

# **2019 FIREFIGHTER ENTRY-LEVEL STUDY GUIDE**

## Table of Contents

<b>Introduction</b>	<b>3</b>
Firefighter Selection Process Communication	3
Introduction to the Job of a Columbus Firefighter	4
Overview of the Assessment Process	4
Important Notes about the Exam	5
Scoring	5
<b>Phase I—Multiple-Choice Exam</b>	<b>5</b>
General Test Taking Strategies for Phase I	5
Multiple-Choice Subtests	6
Subtest 1: Situational Judgment	6
Subtest 2: Map Reading and Following Directions	7
Subtest 3: Mathematics	10
Subtest 4: Reading Comprehension	12
Subtest 5: Mechanical Aptitude	18
A Quick Overview of the Answer Sheets	25
<b>Phase II—Firefighter Oral Assessment Mechanism (FOAM)</b>	<b>26</b>
FOAM Test Administration	26
Scoring FOAM	27
FOAM Preparation Tips	27
FOAM Test Taking Tips Summary	29
<b>Phase III—Firefighter Mile</b>	<b>30</b>
Important Notes Regarding the Firefighter Mile	30
**See Firefighter Mile Preparation Guide also provided online <a href="https://www.columbus.gov/civilservice/uniformed-fire-series/Firefighter/">https://www.columbus.gov/civilservice/uniformed-fire-series/Firefighter/</a>	
<b>Confidentiality</b>	<b>30</b>
<b>Final Firefighter Examination Results</b>	<b>31</b>
<b>Summary</b>	<b>31</b>

## *Introduction*

The purpose of this study guide is to help you prepare for the Columbus Firefighter Entry-Level Assessment process. The guide contains information about the multiple phases of the process, sample questions, and information about test-taking strategies. Reading this guide and studying content related to the assessments can help you prepare for the assessment process. Your journey to become a firefighter will require dedication and discipline. Congratulations for taking the first step to success by reading this study guide.

### **Firefighter Selection Process Communication**

The Columbus Civil Service Commission (CSC) is here to help you through the assessment process. You can stay informed by taking advantage of the information provided by the CSC throughout the selection process. By staying informed, preparing for the selection process, and knowing what to expect, you can increase your likelihood of success. Once you apply with the CSC, you will receive several email notifications that inform you of the next steps in the firefighter selection process. Be sure to use your current email address and check for email notices often. Read each notice carefully because this is how the CSC will communicate information about the assessment process with you. In addition to emails and this study guide, you will find additional information such as sample test videos, the background standards, and the Columbus Firefighter Mile Preparation Guide on the CSC website at [columbus.gov/civilservice](http://columbus.gov/civilservice). Finally, if you have questions regarding this study guide or the assessment process, please call 614-645-0879 or email us at [policefiretesting@columbus.gov](mailto:policefiretesting@columbus.gov)

### **Introduction to the Job of a Columbus Firefighter**

The most publicized aspects of the job of firefighter are the preservation of life and property. However, most firefighters are responsible for much more. The job of a firefighter is a physically demanding one. Firefighters are required to climb several flights of stairs, maintain control of a fire hose for long periods of time, and carry victims from dangerous situations. There are a variety of tasks on an emergency scene that must be carried out as quickly and efficiently as possible to preserve one's own life, the lives of victims, and the lives of other first responders. Many Columbus Firefighters serve as paramedics and all Columbus Firefighters are trained to handle many basic medical emergencies. In addition, Columbus Firefighters are required to perform several tasks between fire alarms. These tasks include, but are not limited to, maintaining/repairing equipment, cleaning equipment and the fire station, inspecting buildings and hydrants, learning area streets, and giving tours to school-aged children.

Columbus Firefighters receive extensive training throughout their career. Training begins with the initial 33 to 35-week Columbus Firefighter Training Academy. During this time, recruits are paid to work full-time on first shift and then return home in the evenings and on weekends. Once the training at the academy is complete, each firefighter is assigned a fire station based on the needs of the Columbus Division of Fire. Upon completion of the training academy, each firefighter must maintain a valid Firefighter II and Fire Safety Inspector Certification issued by the State of Ohio. Additionally, the firefighter will begin a 3-year program where learning continues on the job and is complemented with traditional book work, online tutorials, class instruction, and examinations. A large percentage of Columbus Firefighters are required to obtain and retain this certificate after becoming a Journeyman firefighter. Training continues

throughout a firefighter’s career through hands-on learning at the station, simulated exercises in the field, classroom and hands-on training academy, and training delivered through on-line courses.

After the initial 33 to 35-week training, the schedule of a typical Columbus firefighter is 24-hours on-duty and 48-hours off-duty. Every third week, the firefighter has a Kelly Day (an additional day off-duty). This averages to a 48-hour work-week. An example of a 3-week Kelly Cycle is as follows:

**Sample Columbus Firefighter Schedule**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Work 24 hours	Off	Off	Work 24 hours	Off	Off	Work 24 hours
Off	Off	Kelly Day Off	Off	Off	Work 24 hours	Off
Off	Work 24 hours	Off	Off	Work 24 hours	Off	Off

In the example above, the firefighter has a Kelly Day of Tuesday, therefore, each workday that falls on a Tuesday this firefighter will not be scheduled to work. This Kelly Cycle repeats every three weeks.

**Overview of the Assessment Process**

The Columbus Firefighter Entry-Level Assessment process is designed to test the knowledge, skills, and abilities that are important to the job of firefighter with the City of Columbus, Ohio. The knowledge that will be assessed in this process does not require training or education on the job of a firefighter. Instead, these phases of the assessment process will evaluate you based on the knowledge, skills, and abilities that are needed to attend the Columbus Firefighter Training Academy.

The Columbus Firefighter Entry-Level Assessment process consists of three phases. The three phases are as follows:

**Phase I—Five-part Multiple-Choice Exam**

- |                                         |                          |
|-----------------------------------------|--------------------------|
| 1. Situational Judgment Test (SJT)      | 3. Mathematics           |
| 2. Map Reading and Following Directions | 4. Reading Comprehension |
|                                         | 5. Mechanical Aptitude   |

**Phase II—Firefighter Mile Events**

- |                   |                               |
|-------------------|-------------------------------|
| 1. Stair Climb    | 6. Blind Crawl                |
| 2. Paced Walk     | 7. Forcible Entry/Tire Strike |
| 3. Hose Advance   | 8. Paced Walk                 |
| 4. Equipment Haul | 9. Victim Rescue              |
| 5. Paced Walk     | 10. CPR                       |

**Phase III—Fire Oral Assessment Mechanism (FOAM) Scored Abilities**

- Problem Sensing & Resolution
- Interpersonal Relations

Later sections of this study guide will provide more specific descriptions of the phases.

### **Important Notes**

- You will receive the dates, times, and location where you will need to arrive for each phase of the assessment process by e-mail from the CSC.
- Be sure to arrive early for any assessment you are invited to attend. Late candidates WILL NOT be admitted into the exam. Once the exam instructions begin, no additional candidates will be admitted into the testing room.
- Bring a printed copy of your admission notice and your driver's license with you every time you arrive for an exam.
- If you have any questions about this process, or need to reschedule, please contact the CSC at 614-645-0879 or email [policefiretesting@columbus.gov](mailto:policefiretesting@columbus.gov)

### **Scoring**

The phases of the Columbus Firefighter Entry-Level Assessment process will be scored as follows:

Phase I	Multiple-Choice	Pass/Fail
Phase II	FOAM	Band/Fail
Phase III	Firefighter Mile	Pass/Fail

The Multiple-Choice and Firefighter Mile phases of the examination process will be scored on a pass/fail basis. Passing FOAM scores will be weighted as 100% of the final assessment score. Only those who pass all phases of the examination process will be placed on the eligible list to attend the Columbus Firefighter Academy.

### ***Phase I – Multiple-Choice Exam***

This section of the study guide provides information about the Multiple-Choice Examination. It is designed to 1) provide you with strategies for taking the test; and 2) give you an understanding of the content of the examination.

### **General Test Taking Strategies for Phase I**

- Try to get a good night's sleep before the test. It is important that you are well rested so you can do your best.
- Eat appropriately prior to the test. Too little or too much food can hinder your performance, rather than help.
- Know where the test center is located. It is recommended that you arrive before your scheduled time. Refer to your admission notice for the exact date and time. Driving by the exam location on a date prior to your exam may be helpful.

- Business attire is **not** required. Bring a sweatshirt or sweater and dress in layers so that you can adjust your comfort to fit the temperature of the room.
- When you arrive at the test site you will be assigned a seat after you check-in. Arriving early may help you to get comfortable and relax before you begin each phase.
- Listen to and follow all directions.
- Do not waste time on problems that are too hard. Skip them and go to the next question. If time permits, you may go back later. There is no penalty for guessing. The test is not designed to have trick questions. If you know the answer to a question mark it accordingly.
- Feel free to write in your test booklet. This may help you to reason through various test questions. Mark all final answers on your answer sheet to receive credit.

### **Multiple-Choice Subtests**

The multiple-choice exam includes test items that are divided into five subtests: 1) Situational Judgment; 2) Map Reading and Following Directions; 3) Mathematics; 4) Reading Comprehension; and 5) Mechanical Aptitude. The exam will include all five subtests.

### **Subtest 1—Situational Judgment**

The Situational Judgment portion of this subtest is a video-based assessment. This portion of the examination will assess judgment required for problem solving in work-related situations. For this test, you will be shown several scenarios. Each scenario will be presented in a non-fire related work setting. At various points in the scenario, an employee will be placed in a situation that requires a response. The employee will respond to each situation (referred to as scenes during the test). The video will show multiple and different employee responses to each scene. After each response by the employee, you will rate the effectiveness of the employee's response.

You will be provided 10 seconds to rate each response. Each employee response will be shown only ONE TIME. The video will be played one time in its entirety and will not be stopped or replayed. DO NOT wait until the end of the test to rate responses!

After each employee response to a scene, you will rate the effectiveness of the response using the following scale:

A = Highly effective—providing the desired effect, impressive. Response provided extra effort and attention that made it distinctly better than satisfactory.

B = Satisfactory—fulfills the requirements resulting in a positive outcome, but nothing more. Response meets the standard but does not provide any extra effort (does not go above and beyond).

C = Substandard—below standard or less than adequate; will likely have a negative impact on the situation. Response may have positive points, but does not meet the standard of what would be expected or required for the situation.

D = Unacceptable—clearly inferior. Without a doubt the response would end in a negative outcome; definitely wrong.

Each response can have any rating, so rate each response independently of the others. For example, response 1 could be highly effective and response 2 could also be highly effective. For each response consider the entire A/B/C/D scale.

Specialized training, knowledge, or experience is not required for this subtest. Rather, your answers should draw on the general knowledge and life experience you have acquired through work, school, extracurricular, and/or community activities.

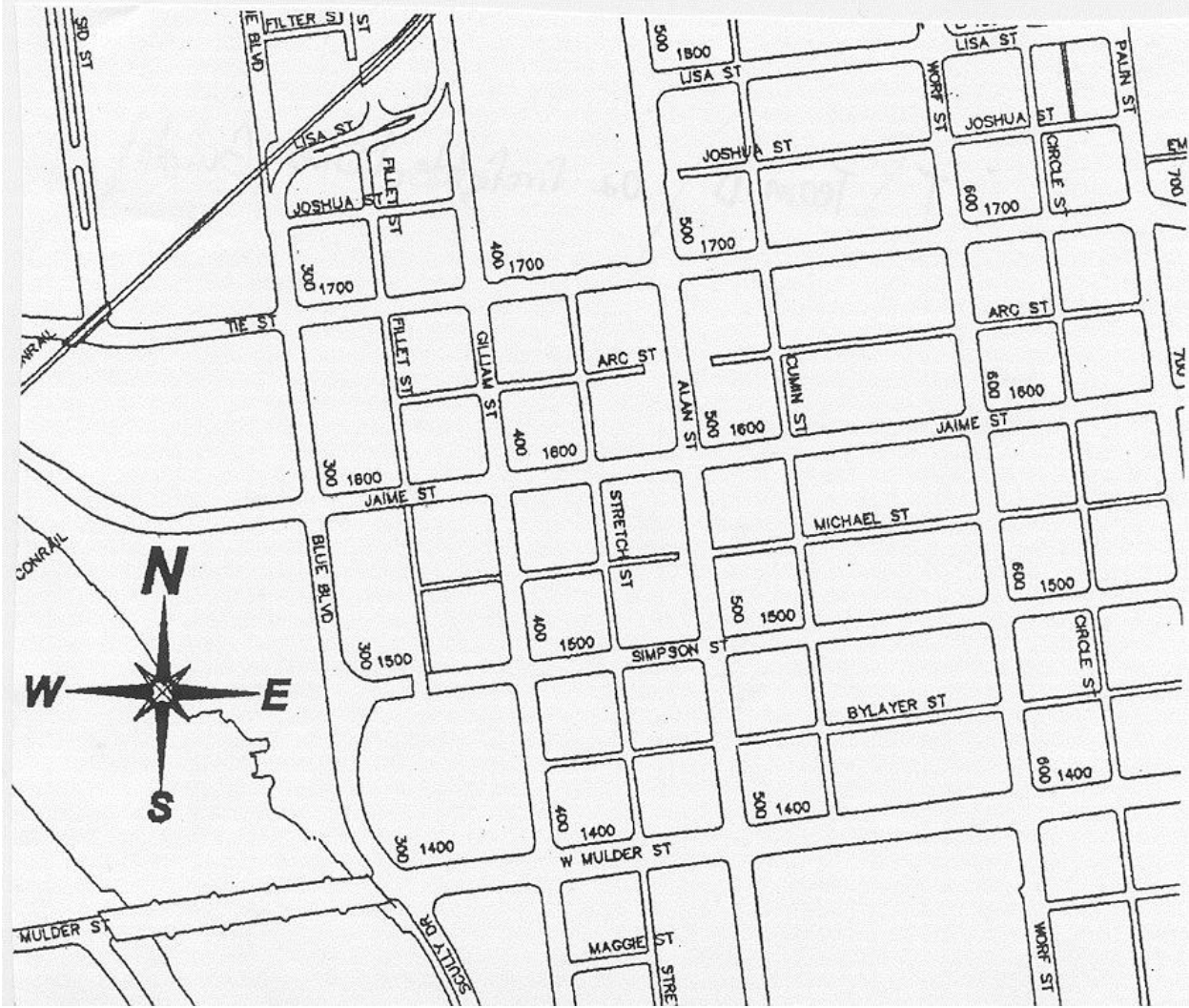
Suggestions on how to do your best with Situational Judgment

- Be attentive to each of the scenarios.
- While viewing the responses, pay careful attention to tone, wording, and demeanor.
- Use the entire scale. Consider all four ratings for each response.
- Once you make your rating, look back at the screen to prepare for the next scene to begin.

**Subtest 2—Map Reading and Following Directions**

This subtest of the exam is designed to test your ability to follow directions and read maps. For this subtest you will answer questions using a map. To be successful, gain familiarity with north, south, east, west, northwest, northeast, southwest and southeast when reading a map. Practice following written directions while referring to a map.

This map is an example of the map that will be used in your exam. Below the map are questions that will be similar to the ones you will answer when taking this subtest.





1. What direction is the intersection of Arc Street and Worf Street from the intersection of Alan Street and Lisa Street?

- A. northeast
- B. northwest
- C. southeast
- D. southwest

The answer is "C." The intersection of Alan Street and Lisa Street is in the very top center portion of the map, while the intersection of Arc Street and Worf Street is toward the top right portion of the map (the northeast portion of the map). The intersection of Arc Street and Worf Street is further south and further east of the intersection of Alan Street and Lisa Street.

2. Which of the following streets is the southernmost street on the map?

- A. Filter Street
- B. Jamie Street
- C. Maggie Street
- D. Sid Street

The answer is "C." Maggie Street is a street that runs east to west and is located toward the very bottom of the map and is the southernmost street of the four listed. Filter Street and Jamie Street both run east to west. Jamie Street is toward the center of the map. Filter Street and Sid Street are in the top left corner of the map. Sid street runs north to south, but does not extend south past the center of the map.

3. You are traveling west on Simpson Street approaching Gilliam Street and need to take the shortest route to reach W. Mulder Street. Assuming all streets are two-way streets, what direction would you turn on to Gilliam Street?

- A. north
- B. south
- C. east
- D. west

The answer is "B." Simpson Street runs east and west and is north of W. Mulder Street, which also runs east and west. To take the shortest route from Simpson Street to W. Mulder Street, you would need to turn south, or left (in this case), onto Gilliam Street. Answers for map reading questions:

Note the maps on the examination will provide the direction north only. You will be expected to determine the other directions.

### **Subtest 3—Mathematics**

The purpose of this subtest is to test your ability to add, subtract, multiply and divide whole numbers, fractions, and decimals, and apply formulas/math principles to practical situations. Candidates will **NOT** be permitted to use calculators or smart devices during the exam.

1. Basic arithmetic (adding, subtracting, multiplying, and dividing)
2. Word/story problems
3. Mathematics involving fractions and decimals
4. Conversion problems (inches/feet/yards, ounces/pounds, ounces/pints/quarts/gallons, and seconds/minutes/hours)
5. Simple geometry such as finding the area or perimeter of a rectangle

#### **Mathematics Subtest: Formulas**

The following conversions and formulas are available in this guide and may be needed for the mathematics subtest phase of the assessment. However, these formulas will **NOT** be provided to you during the exam. You can prepare by memorizing and knowing how to use these formulas before taking the exam.

12 inches = 1 foot

3 feet = 1 yard

1,760 yards = 1 mile

100 centimeters = 1 meter

1000 meters = 1 kilometer

1 acre = 4,840 square yards

16 ounces = 1 pound

2 cups = 1 pint

16 ounces = 1 pint

2 pints = 1 quart

4 quarts = 1 gallon

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

52 weeks = 1 year

365 days = 1 year

area of a rectangle = width x length

perimeter of a rectangle = (2 x width) + (2 x length)

#### **Mathematics Subtest: Sample Questions**

1.  $\frac{2}{3} + \frac{3}{4} + \frac{5}{8} = ?$

- A.  $2 \frac{1}{24}$
- B.  $\frac{10}{24}$
- C.  $\frac{10}{15}$
- D.  $1 \frac{23}{24}$

The answer is A. To complete this problem first find the lowest common denominator. In this case 24 is the lowest common denominator. Convert each fraction to the denominator of 24 before adding the fractions. The problem then looks like this  $\frac{16}{24} + \frac{18}{24} + \frac{15}{24} = ?$  Now the numerators (top numbers of each fraction) are added, this totals  $\frac{49}{24}$ . Then reduce to the mixed number of  $2 \frac{1}{24}$  (Answer A).

2. 1644 is what percentage of 4110?

- A. 10%
- B. 20%
- C. 30%
- D. 40%
- E. 50%

The answer is D. See solution below.

$$\begin{array}{r} 0.4 \\ 4110 \overline{) 1644} \\ \underline{- 0} \\ 16440 \\ \underline{- 16440} \\ 0 \end{array}$$

3. Which of the numbers below best completes the series: 121, 144, 169, 196, 225, \_\_\_\_\_

- A. 256
- B. 265
- C. 274
- D. 283

The answer to 3 is A. The difference between each number in the progression increases by two, as shown below.

$$144 - 121 = 23$$

$$169 - 144 = 25$$

$$196 - 169 = 27$$

$$225 - 196 = 29$$

$$??? - 225 = 31$$

$$??? = 31 + 225 = 256 \text{ (Answer A)}$$

Also, the sequence is  $11^2, 12^2, 13^2, 14^2, \dots$

4. What is 20% of 650?

- A. 120
- B. 130
- C. 150
- D. 520
- E. 1300

The answer is B. To calculate the answer, transform 20% into a decimal. (.20) Then multiply .20 and 650. Place the decimal two digits from the right to account for the two decimal places in the problem.

$$\begin{array}{r} 650 \\ \times .20 \\ \hline 00.0 \\ 130.0 \\ \hline 130.0 \end{array}$$

5. You are fighting a fire at a plastics manufacturing company. The entire building sits on a city block that is a rectangle consisting of exactly one acre. You know that the length of the block is 121 yards, but you need additional hose to cover the width of the block. If you need exactly the same length hose as the width of the block, how many yards of additional hose do you need, if one acre is equal to 4,840 square yards?

- A. 40
- B. 121
- C. 2,420
- D. 4,719

The answer is A. To calculate square yards, you multiply length by width. Since one acre is 4,840 square yards, you divide 4,840 by 121 (length) to get the width, which is 40 yards. This is equal to the amount of additional hose that is needed.

$$\begin{array}{r} 40 \\ 121 \overline{) 4840} \\ \underline{- 484} \phantom{0} \\ 00 \\ \underline{- 00} \\ 0 \end{array}$$

6. Which of the numbers below best completes the series: 2, 4, 12, 48, \_\_\_\_\_.

- A. 56
- B. 72
- C. 96
- D. 240

The answer is D. To determine the next number in the sequence, determine the relationship between the numbers. The difference between each number in the progression is multiplied by the next highest number.

$$\begin{aligned} 2 \times 2 &= 4 \\ 4 \times 3 &= 12 \\ 12 \times 4 &= 48 \\ 48 \times 5 &= 240 \text{ (Answer D)} \end{aligned}$$

### **Subtest 4—Reading Comprehension**

In this subtest, you will be given a passage to read and questions to answer based on that passage. Please select the best answer based on the passage. When answering the questions, you may refer back to the passage if necessary.

During training and on the job, you will need to read and interpret a wide range of passages to help you serve the community to your greatest capacity. Your task in this portion of the test is to demonstrate your ability to read and learn from texts and to apply what you learn to related situations. You will read 4 to 8 selections, ranging in length from approximately 40 to 1000 words. Many of these selections are about events that have actually happened or might happen to ordinary people. Some of the events have to do with safety concerns, but most are about people solving problems in various situations.

Interpreting a writing passage involves many kinds of thinking. As you read each passage, you will need to think about what is happening and what people might be thinking and doing. Generally, the more details you can see, hear, or feel as you read, the more you are able to comprehend. Try to create an awareness of being present in the scene with the characters by making connections between your life and the lives of people described in the selections.

Do not try to memorize the passage as you read. It is more useful to try to understand the events and relationships described. You can always go back to the passage to check for descriptions and actions after you read the questions.

Questions following each passage are intended to test your comprehension, comparison of viewpoints, application of definitions, and use of limited information to select more general relationships between people and events (inference). Read the questions carefully. Be particularly alert to questions that ask for statements that do NOT fit the passage. You will answer 15-30 reading comprehension questions.

The following passage selection and examples of different kinds of questions should help you anticipate the kind of thinking you will be asked to do for this exam.

#### Reading Comprehension: Passage 1

Ben, a high school dropout, was going through a difficult time. Since his father had died, he sometimes talked at length to his grandfather. So, he shared some things with the old man, and received some excellent counsel. Ben asked his grandfather how he knew so much, and the old man said that when he was young, he suffered some of the same problems as Ben, and more, he had learned from them.

Infer Meaning: A passage may not tell you every single one of the conclusions the author wants you to reach. If passages did, they would be much longer and the explanations would not be useful to everyone—because most people do not need all of this information. Inference questions test your ability to think about what you read and come to logical conclusions based on the information that you have read.

1. Which statement best fits the grandfather's philosophy?

- A. Stop and smell the roses.
- B. Easy come, easy go.
- C. Never look a gift horse in the mouth.
- D. Experience is the best teacher.

The correct answer is “D,” Experience is the best teacher. Statements “A,” “B,” and “C” fall along the lines of specific problems that Ben might tell his grandfather, such as the need to take things slowly (“A”), how things that we don't ask for can also leave our lives (“B”), and how we might not want to question the things we receive for free (“C”). However, the passage does not refer to specific ideas that Ben's grandfather taught him. It does say that the grandfather had learned from his own problems, which is why “D” is the correct answer.

## Reading Comprehension: Passage 2

Adapted from *Dare to Dream: Coretta Scott King and the Civil Rights Movement* by Angela Shelf Medearis

In 1948, Coretta Scott King was a young woman hoping to begin a career as an opera singer. Her mentor, Dr. Anderson, encouraged Coretta to go to New York or Boston to study music. Even though she didn't have much money, Coretta applied to the New England Conservatory in Boston and to the Juilliard School in New York. She knew that her parents would help her, but she wanted to pay for her education herself. Coretta decided to move to Boston even though she didn't have the money for her tuition at the New England Conservatory. She hoped to find a job in Boston to pay some of her expenses. Coretta was determined to make it on her own. With the money she had, she bought a train ticket to Boston.

When the train stopped in New York, Coretta called home. Her parents had a surprise for her. They told her that she had received a letter from the Noyes Foundation giving her a six-hundred-and-fifty-dollar scholarship to help pay for her musical training. Finally, she was on her way to becoming an opera singer.

Comprehension: This is a term that usually refers to all reading, but in this test, questions of comprehension are included to find out whether or not you understand basic information presented in the material you read.

**2.** Which of the following statements is NOT true about Coretta Scott King's life?

- A. She was determined to study music.
- B. She was unable to pay for her studies with her savings.
- C. She was hopeful that her parents would pay her tuition.
- D. She was encouraged by her mentor, Dr. Anderson.

Answer "C" is a better answer than "B." The passage states that Coretta did not want her parents to pay her tuition. The passage also states that she was so determined to study music that she traveled to Boston even though she did not know how she would pay for her schooling. We also know that she was going to have difficulty covering the cost of her schooling. Finally, the second sentence states that she had a mentor, Dr. Anderson, who encouraged her. All of these statements can be verified as true or false in the passage. They are part of the facts of the passage.

Understand definitions or meanings from context: Sometimes information is not DIRECTLY provided in a passage but is something that can be figured out by thinking about the clues in the passage. For example, you may not know the meaning of every single word in a passage, but you can often figure out what a new word means by how it is used within the passage.

**3.** In this selection, the word "conservatory" means:

- A. very clear about one's direction in life
- B. a place for specialized study
- C. a place to build a career
- D. a student center in Boston

Answer “B.” Although Coretta is clear about her direction in life, the word “conservatory” refers to a place, not an attitude or outlook. Through references to school, paying tuition, and the desire to develop a talent such as singing, it seems that “conservatory” refers to a place for studying something very specific, like music or opera. Although Coretta will be able to build a career because she receives special training, the purpose of the place is not to build a career but to train people with musical talents. The passage does not refer to her expectation that the school will build her career; that is something she will develop after her schooling. Alternative “D” could be an answer because students, like Coretta, will be studying in a shared space. But “D” is really too vague an answer. Alternative “B” is a more specific, accurate definition.

Apply Definition: Sometimes a word is defined within a passage through repeated usage or through reference to another object, person, or event. You will need to find the word and reread parts of the passage to gain an accurate definition. Then you will use that meaning and put that word to use in a different situation.

4. In this selection, “tuition” is similar to which of the following payments?

- A. buying a ticket to a movie
- B. repairing a friend's roof in exchange for their service of repairing your car
- C. paying a monthly fee to lease a car
- D. paying a skilled computer technician to show you how to upgrade your computer

The correct answer is “D.” In all of the statements, someone offers payment and is given something in return. However, only “D” suggests that you will learn or improve a skill as a benefit of the payment. All of the other statements suggest that something will be gained, but not learned. Tuition for schooling is used to learn or improve one's understanding and skills.

Example 5) Which of the following statements best describes Coretta's viewpoint on the attainment of her goals?

- A. It is important to seek other people's advice, but not their money.
- B. Never trust people who give you money.
- C. Seek advice and support as you pursue your dreams.
- D. Do not ask too much of others; they may disappoint you.

The correct answer is “C.” Coretta did seek other people's advice, and the scholarship she received shows that she also sought financial aid. The passage offers no indication that she did not trust anyone who supported her financially. Nor does the passage suggest that she was afraid of disappointment. We do not know why she did not ask her parents for money. It would be too great an inference to believe that she was afraid they would disappoint her—or she would disappoint them.

### Reading Comprehension: Passage 3

#### From The Things They Carried by Tim O'Brien

The things they carried were largely determined by necessity. Among the necessities or near-necessities were P-38 can openers, pocket knives, heat tabs, wristwatches, dog tags, mosquito repellent, chewing gum, candy, cigarettes, salt tablets, packets of Kool-Aid, lighters, matches, sewing kits, Military Payment Certificates, C rations, and two or three canteens of water. Together, these items weighed between 15 and 20 pounds, depending upon a man's habits or rate of metabolism. Henry Dobbins, who was a big man, carried extra rations; he was especially fond of canned peaches in heavy syrup over pound cake. Dave Jensen, who practiced field hygiene, carried a toothbrush, dental floss, and several hotel-sized bars of soap he'd stolen on R&R in Sydney, Australia. Ted Lavender, who was scared, carried tranquilizers until he was shot in the head outside the village of Than Khe in mid-April. By necessity, and because it was SOP (standard operating procedure), they all carried steel helmets that weighed 5 pounds including the liner and camouflage cover. They carried the standard fatigue jackets and trousers. Very few carried underwear. On their feet they carried jungle boots (2.1 pounds) and Dave Jensen carried three pairs of socks and a can of Dr. Scholl's foot powder as a precaution against trench foot.

**6.** Who are these people and where are they?

- A. They are archeologists going on a field trip in the jungles of Asia.
- B. They are soldiers in Europe during World War I.
- C. They are soldiers in the desert during the Persian Gulf War.
- D. They are soldiers in the jungles of Vietnam during the Vietnam War.

The answer is "D." They carry Military Payment Certificates and C-rations, which indicate they are likely to be soldiers rather than archeologists, eliminating answer "A." They were wearing jungle boots, took their R&R in Australia, and were near a village called Than Khe, which eliminates both Europe and the Middle East (answers "B" and "C") and supports answer "D."

**7.** If you were accompanying these people on their trip, and you had run out of your own rations, which of these people would probably have extra food?

- A. Dave Jensen
- B. Ted Lavender
- C. Henry Dobbins

The answer is "C." The key word in this question is "probably." Although all three of the men carried rations, the best alternative is answer "C" because Henry Dobbins carried extra food, such as peaches in syrup. In addition to food, Dave Jensen carried soap and other forms of hygiene supplies, eliminating answer "A." Ted Lavender carried a normal ration of food along with tranquilizers, eliminating answer "B."

**8.** Which of these people would be most likely to be able to clean the wounds of someone who had gotten hurt?

- A. Dave Jensen
- B. Ted Lavender
- C. Henry Dobbins



The best answer is “A.” The key words in this question are “most likely.” Dave Jensen “practices field hygiene,” and carries bars of soap. Ted Lavender carries tranquilizers, but these would not necessarily help someone to CLEAN a wound, so this eliminates “B.” Henry Dobbins carries food, eliminating “C.”

9. Which of the following is probably NOT true according to the passage?

- A. It is important to carry along things that make life a little more comfortable.
- B. The things a person carries will protect them from death.
- C. The things a person carries can tell you something about who that person is.
- D. Each person has a different idea of what necessities are.

The answer is “B.” The fact that people carried comfort items (peaches, soap, and tranquilizers) makes “A” true about the passage and therefore eliminates it as an answer. The things they carried failed to protect them from death—because the passage says that Ted Lavender died—which supports “B” as the correct answer. It is true that we can tell something about the people from what they carry (answer “C”). We might be able to conclude that Ted was scared and Dave was finicky. But the fact that this statement is true eliminates it as an answer. Finally, “D” is also true. Each of the men had a different idea of what they wanted to have along with them; however, the question is asking for what is NOT true, so this eliminates “D.”

The questions that have "NOT" in them are often difficult to complete. One strategy is to look at all the answers to see if there is a pattern. For example, three of the answers, “A,” “C,” and “D,” are true about the passage. Once you have eliminated the other choices since they are true, the only answer remaining is “B.” Checking “B,” you find that this is NOT true about the passage and is therefore the right answer for the exam. Also, pay attention to the usage of certain words as clues. For example, when checking answer “B,” the use of the word “will” in the sentence indicates that no matter what items the person brings, those items will guarantee that person protection from death. Yet another strategy is to change the words of the question in your mind (“Which of these items is FALSE?”) while you are reading the answers.

## Subtest 5—Mechanical Aptitude

For the purposes of this subtest, mechanical aptitude is defined as the ability to manipulate three dimensional objects in space. This portion of the exam is designed to test your knowledge of basic mechanical equipment and its operation. Test questions will focus on the basic working principles of gears, levers, pulleys, knots, spatial reasoning and mechanical reasoning. Illustrations will be used as part of the questions.

### Mechanical Aptitude: Terms and Facts

Questions regarding some of the following facts and terms will be asked on this portion of the multiple-choice phase of the examination.

Counterweight: a weight of equal size or force to balance a weight pulling in the opposite direction.

Complicated machines: machines that have many moving parts.

Force: strength or power, such as a push or a pull, applied to an object to cause movement.

Friction: the force created when two objects touch or rub each other resisting movement between them.

Gravity: the natural force that pulls all things toward the center of the earth.

Load: an object you want to move.

Simple machines: machines that have few moving parts.

Torque: a twisting force that causes turning or a rotating movement.

Work: moving an object from one place to another.

### Mechanical Aptitude: Gears<sup>1</sup>



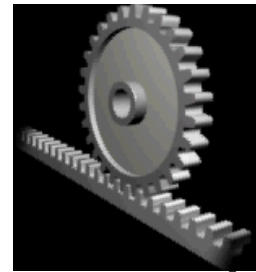
spur gears<sup>2</sup>



bevel gears<sup>3</sup>



worm gear<sup>4</sup>



rack and pinion<sup>5</sup>

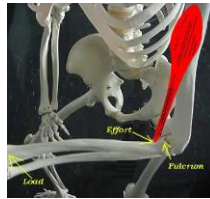
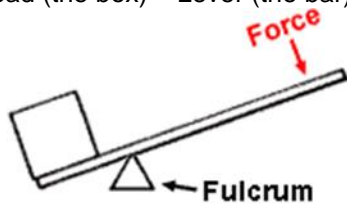
1. Gearwheel (gear): a wheel with teeth around its edge that interlock with the teeth of another gearwheel to create movement.
2. Spur gears have toothed wheels that mesh to connect parallel shafts.
3. Bevel gears have toothed wheels with sloping faces that mesh at a particular angle.
4. Worm gears have a shaft with a screw thread.
5. Rack and pinion gears have a circular gear called "the pinion" that engages teeth on a linear "gear" bar called "the rack". Rotational motion applied to the pinion causes the rack to move relative to the pinion.

It is important to note the following:

- If gearwheels are the same size, they turn at the same speed.
- If one gear is bigger than the other they can be used to speed up or slow down movement or to increase or decrease force.
- Two spur gears interlocking will turn in the opposite direction of one another.
- A larger spur gear turns with less speed but with greater force than a smaller spur gear.

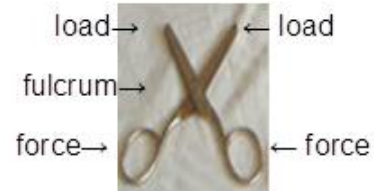
### Mechanical Aptitude: Levers

Load (the box)    Lever (the bar)



Elbow:  
a lever  
in the  
human  
body

### Pair of Levers



Lever: a simple machine that consists of a rigid bar that pivots on a supporting piece to pry up or lift a weight on one end by means of pushing or pulling force on the other end.

Fulcrum or pivot: the point or support on which a lever pivots.

Inclined plane: a simple machine that consists of a flat surface, such as a plank or a ramp, set at an angle that is less than 90 degrees.

A pair of levers, like scissors or pliers, has two lever arms joined at a pivot.

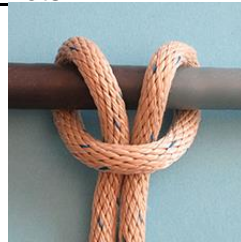
It is important to note the following:

- When the pivot of a lever is further away from the load the force needed to lift the load is greater than the weight of the load.
- When the pivot of a lever is in the middle of the lever the force needed to lift the load is equal to the weight of the load.
- When the pivot of a lever is moved closer to the load the force needed to lift the load is less than the weight of the load.

### Mechanical Aptitude: Knots



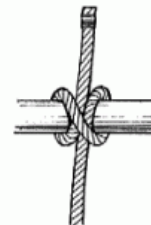
**square knot**



**cow hitch**



**clove hitch**



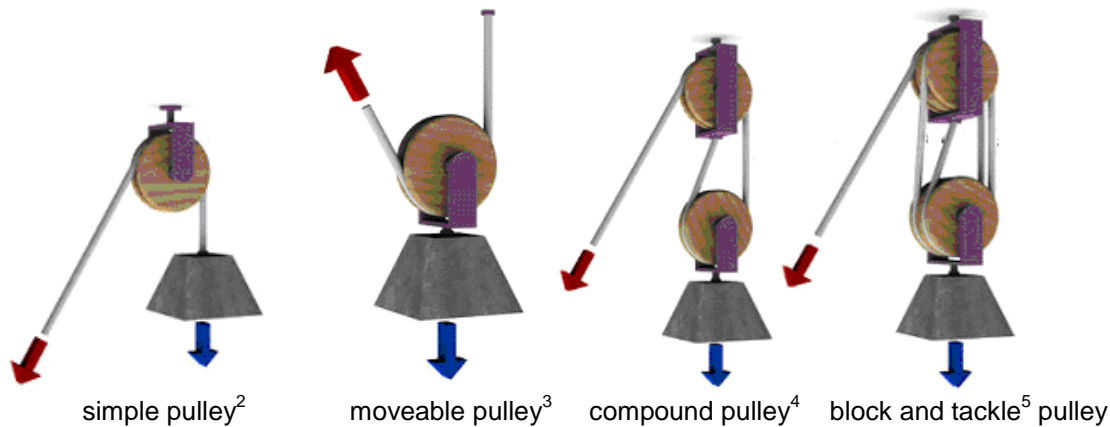
**figure-eight knot**

1. Square knot: The square knot is an ancient and simple binding knot used to secure a rope or line around an object. It is formed by tying a left-handed overhand knot and then a right-handed overhand knot, or vice versa.
2. Cow hitch: The cow hitch is a hitch knot used to attach a rope to an object. The cow hitch contains a pair of half-hitches tied in opposing directions, as compared to the clove hitch in which the half-hitches are tied in the same direction.
3. Clove hitch: The clove hitch is particularly useful where the length of the running end needs to be adjustable, since feeding in rope from either direction will loosen the knot to be tightened at a new position.
4. Figure-eight knot: The figure-eight knot is very important in sailing, rock climbing and rescue operations as a method of stopping ropes from running out of retaining devices.

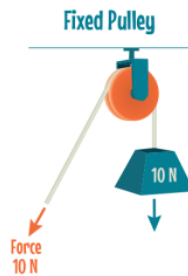
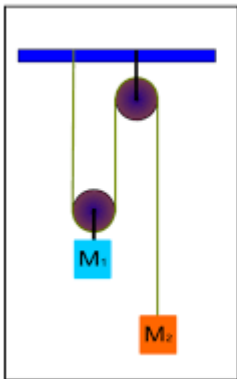
It is important to note the following:

- Knots weaken the rope in which they are made. When knotted rope is strained to its breaking point, it almost always fails at the knot or close to it, unless it is defective or damaged elsewhere.
- Relative knot strength, also called knot efficiency, is the breaking strength of a knotted rope in proportion to the breaking strength of the rope without the knot.
- In knots that are meant to grip other objects, failure can be defined as the knot moving relative to the gripped object. While the knot itself does not fail, it ceases to perform the desired function.

## Mechanical Aptitude: Pulleys<sup>1</sup>



7.3 This is a sketch of a double pulley set up. If  $M_1$  (blue) is heavier than  $M_2$  (orange)



### double pulley<sup>6</sup>

### fixed pulley<sup>7</sup>

1. Pulley: a wheel that has a rope looped around it, the rope fits a groove that runs around the edge of the wheel.
2. Simple pulley: changes the direction of the effort on a load. You pull up instead of down or vice versa. It consists of one wheel and rope. The amount of force required to raise the load is equal to its weight.
3. Moveable pulley: a pulley that is attached to a load.
4. Compound pulley: two or more pulleys working together to decrease the effort needed to lift the load.
5. Block and tackle: a compound pulley system that has more than one pulley wheel. The top pulley wheel, the block, is attached to a set point. The bottom pulley wheel, the tackle, is suspended on a rope passing through the block.
6. Double pulley: this compound pulley system has two pulley wheels; pulling the rope raises the lower wheel ( $M_1$ ) and the load. With two wheels, only half the effort is needed to lift the load, but the rope has to be pulled twice as far.
7. Fixed pulley: a pulley that stays attached in one place.

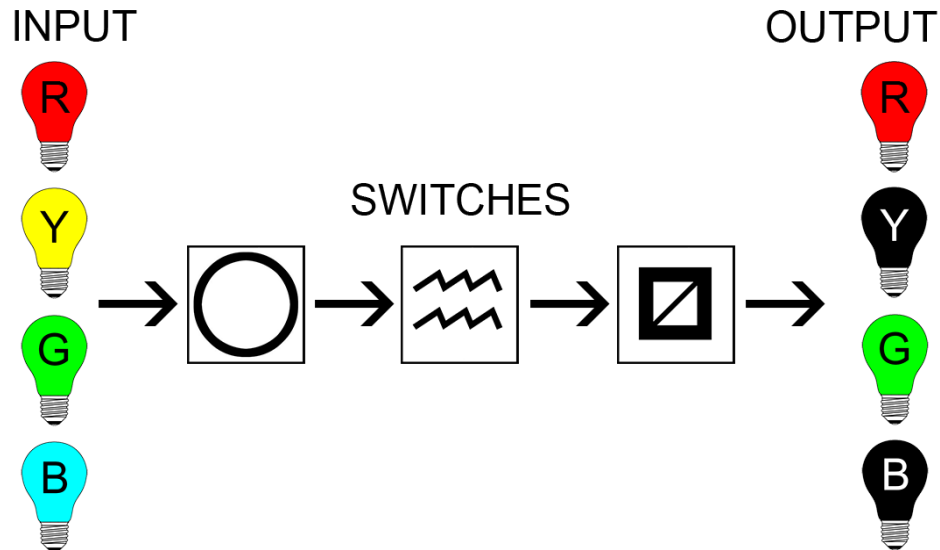
It is important to note the following:

- If the pulley is fixed, then the force required to lift the load is equal to the weight.
- If the pulley moves with the weight then the force is equal to half of the weight.
- Another way of thinking about this is to divide the weight by the number of sections of rope supporting it to obtain the force needed to lift it.

Mechanical Aptitude: Mechanical Reasoning

For each of the mechanical reasoning questions, you will see a flow chart like the one below labeled FIGURE 000. Take note of the input, switches and output.

**FIGURE 000**



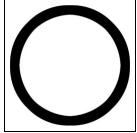
The key below shows four switches and their effects on the four colored inputs.

KEY			
Switch	Function	Error	Error Code
	All colors remain unchanged.	Red remains unchanged. All other colors turned off.	A
	Red and yellow remain unchanged. Green and blue turned off.	Green and blue remain unchanged. Red and yellow turned off.	B
	Turns on red and green. Yellow and blue remain unchanged.	Turns on yellow and blue. Red and green remain unchanged.	C
	Toggles all colors (Any bulb on turned off, any bulb off turned on.)	Toggles red and blue. Yellow and green remain unchanged.	D
NO ERROR			E
= red on	= yellow on	= green on	= blue on
= red off	= yellow off	= green off	= blue off

Use the key to diagnose which switch (if any) is broken based on the resulting error.

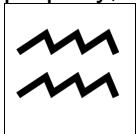
In the example labeled **FIGURE 000**, all of the inputs (red, yellow, green and blue) are on.

1. When these inputs pass through the first switch, and the switch is working properly, all colors remain unchanged.



However, if the switch is broken, only red remains on and all other colors are turned off.  
Each switch builds on the previous switch.

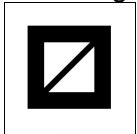
2. Thus, this modified input then passes through the second switch. If the switch is working properly, red and yellow remain unchanged, and green and blue are turned off.



However, if the switch is broken, green and blue remain unchanged, and red and yellow are turned off.

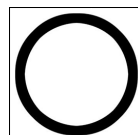
Remember, each switch builds on the previous switch.

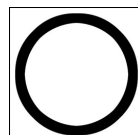
3. Finally, this modified input passes through the third switch. If the switch is working properly, red and green are turned on, and yellow and blue remain unchanged.



However, if the switch is broken, yellow and blue are turned on, and red and green remain unchanged.

To clarify, you will need to compare the input with the output to determine which of the switches, if any, is broken.



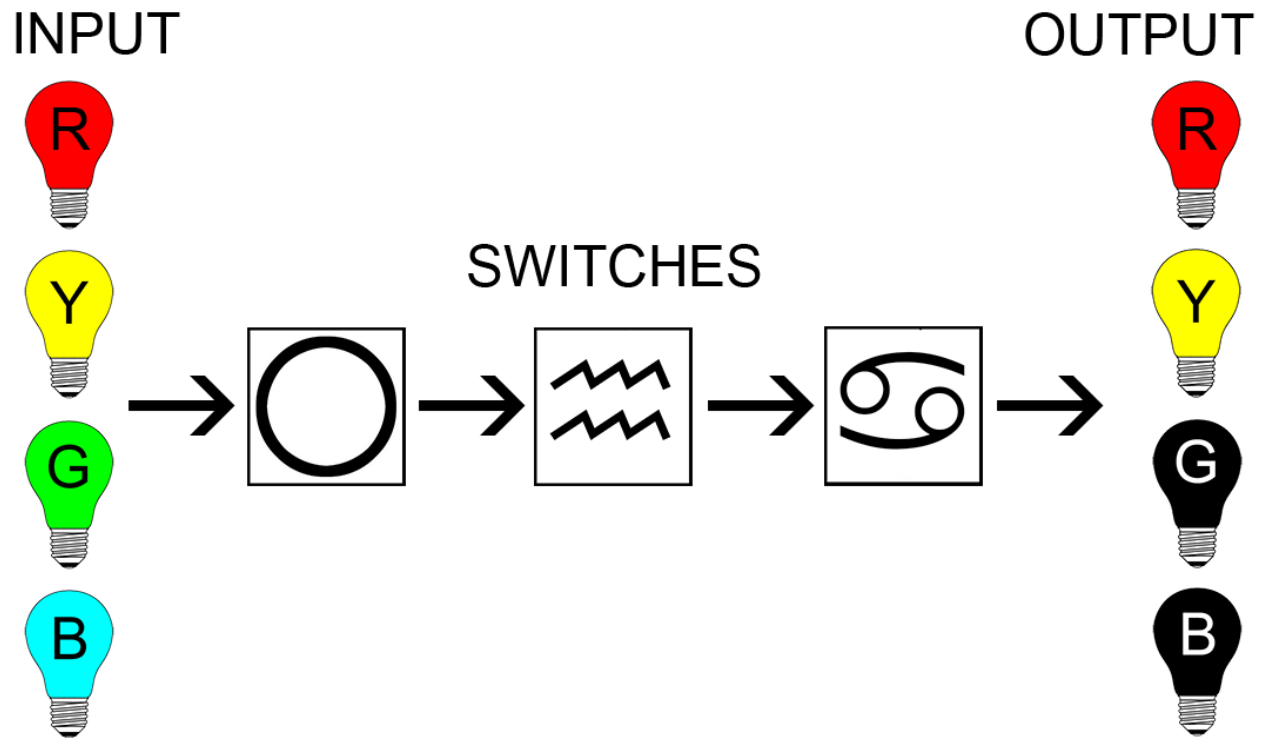
In the case of **FIGURE 000**, it is the first switch, , that is broken. Thus, the error code according to the key is “A”, and the answer for your answer sheet would also be “A”.

Note that the fourth switch (not used in this example) “toggles” the lights. It switches a color off if it is on and switches a color on if it is off.

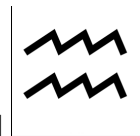
A good test taking strategy for solving these problems is to determine what the theoretical output would be if all switches worked properly, then deduce which switch, if any, must be broken to produce the actual output.

Mechanical Reasoning Sample Questions

1. Determine which switch is broken and use the key to select the corresponding error code.



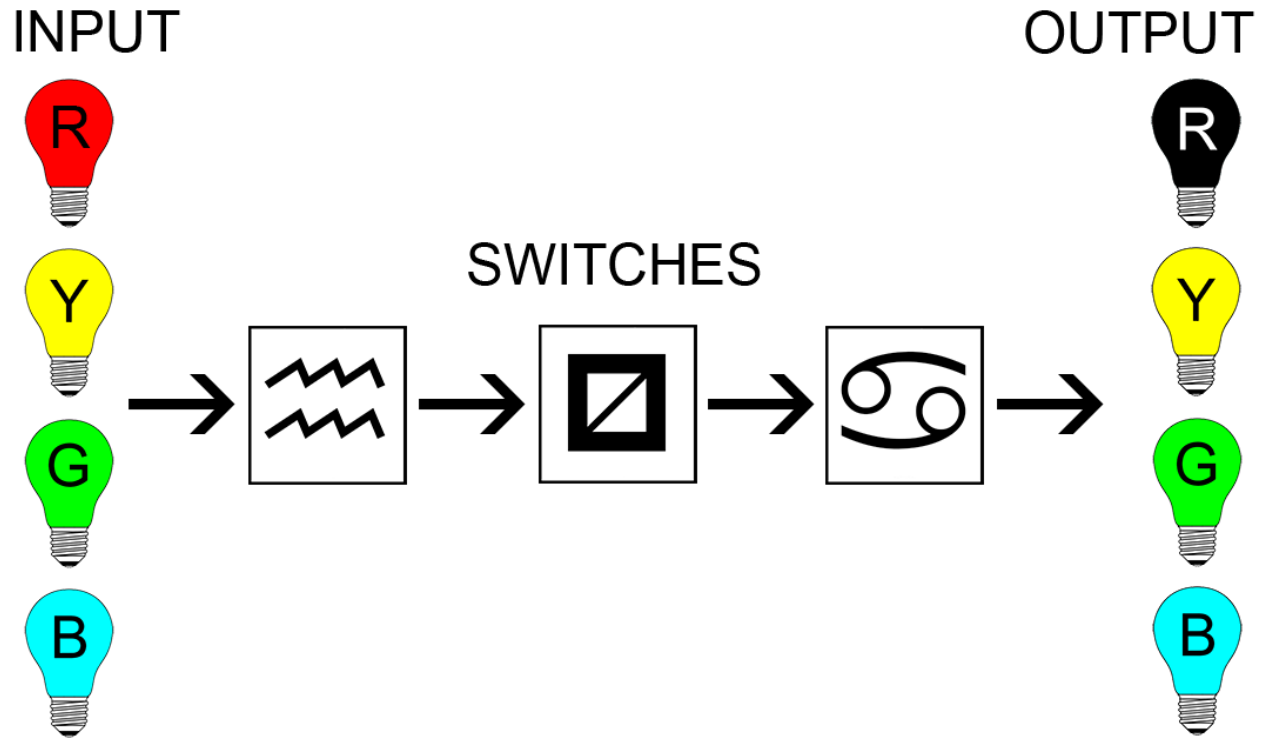
- A. A
- B. B
- C. C
- D. D
- E. E



The answer is “B”. The error is in the second switch represented by this symbol

The best way to approach the mechanical reasoning items is to first determine what the output would look like if there were no errors in the switches. If all switches functioned properly, the output would have shown red and yellow off, and blue and green on. Next work through each switch. An error in the first switch (A) produces a result with red on, and yellow, blue and green off. Thus, there is no error in the first switch. An error in the second switch (remember the colors are unchanged through the first switch) leaves green and blue unchanged, while switching off red and yellow. The third switch toggles all colors, resulting in red and yellow being turned on while green and blue are turned off. Thus, “B” is the correct answer.

2. Determine which switch is broken and use the key to select the corresponding error code.



- A. A
- B. B
- C. C
- D. D
- E. E



The answer is "D". The error is in the third switch represented by this symbol.

The best way to approach the mechanical reasoning items is to first determine what the output would look like if there were no errors in the switches. If all switches functioned properly, the output would have shown only blue on, and red, yellow and green off. Next work through each switch. An error in the first switch (B) produces a result with only yellow on, and red, green and blue off. Thus, there is no error in the first switch. An error in the second switch (C) turns on yellow and blue, with red and green unchanged. This would produce a result where only green is on, and all other colors are off. Thus, there is no error in the second switch. An error in the third switch (D) toggles red and blue, while leaving yellow and green unchanged. This produces the same output as pictured above with red off and all other colors on. Thus, "D" is the correct answer.



## **A Quick Overview of the Answer Sheets**

There are some important things you will need to know about the booklet and answer sheet:

- There will be two separate answer sheets; one for the situational judgment subtest and one for the remaining subtests.
- When you have chosen your answer to a prompt, find the number of that prompt on the answer sheet and fill in the lettered circle that matches the answer you have picked. Verify that your answer aligns with the correct prompt.
- Blacken the circle you have picked with a heavy pencil mark. Be certain to darken the circle completely.
- Erase any answers you wish to change. Do not cross them out.
- Do not make any unnecessary marks on your answer sheet.
- You should not mark more than one answer to any prompt. In all test sections, multiple answers will be scored as wrong answers.

Calculators and dictionaries are prohibited during the examination process.

## *Phase II—Firefighter Oral Assessment Mechanism (FOAM)*

The Firefighter Oral Assessment Mechanism (FOAM) is a video-based examination that tests your problem sensing, resolution, and interpersonal relations skills. You will watch six scenarios and after each scenario you are to respond verbally as if you were a firefighter or medic in that situation. The scenarios are set in a fire environment, meaning they take place in locations involving firefighters and fire situations. However, no medical, firefighter experience, or other knowledge that will be obtained in the fire training academy will be assessed. This exam is not intended to test fire policies or procedures. The evaluation of your responses measures your problem sensing, resolution, and interpersonal relations skills.

### **FOAM Test Administration**

Before you take the examination, you will receive instructions from a CSC employee who will explain the process to you and a small group of candidates. Your group will be shown a sample scenario and will have an opportunity to ask questions related to the structure and format of the examination.

You will then be seated in an individual room to take the examination. During the test you will be seated at a computer screen and you will remain seated throughout the test. A CSC employee will start the video and a video camera. Once the video camera is recording, the CSC employee will read your candidate identification number. The verbal recording of your identification number serves as confirmation of your identity. Verify the staff member is reading the correct number. Once you have confirmed your identity, the CSC staff member will exit the room. Your responses will be recorded and scored later.

The test video begins with additional instructions and contains one practice scenario. You will have the opportunity to respond to this practice scenario as a warm-up for the actual test. No one will view your response to the practice video. The practice response gives you a chance to get comfortable with the process.

There are six different test scenarios. These scenarios simulate situations that a firefighter or medic may encounter. The scenarios involve fellow firefighters, fire officers (chain of command) and/or members of the public. These scenarios will be shown as a video in the form of a series of still pictures with audio voice-overs. Note that this is NOT an interactive video, so the people on the screen will not talk back to you. Each scenario lasts one to two minutes, and your response should be directed to the last person(s) shown on the screen at the end of the scenario.

At the end of each scenario, the words “Respond Now” will appear at the bottom of the screen. You will have 40 seconds to provide a response. You are not required to use the full 40 seconds, however your response should 1) be complete, 2) demonstrate an understanding of the situation, and 3) effectively communicate a plan for solving the problem.

Respond as if you are present at the scenario and talking to real people. This is not an interview. Candidates who respond by saying what they would do (“I would calm everyone down, I would resolve the problem”), instead of talking to the people on the screen, will not receive points for those actions. “Would do” statements do not demonstrate that you could carry out the actions.

While you may ask questions of the people in the scenarios when appropriate, do not use questions alone as your response. In order to receive a good score, you should respond in a manner that demonstrates a resolution to the situation.

When your 40 second response time has expired, the next scenario will begin. The entire test will take approximately 25 minutes to complete.

A video camera will record your responses. At a later date, a panel of evaluators (two Division of Fire personnel and one civilian) will assess your responses based on the scoring dimensions described below.

## **Scoring FOAM**

You will be scored on two dimensions: 1) Problem Sensing and Resolution and 2) Interpersonal Relations. Both dimensions are graded using a five-point scale, with a five being the highest score.

### **Scoring Dimension 1: Problem Sensing and Resolution**

The dimension of Problem Sensing and Resolution assesses your ability to critically evaluate a situation and comprehend it in its proper perspective; to identify underlying as well as the obvious issues; to assess alternative solutions; and to consider the implications of problems and solutions.

There are multiple ways to approach the problems in each scenario. You are not expected to know how the Columbus Division of Fire would solve any of these problems. Use your life experiences in dealing with the people in each scenario and make sure you are clear about how you are solving or beginning to solve the problems presented. Draw on your involvement with friends, family, classmates, and co-workers to help you deal with these situations.

### **Scoring Dimension 2: Interpersonal Relations**

This dimension assesses your ability to establish and maintain cooperative and constructive relationships; to consider the feelings and needs of others; and to respect the views of others.

Your body language, the tone of your voice, and the words you choose are all assessed as part of this score. Your facial expression should match your words. If you are attempting to talk to a co-worker who is having problems at work and need to be consoled, your expression should be sympathetic as opposed to laughing or smirking. If you are attempting to persuade someone, you might lean forward and talk sincerely instead of yelling at them or being sarcastic.

## **FOAM Preparation Tips**

Prepare and practice in advance of the FOAM exam to feel more comfortable in the test environment. One sample scenario and response is provided on the Civil Service Commission website at: <https://www.columbus.gov/civilservice/uniformed-fire-series/Firefighter/>

Once you view the practice scenario and sample response, consider the types of situations that may be presented. Concentrate on customer relations experiences that you have had or experiences with co-workers, friends or family in which a problem or verbal conflict arose. Consider situations that are shown in a television show or on the internet. Focus on a problem that involves people and requires a response or conversation. While you practice for this test,

write down situations or view and then pause a scene on a television or on a computer. Then you practice your response as if you are taking the test.

Practice in front of a mirror, with a friend watching (who does not respond), or video record your response. If you partner with a family member, friend or colleague ask them to provide you feedback regarding how well you resolved the problem and on the interpersonal skills that you displayed. Ask them to read the information on the scored dimensions in the previous section to guide their feedback to you. This test is not scored like a multiple-choice exam in which there is a single correct response; instead there will be a variety of solutions to the situations where you can demonstrate your problem sensing and resolution skills and interpersonal relations.

By practicing your response you will gain familiarity with the process, a sense of how to continue a response while solving a problem, and an understanding of how much information you can give in a 40-second time period. Since the FOAM test is not interactive, the individuals in the scenarios will not provide you with feedback or responses that help you gauge the effectiveness or impact of your responses. Practicing your responses when you are not getting immediate feedback will help you feel more comfortable with the testing process.

#### Tips to Guide your Response to the FOAM Scenarios

Consider the following tips to guide your response in each segment of FOAM. The three segments are: while you watch the scenarios, when you respond to the scenarios and while you wait for the next scenario.

#### While watching a scenario:

Listening and observing are important parts of FOAM. While you are watching the scenario, there are several things that you should be doing to formulate an appropriate response.

- Watch and listen to the video. As the scenario unfolds you should listen to the characters and be attentive to the visual cues given in the scenario.
- Identify the main problem and any underlying problems that are presented.
- Formulate your response. Begin to develop alternatives on the best way to resolve the immediate situation. Consider whether any long-term issues and/or underlying concerns should be addressed.
- Ask yourself, “Do I need any additional information to resolve the situation?” If you do, you can ask the questions during your response. Even though the characters will not respond, the evaluators who are scoring the exercise will know that you have acknowledged that specific information would be helpful in bringing the situation to a resolution.
- Decide on the proper attitude for the situation. As you formulate a solution to the scenario, ask yourself, “How should the character(s) be approached?” The situation could call for a stern response or a gentle, comforting response. You will want to display the most appropriate interpersonal approach for the situation.

#### During your response:

When the scenario is over, the video will display the words, “Respond Now.” Pay careful attention to the screen. Your time begins when these words are displayed. During your response consider the following:

- Respond to the character displayed on the screen and continue to look at the screen.
- Provide a solution or suggestions for a solution to the character(s) displayed on the response screen.
- Respond with appropriate behaviors for the situation and the character(s) to whom you are talking.

- Use your facial expressions, tone of voice, and body language to help you communicate your intended message.
- You may ask questions; however, you will not get any response so quickly continue with your response.
- You may direct the person on the scenario to do something.
- You should focus your response to the person(s) displayed on the final screen, which displays “Respond Now.”
- Do not respond until you are instructed to do so.
- Remain seated for the entire test.

**After your Response:**

After you complete your response to a scenario, wait for the next scenario to begin. After your response to each scenario, consider the following:

- Maintain attention on the screen, you will not want to miss anything in the next scenario.
- If you complete your response prior to the end of the 40-second allotted time, simply wait for the next scenario to begin.
- If you think of something that may help resolve the current scenario while waiting for the next exercise—say it. Your entire 40-second time-period will be considered by the evaluators.
- When the next scenario begins, do not try to evaluate your last response.
- Pay close attention to the scenario on the screen so you can do your best on each scenario.
- You will not be scored for anything prior to, or after, the 40-second response times.
- You will not be scored for anything you do during the scenario’s non-response time.
- When the test is over, follow the directions on the screen. This will alert the test staff that you have completed your examination.

**FOAM Test Taking Tips Summary**

The following is a summary of the key tips to remember during FOAM.

- There is not a dress code. However, graphic t-shirts should be worn with caution. Use your best judgment.
- Respond to the practice scenario at the beginning of your test. Take advantage of this opportunity to get comfortable with the video test format before the actual test scenarios begin.
- Think about what you want to say before you begin to speak. There is no penalty for waiting a few seconds to compose your thoughts.
- Speak slowly and distinctly. Sometimes people speak quickly when nervous, so make a conscious effort to slow down. Know your tendencies and adjust accordingly. The 40 seconds provided should be enough time to address the issues. Remember, the people in the scenarios will not be talking back to you, therefore giving you the entire 40 seconds to talk uninterrupted.
- There will not be a timer on the screen as you respond, concentrate on providing as much information as you can during the time provided.
- Address the key issues in your resolution of the problem.
- Demonstrate appropriate emotion for the issues.
- Do not think of your test performance as “acting.” Instead pay careful attention to the scenario as it is presented, place yourself in the situation and respond appropriately.
- Distinguish between scenarios that require a more serious, calm response and a less serious but sensitive response. Remember that firefighter is a public service position and that every citizen, coworker or supervisor that addresses you expects an appropriate response.

- Ensure that a portion of your response includes a resolution to the problem. Interpersonal relations are important, but interpersonal relations alone will not solve the problem. Include both dimensions in your response.
- Avoid the use vague terms such as “we’ll take care of it” or “we’ll go from there.”

### *Phase III—Firefighter Mile*

The Firefighter Mile consists of ten events. There is no break between events. The events require cardiovascular fitness, muscle strength, muscular endurance, flexibility, and stamina. Each event will be timed. During all events, you will wear a forty-pound weighted vest, which approximates the weight of the clothing, equipment and breathing apparatus that a firefighter normally wears during these types of activities. For the first event you will wear an additional forty-pound weighted vest to simulate carrying additional necessary equipment.

#### **Important Notes Regarding the Firefighter Mile**

- Prior to this phase of the examination, all candidates who pass the multiple-choice phase and the FOAM phase of the exam will be notified of their Firefighter Mile test dates, along with dates prior to the test in which you can practice the actual Firefighter Mile events.
- Wear clothing appropriate for physically demanding work.
- Wear sneakers or rubber soled shoes.
- You will be provided with a forty-pound weighted vest during this phase of the exam. You must wear the forty-pound vest provided to you. You will also be provided gloves.
- Participants may not use any extraneous piece of equipment (e.g. harness, straps) that may help them in an event. You may use only the material and equipment provided for the test event. However, personal safety appliances (e.g. knee brace, ankle brace, back brace) will be allowed, but they will not be provided.
- Caution on wearing shorts as multiple events are performed on the floor.

Because the Firefighter Mile is physically demanding, you are urged to drink plenty of fluids at the beginning of the day, before the test, and continuing up until the time you are tested. Avoid drinking caffeinated beverages. You are also advised to stretch and warm-up before participating in the test.

The events are described, in the sequence completed, in a separate preparation guide along with a video of each event provided at:

<https://www.columbus.gov/civilservice/uniformed-fire-series/Firefighter/>

### *Confidentiality*

The content of the examination is confidential. Once you have taken the examination, do not share information with other candidates. Sharing information about the content of this exam may give other candidate’s an unfair advantage. Scores differing by one or two points may mean the difference between becoming a firefighter and not becoming a firefighter. Giving information to other candidates may be grounds for disqualification.

## Final Firefighter Examination Results

Individuals who pass all three phases of the assessment will be placed on the firefighter eligible list. The scores from FOAM and applicable veteran's preference points will be used to group eligible candidates into three bands. When the City of Columbus begins the next phase of the selection process, individuals assigned to the highest band will be considered prior to individuals assigned to the lower bands. Once the highest score band is reduced to fewer than five individuals, the next higher score band is combined with the highest score band until selections are made.

## Summary

Because the job of a firefighter involves emergency situations and a firefighter has a great deal of responsibility, the selection process to become a Columbus Firefighter is extensive.

The descriptions of the steps in the selection process are on the Civil Service Commission website at <https://www.columbus.gov/civilservice/uniformed-fire-series/Firefighter/>. It is important to prepare for each exam in the assessment phase and become familiar with the entire selection process. The Multiple-Choice and FOAM exams will be administered in the same day. The Firefighter Mile will be administered on a different day for those candidates who were successful on the multiple choice and FOAM exams. After the eligible list is established, the selection process will continue at a slower pace. The number of firefighters hired is difficult to predict because openings are contingent upon the number of retirements, the annual budget, and other factors that are continually updated. Therefore, the background process only moves as fast as the needs of the Columbus Division of Fire. Patience and perseverance are important before you receive a notice. For example, if the personal history questionnaire is your next step, begin obtaining information that will be asked of you. If the stress test is your next step, be in your best physical condition. Update your email or street address when changes occur so that the CSC and Columbus Division of Fire can maintain contact with you.

The information provided in this study guide may seem overwhelming, but is offered as a tool to educate and provide you with realistic information. Many people begin the process of becoming a firefighter, but do not continue once they learn there is a great deal of hard work, dedication and responsibility involved. The City of Columbus takes great pride in our uniformed Firefighters who work hard every day to uphold the standards set by the Columbus Division of Fire. Each step of the selection process was carefully constructed and is necessary to ensure that citizens and visitors of Columbus are kept safe every day. Stay informed by taking advantage of the information provided by the CSC so that you perform your best. If the CSC staff can be of assistance, please call us at 614-645-0879 or email at [policefiretesting@columbus.gov](mailto:policefiretesting@columbus.gov). By staying informed, preparing for the exams, and committing to this process, you will significantly increase your likelihood of success.

Thank you for your interest in employment with the City of Columbus.

### References:

- Kindersley, D. (1995). *How Things Work: 100 ways parents and kids can share the secrets of technology*. London: Limited.
- Oxlade, C. (1998). *Young Scientist Concepts and Projects*. Milwaukee, WI: Gareth Stevens Publishing
- Walker, S., Feldman, R. (2002). *Pulleys*. Minneapolis: Lerner Publications Company

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