

## Practice Assessment

Please write clearly in block capitals below	
Company Name	
Forename (s)	
Surname (s)	
Date of Birth	
Apprentice Number	
Apprentice signature	
Date of Knowledge Test	

**Level: 2**

**Standard: Gas Network Team Leader**

**Pathway: Mains layer**

**Duration: 1 hour 30 minutes**

### Materials

For this paper you must have:

- Pens
- Calculators are required
- 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

- 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 is provided in this answer booklet and can be used but **MUST NOT** be removed
- Additional spare paper will not be provided
- All questions are closed book

**Sample:**

London is the capital of....

Example Question		
London is the capital of...		
Possible answers		Answer
a)	Wales	<input checked="" type="checkbox"/>
b)	Scotland	<input type="checkbox"/>
c)	Northern Ireland	<input type="checkbox"/>
d)	England	<input checked="" type="checkbox"/>

## Information

- There are 50 questions in total
- Each question is worth 1 mark
- All questions should be attempted

## Grading

Knowledge Test %	Points	Grade
<69%	0	Fail
70 – 89	1.5	Pass
90 – 100	3.0	Distinction

## 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**

**THIS PAPER MUST NOT BE COPIED OR CIRCULATED WITHOUT THE WRITTEN PERMISSION OF THE EUIAS**

**DO NOT DETACH**

Spare paper for to use for calculations or working out

<b>Question 01</b>		
Precautions must be taken when PE jointing in air temperatures below what temperature?		
<b>Possible answers</b>		<b>Answer</b>
a)	- 5°C	
b)	- 2°C	
c)	0°C	
d)	1°C	

<b>Question 02</b>		
Once the surface of a PE pipe to be jointed has been prepared, what must you not do?		
<b>Possible answers</b>		<b>Answer</b>
a)	Prepare fittings	
b)	Touch the surface	
c)	Fit the coupler	
d)	Support the pipe with clamps	

<b>Question 03</b>		
What is the minimum separation distance between service top tees fitted to a main?		
<b>Possible answers</b>		<b>Answer</b>
a)	50mm	
b)	100mm	
c)	150mm	
d)	75mm	

<b>Question 04</b>		
Butt fusion machines must not be used in which circumstances?		
<b>Possible answers</b>		<b>Answer</b>
a)	In any atmosphere above 6% gas in air	
b)	In gaseous or potentially gaseous atmospheres	
c)	Outside of buildings	
d)	Inside buildings	

<b>Question 05</b>		
When must checks be applied to the heating plate of a butt fusion machine?		
<b>Possible answers</b>		<b>Answer</b>
a)	At the start of the job	
b)	Only when damage is suspected	
c)	Before the power supply is connected	
d)	At the end of the job	

<b>Question 06</b>		
Any PE pipes to be butt fused must be what?		
<b>Possible answers</b>		<b>Answer</b>
a)	The same length	
b)	The same diameter	
c)	The same SDR	
d)	The same diameter and SDR	

<b>Question 07</b>		
What is the purpose of removing the external bead and carrying out visual checks?		
<b>Possible answers</b>		<b>Answer</b>
a)	To confirm the bead width is OK	
b)	To confirm the bead is even	
c)	To check the bead for contamination	
d)	So it can be sent away for checking	

<b>Question 08</b>		
How is a bead width checked?		
<b>Possible answers</b>		<b>Answer</b>
a)	With a steel ruler	
b)	With a bead width gauge	
c)	By eye	
d)	With a calliper gauge	

<b>Question 09</b>		
What must you not do to an electrofusion fitting?		
<b>Possible answers</b>		<b>Answer</b>
a)	Connect it to the main	
b)	Leave it in its protective bag until ready for use	
c)	Scrape the surface containing the heating element	
d)	Check it for signs of damage	

<b>Question 10</b>		
When checking the quality of an electrofusion weld, what should you check for?		
<b>Possible answers</b>		<b>Answer</b>
a)	Check the fusion indicators have risen	
b)	Check the fusion indicators	
c)	Confirm there is wire showing from the end of the fitting	
d)	Check the fusion indicators have risen and no melted PE is coming out	

<b>Question 11</b>		
Where a Hydraulic re-rounding clamp is used on larger diameter pipes, how long should it be left closed for?		
<b>Possible answers</b>		<b>Answer</b>
a)	30 minutes	
b)	20 minutes	
c)	10 minutes	
d)	5 minutes	

<b>Question 12</b>		
Before scraping takes place, you must clean the surface of the pipe, what should not be used to do this?		
<b>Possible answers</b>		<b>Answer</b>
a)	Dry Rags	
b)	Alcohol wipes	
c)	Wet rags	
d)	Paper towel	



<b>Question 13</b>		
Threaded joints must only be made on steel pipework up to what maximum diameter and pressure?		
<b>Possible answers</b>		<b>Answer</b>
a)	50mm - Low Pressure	
b)	80mm - Low pressure	
c)	50mm up to 2 bar	
d)	80mm up to 2 bar	

<b>Question 14</b>		
When inserting a main the surface damage of the new main must not exceed what percentage of the pipe wall thickness?		
<b>Possible answers</b>		<b>Answer</b>
a)	5%	
b)	10%	
c)	15%	
d)	20%	

<b>Question 15</b>		
When "pushing" a main why must each pipe / coil be marked at appropriate intervals as it is inserted?		
<b>Possible answers</b>		<b>Answer</b>
a)	To determine how much is left to push	
b)	So you know where the PE insertion head is	
c)	To determine if there is enough pipe	
d)	To estimate the time left to complete the job	

Question 16		
When live inserting a main, the main has been flow stopped, what must be fitted to the section to be inserted?		
Possible answers		Answer
a)	A live head	
b)	A cap end	
c)	A gland box	
d)	A suitably restrained cap end	

Question 17		
Prior to insertion, the new PE main is subject to an integrity test of what pressure?		
Possible answers		Answer
a)	Not greater than 40 mbar	
b)	Not greater than 100 mbar	
c)	Not greater than 350 mbar	
d)	1.5 x Operating pressure	

Question 18		
Which of the following pipes would have the thickest pipe wall?		
Possible answers		Answer
a)	SDR26	
b)	SDR11	
c)	SDR21	
d)	SDR17.6	

<b>Question 19</b>		
When preparing to use a mole to lay a main, what should you do where the depth of utility plant cannot be verified?		
<b>Possible answers</b>		<b>Answer</b>
a)	Cable locate	
b)	Consult drawings	
c)	Dig trial holes to determine depths	
d)	Mark the position of identified plant	

<b>Question 20</b>		
Before drilling a connection from an under-pressure tee what activity must be carried out?		
<b>Possible answers</b>		<b>Answer</b>
a)	Let by test on the valve	
b)	Pressure test of the UPT	
c)	The UPT is tested with approved leak detection solution	
d)	Pressure test to the UPT and a let-by test to the valve	

<b>Question 21</b>		
What is used to provide temporary continuity of gas supplies during a flow stop operation?		
<b>Possible answers</b>		<b>Answer</b>
a)	A by-pass	
b)	A rider	
c)	A back rail	
d)	A feeder	

<b>Question 22</b>		
Single squeeze off can only be used on low pressure mains up to what diameter?		
<b>Possible answers</b>		<b>Answer</b>
a)	90mm	
b)	125mm	
c)	180mm	
d)	355mm	

<b>Question 23</b>		
What is the purpose of the vent installed between squeeze offs?		
<b>Possible answers</b>		<b>Answer</b>
a)	To confirm the squeeze off has sealed.	
b)	To release any trapped gas	
c)	To make sure the gas is at atmospheric pressure	
d)	To release any excess pressure	

<b>Question 24</b>		
What is the minimum test pressure of a low-pressure gas main?		
<b>Possible answers</b>		<b>Answer</b>
a)	75mbar	
b)	100mbar	
c)	250mbar	
d)	350mbar	

<b>Question 25</b>		
What is the maximum temperature stabilisation period for a Low Pressure 355mm gas main?		
<b>Possible answers</b>		<b>Answer</b>
a)	10 minutes	
b)	30 minutes	
c)	1 hour	
d)	2 hours	

<b>Question 26</b>		
What is the maximum permitted pressure loss of a low pressure main when using an electronic gauge?		
<b>Possible answers</b>		<b>Answer</b>
a)	1mbar	
b)	2mbar	
c)	3mbar	
d)	0mbar	

<b>Question 27</b>		
At what percentage above the test pressure should a pressure relief device operate when testing a low pressure main?		
<b>Possible answers</b>		<b>Answer</b>
a)	5%	
b)	10%	
c)	15%	
d)	20%	

<b>Question 28</b>		
What is the correct colour for a medium pressure test - standpipe?		
<b>Possible answers</b>		<b>Answer</b>
a)	Orange	
b)	Blue	
c)	Red	
d)	Yellow	

<b>Question 29</b>		
Under what circumstances are you not allowed to fuse PE tapping tees to a PE main?		
<b>Possible answers</b>		<b>Answer</b>
a)	When making a service connection	
b)	When preparing to commission a main	
c)	During a pressure test	
d)	When preparing to test a PE main	

<b>Question 30</b>		
On completion of a pressure test, why should the pressure be released from the extremity of the main?		
<b>Possible answers</b>		<b>Answer</b>
a)	To confirm the entire main was tested	
b)	To minimise noise at the test point	
c)	To allow the purge of gas in to the main	
d)	To clear any water or debris in the main	

<b>Question 31</b>		
You are setting up traffic control using a give and take system. Under which of the following parameters can this system be used?		
<b>Possible answers</b>		<b>Answer</b>
a)	Where the speed limit is 60mph or less	
b)	Where the maximum coned area length is 80m or less	
c)	Where the maximum traffic flow is 42 vehicles over 3 minutes	
d)	Where the speed limit is 30mph or less	

<b>Question 32</b>		
You arrive on site that already has a streetworks signing and barrier system in place, when must you check it for compliance with the red book		
<b>Possible answers</b>		<b>Answer</b>
a)	Never as it will be set out OK	
b)	From time to time throughout the day	
c)	When you arrive, before any work commences	
d)	As you leave the site	

<b>Question 33</b>		
Vehicles used on streetworks activities should have what?		
<b>Possible answers</b>		<b>Answer</b>
a)	Roof mounted flashing amber lights	
b)	Amber flashing lights	
c)	Chevron markings covering the whole rear of the vehicle	
d)	Rear chevron markings and roof mounted flashing amber lights	

<b>Question 34</b>		
When should plant avoidance equipment be used?		
<b>Possible answers</b>		<b>Answer</b>
a)	Once the excavation has started	
b)	Before any excavation work is undertaken	
c)	Only when there are visible signs of plant in the ground	
d)	On completion of the works on site	

<b>Question 35</b>		
Which of the following would be deemed a routine operation?		
<b>Possible answers</b>		<b>Answer</b>
a)	A new 90mm MP main	
b)	Testing and purging a 400mm LP main	
c)	90mm branch saddle connection to a 180mm LP main	
d)	25mm Connection from a 63mm main	

<b>Question 36</b>		
Which of the following statements is true about riders?		
<b>Possible answers</b>		<b>Answer</b>
a)	They are used to maintain supply	
b)	They are used for commissioning	
c)	They are used to purge out of	
d)	They are only used to pressurise mains	



<b>Question 37</b>		
Which of the following would be a non-routine operation?		
<b>Possible answers</b>		<b>Answer</b>
a)	90mm LP branch from a 415mm parent main	
b)	8" bag stop operation on an LP main	
c)	90mm branch from a 180mm MP main	
d)	Single squeeze off on a 63mm MP service	

<b>Question 38</b>		
When could asbestos be considered as safe?		
<b>Possible answers</b>		<b>Answer</b>
a)	When it is buried but damaged	
b)	When undamaged and in good condition	
c)	When a small amount is being removed	
d)	When exposed to atmosphere with minor damage	

<b>Question 39</b>		
What is the first principle of the Manual handling regulations?		
<b>Possible answers</b>		<b>Answer</b>
a)	Assess the load	
b)	Share the task with a colleague	
c)	Reduce the weight of the load	
d)	Avoid manual lifting where possible	

<b>Question 40</b>		
You are working in an excavation that is 3.5 metres deep. A full support system is in place, which of the following safety regulations will apply to the excavation?		
<b>Possible answers</b>		<b>Answer</b>
a)	Health Safety and Welfare Regulations	
b)	Pressure System Safety Regulations	
c)	Gas Safety Management Regulations	
d)	Working at Height Regulations	

<b>Question 41</b>		
Which of the following is True?		
<b>Possible answers</b>		<b>Answer</b>
a)	An individual's behaviour is a major contributory factor to safety	
b)	Hazardous substances are the most common causes of injury	
c)	PPE will protect individuals from any level of harm	
d)	The only potential harm from electricity is burns	

<b>Question 42</b>		
From what level onwards must breathing apparatus be worn?		
<b>Possible answers</b>		<b>Answer</b>
a)	10%LEL	
b)	15% LEL	
c)	20% LEL	
d)	25% LEL	

<b>Question 43</b>		
What colour and shape are COSHH symbols?		
<b>Possible answers</b>		<b>Answer</b>
a)	Square – Orange and Black	
b)	Round – Red border	
c)	Triangle - Yellow	
d)	Diamond - Red Border	

Question 44		
In the workplace, who is responsible for maintaining health and safety?		
Possible answers		Answer
a)	Employees	
b)	Employers	
c)	Everyone	
d)	The HSE	

Question 45		
Which of the following would require a permit to work?		
Possible answers		Answer
a)	Pressure testing a low pressure main	
b)	Working in the highway	
c)	Working in a deep excavation	
d)	All lifting operations	

Question 46		
The CDM regulations require persons working on gas pipelines to do what?		
Possible answers		Answer
a)	Notify all works to the HSE	
b)	Provide safety packs and instructions	
c)	Raise site specific risk assessments	
d)	Have permits to work	

Question 47		
Where a COSHH symbol is an exclamation mark! What does this indicate about the substance?		
Possible answers		Answer
a)	It is toxic	
b)	It is hazardous to the environment	
c)	It is a warning such as a skin irritant	
d)	It is corrosive	

<b>Question 48</b>		
What are the major contributing factors of HAVs?		
<b>Possible answers</b>		<b>Answer</b>
a)	The overall level of vibration	
b)	The magnitude of and exposure to vibration	
c)	The duration of exposure to vibration	
d)	Working in cold weather	

<b>Question 49</b>		
Which is the correct order for priority actions when dealing with a reported gas escape?		
<b>Possible answers</b>		<b>Answer</b>
a)	Safeguard life, safeguard property, locate and secure the escape, carry out final site investigation, report status of work	
b)	Locate and secure the escape, safeguard life, safeguard property, report status of work, carry out final site investigation	
c)	Safeguard life, safeguard property, locate and secure the escape, report status of work, carry out final site investigation	
d)	Report status of work, locate and secure the escape, safeguard life, safeguard property, carry out final site investigation	

Question 50		
What is the typical Oxygen low alarm level of a personal monitor?		
Possible answers		Answer
a)	19.5%	
b)	21%	
c)	20.5%	
d)	23%	

END OF QUESTIONS