Train Operator Assessment: Guidance and Practice Materials
Introduction

This booklet has been developed to help you do your best in the train operator assessment that you have applied for. This booklet will give you information about what to expect in the assessment (called an ‘assessment centre’) and give you a chance to practice shorter versions of the tests that you will see on the day.

Later in the booklet you will learn about the tests that are used at the assessment centre. The tests will first be described and explained to you, and then you will have a chance to complete a mini-version of the tests. The answers and an explanation to those tests will then follow. You can repeat the tests as often as you like and discuss the tests with friends and family. While the questions you will see here are not exactly the same as those at the assessment centre, they are similar, and so should help prepare you and give you confidence for the assessment centre itself.

From experience we know that those people who make the most of this test booklet are those that are most likely to do well at the assessment centre and so most likely to get the job. Working through this booklet means that none of the tests on the day will be a surprise to you.

Assessment centres

Assessment centres and the tests that are used are designed to highlight people who are most likely to do well at the job. These tests measure particular skills and aptitudes that we know are important for the job, for example, an assessment centre for a finance clerk might well include a test on numerical ability.

We know that if people are assessed using systematic and objective exercises then there is a much better chance of selecting the right people to do the job than if just using an interview. It also ensures that our selection decisions are fair and only made on the basis of things that matter to job performance rather than, for example, on the basis of things like age, sex or race. If you complete this practice booklet before the assessment centre you will have a good idea of what to expect on the day and be better prepared.
The tests

The tests that follow will look at your ability to follow information, concentrate on a repetitive task, understand verbal information, and how well you can identify errors in a logical system.

On the day of the assessment centre you may find that you do not complete all of the questions in the tests. However you can still do well without finishing all of the questions.

As you work through the tests in this booklet, please fill in your answers in the appropriate sections of the accompanying answer sheet.
The Following Information Test

This test measures your ability to follow information that is presented in an operational setting. The test consists of a brief passage of information followed by questions on that passage. For each question you will have four answers, but only one of them is correct. Below is an example of the kind of passage you will find in the test, followed by some example questions. Please fill in the answers in the examples part of the answer sheet for the Following Information test.

Example

At all times (night and day) employees should wear their high visibility clothing. In the summer the sleeveless tabard may be worn and in the winter the lined jacket. These safety precautions are in place to prevent harm to employees whilst working on the road.

1. When should staff wear their high visibility clothing?
   A) When working on the roads at night
   B) When working on the roads at busy periods
   C) When working on the roads during the day
   D) When working at all times

2. When may sleeveless tabards be worn?
   A) During the summer and winter months depending on conditions
   B) During the winter months
   C) During the summer months
   D) At all times

3. Why are the safety precautions in place?
   A) To ensure all employees are dressed uniformly
   B) To ensure that no harm is caused to employees whilst working on the road
   C) To ensure that employees can locate each other at all times
   D) To ensure that employees are warm in the winter and cool in the summer
The answers

**Question 1:** the answer is D. In the passage it states ‘At all times (night and day) employees should wear their high visibility clothing’ therefore D is the correct answer.

**Question 2:** the answer is C. In the passage it states ‘In the summer the sleeveless tabard may be worn’ therefore C is the correct answer.

**Question 3:** the answer is B. In the passage it states ‘These safety precautions are in place to prevent harm to employees whilst working on the road’ therefore B is the correct answer.

A practice test

Over the next few pages are a number of questions that are similar to those you will see in the actual test. You should give yourself 3 minutes to complete these questions. You must pick the correct answer from A to D in each question and fill in your answers in the appropriate section of the accompanying answer sheet. You can complete this test as often as you like and you may find discussing the questions with other people will help you to understand the test.

It is important with this test that you work at a reasonable pace. Working too slowly will result in not enough questions being completed, but working too quickly may result in wrong answers. Both speed and accuracy are key.

Timing the test and the correct answers

If possible it is best to get someone else to time you for the 3 minutes. When the 3 minutes has passed you should score your answers by looking at the answers and explanations at the end of this section. You should then go back through you answers, looking at the explanations at the end of this section to check that you got the answers right.

When you are ready turn over and begin.
During machine operations all employees must take care to stand outside the hatched yellow markings. These markings denote the operational space required for the machines over the next 30 minute run. Any individual within this space during operation risks injury due to the high speed movement of the machine.

1. Where must employees stand during machine operations?
   A) Inside the yellow hatched markings
   B) Outside the building
   C) Outside the yellow hatched markings
   D) In the small room adjoining the operations room

2. What do the yellow hatched markings indicate?
   A) Machinery operating overhead
   B) The machine operational space for the next 35 minutes
   C) The safe walk way
   D) The machine operational space for the next 30 minutes

3. What is the danger involved in the operations area?
   A) There are head height barriers which people are likely to walk into
   B) High speed movement of the machines may cause injury
   C) The machine parts are sharp and may cause injury within the area
   D) The noise level inside the operational space may damage hearing
During live testing all staff will hear a warning alarm 10 minutes prior to testing. The second alarm will sound 5 minutes later, at which time staff must have left the testing room. The third alarm signifies the start of testing, any employee still in the test room will have 30 seconds to leave or press one of the emergency buttons located on the walls.

4. How many minutes remain before testing when the first alarm sounds?
   A) 20 minutes
   B) 15 minutes
   C) 10 minutes
   D) 5 minutes

5. Upon hearing the second alarm what should staff remaining in the testing room do?
   A) Press the test start buttons located on the walls of the testing room
   B) Shut off the alarm from the testing room control panel
   C) Ensure that the testing stage is clear of obstruction
   D) Leave the testing room

6. What should an employee do if they are still in the room when the third alarm sounds?
   A) The employee should leave the room immediately or press one of the emergency buttons mounted on the walls
   B) The employee should either press one of the emergency buttons mounted on the walls, or take cover from the testing stage
   C) The employee should use the telephone to contact the testing manager and arrange for testing on another occasion
   D) The employee should shut off the testing at the testing control panel
When employees require the use of any of the materials stored in the hazardous materials store, they must ensure the materials are signed out and back in again. If the materials are to be kept out for over one week then the hazardous materials store clerk must be informed and confirm the request. The procedure for handling hazardous materials is laid down in the operations manual (section 6) which must be adhered to.

7. When taking hazardous materials from the hazardous materials store, all staff must?
   A) Consult the hazardous materials store clerk
   B) Ensure that the materials are signed out and back in again
   C) Ensure that the materials have not been tampered with
   D) Arrange for collection with the hazardous materials store clerk

8. When must the hazardous materials store clerk be informed?
   A) If the hazardous materials are to be kept out of the store overnight
   B) If the hazardous materials are to be kept out of the store over two nights
   C) If the hazardous materials are to be kept out of the store over one week
   D) If the hazardous materials are to be kept out of the store over one month

9. What must staff who take hazardous materials out from the store ensure?
   A) That the same amount of hazardous materials is returned from the store as was removed
   B) That section 6 of the operations manual is followed when handling the hazardous materials
   C) That all sections of the operations manual are followed when handling the hazardous materials
   D) That the hazardous materials store clerk supervises all activities with the hazardous materials

Stop. That is the end of the test.
Now check your answers with the section overleaf.
How did you do?

Compare the answers below to those you gave on your answer sheet. If any of your answers are different from those below be sure to look again at the question to make sure that you understand why.

Question 1  Answer: C
– as from the text: ‘During machine operations all employees must take care to stand outside the hatched yellow markings.’

Question 2  Answer: D
– as from the text: ‘These markings denote the operational space required for the machines over the next 30 minute run.’

Question 3  Answer: B
– as from the text: ‘Any individual within this space during operation risks injury due to the high speed movement of the machine.’

Question 4  Answer: C
– as from the text: ‘During live testing all staff will hear a warning alarm 10 minutes prior to testing.’

Question 5  Answer: D
– as from the text: ‘The second alarm will sound 5 minutes later, at which time staff must have left the testing room.’

Question 6  Answer: A
– as from the text: ‘The third alarm signifies the start of testing, any employee still in the test room will have 30 seconds to leave or press one of the emergency buttons located on the walls.’

Question 7  Answer: B
– as from the text: ‘When employees require the use of any of the materials stored in the hazardous materials store, they must ensure the materials are signed out and back in again.’

Question 8  Answer: C
– as from the text: ‘If the materials are to be kept out for over one week then the hazardous materials store clerk must be informed and confirm the request.’
Question 9 Answer: B
– as from the text: ‘The procedure for handling hazardous materials is laid down in the operations manual (section 6) which must be adhered to.’

Tips on improving your performance

There are a number of things you can do to ensure that you perform at your best on the test of following instructions on the day of the assessment.

Firstly be sure that you have fully read the information contained in this leaflet regarding this test as this leaflet has been designed to help you achieve your best.

Secondly ensure that you have made the most of the practice version of this test. Once you have completed the test make sure that you go back over the answers and check that you understand why the answers are correct. It is also worthwhile completing the practice test on more than one occasion to ensure that you fully familiarise yourself with this test.

Another useful practice before the day of the test is to test yourself on any written material. For example, read a newspaper article and ask a friend to ask you questions about it. This kind of practice can be made even more relevant by using written material relating to operational instructions, for example instructions on how to put flat-pack furniture together.

Finally you could try and devise your own questions based around following information.
The Understanding Information Test

This test is similar to the test on following information in that you have to read a passage of information and then answer questions about the information. However, with this test the information is presented in a manner similar to what you would see in a technical manual. An example question is shown below. Please fill in the answers in the examples part of the answer sheet for the Understanding Information test.

While standard ball joints must be lubricated after a time (around once a year), sealed ball joints require no lubrication as they are ‘sealed for life’. However, it is in fact non-sealed ball joints that have a longer operational life span, provided they are properly maintained. The seal on a sealed ball joint will eventually break, resulting in loss of lubrication and wear.

Clicking or snapping sounds indicate that a ball joint is failing; whereupon the ball joint must be replaced. A failing ball joint is dangerous as it may separate. Debris may also exit the joint at high speed which may damage other parts of the machinery. A failing ball joint starts to wear, which means space develops between the ball and the socket of the joint. This extraneous movement (or ‘play’) means that the joint becomes misaligned. Misalignment can cause wear issues, for example in a car ball joint, misalignment may result in uneven tyre wear.

1. Compared to sealed ball joints:
   A) Non-sealed ball joints have a shorter life span
   B) Well maintained non-sealed ball joints will have a longer life span
   C) Non-sealed ball joints have a smaller range of movement
   D) Well maintained non-sealed ball joints have more play

2. Upon noticing play in a ball joint:
   A) Immediate action should be taken to lubricate the joint to remedy the play
   B) The joint will no longer make clicking or snapping sounds
   C) Action should be taken to replace the ball joint
   D) No action should be taken as the ball joint is only bedding in

3. In a car ball joint:
   A) Tyre wear is unavoidable due solely to the use of the ball joint
   B) A sealed ball joint must never be used
   C) Sealed ball joints fail quicker due to their inferior quality compared to non-sealed ball joints
   D) Play can result in uneven tyre wear
The answers

For each question only one of the answers (A, B, C, or D) is correct.

Question 1: B is true, as from the text ‘However, it is in fact non-sealed ball joints that have a longer operational life span, provided they are properly maintained.’

Question 2: C is true, as from the text ‘Clicking or snapping sounds indicate that a ball joint is failing; whereupon the ball joint must be replaced.’

Question 3: D is true, as from the text ‘Misalignment can cause wear issues, for example in a car ball joint, misalignment may result in uneven tyre wear.’

A practice test

Over the next few pages are a number of questions that are similar to those you will see in the actual test. You should give yourself 5 minutes to complete these questions. You must pick the correct answer from A to D in each question and fill in your answers in the appropriate section of the accompanying answer sheet. When you have finished you can compare your answers to those at the end of this section. You can complete this test as often as you like and you may find discussing the questions with other people helps you to understand the test.

Timing the test and the correct answers

If possible it is best to get someone else to time you for the 5 minutes. When the 5 minutes has passed you should score your answers by looking at the answers and explanations at the end of the booklet. You should then go back through you answers, looking at the explanations at the end of this section to check that you got the answers right.

When you are ready turn over and begin.
Practice test

When a material is consistently put under strain it will deform or move. This permanent change in the shape of the material is called creep. Creep is most noticeable in material that is regularly subjected to high temperatures, particularly when the temperature is near the material’s melting point.

Failure in a material does not occur suddenly as with a fracture, but rather the material permanently strains over a long period of time before it finally fails. For plastics and materials with a low melting temperature (for example many types of solders), creep can occur at room temperature. This can most notably be seen in old lead hot-water pipes.

One area of design that has had to accommodate creep is that of light bulb filaments. Where the light bulb filament is exposed to high temperatures its own weight is enough to cause it to sag due to creep. The pattern of the coil is designed to prevent this sagging, which would otherwise cause the filament coils to touch, resulting in a short circuit and a broken bulb.

1. Creep is most likely to occur in:
   A) Any materials that is subject to strain of any degree
   B) Materials that are repeatedly cooled to very low temperatures
   C) Materials that are subjected to high strain and temperatures near their melting point
   D) Materials that are subject to adverse weather conditions

2. Failure due to creep will occur:
   A) At one particular point of the strain region of the material
   B) Over a short period of time and will result in sudden failure
   C) Only when a material approaches its melting point
   D) Over time when a material is put under continued stain

3. What would happen to the light bulb if the design had not taken into account the affect of creep?
   A) It would last substantially longer
   B) The light bulb would have been designed a different shape
   C) The filament would sag due to the high heat and short circuit the light bulb
   D) It would produce a blue shade of light
Hydroforming allows malleable metals to be shaped into lightweight, structurally stiff and strong forms at a cost-effective price. Furthermore hydroformed parts allow complex shapes with concavities to be formed which may not be possible with conventional solid die stamping.

Hydroforming uses a high pressure hydraulic fluid to press material into a die at room temperature. First the material is placed inside a negative mould that has the desired shape, and then high pressure pistons inject very high pressure fluid causing the material to expand until it matches the shape of the mould.

An experimental method of hydroforming does away with the pistons and instead uses explosives to generate the pressure. This explosive hydroforming may be used alongside explosive welding to form a shaped piece of metal, bonded at an atomic level.

4. **Hydroforming malleable metals:**
   A) Means it is possible to form shapes of greater complexity than using conventional die stamping
   B) Means it is possible to form any metal, unlike die stamping, where only malleable metals can be shaped
   C) Is a more cost-effective means of shaping malleable metal, die stamping can create shapes with more complex concavities
   D) Is more effective than die stamping, but requires very high temperatures to complete

5. **The hydroforming process consists of:**
   A) A malleable metal being placed in an extremely hot mould and a high pressure fluid then forces the metal to take the shape of the mould
   B) High pressure molten metal being injected into the mould which is then rapidly cooled
   C) High pressure hydrogen gas forcing sheet metal into the shape of the mould
   D) A malleable metal being placed in a mould and then very high pressure hydraulic fluid forces the metal to take the shape of the mould

6. **The experimental explosive hydroforming process:**
   A) Uses the explosive compound fluid nitro glycerine under high pressure to form the sheet metal
   B) May be used alongside the conventional process of die stamping to create sheet metal forms involving particularly complex shapes
   C) May be used alongside the process of explosive welding to create shapes that are bonded at an atomic level
   D) Uses pistons in conjunction with explosives to produce a cost-effective sheet metal forming solution
Before a rivet is installed its shape consists of a smooth cylindrical shaft, with a head on one end and the tail end called the ‘buck-tail’. When the rivet is installed it’s placed in a pre-drilled hole and the buck-tail is deformed until the shaft fits the hole and the head expands to approximately 1.5 times the width of the shaft. It is this deformation that holds the rivet in place.

There are many methods employed to deform rivets to fit their holes. Larger rivets made from harder materials are more easily installed by tools that squeeze both ends of the rivet at the same time, thus deforming the buck-tail end. Small rivets made of soft metals are ‘buckled’ into place. This is done by the use of a specialised tool and a rivet with a buckling bar. In this case when the rivet is deformed, the tool faces one side of the drilled hole.

7. **When a rivet is installed:**
   A) The rivet is deformed until it fits the shaft and the head expands to a sufficient size
   B) Care must be taken to ensure that the buck-head end is not damaged
   C) The buck-tail end must be deformed before the hole is drilled
   D) The rivet is screwed into place once the hole has been drilled

8. **Large rivets:**
   A) Should be installed by the tool that squeezes them into place only if they are made of soft metal
   B) Should be installed by the use of the buckle bar that is attached to the tool
   C) Should be installed by the tool that squeezes both ends of the rivet
   D) Should be installed in holes 1.5 times the width of the head of the rivet

9. **Small rivets:**
   A) Should only be used when riveting together soft metal
   B) Are deformed into place using a tool that faces one side of the drilled hole
   C) Are pre-buckled before being put into the hole due to the softness of the metal
   D) Need not be deformed as they will wear into place

**Stop. That is the end of the test.**

**Now check your answers with the section overleaf.**
**How did you do?**

Below you can see the answers to the Understanding Verbal Information test. Please compare the answers below to those you gave on your answer sheet. If any of your answers are different from those below be sure to look again at the question to make sure that you understand why.

**Question 1**  
Answer: C  
– as from the text: ‘Creep is most noticeable in material that is regularly subjected to high temperatures, particularly when the temperature is near the material’s melting point.’

**Question 2**  
Answer: D  
– as from the text: ‘Failure in a material does not occur suddenly as with a fracture, but rather the material permanently strains over a long period of time before it finally fails.’

**Question 3**  
Answer: C  
– as from the text: ‘Where the light bulb filament is exposed to high temperatures its own weight is enough to cause it to sag due to creep. The pattern of the coil is designed to prevent this sagging, which would otherwise cause the filament coils to touch, resulting in a short circuit and a broken bulb.’

**Question 4**  
Answer: A  
– as from the text: ‘Furthermore hydroformed parts allow complex shapes with concavities to be formed which may not be possible with conventional solid die stamping.’

**Question 5**  
Answer: D  
– as from the text: ‘Hydroforming uses a high pressure hydraulic fluid to press material into a die at room temperature. First the material is placed inside a negative mould that has the desired shape, and then high pressure pistons inject very high pressure fluid causing the material to expand until it matches the shape of the mould.’

**Question 6**  
Answer: C  
– as from the text: ‘This explosive hydroforming may be used alongside explosive welding to form a shaped piece of metal, bonded at an atomic level.’

**Question 7**  
Answer: A  
– as from the text: ‘When the rivet is installed it’s placed in a pre-drilled hole and the bucktail is deformed until the shaft fits the hole and the head expands to approximately 1.5 times the width of the shaft.’
Question 8

Answer: C

– as from the text: ‘Larger rivets made from harder materials are more easily installed by tools that squeeze both ends of the rivet at the same time, thus deforming the buck-tail end.’

Question 9

Answer: B

– as from the text: ‘Small rivets made of soft metals are ‘buckled’ into place. This is done by the use of a specialised tool and a rivet with a buckling bar. In this case when the rivet is deformed, the tool faces one side of the drilled hole.’

Tips on improving your performance

There are a number of things you can do to ensure that you perform at your best on this on the day of the assessment.

Firstly be sure that you have fully read the information contained in this leaflet as it has been designed to help you achieve your best.

Secondly ensure that you have made the most of this practice test. Once you have completed the test make sure that you go back over the answers understanding why they are correct. It is also worthwhile completing the practice test on more than one occasion to ensure that you fully familiarise yourself with the test.

Another useful practice before the day of the test is to test yourself on any written material that relates to technical information. For example, read parts of the operating manual for a video recorder and ask a friend to ask you questions about it. It may also be worthwhile trying to set yourself questions based upon the technical information you have read.
Error Identification Test

In this test you will be measured on your ability to find the error in an operating sequence.

The practice test diagrams that are shown here are different to those that you will see in the test itself, however the logic is the same. Each diagram shows 4 valves on the left hand side of the page. These valves can be opened or closed by a number of dials, each of which has a different letter. Each of these dials will have an effect on one or more of the valves. Note that the dials are either in the open or in the closed position. The dials in the open position will open valves that are closed and have no effect on the valves that are already open. The dials in the closed position will close the valves that are open and have no effect on the valves that are already closed.

Below you can see the valves (with a key for the valves) and the dials (with a table for the dials and their effect).

<table>
<thead>
<tr>
<th>Opening Dials</th>
<th>Closing Dials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens valves 1 and 4</td>
<td>Closes valve 1</td>
</tr>
<tr>
<td>Opens valves 2 and 3</td>
<td>Closes valve 2</td>
</tr>
<tr>
<td>Opens valves 3 and 4</td>
<td>Closes valve 3</td>
</tr>
<tr>
<td>Opens valves 4 and 1</td>
<td>Closes valve 4</td>
</tr>
<tr>
<td>Opens valves 1 and 3</td>
<td>Opens valves 2 and 4</td>
</tr>
</tbody>
</table>

Key

- Open valve
- Closed valve

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For each of the questions you will be presented with valves on the left hand side of the page, dials in the centre and valves on the right hand side of the page. The dials in the centre show you what has been opened and closed to change the valves on the left to the valves on the right. So, the valves on the left are the start point upon which the dials in the centre have their effect, which produces the valves shown on the right. The order of the dials shows what order the dials had their effect in.

In each of the questions one of the dials will not be working. Therefore it will have no effect upon any of the valves, this is the error. It is your job to find out which dial is not working. The answer to each question will be the letter that represents the dial which is not working, and you will record your answers in your answer sheet as you work through the test. So, for example, if you found in question 3 that dial B was not working, then you would fill in the 'B' square for question 3 in the error identification section of the answer sheet.

In each question you must work through the sequence of dials and compare the pictures of the valves. **Do not forget that the dials work in the sequence that is shown, therefore the effect of an earlier dial can be cancelled out by the use of a later dial.**

Here are some examples before you start the test itself.
Examples

In the example below all the dials are working, i.e. there are no faults. Below you can see that the dial ‘A’ has opened valves 1 and 4 and dial H has closed valve 2.

<table>
<thead>
<tr>
<th>Opening Dials</th>
<th>Closing Dials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>closed</td>
<td>closed</td>
</tr>
<tr>
<td>open</td>
<td>open</td>
</tr>
<tr>
<td>Opens valve 1 and 4</td>
<td>Opens valve 2 and 3</td>
</tr>
<tr>
<td>Closes valve 1</td>
<td>Closes valve 2</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td><strong>D</strong></td>
</tr>
<tr>
<td>closed</td>
<td>closed</td>
</tr>
<tr>
<td>open</td>
<td>open</td>
</tr>
<tr>
<td>Opens valve 3 and 4</td>
<td>Opens valve 4 and 1</td>
</tr>
<tr>
<td>Closes valve 3</td>
<td>Closes valve 4</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td><strong>F</strong></td>
</tr>
<tr>
<td>closed</td>
<td>closed</td>
</tr>
<tr>
<td>open</td>
<td>open</td>
</tr>
<tr>
<td>Opens valve 1 and 3</td>
<td>Opens valve 2 and 4</td>
</tr>
</tbody>
</table>
The next example is more similar to the questions you will be answering in the test as one of the dials is not working. This dial has no effect upon the valve (or valves) on the left. Working through the example below you can see that dial D will open valves 4 and 1, making all the valves open. Dial J would then close valve 4 and dial G would close valve 1. However you can see that valve 4 is still open, meaning dial J had no effect and is therefore the dial that is not working.

<table>
<thead>
<tr>
<th>Opening Dials</th>
<th>Closing Dials</th>
</tr>
</thead>
<tbody>
<tr>
<td>D closed</td>
<td>G closed</td>
</tr>
<tr>
<td>A open</td>
<td>B open</td>
</tr>
<tr>
<td>B open</td>
<td>C closed</td>
</tr>
<tr>
<td>C closed</td>
<td>D closed</td>
</tr>
<tr>
<td>E open</td>
<td>F closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opens valve 1 and 4</th>
<th>Closes valve 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A open</td>
<td>G closed</td>
</tr>
<tr>
<td>B open</td>
<td>C closed</td>
</tr>
<tr>
<td>C closed</td>
<td>D closed</td>
</tr>
<tr>
<td>E open</td>
<td>F closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opens valve 2 and 3</th>
<th>Closes valve 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A open</td>
<td>G closed</td>
</tr>
<tr>
<td>B open</td>
<td>C closed</td>
</tr>
<tr>
<td>E open</td>
<td>F closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opens valve 3 and 4</th>
<th>Closes valve 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>B open</td>
<td>C closed</td>
</tr>
<tr>
<td>D closed</td>
<td>G closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opens valve 4 and 1</th>
<th>Closes valve 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>D closed</td>
<td>G closed</td>
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</tbody>
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<thead>
<tr>
<th>Opens valve 1 and 3</th>
<th>Closes valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>E open</td>
<td>F closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opens valve 2 and 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F closed</td>
<td></td>
</tr>
</tbody>
</table>

![Diagram of valves and dials]
Over the next few pages are a number of questions that are based on the same principle to those you will see in the actual test. You should give yourself 6 minutes to complete these questions. In each question one dial will not be working correctly, you must note the letter of this dial, from A to J, and fill in your answers in the appropriate section of the accompanying answer sheet. When you have finished you can compare your answers to those at the end of this section. You can complete this test as often as you like, and you may find discussing the questions with other people helps you to understand the test.

The following practice test will consist of 8 questions and you are asked to give yourself 6 minutes.

**Timing the test and the correct answers**

If possible it is best to get someone else to time you for the 6 minutes. When the 6 minutes has passed you should score your answers by looking at the answers and explanations at the end of this section. You should then go back through your answers, looking at the explanations at the end of this section to check that you got the answers right.

When you are ready turn over and begin.
# Opening Dials

| A | Opens valve 1 and 4 | Closes valve 1 |
| B | Opens valve 2 and 3 | Closes valve 2 |
| C | Opens valve 3 and 4 | Closes valve 3 |
| D | Opens valve 4 and 1 | Closes valve 4 |
| E | Opens valve 1 and 3 |
| F | Opens valve 2 and 4 |

## 1.

![Diagram 1]

## 2.

![Diagram 2]
### Opening Dials | Closing Dials
---|---
| Opens valve 1 and 4 | Closes valve 1 |
| Opens valve 2 and 3 | Closes valve 2 |
| Opens valve 3 and 4 | Closes valve 3 |
| Opens valve 4 and 1 | Closes valve 4 |
| Opens valve 1 and 3 |  |
| Opens valve 2 and 4 |  |

3.

4.
### Opening Dials

<table>
<thead>
<tr>
<th>Opening Dials</th>
<th>Closing Dials</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>G</td>
</tr>
<tr>
<td>B</td>
<td>H</td>
</tr>
<tr>
<td>C</td>
<td>I</td>
</tr>
<tr>
<td>D</td>
<td>J</td>
</tr>
</tbody>
</table>

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5.

#### Practice Materials 25 of 36

6.
### Opening Dials

<table>
<thead>
<tr>
<th>Opening Dials</th>
<th>Closing Dials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Closes valve 1</td>
</tr>
<tr>
<td>Opens valve 1 and 4</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>Closes valve 2</td>
</tr>
<tr>
<td>Opens valve 2 and 3</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Closes valve 3</td>
</tr>
<tr>
<td>Opens valve 3 and 4</td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Closes valve 4</td>
</tr>
<tr>
<td>Opens valve 4 and 1</td>
<td></td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Opens valve 1 and 3</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>Opens valve 2 and 4</td>
</tr>
</tbody>
</table>

7. 

8. 

Stop. That is the end of the test. Now check your answers with the section overleaf.
How did you do?

Below you can see the answers to the Error Identification test. Please compare the answers below to those you gave on your answer sheet. If any of your answers are different from those below be sure to look again at the question to make sure that you understand why.

**Question 1**  
Answer: **Dial G**  
– if it had worked then valve 1 would not be open on the right.

**Question 2**  
Answer: **Dial J**  
– if it had worked then valve 4 would not be open on the right.

**Question 3**  
Answer: **Dial I**  
– dial E opened valves 1 and 3, dial I did not close valve 3.

**Question 4**  
Answer: **Dial H**  
– dial F opened valves 2 and 4, dial H should have closed valve 2 again.

**Question 5**  
Answer: **Dial B**  
– dial I closed valve 3, dial B should have opened it again.

**Question 6**  
Answer: **Dial I**  
– valve 3 is open on the left, if dial I had worked then valve 3 would not be open on the right.

**Question 7**  
Answer: **Dial B**  
– dial H closed valve 2, dial B should have opened valve 2 again.

**Question 8**  
Answer: **Dial J**  
– valve 4 is open on the left, if dial J had worked then valve 4 would not be open on the right.
**Tips on improving your performance**

There are a number of things you can do to ensure that you perform at your best on this test on the day of the assessment.

Firstly be sure that you have fully read the information contained in this leaflet as it has been designed to help you achieve your best.

Secondly ensure that you have made the most of the practice version of this test. Once you have completed the test make sure that you go back over the answers understanding why they are correct. It is also worthwhile completing the practice test on more than one occasion to ensure that you fully familiarise yourself with the test.

Another useful practice before the day of the test is to create new questions for yourself. At the top of a blank piece of paper draw the table of the dials and their actions. Beneath this table draw a representation of the four valves on the left, numbered 1 to 4; you can use open or closed valves in any order. Then in the centre of the page write any three dials taken from the table. Now you need to work out what will happen to the valves on the left when you have applied the dials in the centre. Write the answer on the right. Once you become familiar with this, you can start to use four dials. The more often you repeat this process the better you will become at it and so the better you will do at the test on the day of assessment.
Concentration test

The following practice test is a simplified version of the test that you will sit at the assessment centre. This test looks at how well you maintain high levels of concentration and attention, which are critical for the job of a train operator.

Over the next few pages there will be three blocks of shapes which are the three parts of the concentration test. Each of these sub-tests has its own instructions which you must read carefully before starting each sub-test. You will have a time limit for each test, if you can, it is best to get somebody else to time you.

It is important with this test that you work at a proper pace. Working too slowly will result in not enough rows being completed, but working too quickly may result in missing the target shape. Speed and accuracy are key.

Note, you should mark this test leaflet directly as there is no separate answer sheet for this test. However we would recommend that you use a pencil so that you can rub out your answers and practice again.

Sub-test 1

In this test you will be presented with blocks of shapes and you will be required to search for and cross out a target shape. The target shape that you must search for is shown here: ▲

You must search for this target shape, starting at the top row and working down the rows, left to right. Each time you see the target shape you must cross it out as shown: X

If you make a mistake at any time and mark a shape that is not the target shape then mark it as shown: X

An example line has been completed for you.

Over the page is sub-test 1. You should give yourself 30 seconds to complete this practice. You must start at the top left, working from left to right, row after row down the block.

Now turn over the page and begin timing.
Sub-test 1

1  2  3  4  5  6  7  8  9  10  11  12  13

1
2
3
4
5
6
7
8
9
10
11
12
13
Sub-test 2

This test is similar to sub-test 1, except that this time you must search for and cross out two target shapes at the same time. Over the page you will be presented with blocks of shapes and you will be required to search for and cross out two target shapes. These target shapes can be seen here:

You must search for these target shapes, starting at the top row and working down the rows, looking left to right. Each time that you see either of the target shapes you must cross them out as shown:

If you make a mistake at any time and mark a shape that is not either of the target shapes then mark it as shown:

An example line has been completed for you.

Over the page is sub-test 2. You should give yourself 30 seconds to complete this practice. You must start at the top left, working from left to right, row after row down the block.

Now turn over the page and begin timing.
Sub-test 2
Sub-test 3

This test is similar to sub-test 2 in that you must look for two target shapes at the same time. The first target shape that you will be required to search for is shown here: △

The second target shape that you will have to search for will change every time you search a new row. The second target shape is always the first shape at the start of each row. You must cross out the first shape on each row and then every time it appears in the row. You must do this for each row, first crossing out the first shape, then crossing out that shape each time it appears in that row. An example is shown below:

You must search for these target shapes, starting at the top row and working down the rows, looking left to right. Each time that you see either of the target shapes you must cross them out as shown: △

If you make a mistake at any time and mark a shape that is not either of the target shapes then mark it as shown: △

Over the page is sub-test 3. You should give yourself 30 seconds to complete this practice. You must start at the top left, working left to right, row after row down the block.

Now turn over the page and begin timing.
Stop. That is the end of the test.
Now check your answers with the section overleaf.
How did you do?

Below you can see the answers to the Concentration test. The table shows the scores of each sub-test in columns. The rows depict each row of each sub-test and the shapes that you should have crossed out in that row are indicated by the numbers. So for example, in the first row of sub-test 1 you should have crossed out the shapes in columns 8 and 11. In the second row of sub-test 1 you should have crossed out the shapes in columns 3, 9 and 13 and so on for each row of each sub-test.

Please compare the answers below to those you gave on your answer sheet. If any of your answers are different from those below be sure to look again at the question to make sure that you understand why.

Note, for each sub-test you may have shapes that you have crossed through correctly, shapes that you have crossed through incorrectly and shapes that you should have crossed out but did not.

<table>
<thead>
<tr>
<th></th>
<th>Sub-test 1</th>
<th>Sub-test 2</th>
<th>Sub-test 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>8, 11</td>
<td>3, 6, 8, 10, 13</td>
<td>1, 3, 5, 6, 13</td>
</tr>
<tr>
<td>Row 2</td>
<td>3, 9, 13</td>
<td>3, 4, 9, 10, 13</td>
<td>1, 11</td>
</tr>
<tr>
<td>Row 3</td>
<td>6, 9</td>
<td>1, 3, 4, 6, 8, 11, 12</td>
<td>1, 4, 6, 7, 11, 13</td>
</tr>
<tr>
<td>Row 4</td>
<td>3, 12</td>
<td>2, 3, 6, 12</td>
<td>1, 3, 9, 11</td>
</tr>
<tr>
<td>Row 5</td>
<td>1, 2, 8, 10</td>
<td>2, 4, 5, 13</td>
<td>1, 5, 6, 11, 12</td>
</tr>
<tr>
<td>Row 6</td>
<td>5</td>
<td>3, 6, 8, 11, 12, 13</td>
<td>1, 3, 4, 5, 7, 9, 11</td>
</tr>
<tr>
<td>Row 7</td>
<td>4, 7, 11</td>
<td>3, 5, 10</td>
<td>1, 5, 10</td>
</tr>
<tr>
<td>Row 8</td>
<td>1, 4, 8</td>
<td>1, 5, 8, 12</td>
<td>1, 4, 5, 11, 13</td>
</tr>
<tr>
<td>Row 9</td>
<td>7, 11</td>
<td>2, 3, 6, 7, 12</td>
<td>1, 3, 7, 8, 11, 13</td>
</tr>
</tbody>
</table>

Tips on improving your performance

There are a number of things you can do to ensure that you perform at your best on the Concentration test on the day of the assessment.

Firstly be sure that you have fully read the information contained in this leaflet as it has been designed to help you achieve your best.

Secondly ensure that you have made the most of this practice test. Once you have completed the test make sure that you go back over the answers, understanding why they are correct. It is also worthwhile completing the practice test on more than one occasion to ensure that you fully familiarise yourself with the test.
You can complete another useful practice test before the assessment centre by searching for certain letters in a block of text in, for example, a newspaper. To increase the similarity to the Concentration and Attention test make sure you give yourself a time limit and change the letter that you are searching for.

**Summary**

We have now covered all of the tests that you will see at the train operator assessment centre. We have covered the ability to follow instructions test, the concentrate on a repetitive task test, the understanding verbal information test, and the identifying errors in a logical system test. Each has had an explanation with examples, then a mini practice test followed by results on how you did and tips for further preparation.

Hopefully by now you feel confident about the assessment centre as you have had some experience of what to expect. Please re-read this leaflet and try the practice tests again.

**Good luck!**