

# PASS THE EIAT (Elevator Industry Aptitude Test)

FIRST STEPS TO ACE THIS TRICKY TEST

Sample Questions & Tips



# Dear Candidate,

Passing the EIAT (Elevator Industry Aptitude Test) is a prerequisite for acceptance into any elevator apprenticeship.

The main obstacle the EIAT poses for candidates is that a passing score is nearly never enough, as applicants with higher test scores get precedence over those with lower scores.

After years of research and preparing candidates for the EIAT test, we advise you to familiarize yourself with the different question types found on this test.

In our experience, this should only be used as a first step, and thorough practice is essential for a top-tier score.

You are welcome to read all about it on [our website](#) later.

Good luck!

JobTestPrep Team

## What Should You Expect on the EIAT Test?

- ◆ The EIAT contains 75-105 questions and takes around 1.5 hours to complete.
- ◆ The EIAT test contains 3 sections and 7 main question types:
  - **Math:** Basic Numeracy, Fractions and Decimals
  - **Verbal:** Vocabulary, Sentence Completion
  - **Mechanical:** Gears, Wheels and Pulleys, Force and Torque
- ◆ Other question types may appear (especially in the mechanical section), but the seven types above are most common.
- ◆ The test is taken in a pen-and-paper format.
- ◆ You are not allowed to use a calculator.
- ◆ Test scores are divided into 4 tiers. Since applicants are selected for an apprenticeship based on their scores, a higher EIAT score means better chances of an apprenticeship.

See the score index on the next page

## EIAT Scoring Tiers

<b>Tier</b>	<b>EIAT Score Range</b>
Tier 1	96-100
Tier 2	90-95
Tier 3	80-89
Tier 4	70-79
Fail	69 and lower



## Questions and Full Explanations

To help you pass the Elevator Industry Aptitude Test, we at JobTestPrep created sample questions accurately simulating those found on the actual test. Each question is followed by a detailed solution.

This is but a small portion of the questions and answers you will find on the JobTestPrep [EIAT Test Preparation Pack](#).

You may also check out a [free sample EIAT test](#) covering all 3 test sections.

## Math

### 1. Basic Numeracy

This question type revolves around performing basic calculations without a calculator.

You should showcase your command of the four operations (addition, subtraction, multiplication, and division), and BEDMAS.

Due to the large number of questions on the test, it is important to create accurate yet quick solving techniques. Let's see an example.

$$142 \times 37 = ?$$

- A. 3,742
- B. 5,180
- C. 5,254
- D. 2,744
- E. 4,211

### Answer and Explanation

When approaching a question dealing with the multiplication of fairly large numbers, it is recommended to first use the "last digit method":

#### *The Last Digit Method*

Multiply only the two last digits. The last digit of this multiplication must be similar to the last digit of the final result.

In our case:

$2 \times 7 = 14 \rightarrow$  The last digit is **4**.

Therefore, the answer should be either C (5,244) or D (2,744).

Now, let's combine this method with the "first digit method".

### *The First Digit Method*

Multiply the first two digits (and add zeros) – the final result will be larger.

In our case:

$1(00) \times 3(0) = 3(000) = 3,000$

Since  $142 \times 37 > 100 \times 30$ , the result should be larger than 3,000  $\rightarrow$  **C (5,244)**

“

*Solving 35 calculation questions can be very exhausting. Developing calculation shortcuts is a good method of relieving stress and preventing attention deficit.*

”

## 2. Fractions and Decimals

This type of question deals specifically with fractions, and covers areas such as improper fractions, equivalent fractions, fraction to decimal conversion and vice versa, mixed fractions, etc.

As on basic numeracy questions, using shortcut techniques here can be very helpful.

Convert  $(23/200)$  to decimal:

- A. 0.46
- B. 0.115
- C. 0.023
- D. 8.69
- E. 5.333

### Answer and Explanation

The term “decimal” comes from the word “deca”, which is a prefix meaning “ten” (decimeter, decathlon, decibel).

As such, it is most helpful to express the original fraction as some variation of tenths, hundredths, thousandths, etc.

In our case:

$$23/200 = (23/2)/100 = 11.5/100 \rightarrow \mathbf{C = 0.115}$$

#### *Tip*

When dividing by a multiple of ten, move the decimal point to the left as the number of zeroes.

## Verbal

### 1. Vocabulary

Vocabulary questions assess how well you know the meaning of words, including synonyms and antonyms.

Although these questions mostly rely on knowledge, there are several methods you can use to increase your chances of being correct.

*Colorful and \_\_\_\_\_ outfits were worn by carnival participants in the main parade crossing the capital city.*

- A. dull
- B. flamboyant
- C. indolence
- D. somber

### Answer and Explanation

If you are familiar with the meaning of all these words, then you probably know that the correct answer is B – flamboyant.

However, even if you are not, there are several clues in the sentence and answer options that can help you eliminate answers:

- The word *and* suggests that the missing word should bear the same “spirit” as the word *colorful*. The words *dull* and *somber* are of an opposite spirit to *colorful*, so they are eliminated.
- The missing word should be an adjective as it refers to *outfits*. By the suffix “-ence” we know that *indolence* is a noun. Therefore, it is also eliminated.

The correct answer is **B – flamboyant**.

“

*ELIAT test-takers often tend to overlook the verbal section, but it is as important to your score as any other section.*

”

## 2. Sentence Completion

These questions are one level above vocabulary questions. Rather than focusing on the simple meanings of words, they assess your ability to understand the inherent meaning of a sentence and complete the missing words accordingly.

When \_\_\_\_\_ employees, it is \_\_\_\_\_ for the recruiter to evaluate candidates' character.

- A. grading, not important
- B. talking, not necessary
- C. Filtering, equivalent
- D. promoting, essential
- E. selecting, important

### Answer and Explanation

We can see that answer options D and E are the only ones forming a logical and meaningful sentence:

- A. When **grading** employees, it is **not important** for the recruiter to evaluate candidates' character. – This is untrue as it naturally *is* important to evaluate character when grading employees in a hiring process.
- B. When **talking** employees, it is **not necessary** for the recruiter to evaluate candidates' character. – This option creates an *incoherent sentence*.
- C. When **filtering** employees, it is **equivalent** for the recruiter to evaluate candidates' character. – This is an *incoherent sentence* as well.
- D. When **promoting** employees, it is **essential** for the recruiter to evaluate

candidates' character.

- E. When **selecting** employees, it is **important** for the recruiter to evaluate candidates' character.

Although both sentences D and E are logical and coherent, only one of them can be the correct answer.

So, which one is it?

The answer can be found when we closely look at the sentence.

The word “recruiter” reveals that the sentence deals with *recruitment* – namely, the selection of *new employees*. As such, it cannot deal with promoting existing employees.

**The correct answer is, therefore, E.**

Such **tricky questions** are not the standard on the EIAT test, but **they will occasionally appear**, and will be the ones that will make the difference between a tier 1 score and a tier 2 score, which is the difference between getting an apprenticeship in this recruitment and (maybe) next year.

The [EIAT Test Preparation Pack](#) will get you familiar with such questions, so your level of practice is more advanced than the actual EIAT test.

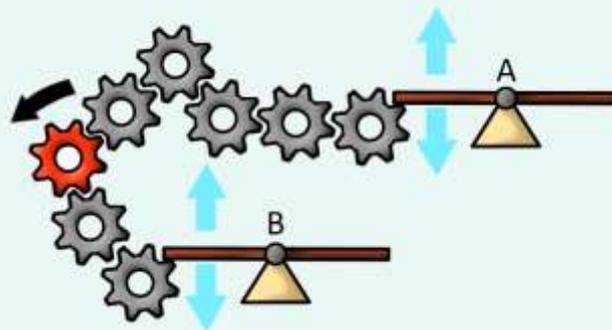
## Mechanical

### 1. Gears

Questions on gears can be complex, but they are generally not very creative – all questions are generally based on a limited number of physical principles.

Here is one such question, dealing with the principle of *counting gears*.

In which direction will the swings tilt?



- A. A – Up, B - Down
- B. A – Down, B - Up
- C. Both Down
- D. Both Up

### Answer and Explanation

When two gears mesh against each other, they rotate in opposite directions.

You could track the rotational direction of each gear, but that puts you at high risk for errors, especially in questions containing a large number of gears. To avoid that, use the gear counting method:

### *Counting Gears*

Count the number of gears between the rotating gear and the last one. If the number is:

- **Odd** – the last gear rotates in the **same direction** as the first.
- **Even** – the last gear rotates in an **opposite direction**.

In our case:

- 4 gears separate the red gear from the last gear near swing A → it rotates in the opposite direction, namely clockwise.
- 1 gear separates the red gear from the last gear near swing B → it rotates in the same direction, namely counterclockwise.

Therefore, swing A tilts down, and swing B tilts up.

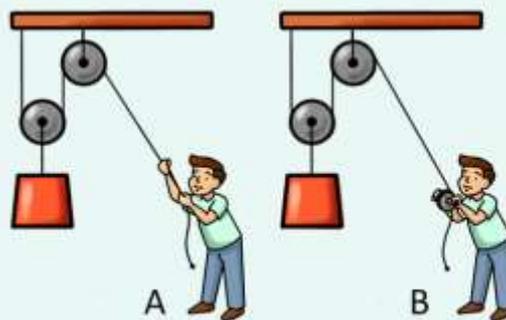
The correct answer is **A – A-Down, B-Up**.

## 2. Wheels and Pulleys

Questions on wheels and pulleys cover two topics that are very common on the EIAT test:

- **Wheels** – these questions focus on the basic rules of wheels – the relationship between size and speed, rotational and linear velocity, etc.
- **Pulleys** – these questions will mostly depict two or more pulley systems, and require you to determine which system is more effective (i.e. requires less force to operate). You will also need to understand the relationship between force, work, and pulling distance.

Which pulley system requires more force to lift the load?



- A. System A
- B. System B
- C. Both systems require equal force

### Answer and Explanation

At first glance, it would appear that system B, having more wheels (3 compared with only 2), will require less force to lift the load.

However, the additional wheel does nothing to divide the force, and only changes the pulling from a linear movement in system A to a rotational movement in system B.

**The correct answer is C.**

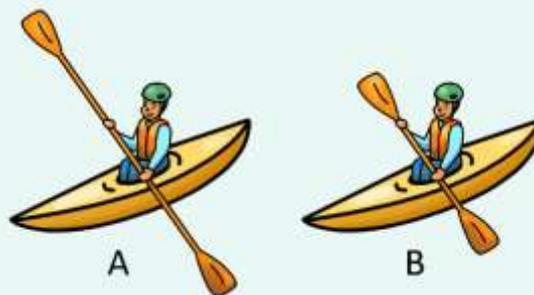
For solving pulley questions correctly, it is crucial that you understand the concepts behind pulley systems, and mainly the distinction between a moving and a fixed pulley.

### 3. Force and Torque

Of all mechanical question types on the EIAT test, force and torque questions cover the broadest range of topics. Some examples include:

- **Levers** – the law of the lever, three lever types, etc.
- **Springs** – relationship between deflection and strength, series and parallel springs, etc.
- **Torque** – definition of torque ( $r \times F$ ), basic moment of area definition (resistance to bending), etc.
- **Force** – center of mass, force equilibrium, vectors, tension, etc.

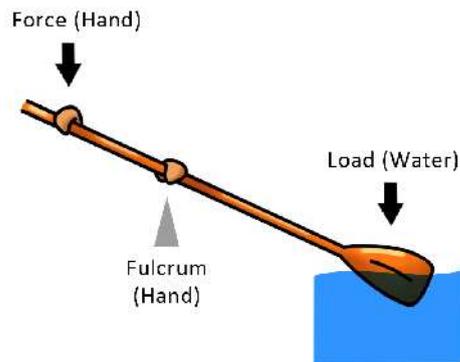
Which rower will find it harder to move the kayak?



- A. Rower A
- B. Rower B
- C. Both will find it equally difficult

## Answer and Explanation

The kayak row is a lever of the 1st class, where one hand is the effort, the other is the fulcrum, and the water is the load, as seen in the following diagram:



According to the Law of the Lever, the longer that distance, the more force the rower must apply to move the row. Therefore, a longer row will be harder to move through the water.

**Therefore, the correct answer is A.**

### *Tip*

In mechanical questions depicting two scenarios, a good technique to use is to “go to the extremes:”

### *Go to the Extremes*

Take both depicted scenarios and “stretch” it to the extreme. You will usually get a pretty good feeling for the correct answer.

In our case, think of a one-foot-long paddle vs. a one-mile-long paddle. Clearly, it is going to be practically impossible to row with a mile-long paddle (even if it were of zero weight).

## How Can JobTestPrep Help You Prepare?

Over the years, JobTestPrep has helped over **five thousand** satisfied EIAT test-takers with their aptitude test.

### The Benefits:

- ◆ Coverage for **all EIAT Test sections** (including the tools assessment)
- ◆ A diagnostic test to **find and focus on your weak spots**
- ◆ **Step-by-step explanations**
- ◆ Bonus: Read the Technical Employee Personality Guide to understand **how to pass the interview stage**.
- ◆ 24/7 Customer Service

Visit [JobTestPrep's EIAT Page](#) or search Google for "EIAT JobTestPrep" for the most comprehensive and accurate EIAT preparation available today.

Want to try some more EIAT questions? Take a Free EIAT Sample Test (with full answers) and know where you stand compared to the required score.

**[Take a Free EIAT Sample Test](#)**