

# Preparation Guide

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## Mechanical Reasoning

This preparation guide helps you to prepare for mechanical reasoning aptitude tests. It provides guidance on how best to approach the test, allowing you to give your best possible performance.

### Why are Aptitude Tests used?

Employers often use aptitude tests as part of their assessment procedures for the selection and development of staff. Research has shown that they are powerful predictors of performance at work.

### Tests help you to:

- demonstrate your strengths
- be assessed fairly on job relevant criteria
- find out more about your strengths and development needs
- make future career decisions based on your abilities

### Tests help employers to:

- select people best suited to the demands of the job
- identify areas where individuals might benefit from further development
- obtain objective information about people's abilities

## Instructions

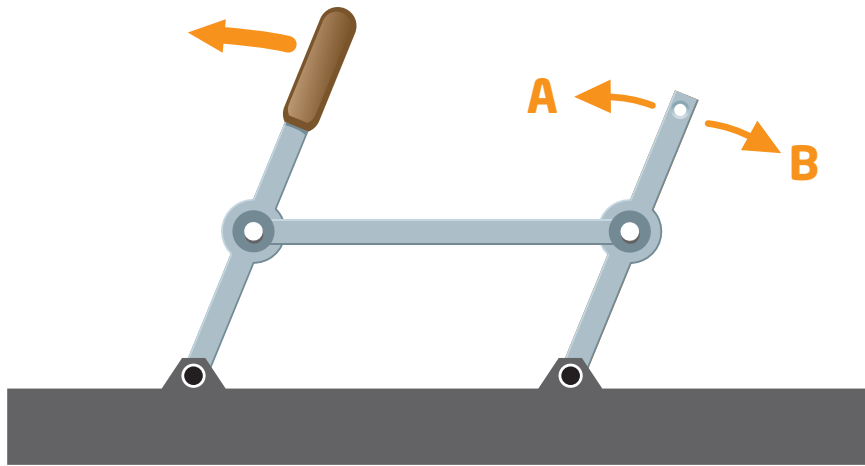
On the following pages are some practice questions that are similar to those you will be presented with in the actual test. Completing these will help you to understand the types of questions used and to gain experience in taking ability tests.

These questions are designed to assess your ability to solve mechanical problems. You will be presented with a series of drawings, each followed by a question. Your task is to choose the best answer to each question from the options given.

Have a pen and paper to hand to indicate your answers and make notes.

The actual test is strictly timed. Try to complete all **8** questions within **3** minutes.

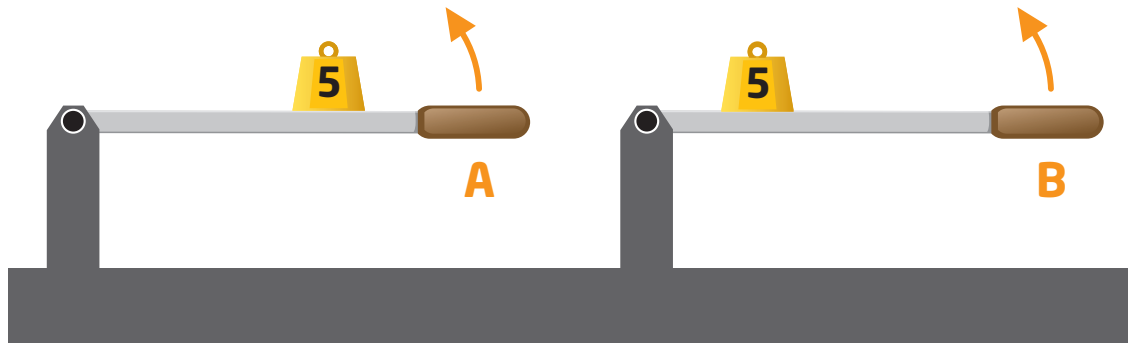
1



As the handle is pulled, in which direction will the end of the bar move?

- A Direction A
- B Direction B
- C Neither Direction

2



Which handle requires less force to lift?

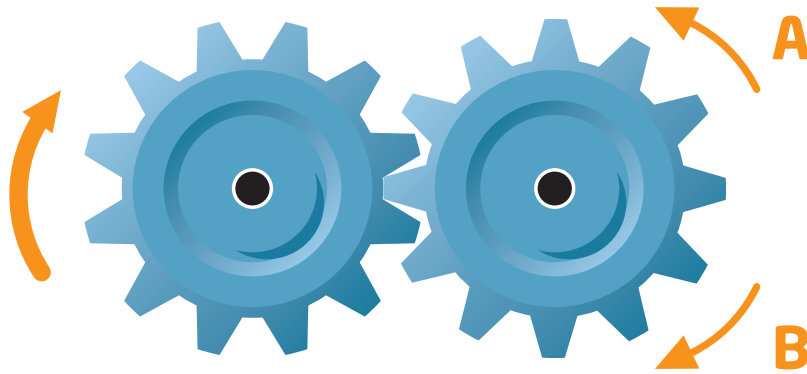
- A Handle A
- B Handle B
- C Both handles require equal force

Answer Section Page 2

1    A   B   C  
     

2    A   B   C

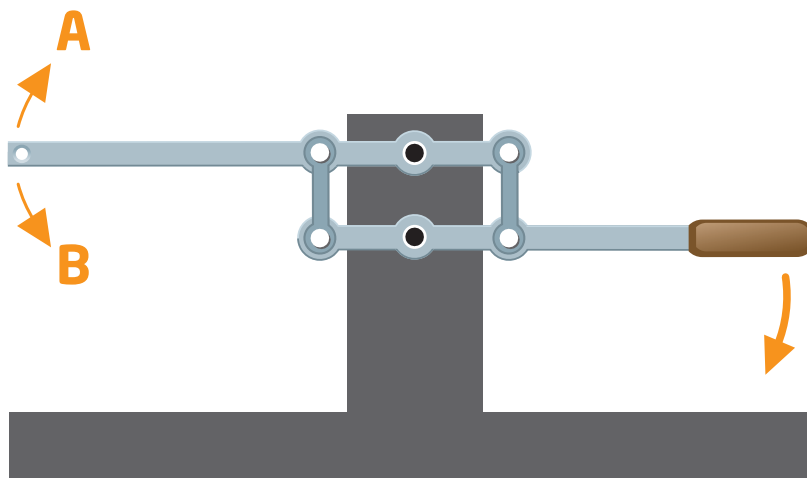
3



In which direction will the gear turn?

- A Direction A
- B Direction B
- C Neither Direction

4



In which direction will the arm swing when the handle is moved as shown?

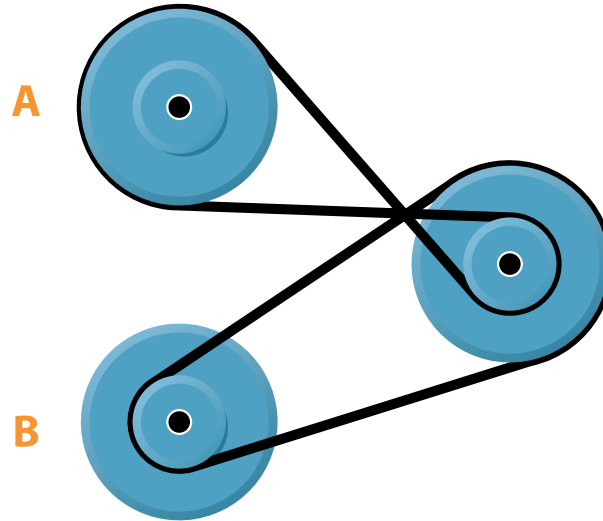
- A Direction A
- B Direction B
- C Neither Direction

Answer Section Page 3

A B C  
3 ● ● ●

A B C  
4 ● ● ●

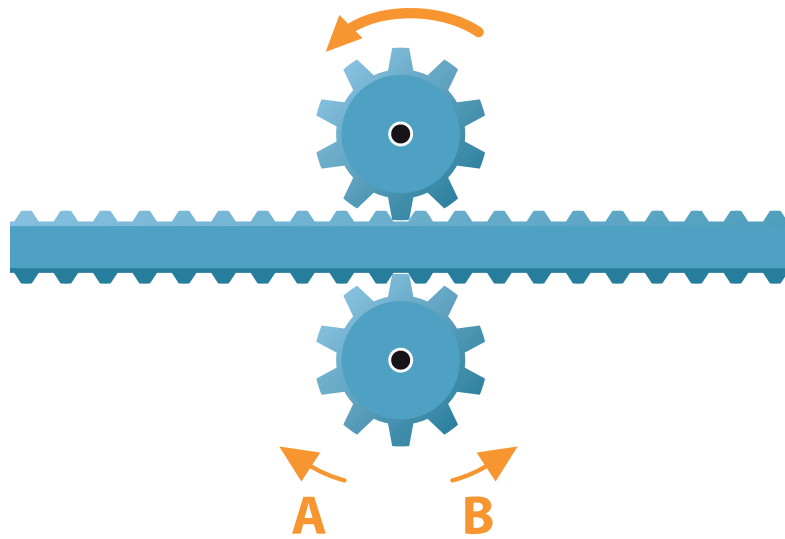
5



If the pulley wheel on the right turns, which other wheel will turn in the same direction?

- A Pulley wheel A
- B Pulley wheel B
- C Neither pulley wheel A nor B

6



If the upper gear moves in the direction shown, in which direction will the lower gear turn?

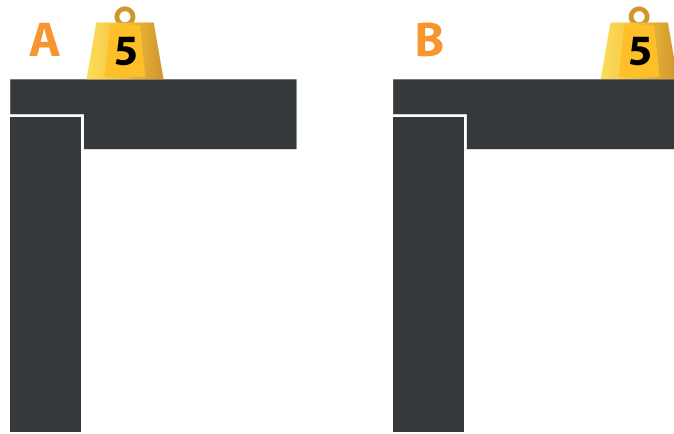
- A Direction A
- B Direction B
- C Neither direction

Answer Section Page 4

5    A   B   C  
     

6    A   B   C

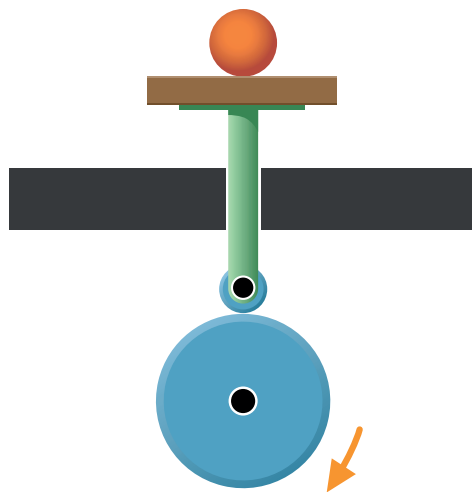
7



Which beam is more likely to break?

- A Beam A
- B Beam B
- C Both beams are equally likely to break

8



If the wheel turns in the direction shown, in which direction will the ball move?

- A Up
- B Down
- C It will stay level

Try to answer any questions you did not reach in the time limit before checking your answers.

## Checking your Answers

Check your answers against the correct answers at the bottom of this page. Look at any questions you got wrong and try to understand how to arrive at the correct answer. Keep in mind that most aptitude tests are designed to increase in difficulty and that people typically do not complete all the questions within the time limit. If you took much longer than 3 minutes to answer the questions, try to speed up your work rate. If you finished all of the questions within the time limit but made many mistakes, try focusing on the accuracy of your responses.

## Improving your Mechanical Abilities

Some tips for improving mechanical abilities are provided below:

- Work with tools, equipment and machinery.
- Maintain, fix and repair things.
- Build objects with moving parts.
- Learn about mechanical principles.
- Look at technical user manuals.

## Before the Session

- Follow the suggestions given in this preparation guide.
- Get a good night's sleep before the test session.
- Make sure you are wearing or bring with you glasses, contact lenses, hearing aids or anything else you may require for the session.
- If you have any special requirements, such as larger print versions of the test, specific lighting or seating needs, it is important that you make these known as soon as possible prior to the session to allow for appropriate accommodations to be made.

## During the Test

- Try to stay calm; using the practice tips provided should help you feel more at ease.
- Follow the instructions carefully, and ask questions if you are not sure of anything before the test starts.
- Read each question carefully.
- Work as fast as you can. Do not spend too much time on any one question.
- If you find a question too difficult or are unsure of an answer indicate your best choice and move on quickly.
- After completing a test always seek feedback. It is much easier to improve your abilities if you know how well you have done.

Good luck in your test session. We wish you every success in your career.

### Answer Section Page 2-3 Correct Answers

A	B	C	A	B	C	A	B	C	A	B	C				
1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	4	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Answer Section Page 4-5 Correct Answers

A	B	C	A	B	C	A	B	C	A	B	C				
5	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	6	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	7	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	8	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>