in the diagram represents an apartment in an apartment building. In the following questions you should indicate how many other apartments completely share a wall with the target apartment. An entire wall must be shared between apartments for them to be considered "shared." Apartments that only touch on a corner or for less than one full wall should NOT be counted.



- 26. The number of the walls shared with other apartments for the apartment labeled "X."
  - A. 2
  - B. 3
  - C. 4
  - D. 5
- 27. How many of the items listed below are EXACT duplicates of one another?

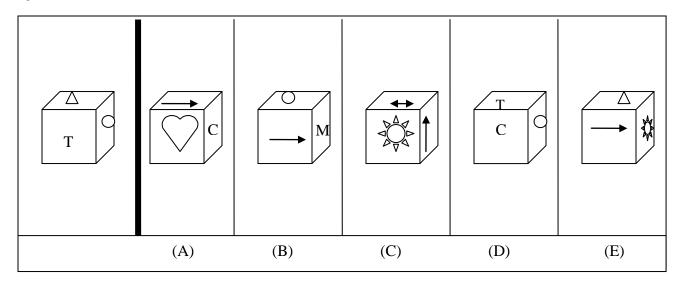
81301 81301 24F6942IL 24E6492IL 11901VX4C29 11901VX42C9 A846141464HL A846141464HL 63276R3981362 6S276R39613G2 8K029Z7829422 8K0279Z329422

- A. none
- B. one
- C. two
- D. three

- 28. A woman is traveling in her car at 25 miles per hour. How far will that woman travel in thirty minutes?
  - A. 10.75 miles
  - B. 11.25 miles
  - C. 12.50 miles
  - D. 15 miles
- 29. Which number should follow this series: 64/64, 9/12, 6/12,
  - A. 1/2
  - B. 1/4
  - C. 6/8
  - D. 8/8

For the next question, you will apply your skills to conceptualize shapes and patterns, and then rotate figures. Each question presents one cube that has six sides. Each of the six sides of each cube has a different design. The first cube provided shows three sides of the cube and the design on each side. Select from one of the five cubes (A-E) that can represent the first cube when it is turned <u>one time</u>. See the example below:

#### Question 30.



#### **Answer Key**

1. A 2. В 3. В 4. C C 5. 6. D 7. D  $\mathbf{C}$ 8. 9. В 10.  $\mathbf{C}$ 11. D 12. A 13. A 14. В 15.  $\mathbf{C}$ 16. D 17. В D 18. 19.  $\mathbf{C}$ 20. В 21.  $\mathbf{C}$ 22. В 23. В 24. D 25. В В 26.  $\mathbf{C}$ 27.  $\mathbf{C}$ 

28. 29.

30.

В

D

Alternative "D" is the correct answer, because if the cube is rolled directly forward the "T" would move from the front of the cube to the top, and the circle on the right side of the cube would remain in the right side. Please note that the arrows on the cube do not indicate the direction the cube was turned. They are only symbols like the other ones on the cubes.