What are mechanical reasoning tests?

Mechanical and electrical aptitude tests are commonly administered for engineering and technical positions including the emergency services and the army. They are designed to measure your ability to understand and apply mechanical concepts and principles in order to solve problems. These tests are usually multiple choice and under timed conditions. You will typically have no more than 40 seconds to complete each question.

What do mechanical reasoning tests measure?

Mechanical reasoning tests measure your ability to understand and apply mechanical concepts and principles in order to solve problems. You’ll cover essential concepts like transformation, pressure and kinetic energy. These tests are usually multiple choice and under timed conditions.

“The questions are typically based on a variety of topics such as: Electrical circuits, pulleys, levers, springs, tools, gears and maps.”

Instructions for use

We’ve provided 5 mechanical reasoning questions and answers for you to work through. Try and do each one under timed conditions without looking at the answers. Once you’ve completed each one, look at the answer to assess your performance and see how you can improve moving forwards.

All questions are multiple choice and there is only one correct answer. Try to take the test in an environment where you will not be disturbed.

If you’d like more mechanical reasoning test practice, you can access our huge mechanical reasoning test vault online. They’re all written by industry experts and are designed to replicate the real tests.
Question 1

Which point of view leaves most room for error?

Solution

Answer = C. The least accurate view will be furthest from the mark and be at the sharpest angle.
Question 2

What colour car should you avoid if you don’t want it to overheat quickly on a sunny day?

A) ☐ Reflective  B) ☐ Bright white
C) ☐ Silver      D) ☐ Matte black

A) ☐  B) ☐  C) ☐  D) ☐

Solution

Answer = D. Black would absorb the heat from the sun and heat up the quickest, the other colours would reflect the heat away?
Question 3

Which letter represents north-east?

Solution

Answer = D. East follows North in a clockwise direction.
Question 4

Which container is being represented in this graph as it is filled with water?

A) ☐  B) ☐  C) ☐  D) ☐

Solution

Answer = B. The steepest lines on the graph represent the thinnest part of the container, as this is the part of the container that would become fuller quicker. This graph represents a container that starts thin, gradually becomes wider and then becomes thin again at the top.
Question 5

Which of the following liquids would boil the quickest?

A) ☐  B) ☐  C) ☐

Solution

Answer = A. Alcohol has the lowest boiling point of the three liquids so would boil the fastest.
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