

Sample Practice Assessment

Utilities Engineering Technician

Please write clearly in block capitals below	
Company name	
Forename (s)	
Last name (s)	
Date of birth	
Apprentice number	
Apprentice signature	
Date of knowledge test	

Level: 3

Standard: Utilities Engineering Technician

Pathway: Mechanical

Duration: 1 hour 30 minutes for 50 questions

Materials

For this paper you must have:

- Pens
- Scientific calculator (non-programmable)

Instructions

- Use black 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

Below is a 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 15 sample questions
- There will be 50 questions in the live knowledge assessment
- All questions should be attempted

Advice

- 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
- Cheating: you will be asked to leave the examination room and will be classified an automatic failure and referred to your employer

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

Question 1		
What type of safety sign is shown below?		
Possible answers	Answer	
a)	Mandatory	
b)	Warning	
c)	Prohibition	
d)	Emergency	

Question 2		
Which of the following is NOT one of the elements needed to start a fire?		
Possible answers	Answer	
a)	CO ₂ (Carbon Dioxide)	
b)	Fuel	
c)	Heat	
d)	Oxygen	

Question 3		
What is the first action that should be taken when assessing a potentially hazardous substance?		
Possible answers	Answer	
a)	Provide appropriate PPE (Personal and Protective Equipment)	
b)	Check the MSDS (Material Safety Data Sheet)	
c)	Check that there is space to store it safely	
d)	Conduct a risk assessment	

Question 4		
According to Health, Safety and Environment (HSE) guidelines which of the following controls is the least effective?		
Possible answers		Answer
a)	Elimination	
b)	Engineering	
c)	PPE	
d)	Substitution	

Question 5		
Which of the following activities must be completed before working in a confined space?		
Possible answers		Answer
a)	Ensure there is a safe system for working inside the space	
b)	Check the worker has the right qualification	
c)	Modify the confined space so entry is not necessary	
d)	Provide access and egress routes	

Question 6		
What is the purpose of a 'check valve'?		
Possible answers		Answer
a)	To regulate pressure in a piping system	
b)	To let fluids flow in one direction only	
c)	To relieve pressure in a system	
d)	To stop the flow of fluid to a specific location	

Question 7

Under which type of maintenance is vibration analysis carried out?

Possible answers		Answer
a)	Predictive maintenance	
b)	Breakdown maintenance	
c)	Shutdown maintenance	
d)	Condition-based maintenance	

Question 8


Two technicians are working on the same piece of equipment which is isolated using a padlock.

What safe isolation practice should be used?

Possible answers		Answer
a)	Give each technician a key to the padlock	
b)	Use a multi padlock isolation tool	
c)	Leave the key tied to the padlock	
d)	Apply a long-term isolation	

Question 9

What is the function of the tool shown below?

Possible answers		Answer
a)	To thread blind holes	
b)	To remove headless bolts and studs from threaded applications	
c)	To remove sharp edges from holes	
d)	To tighten headless bolts and studs into thread applications	

Question 11

What must be put in place first before undertaking any intrusive fault-finding activities?

Possible answers		Answer
a)	Isolations	
b)	Inhibits and overrides	
c)	Training and assessment	
d)	Safe system of work	

Question 11

What is this tool used to inspect?



Possible answers		Answer
a)	High vibrations	
b)	Enclosed spaces	
c)	Low temperatures	
d)	Live electrical power	

Question 12

In terms of psi (pound/square inch), what is 1bar is equivalent to?

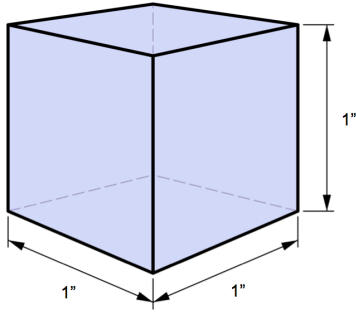
Possible answers		Answer
a)	1.47 psi	
b)	14.7 psi	
c)	147 psi	
d)	17.4 psi	

Question 13

What is the surface area of the cube in the image?

The length of each side is 1 inch.

Possible answers		Answer
a)	1 inch ²	
b)	6 inches ²	
c)	36 inches ²	
d)	4 inches ²	



Question 14

What is the SI (International System of Units) name for force?

Possible answers		Answer
a)	Hertz	
b)	PSI	
c)	Watts	
d)	Newton	

Question 15		
When seen on a flange, what does 150lb refer to?		
Possible answers		Answer
a)	Weight	
b)	Pressure rating	
c)	Cost code	
d)	Size	

End of Sample Practice Knowledge Assessment

Sample Practice Knowledge Assessment

Answer scheme

Question	Answer	Question	Answer
1	B	9	B
2	A	10	D
3	B	11	B
4	C	12	B
5	A	13	B
6	B	14	D
7	A	15	B
8	B		