



CONNECT2COLLEGE

ELECTRICAL INSTALLATION PRE-ENROLMENT RESOURCE PACK

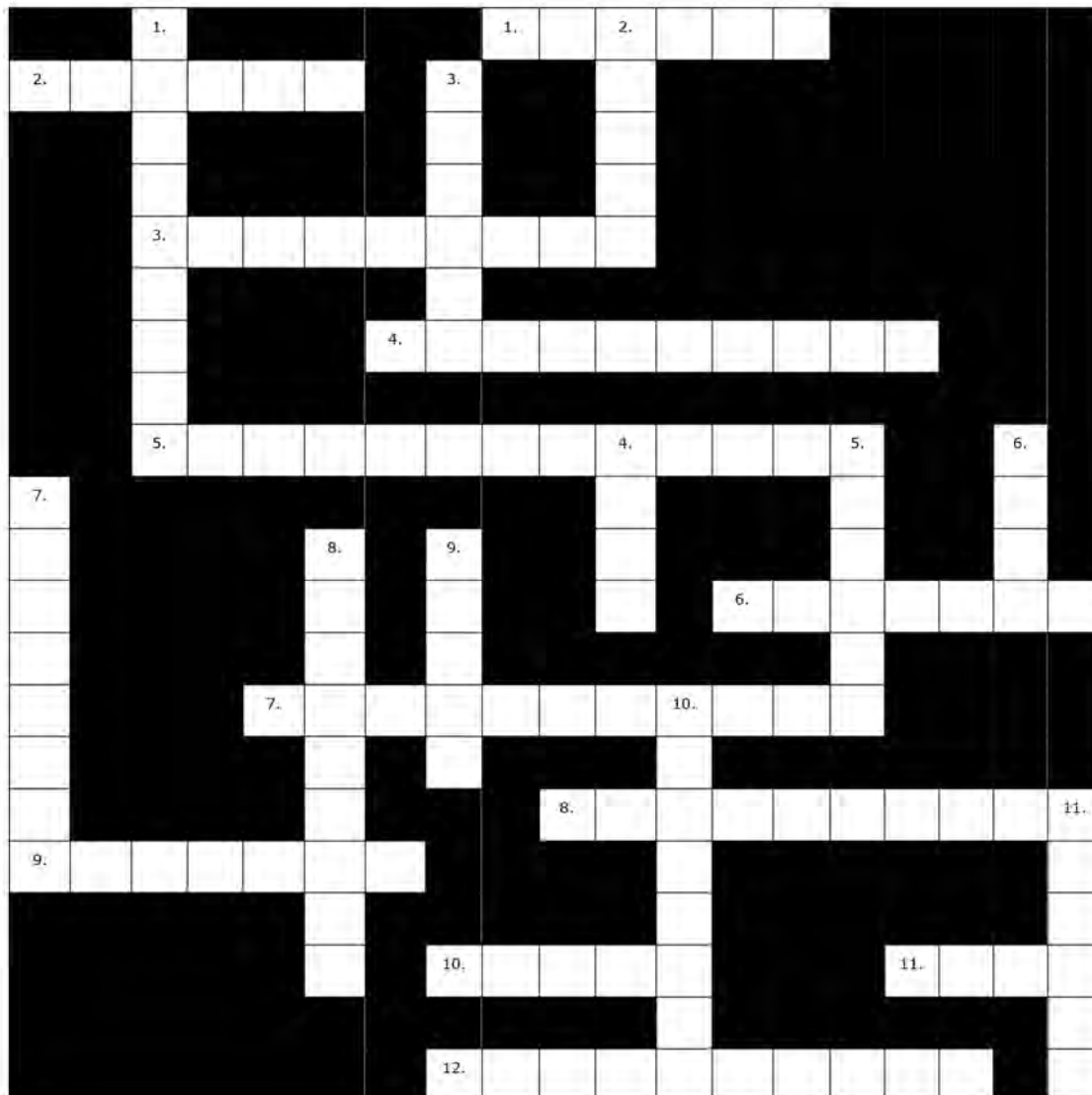


Preparing for College	
Electrical Installation Level 2	
Subjects	Revision material
Recommended Reading	Websites & on-line
<p>IET Students Guide to the IET wiring regulations (18th Edition, BS7671: 2018)</p> <p>IET Electrical Installations (The City & Guilds textbook), Level 2 Diploma (2365), Level 2 Technical Certificate (8202), Level 3 Apprenticeship (5357)</p>	<p>Swindon Massive – Good revision site complete with examples, information & revision papers</p> <p>GSH Electrical – Good revision site complete with examples, information & revision papers</p> <p>YouTube Videos – section 204 Practical revision</p> <p>With Student account: Moodle, MyDay (mobile), Microsoft Teams</p>
Materials required for course	Research
<p>2 x A4 binders Scientific calculator A4 paper pads Coloured pens and pencils</p>	<p>Understand the difference between Electrical Installation and Electrical Engineering?</p>
Tasks to complete	
<p>Look at what an electrical installation engineer’s role is. Write what it involves and what you need to be able to do to become a fully qualified electrician.</p> <p>See if you can identify the different electrical circuits of your own house?</p>	

Unit 105: Electrical installation wiring and terminations

Activity 2: Crossword (Learner)

Complete the crossword.



ACROSS

1. Into which a plug is inserted (6)
2. Protection for hands (6)
3. Cables connecting L1, L2 to L1, L2 (9)
4. The 'P' in CPC (10)
5. Removes insulation (13)
6. Cream for skin (7)
7. For cutting cables (4,7)
8. Connects cable to metal pipe (5,5)
9. Protect the eyes (7)
10. These protect the hands (6)
11. Neutral conductor cable (4)
12. PVC is this (10)

DOWN

1. Fixes into timber (9)
2. Secure cables to building fabric (5)
3. Metal used in cables (6)
4. 13A is one type (4)
5. To where tools are returned (6)
6. Device protects against overload (4)
7. Identifies cables (8)
8. The 'E' in PPE (9)
9. Terminals in two-way switch (5)
10. Into which a conductor is terminated (8)
11. Gripping and cutting tool (6)

Unit 105: Electrical installation wiring and terminations

Question sheet 1: True or false (Learner)

Indicate whether the following statements are true or false and provide additional explanation.

Number	Statement	True/False	Explanation
1	A one-way switch has three live terminals.		
2	A lighting circuit is normally wired in 1.5mm ² cable.		
3	A ceiling rose connects fixed wiring to the flex.		
4	A two-way switch has terminals marked C1, C2 and L.		
5	Lighting outlets are connected in parallel.		
6	The conductors that connect two-way switches together are called strappers.		
7	The bare CPC in twin + CPC cable when exposed should be covered in brown sleeving.		
8	Control of lights on a stairway will require two-way switching.		
9	A 20A circuit breaker can protect a lighting circuit.		
10	A polarity test proves that the circuit breaker is in the neutral.		
11	One-way and two-way controls can be connected in the same circuit.		
12	The centre terminal of a three-plate fitting is called the loop terminal.		

Score: _____ (out of 12) Name: _____ Group: _____ Date _____

Unit 105: Electrical installation wiring and terminations

Question sheet 2: True or false (Learner)

For the following statements indicate if they are true or false.

Number	Statement	True/False	Explanation
1	A multi-outlet radial circuit wired with 2.5mm ² conductors is supplied via a 30A fuse.		
2	A 32A radial circuit wired in 4mm ² flat twin + CPC cable. The maximum number of outlets is unlimited.		
3	An outlet can be single or twin.		
4	The maximum size fuse in a 13A plug is 12A.		
5	A fused spur outlet is not allowed on a radial circuit.		
6	Radial circuit cables do not need to be clipped in a roof space.		
7	Joints in cables can be made in joint boxes.		

8	Bare copper CPCs should be covered in green sleeving.		
9	13A sockets can be installed within 1 metre of a bath or shower.		
10	A 2kW hot plate can be supplied via a 13A socket.		
11	A 3A fuse is coloured black.		
12	A 20A radial circuit can supply an area up to 50m ² .		

Score: _____ (out of 12)

Name: _____

Group: _____

Date: _____

Unit 105: Electrical installation wiring and terminations

Question sheet 3: Multiple choice (Learner)

Attempt to answer all questions.

1. The statutory document dealing with Electrical installations is
 - a) IET Wiring Regulations BS 7671
 - b) Electricity at Work Regulations 1989
 - c) IET onsite guide
 - d) Union guide to electrical installations

2. Figure 1 is what type of notice?
 - a) Warning
 - b) Advisory
 - c) Mandatory
 - d) Prohibition

Fig. 1



3. The flex supplying an electric drill is damaged at the point of entry to the handle. The required action is:
 - a) carry on using it
 - b) tape it up
 - c) make a temporary joint
 - d) have it repaired and tested

4. What tool is shown in figure 2?

- a) side cutters
- b) pliers
- c) wirestrippers
- d) choppers

Fig. 2



5. The meter used for continuity testing is:

- a) an insulation resistance meter
- b) a continuity tester
- c) a low-resistance ohmmeter
- d) an approved voltage tester

6. The tool used for attaching a lug to a cable is:

- a) a pair of pliers
- b) a crimping tool
- c) side cutters
- d) a displacement tool

7. Checking the accuracy of a meter is known as:

- a) verification
- b) notification
- c) certification
- d) calibration

8. A screwdriver has become worn with use and slips out of the slotted screw head. The action to take is:

- a) use a larger screwdriver
- b) grind it back to original shape
- c) use emery cloth
- d) throw it away

9. A two-way switch can be identified because it has:
- a) two switches at the front
 - b) two terminals at the back
 - c) three terminals at the back
 - d) one switch at the front
10. In a one-way switch supplied by brown and blue conductors, both conductors should be coloured:
- a) blue
 - b) black
 - c) brown
 - d) beige
11. The item shown in figure 3 is a:
- a) double-pole switch
 - b) rewirable fuse board
 - c) consumer unit
 - d) fused outlet

Fig. 3



12. The component shown in figure 4 is:

- a) an earth terminal
- b) a protective device
- c) an earth rod
- d) an earth clamp

Fig. 4



13. Which device uses both thermal and magnetic sensing?

- a) an RCD
- b) a circuit breaker
- c) a fuse
- d) a relay

14. The fixing shown in figure 5 is:

- a) a rawl plug
- b) a togglebolt
- c) a plasterboard fixing
- d) an expansion bolt

Fig. 5



15. Fixing into wood requires the use of:

- a) a rawl plug
- b) a gravity toggle
- c) a woodnut
- d) a woodscrew

16. A diagram that shows electrical wiring connections is known as a:

- a) connection diagram
- b) schematic diagram
- c) circuit diagram
- d) wiring diagram

17. A lamp holder in which the lamp screws into the fitting is known as:

- a) bayonet cap
- b) bi-pin
- c) Edison screw
- d) co-axial

18. Which other test is effectively conducted as part of a continuity test on a one-way circuit?
- a) earth loop test
 - b) insulation resistance test
 - c) electrode test
 - d) polarity test
19. When terminating conductors the insulation should:
- a) go under the terminal screw
 - b) be stripped back 3mm outside the terminal
 - c) go up to the terminal edge
 - d) be doubled over
20. A socket box that fits directly into plasterboard is known as a:
- a) plaster depth box
 - b) dry lining box
 - c) flush box
 - d) knockout box