

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: Electrical Systems and Process Control
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	X
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

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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 what?		
Possible answers		Answer
a)	Factors of safety	
b)	Rules of thumb	
c)	Margins	
d)	Tolerances	

Question 03		
Which statement is correct? Safety critical equipment should be maintained		
Possible answers		Answer
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	

Question 04		
Which statement best describes what is meant by the terminology “specification”?		
Possible answers		Answer
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	

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

Question 06		
When seen on a piece of equipment, what do the initials IP followed by 2 numbers refer to?		
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	

(B) Relevant industry health and safety standards, regulations, and environmental and regulatory requirements (9 Questions)

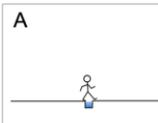
Question 08		
What does the coloured tag on a piece of rigging equipment mean?		
Possible answers		Answer
a)	Certification period	
b)	Safe working load	
c)	Maximum working load	
d)	Safe to use	

Question 09		
When seen on site, what does a green safety sign signify?		
Possible answers		Answer
a)	Mandatory	
b)	Prohibited	
c)	Information	
d)	Warning	

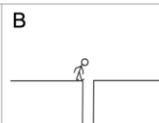
Question 10		
What document should be fixed to a scaffold before you use it?		
Possible answers		Answer
a)	Risk assessment	
b)	Safety certificate	
c)	Approved Scafftag	
d)	Permit to work	

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	

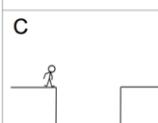
A



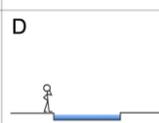
B



C



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	

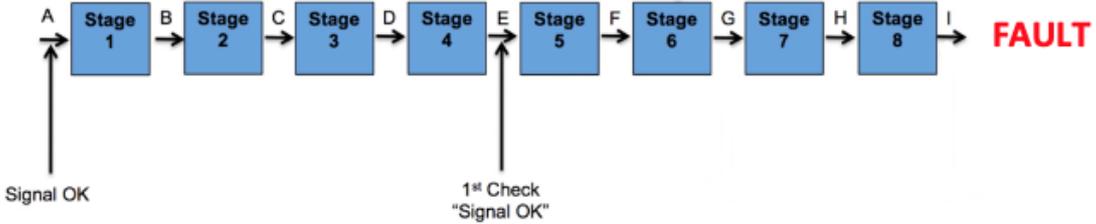
Question 13		
In accordance with HSE regulations , how would you know if a substance was regarded as hazardous?		
Possible answers		Answer
a)	The container will be coloured red	
b)	It will be contained in a glass receptacle	
c)	It will have a label identifying the hazard	
d)	It will give off a strong 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	

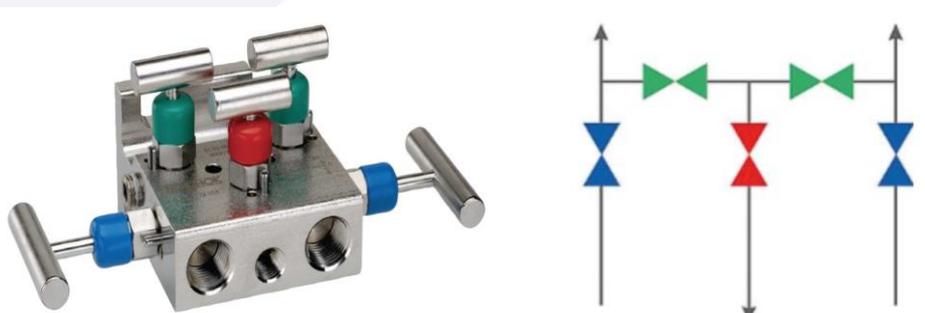
Question 21		
Ohms law can be expressed as ...		
Possible answers		Answer
a)	$V = I + R$	
b)	$V = I \div R$	
c)	$V = I \times R$	
d)	$V = I - R$	

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

Question 22		
<p>What type of sensing device is used on this flow installation?</p> 		
Possible answers		Answer
a)	RF probe	
b)	Orifice plate	
c)	Venturi tube	
d)	Turbine meter	

Question 23		
<p>What effect would a loose connection have on a Resistance Temperature Device temperature loop?</p>		
Possible answers		Answer
a)	Fluctuating signal	
b)	Low reading	
c)	Static signal	
d)	No effect	

Question 24		
Which of the following hazardous conditions would arise if a loose electrical connection existed on the terminal?		
Possible answers		Answer
a)	Decrease in temperature	
b)	Increase in corrosion	
c)	Increase in temperature	
d)	Increase in noise	

Question 25		
On this pressure manifold, what is the purpose of the red handle valve?		
		
Possible answers		Answer
a)	Isolating pressure to transmitter	
b)	Isolating mains pressure	
c)	Venting pressure	
d)	Equalising pressure	

Question 26		
A pressure transmitter with a range of 0-200 mbar and a feedback signal of 4-200mA is showing a feedback signal of 16mA. Assuming that the transmitter is calibrated correctly what is the actual line pressure?		
Possible answers		Answer
a)	100mbar	
b)	120mbar	
c)	150mbar	
d)	160mbar	

Question 27		
What is the name given to the process of routinely inspecting electrical appliances?		
Possible answers		Answer
a)	Resistance testing	
b)	PAT testing	
c)	Planned maintenance	
d)	Breakdown maintenance	

Question 28		
What does the third wire on a 3 wire Resistance Temperature Device do?		
Possible answers		Answer
a)	Acts as a spare wire	
b)	It is the power wire	
c)	Cancels out the resistance	
d)	It is the earth wire	

Question 29		
What is the normal output range of a pneumatic transmitter?		
Possible answers		Answer
a)	1 to 1.9 bar	
b)	0 to 15 bar	
c)	2 to 20 bar	
d)	0.2 to 1.0 bar	

Question 30		
Following maintenance on a distribution board, how should you re-instate the circuit?		
Possible answers		Answer
a)	By leaving all outgoing circuits on	
b)	Leave all outgoing circuits off until asked to re-instate them	
c)	By switching all outgoing circuits back on at the same time	
d)	By switching all outgoing circuits back on one at a time	

End of Practice Knowledge Assessment

MOET – Electrical Systems and Process Control Technician Practice Paper

Answer Scheme

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	C
10	C	25	C
11	A	26	C
12	D	27	B
13	C	28	C
14	B	29	D
15	B	30	D