

Practice Assessment

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| Please write clearly in block capitals below | |
| Company Name | |
| Apprentice First Name (s) | |
| Apprentice Last Name (s) | |
| Date of Birth | |
| Candidate Number | |
| Apprentice signature | |
| Date of Knowledge Test | |

Level: 3

Gas Network Team Leader – Service Layer

Duration: 1 hour 30 minutes (90 minutes)

Materials

For this paper you must have:

- Pens
- Calculators and reference documents are not required

Instructions

- Use black or blue ink or black ball-point pen
- Fill in the boxes at the top of this page
- Answer **all** questions
- Questions that are highlighted in yellow and titled **safety critical**, failure to correctly answer the questions will result in an **automatic fail** being awarded
- There are questions, possible answers as well as a column for you to mark your answer

- Mark your answer with an against the possible answer you think is correct- if you wish to change your answer please put a line through and re-select with another
- Only one answer per question allowed. Answers which do not follow the rules of selection will be disallowed. This may impact on the grade awarded
- Do all rough work in this answer book, spare paper has been provided at the back of this answer book which can be used but **MUST NOT** be removed
- Additional spare paper **will not** be provided
- All questions are closed book

Here is an example:

London is the capital of....

| Example Question | | |
|-----------------------------|------------------|--------------|
| London is the capital of... | | |
| Possible answers | | Answer |
| a) | Wales | X |
| b) | Scotland | |
| c) | Northern Ireland | |
| d) | England | X |

Information

- There are 50 questions in total
- All questions should be attempted

Grading

- < 69 marks will result in a fail
- 70 -89 marks will result in a pass
- 90 -100 marks will result in a distinction
- A pass will be a minimum of 70%
- A distinction will be awarded to those with 90% or above

Advice

- You are not permitted to leave the examination room for the **first 45 minutes** and the **last 15 minutes** of the examination
- Do not spend too long on one question
- Read **all** questions thoroughly before starting your examination
- Mobile phones and watches **must not** be taken into the examination room. The examination **must be** conducted under examination conditions i.e. you may not speak to other candidates, if you have a problem raise your hand and the invigilator will attend
- Cheating: you will be asked to leave the examination room and will be classified an **automatic fail** and referred to your employer

Do not turn over the page or commence the knowledge test until the invigilator instructs you to

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Question 1

The maximum operating pressure of a low-pressure service is what?

| Possible answers | | Answer |
|------------------|------|--------|
| a) | 75mb | |
| b) | 45mb | |
| c) | 50mb | |
| d) | 25mb | |

Question 2 – Safety Critical

Service pipes should be installed at what angle to the main?

| Possible answers | | Answer |
|------------------|-------------|--------|
| a) | 90 degrees | |
| b) | 270 degrees | |
| c) | 360 degrees | |
| d) | 180 degrees | |

Question 3

When checking joint quality what must you ensure?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | That the fitting has moved | |
| b) | That wire has extruded from the ends of the fitting. | |
| c) | That melted material has extruded from the ends of the fitting. | |
| d) | That the fusion indicators have risen | |

Question 4

Medium pressure Services must not be what?

| Possible answers | | Answer |
|------------------|-----------------------------|--------|
| a) | Made from PE | |
| b) | Made from steel | |
| c) | Installed inside a property | |
| d) | Above ground | |

Question 5

Where service connections are being made to PVC mains what must be used?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | A full encirclement fitting | |
| b) | A full encirclement fitting with a valve connected | |
| c) | A metal top tee | |
| d) | A PE tapping tee | |

Question 6

You arrive on site that already has a street works' signing and barrier system in place, when must you check it for compliance with the red book?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | On work completion, before you leave the site | |
| b) | From time to time throughout the day | |
| c) | When you arrive, before any work commences | |
| d) | Never as it will be set out OK | |

Question 7 – Safety Critical

What is the first priority when you encounter a gas escape?

| Possible answers | | Answer |
|------------------|---------------------------------|--------|
| a) | Find and secure the escape | |
| b) | Safeguard life | |
| c) | Isolate the supply | |
| d) | Tightness test the installation | |

Question 8

If the pressure test shows a failure of the tapping tee what action should you take?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Cut off the stack to prevent it from any future use | |
| b) | Leave the tapping tee in place | |
| c) | Remove the faulty tapping tee | |
| d) | Re-heat the fitting | |

Question 9

Ducting used for gas services must be what?

| Possible answers | | Answer |
|------------------|-------------------|--------|
| a) | Perforated | |
| b) | Black in colour | |
| c) | Impervious to gas | |
| d) | Green in colour | |

Question 10 – Safety Critical

The emergency control lever should be attached that the handle falls to what position?

| Possible answers | | Answer |
|------------------|-----------|--------|
| a) | On | |
| b) | On or off | |
| c) | Off | |
| d) | Off or on | |

Question 11

Which of the following is a requirement for service fittings?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | The fittings should be stored in boxes until ready for use on site | |
| b) | The fittings should be stored in plastics bags until ready for use | |
| c) | Fittings should not be stored on site | |
| d) | There is no requirement for the storage of fittings | |

Question 12

What is the maximum diameter of service pipe that can be inserted in a 1" service?

| Possible answers | | Answer |
|------------------|------|--------|
| a) | 16mm | |
| b) | 25mm | |
| c) | 32mm | |
| d) | 20mm | |

Question 13

Before using a thrustbore machine for impact moling what must you do?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Sweep the area using a cable location device | |
| b) | Check gas plans | |
| c) | Check electricity plans | |
| d) | Consult all plant records and determine plant locations | |

Question 14

When testing a service from an electrofusion tapping tee where must the integral cutter be positioned?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Flush with the top of the top tee | |
| b) | At the bottom without cutting the main | |
| c) | At the bottom with the main cut | |
| d) | Halfway down to restrict gas escaping from the service pipe | |

Question 15 – Safety Critical

When disconnecting metallic services, what must be fitted across the section of pipe to be removed?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | An earth wire | |
| b) | Damp cloths on either side of the cut out | |
| c) | Damp cloths, that touch the ground, on either side of the cut out | |
| d) | A temporary continuity bond | |

Question 16 – Safety Critical

What must be used before any exposed metallic pipework is touched?

| Possible answers | | Answer |
|------------------|-----------------------------|--------|
| a) | A Voltstick | |
| b) | An earthing strap | |
| c) | A CAT | |
| d) | A temporary continuity bond | |

Question 17

Thinking about the 5 steps to risk assessment. Which of the following is the correct order?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Identify hazards, assess the risk, who might be harmed, record findings, review | |
| b) | Who might be harmed, assess the risk, identify hazards, record findings, review | |
| c) | Identify hazards, who might be harmed, assess the risk, record findings, review | |
| d) | Assess the risk, identify hazards, who might be harmed, record findings, review | |

Question 18

What is the maximum hole BSP tapping size for a 4" main?

| Possible answers | | Answer |
|------------------|-------|--------|
| a) | 1.0" | |
| b) | 1.5" | |
| c) | 1.25" | |
| d) | 2.0" | |

Question 19 – Safety Critical

How much pressure loss is permitted when undertaking a pressure test on a low-pressure gas service?

| Possible answers | | Answer |
|------------------|---------|--------|
| a) | 4mbar | |
| b) | 5mbar | |
| c) | 2mbar | |
| d) | 0.0mbar | |

Question 20

How should the emergency control valve be left during the pressure test of a low-pressure gas service?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | In the closed position and capped | |
| b) | In the open position, capped, handle removed | |
| c) | In the open position and capped | |
| d) | In the closed position with the security pin in place | |

Question 21

What is the purpose of releasing pressure from the opposite end of the service to where the test was carried out?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | To make commissioning the service simpler | |
| b) | To ensure that the whole of the service has been pressure tested | |
| c) | To ensure that the all the pressure is released | |
| d) | Because it is easier to release the pressure at that end | |

Question 22

The test pressure for a new 32mm Medium Pressure gas service 4m long is?

| Possible answers | | Answer |
|------------------|----------|--------|
| a) | 100 mbar | |
| b) | 1.0 Bar | |
| c) | 2.0 Bar | |
| d) | 3.0 Bar | |

Question 23

What is the reason for backfilling a service as much as possible prior to undertaking a pressure test?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | To minimise the amount of reinstatement following the pressure test | |
| b) | To minimise the effect of any temperature variation | |
| c) | To reduce the pressure test duration | |
| d) | To ensure no one backfills the main during the pressure test | |

Question 24

In a workplace who is responsible for maintaining health and safety?

| Possible answers | | Answer |
|------------------|---------------------------------|--------|
| a) | The Health and Safety Executive | |
| b) | The employer | |
| c) | Everyone except contractors | |
| d) | Everyone | |

Question 25

Which of the following will tell you a chemical is hazardous?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | The shape and colour of the container | |
| b) | The way it looks and smells when you empty it from the container | |
| c) | A symbol on the container label and the material data sheet | |
| d) | The chemical name or trade name | |

Question 26

Which of the following regulations place a responsibility on organisations for the reporting of safety related incidents?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | Provision and use of working equipment | |
| b) | RIDDOR | |
| c) | Confined Spaces Regulations | |
| d) | Gas Safety Management Regulations | |

Question 27

For a service pipe 25mm diameter 8 metres in length what is the purge duration in seconds?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | 1 | |
| b) | 6 | |
| c) | 4 | |
| d) | 8 | |

Question 28

When purging a service pipe what readings should be recorded at the purge point to confirm the purge is complete?

| Possible answers | | Answer |
|------------------|--------------|--------|
| a) | 2 x >90% GIA | |
| b) | 1 x >90% GIA | |
| c) | 2 x 100% GIA | |
| d) | 2 x >90% LEL | |

Question 29

Meter boxes installed on external walls must not do what?

| Possible answers | | Answer |
|------------------|--------------------------------------|--------|
| a) | Be on the same wall as a flue | |
| b) | Be near drains | |
| c) | Bridge a damp-proof course | |
| d) | Be within 2.0 metres of an airbricks | |

Question 30

Which of the following is TRUE regarding the use of temporary continuity bonds?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | They must be only be fitted or removed in a gas-free area | |
| b) | They can be used to bridge insulation joints | |
| c) | They must have a minimum cross sectional area of 5mm | |
| d) | They can be removed at any time during the work | |

Question 31

Where a service terminates in the basement / cellar what must be fitted external to the property?

| Possible answers | | Answer |
|------------------|-------------------------|--------|
| a) | Service isolation valve | |
| b) | Emergency control valve | |
| c) | Excess flow valve | |
| d) | House entry tee | |

Question 32

The test pressure for a new 32mm Low Pressure gas service?

| Possible answers | | Answer |
|------------------|---------|--------|
| a) | 350mbar | |
| b) | 1 bar | |
| c) | 25mbar | |
| d) | 100mbar | |

Question 33

Any pre-excavated trench bed must be checked to ensure that the pipe will not be damaged when it is laid, what must the check include?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Check the trench has a continuous downward gradient from the building towards to the main | |
| b) | Check the correct depth to the on-site surface level | |
| c) | Check for the presence of sharp objects such as stones and bricks | |
| d) | Check the trench has a continuous downward gradient from the main towards to the building | |

Question 34

Before starting purging operation, what must be deployed on your site?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | Fire extinguisher | |
| b) | 2 x 9kg dry powder fire extinguishers and no smoking signs | |
| c) | 1 x 9kg dry powder fire extinguisher and no smoking signs | |
| d) | No smoking signs | |

Question 35

Where projects involving more than 30 days' work, or more than 500 man days of construction work, written notification to the Health and Safety executive is necessary. Under which regulation is this stipulated?

| Possible answers | | Answer |
|------------------|-------|--------|
| a) | CDM | |
| b) | LOLER | |
| c) | GSMR | |
| d) | PUWER | |

Question 36

Under the Health & Safety at Work Act (1974) the employee has a duty to:

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Read notice boards or bulletins | |
| b) | Maintain a safe working environment | |
| c) | Always follow direction from supervisors and management | |
| d) | Complete jobs to time and price | |

| Question 37 | | |
|--|--|--------|
| When moving / lifting items, the first option requested by the Manual Handling Operations Regulations 1992 is? | | |
| Possible answers | | Answer |
| a) | Avoid the need to manually move the load | |
| b) | Assess the weight of the load | |
| c) | Reduce the weight of the load | |
| d) | Share the lifting task | |

| Question 38 | | |
|---|--|--------|
| Which of the following best defines a confined space? | | |
| Possible answers | | Answer |
| a) | Any space by virtue of its enclosed nature there arises a risk | |
| b) | Any enclosed space as indicated by a risk assessment. | |
| c) | Any space with an access opening less than 450mm x 400mm | |
| d) | Any space which by its enclosed nature, there arises a reasonably foreseeable specified risk | |

Question 39

Vehicles used on streetworks activities should have what?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Roof mounted flashing lights | |
| b) | Amber flashing lights | |
| c) | Rear chevron markings and "amber" flashing lights | |
| d) | High visibility rear chevron markings and "amber" flashing lights | |

Question 40

The Streetworks Code of Practice (Red Book) does not apply to which of the following?

| Possible answers | | Answer |
|------------------|--------------------------|--------|
| a) | 30mph single carriageway | |
| b) | 40mph dual carriageway | |
| c) | 50mph single carriageway | |
| d) | 50mph dual carriageway | |

Question 41

For safety reasons any pre-excavated trench on a building site must be checked to ensure what?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | It is safe to work in | |
| b) | The presence of stones, bricks and concrete in the side walls | |
| c) | It is a minimum of 400mm wide | |
| d) | It is the correct depth to the onsite surface level | |

Question 42

You are using a piece of equipment and it leaks oil on to the ground. What must you do?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Just wipe it up | |
| b) | Contain the leak, clean it up and report it | |
| c) | Wash it away with water | |
| d) | Ignore it | |

Question 43

Which one of the following is a key risk factor for developing HAVs? i.e. what could cause it?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Vibrations | |
| b) | Age of the operative | |
| c) | Short term exposure to vibration | |
| d) | The duration of exposure to the vibration | |

Question 44

You are using a jackhammer and there is a need for you to wear hearing protection which of the following is true?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | It is your choice if you wear it | |
| b) | It must be the correct colour | |
| c) | Others working close to you must be wearing it | |
| d) | Only the person operating the jackhammer needs it | |

Question 45

A Dry Powder fire extinguisher has what colour band?

| Possible answers | | Answer |
|------------------|-------|--------|
| a) | Blue | |
| b) | Red | |
| c) | Black | |
| d) | Cream | |

Question 46

What does SWL mean when printed on any lifting equipment?

| Possible answers | | Answer |
|------------------|------------------------|--------|
| a) | Simple Working Load | |
| b) | Standard Working Load | |
| c) | Statutory Working Load | |
| d) | Safe Working Load | |

Question 47

What does a yellow and black sign mean?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Safe condition | |
| b) | You must do something – mandatory requirement | |
| c) | You must not do something | |
| d) | Hazard or danger | |

Question 48

What is the purpose of a risk assessment?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | To ensure work can be carried out in reasonable safety | |
| b) | To identify hazards and risks | |
| c) | To ensure tasks are done in the correct order | |
| d) | To protect the employer/employee from prosecution | |

Question 49

Where a load is too heavy for you to move, there is no one to help you. What should you do?

| Possible answers | | Answer |
|------------------|---|--------|
| a) | Do not move the load | |
| b) | Try to lift using the correct lifting technique | |
| c) | Use a mini excavator, even if you are not trained | |
| d) | Use kinetic lifting techniques | |

Question 50

When should you report incidents and near misses?

| Possible answers | | Answer |
|------------------|--|--------|
| a) | There is no need to report | |
| b) | During team briefs or training courses | |
| c) | As soon as practically possible | |
| d) | At the end of the working day | |

End of questions