ENGLAND GCSE COMBINED SCIENCE OCR TWENTY FIRST CENTURY HIGHER · UNIT 15 · 10 QUESTIONS

Electric Circuits — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1 **Glass marbles are used to model atoms. What is a limitation of the model?**

A marbles cannot be counted accurately at all

B marbles are too small to see properly

C marbles are the wrong colour for atoms

D marbles are much bigger than atoms

Understand It with Pulse | Flag a mistake

2 **A thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A below normal
- B exactly normal
- C impossible to tell
- D above normal

Understand It with Pulse | Flag a mistake

3 **A component has a potential difference of 12 V across it and a current of 5 A through it. What is its resistance?**

- A 2.4 ohms
- B 1.2 ohms
- C 60 ohms
- D 4.8 ohms

Understand It with Pulse | Flag a mistake

4 **A lamp runs at 12 V with a current of 4 A. What is its power?**

- A 48 W
- B 24 W
- C 96 W
- D 58 W

Understand It with Pulse | Flag a mistake

5 **A calculator is switched on. What does the battery transfer energy to?**

- A the screen only
- B the case
- C the circuits
- D the buttons only

Understand It with Pulse | Flag a mistake

6 **Why does a motor need a magnetic field?**

- A the field charges the battery
- B the field makes the coil heavier
- C it pushes on the current
- D the field cools the coil

Understand It with Pulse | Flag a mistake

7 **A wristwatch is used to time a race. What is speed calculated from?**

- A distance only, not time
- B mass and time together
- C distance and time
- D time only, not distance

Understand It with Pulse | Flag a mistake

8 **A charged rod attracts small pieces of paper. Why?**

A the rod heats the paper

B paper is magnetic

C paper is always charged

D it induces a charge

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9 **A current of 2 A flows for 10 seconds. How much charge flows?**

A 40 C

B 30 C

C 10 C

D 20 C

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10 **What happens when two objects with the same charge are near each other?**

A they attract

B nothing happens

C they neutralise

D they repel

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. D
2. D
3. A
4. A
5. C
6. C
7. C
8. D
9. D
10. D

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