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| 23.1 - electrical installation methods in lighting circuits |
| Learner Name: | Date |
| **1. A two way switch has,** | Marks |
| a.  | 2 terminals |  |
| b.  | 3 terminals |  |
| c.  | 5 terminals |  |
| d.  | 4 terminals |  |
| **2. A domestic lighting circuit is protected by a fuse which typically has a rating of,** |  |
| a.  | 10A |  |
| b.  | 8A |  |
| c.  | 5A |  |
| d.  | 3A |  |
| **3. The most common insulation material used for a conductor in dwellings is,** |  |
| a.  |  polyvinylchloride |  |
| b.  |  rubber |  |
| c.  |  plastic |  |
| d.  |  bakelite |  |
| **4. PVC twin cables are supported by,** |  |
| a.  | clamps |  |
| b.  | saddles |  |
| c.  | cleats |  |
| d.  | clips |  |
| **5. Conductor insulation helps prevent,** |  |
| a.  | electric shock and faults |  |
| b.  | the build up of heat |  |
| c.  | eddy currents |  |
| d.  | friction |  |
| **6. The two most common cable conductors used today are copper and,** |  |
| a.  | tungsten |  |
| b.  | aluminium |  |
| c.  | tin |  |
| d.  | lead |  |
| **7. All hand tools must be,** |  |
| a.  | lubricated before use |  |
| b.  | painted before use |  |
| c.  | checked before use |  |
| d.  | cleaned before use  |  |
| **8. A 230 V lighting circuit which has metal switches must have,** |  |
| a.  | warning notices at switches  |  |
| b.  | a circuit protective conductor  |  |
| c.  | intermediate switches  |  |
| d.  | one way switches |  |
| **9. The power rating of electrical lamps is measured in,** |  |
| a.  | volts |  |
| b.  | amperes |  |
| c.  | joules |  |
| d.  | watts |  |
| **10. The assumed current demand of a lighting outlet is** |  |
| a.  | 60W |  |
| b.  | 80W |  |
| c.  | 100W |  |
| d.  | 120W |  |

**Termination exercise UPK**

You have now been attending college for three months gaining an understanding in the basic connections applied to lighting installations.

You started off by terminating flexible cable to connect lamp holders for lighting circuits, the hand tools that you used are insulated to 1000 Volts and must be checked before use for any damage.

The flexible cable that you used had conductors that are made of copper, today the other common material used for electrical conductors is aluminium because it is lightweight.

The outer sheath of the flexible cable is made from PVC as is the twin and earth cable that you have used on the wooden board & is wiring used for domestic dwellings, PVC is an abbreviation of Polyvinylchloride, this insulation is provided to prevent electric shock and faults & is therefore used on the.

When moving onto the board you supported the PVC twin cables in place with clips which had to be set out evenly.

There are a few things you should know about the lighting and the switching that you will or have added, the light switch will have a metal box as does the conduit box that you have attached the ceiling rose to, these are conductive therefore need to have a circuit protective conductor. The switch itself which controls the light (Switch’s it on and off) if it is a one way switch it has two terminals and a two way switch has three terminals. Domestic lighting circuits that are wired in twin and earth with PVC covering are protected by a 5A fuse, however nowadays the protective devices are MCB’s, (Miniature circuit breakers) these will be rated at 6A.

Lastly the common rating of the lighting used within a domestic circuit has an assumed current demand with a power rating of 100Watts for each lighting outlet, although you Can purchase lamps of different wattages, the lamp you will be using has a Wattage of 50Watts.