

# MOET 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:** 3  
**Standard:** Maintenance and Operations Engineering Technician  
**Pathway:** Electromechanical Practice Assessment  
**Duration:** 45 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
- 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	<del>X</del>
b)	Scotland	
c)	Northern Ireland	
d)	England	X

### Information

- There are 30 questions in total
- All questions should be attempted

### Advice

- You are not permitted to leave the examination room for the duration of the assessment
- 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

(A) First principles relating to the operation and maintenance of appropriate plant and equipment (7 Questions)

Question 01		
On what type of installation would you fit this design of washer?		
Possible answers		Answer
a)	High corrosion	
b)	High temperature	
c)	High vibration	
d)	High pressure	

Question 02		
The maximum and/or minimum values that are permitted for specific maintenance operations are commonly described as:		
Possible answers		Answer
a)	Factors of safety	
b)	Rules of thumb	
c)	Margins	
d)	Tolerances	

<b>Question 03</b>		
Which statement is correct? Safety critical equipment should be maintained ....		
<b>Possible answers</b>		<b>Answer</b>
a)	safety critical equipment does not need testing	
b)	more frequently that non safety critical equipment	
c)	less frequently that non safety critical equipment	
d)	at the same period as safety non-critical equipment	

<b>Question 04</b>		
Which statement best describes what is meant by the terminology “specification”?		
<b>Possible answers</b>		<b>Answer</b>
a)	The capacity to endure continuous force	
b)	The standard when measured against another object of similar design	
c)	Detailed description of the design and materials of an object	
d)	The specified point beyond which certification is invalid	

<b>Question 05</b>		
What type of maintenance is applied when something stops working?		
<b>Possible answers</b>		<b>Answer</b>
a)	Planned	
b)	Preventative	
c)	Corrective	
d)	Shutdown	

**Question 06**

What do the initials IP followed by 2 numbers refer to when seen on a piece of equipment:

Possible answers		Answer
a)	Internal pressure	
b)	Integrity protection	
c)	Ingress protection	
d)	Increased pressure	

**Question 07**

Which of the following is commonly classed as safety critical?

Possible answers		Answer
a)	Control valve	
b)	Fuse	
c)	Steam trap	
d)	Drain valve	

**Question 08**

What does the coloured tag on a piece of rigging equipment mean?

Possible answers		Answer
a)	Certification period	
b)	Safe working load	
c)	Maximum working load	
d)	Safe to use	

### Question 09

When seen on site, what does a green safety sign signify?

Possible answers		Answer
a)	Mandatory	
b)	Prohibited	
c)	Information	
d)	Warning	

### Question 10

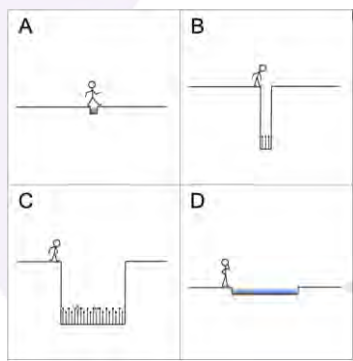
What document should be fixed to a scaffold before you use it?

Possible answers		Answer
a)	Risk assessment	
b)	Safety certificate	
c)	Approved Scafftag	
d)	Permit to work	

### Question 11

Looking at the image provided and taking into consideration risk, which task would you say is low probability and low in impact?

Possible answers		Answer
a)	A	
b)	B	
c)	C	
d)	D	





### Question 12

When personal protection equipment is identified on the work control document, which of the following statements is correct?

Possible answers		Answer
a)	PPE is recommended	
b)	PPE is advised	
c)	PPE is good practice	
d)	PPE is mandatory	

### Question 13

In accordance with HSE regulations, how would you know if a substance was regarded as hazardous?

Possible answers		Answer
a)	The container will be coloured red	
b)	It will be contained in a glass receptacle	
c)	It will have a label identifying the hazard	
d)	It will give off a strong odour	

**Question 14**

According to the Confined Space Regulations 1997, which of the following locations is not regarded as a confined space?

Possible answers		Answer
a)	Storage tank	
b)	Termination cabinet	
c)	Floor void	
d)	Pipe trench	

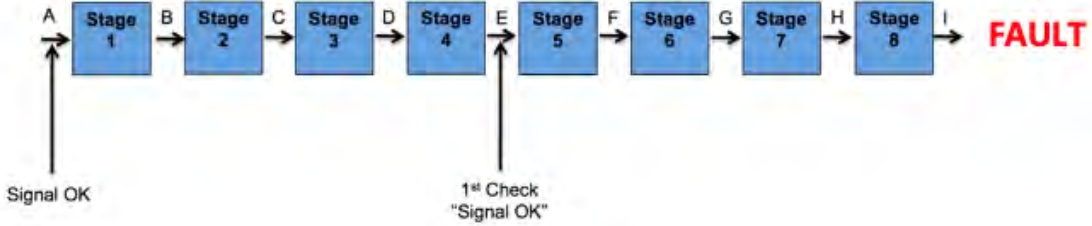
**Question 15**

In accordance with HSE guidelines, isolations can only be applied by ....

Possible answers		Answer
a)	Lead technicians	
b)	Training and authorised people	
c)	skilled people	
d)	experienced people	

Question 16		
Which of the following manual handling statements is true?		
Possible answers		Answer
a)	Correct manual handling prevents all accidents	
b)	Correct manual handling prevents damage to equipment	
c)	Correct manual handling reduces the risk of human injury	
d)	Correct manual handling should only be applied in the workplace	

**(C) Maintenance and operational practices, processes and procedures covering a range of plant and equipment (5 Questions)**

Question 17		
Using the half split principal and referring to the information provided in the image, at which position should you logically make the next check when fault finding?		
		
Possible answers		Answer
a)	Point C	
b)	Point F	
c)	Point G	
d)	Point I	

**Question 18**

What regulation provides guidance on the use of handheld tools?

Possible answers		Answer
a)	PUWER	
b)	COMAH	
c)	LOLER	
d)	COSHH	

**Question 19**

What is being measured in this image?



Possible answers		Answer
a)	Temperature	
b)	Vibration	
c)	Pressure	
d)	Speed	

**Question 20**

When seen on a British Standard convention drawing, what does this symbol represent?



Possible answers		Answer
a)	Electrical signal	
b)	Pneumatic line	
c)	Hydraulic line	
d)	Instrument signal	

**Question 21**

What type of maintenance can be applied to check the long-term performance of equipment to identify problems before they occur?

Possible answers		Answer
a)	Preventative maintenance	
b)	Risk based maintenance	
c)	Condition based maintenance	
d)	Corrective maintenance	

(D) The relevant engineering theories and principles relative to their occupation (9 Questions)

Question 22		
Which of the following is a <b>primary</b> unit in the SI system?		
Possible answers		Answer
a)	Force	
b)	Length	
c)	Power	
d)	Conductivity	

Question 23		
Which method or methods of heat transfer can occur in a vacuum?		
Possible answers		Answer
a)	Radiation	
b)	Convection and radiation	
c)	Convection and conduction	
d)	Conduction	

<b>Question 24</b>		
How do you calculate resultant force?		
<b>Possible answers</b>		<b>Answer</b>
a)	By averaging the forces that act upon on average	
b)	By adding together all the forces that act upon an object	
c)	By dividing the forces that act upon an object	
d)	By multiplying all the forces that act upon an object	

<b>Question 25</b>		
An electric drive motor on a conveyor belt is connected to a 110 V electrical supply. The power of the motor is 2.0kW. The most suitable fuse for the drive motor circuit is:		
<b>Possible answers</b>		<b>Answer</b>
a)	5 A	
b)	13 A	
c)	20 A	
d)	55 A	

### Question 26

The purpose of a commutator on an electric motor is to:

Possible answers		Answer
a)	Ensure easy brush replacement	
b)	Increase the resistance in the motor	
c)	Increase the current in the motor	
d)	Periodically reverse the current direction between the rotor and the external circuit	

### Question 27

The formula for calculating the kinetic energy of an object of mass **m** moving at a velocity of **v** is:

Possible answers		Answer
a)	$2 \times m \times v$	
b)	$0.5 \times m \times v^2$	
c)	$2 \times m \times v^2$	
d)	$0.5 \times m^2 \times v$	



Question 28		
A vehicle is moving at a constant velocity on a horizontal road. Which of the following is true?		
Possible answers		Answer
a)	The friction force is almost zero	
b)	The friction force is the same size as the driving force	
c)	The friction force is exactly zero	
d)	The friction force is less than the driving force	

Question 29		
A 20 mA current is flowing through a component of resistance 100 ohms. The voltage difference across the component is:		
Possible answers		Answer
a)	5 V	
b)	2 kV	
c)	5 mV	
d)	2 V	

Question 30		
The unit of electromotive force (EMF) is:		
Possible answers		Answer
a)	Newton	
b)	Joule	
c)	Amp	

d)	Volt	
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## End of Practice Assessment

## Answers

Question	Answer	Question	Answer
1	C	16	C
2	D	17	C
3	B	18	A
4	C	19	B
5	C	20	B
6	C	21	C
7	B	22	B
8	A	23	A
9	C	24	B
10	C	25	C
11	A	26	D
12	D	27	B
13	C	28	B
14	B	29	D
15	B	30	D