OCR 21st Century Science (2012 spec)

**Unit P5 a and b Statements**

Electric circuits

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | When two objects are rubbed together they become charged, because electrons … |  | The current is always the same no matter where you measure it  The voltage is shared amongst the components and adds up to the voltage across the battery |  |
| **2** | Objects with similar charges |  | The current splits up along each path  The voltage for each component is the same as the voltage across the battery |  |
| **3** | In an electric circuit the metal conductors (the components and wires) contain … |  | are transferred from one object to the other |  |
| **4** | In a series circuit … |  | The smaller the current will be |  |
| **5** | In a parallel circuit … |  | many charges that are free to move |  |
| **6** | The greater the resistance … |  | repel, and objects with opposite charges attract |  |
| **7** | When electric charge flows through a component (or device), work is done by |  | Two coils of wire called the primary and secondary coils |  |
| **8** | Power (in watts, W) is a measure of the rate at which an electrical power supply |  | the power supply, and energy is transferred from it to the component and/or its surroundings |  |
| **9** | Transformers are used to change the voltage of an alternating current, they consist of… |  | transfers energy to an appliance or device and/or its surroundings |  |
| **10** | The mains domestic supply in the UK |  | is 230 volts. |  |
| **11** | When the current is always in the same direction, |  | it is a direct current (d.c.), eg  the current from a battery |  |

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**Unit P5 a and b Statements**

Forces and energy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | When two objects are rubbed together they become charged, because electrons … |  | The current is always the same no matter where you measure it  The voltage is shared amongst the components and adds up to the voltage across the battery | 4 |
| **2** | Objects with similar charges |  | The current splits up along each path  The voltage for each component is the same as the voltage across the battery | 5 |
| **3** | In an electric circuit the metal conductors (the components and wires) contain … |  | are transferred from one object to the other | 1 |
| **4** | In a series circuit … |  | The smaller the current will be | 6 |
| **5** | In a parallel circuit … |  | many charges that are free to move | 3 |
| **6** | The greater the resistance … |  | repel, and objects with opposite charges attract | 2 |
| **7** | When electric charge flows through a component (or device), work is done by |  | Two coils of wire called the primary and secondary coils | 9 |
| **8** | Power (in watts, W) is a measure of the rate at which an electrical power supply |  | the power supply, and energy is transferred from it to the component and/or its surroundings | 7 |
| **9** | Transformers are used to change the voltage of an alternating current, they consist of… |  | transfers energy to an appliance or device and/or its surroundings | 8 |
| **10** | The mains domestic supply in the UK |  | is 230 volts. | 10 |
| **11** | When the current is always in the same direction, |  | it is a direct current (d.c.), eg  the current from a battery | 11 |