

Skills Proficiency Certificate in Basic Electrical Engineering

Underpinning knowledge questions (3529-08-008)

Candidate record sheet

Candidate name (please print)

Knowledge requirements

The candidate was **able to correctly** answer ✓
the following questions:

The candidate was **unable to correctly** answer ✗
the following questions:

The candidate was **able to partially** answer P
the following questions:

Notes

Comments on responses given.
Minimum of **ten** questions correctly answered.

Question

✓, ✗ or P

Notes

1 What is the basic unit of measurement of the metric system?

2 What is the **most** common cause of accidents in the work place?

3 What action should be taken if the cable to an electrical power tool is found to be defective?

4 If a work colleague receives an electric shock and remains in contact with the source, what is the **first** action that should be taken?

5 State **two** safety precautions to be observed whilst drilling.

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Question	✓, X or P	Notes
6 If a small fire was to occur near to a high voltage electrical supply, what type of fire extinguisher should be used?		
7 What piece of electrical equipment converts ac into dc?		
8 What would be the result if the same poles of two permanent magnets were placed face to face to each other?		
9 What is the correct method of proving that a power supply is 'dead' at the point of working?		
10 Why should low pressure fluorescent lamps not be broken?		
11 Why are electrical installations earthed?		
12 What is the tool required for cutting a thread on steel conduit?		
13 What is the main property of a good insulator?		
14 What is the maximum distance between saddles for vertically running 25mm plastic conduit?		
15 State three methods of jointing and terminating cables.		

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Question	✓, ✗ or P	Notes
16 What is the correct method of checking that a circuit is safe to work on?		
17 What are the component parts of an electric cable?		
18 What is a wattmeter used to measure in a circuit?		
19 What is the purpose of earth bonding?		
20 What is the difference between a circuit breaker and a switch?		
21 What is meant by space factor as applied to trunking when containing cables?		
22 On three phase four wire supply systems, which is the highest voltage, line voltage or phase voltage?		
23 What is the colour code for a phase conductor of a fixed wiring cable?		
24 What is the colour code of the flex conductor in a flexible wiring cable?		
25 What application would use MIMS cable?		

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Question	✓, X or P	Notes
26 Where should PILCSWA cable be used?		
Additional comments:		

This is to confirm that the candidate has successfully demonstrated the required underpinning knowledge:

Candidate name (please print) and signature _____

Assessor name (please print) and signature _____

Verifier name (please print) and signature _____

Completion date _____

WP-96-2008