ENGLAND GCSE PHYSICS AQA HIGHER · UNIT 2 · 25 QUESTIONS

Electricity — 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 to let Brett know so he can fix it.

1 **A guitar amplifier is connected to the mains. What is the voltage of the mains supply in the UK?**

- A 230 V
- B 110 V
- C 50 V
- D 12 V

Understand It with Pulse | Flag a mistake

2 **A calculator uses a battery. What energy is stored in the battery?**

- A light energy from the Sun
- B chemical energy
- C kinetic energy of motion
- D thermal energy from heat

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3 **A wristwatch ticks every second. How many ticks in a minute?**

- A 60
- B 12
- C 100
- D 30

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4 **A tennis ball is hit across a court. Which force slows the ball down in the air?**

- A gravity
- B friction with the ground
- C air resistance
- D the hit

Understand It with Pulse | Flag a mistake

5 **A basketball is dropped. What energy store increases as it falls?**

- A thermal
- B elastic
- C kinetic
- D gravitational potential

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6 **Hardcover books are stacked on a table. What force pulls them down?**

- A friction
- B air resistance
- C tension
- D gravity

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7 **What does a thermistor do when its temperature rises?**

A its resistance falls

B its resistance rises

C it stops conducting at once

D its resistance stays the same

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8 **What happens when two objects with the same charge are brought together?**

A they repel each other

B they stick together

C nothing happens at all

D they attract each other

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9 **A resistor has a potential difference of 6 V across it and a resistance of 6 ohms. What is the current?**

- A 0.5 A
- B 2 A
- C 36 A
- D 1 A

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10 **Why does the National Grid use step-up transformers?**

- A to raise the current and cut the voltage
- B to raise the voltage and cut the current
- C to make more electricity
- D to change direct current to sound

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11 **What is an electric field?**

A the region inside a magnet

B where a charge feels a force

C the region where sound travels

D the region where light is blocked

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

A 12 C

B 40 C

C 20 C

D 10 C

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13 **A current of 3 A flows for 30 seconds. How much charge flows?**

- A 180 C
- B 90 C
- C 100 C
- D 45 C

Understand It with Pulse | Flag a mistake

14 **What happens when two objects with opposite charges are near each other?**

- A they attract
- B they repel
- C they neutralise
- D nothing happens

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15 **A device works at 230 V with a current of 3 A. What is its power?**

- A 1380 W
- B 690 W
- C 345 W
- D 700 W

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16 **A component has a potential difference of 20 V across it and a current of 2 A through it. What is its resistance?**

- A 10 ohms
- B 40 ohms
- C 20 ohms
- D 5 ohms

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17 **A lamp runs at 6 V with a current of 4 A. What is its power?**

- A 48 W
- B 24 W
- C 34 W
- D 12 W

Understand It with Pulse | Flag a mistake

18 **A diode is connected the wrong way round in a circuit. What current flows?**

- A current in the opposite direction only
- B almost none
- C the same current as before
- D a very large current

Understand It with Pulse | Flag a mistake

19 **A resistor has a potential difference of 12 V across it and a resistance of 2 ohms. What is the current?**

- A 24 A
- B 6 A
- C 12 A
- D 3 A

Understand It with Pulse | Flag a mistake

20 **Why are power cables hung high above the ground?**

- A to keep them cool
- B to make them look tidy
- C the voltage is dangerous
- D to stop birds landing on them

Understand It with Pulse | Flag a mistake

21 **A small positive charge is placed in an electric field. Which way does the force on it point?**

A at right angles to the field

B along the field lines

C there is no force on it

D against the field lines

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22 **A current of 5 A flows for 60 seconds. How much charge flows?**

A 300 C

B 150 C

C 65 C

D 600 C

Understand It with Pulse | Flag a mistake

23 **Two 4 ohm resistors are in series. What is the total resistance?**

- **A** 4 ohms
- **B** 8 ohms
- **C** 16 ohms
- **D** 2 ohms

Understand It with Pulse | Flag a mistake

24 **A current of 4 A flows for 60 seconds. How much charge flows?**

- **A** 240 C
- **B** 120 C
- **C** 480 C
- **D** 250 C

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25 **A device works at 6 V with a current of 2 A. What is its power?**

A 6 W

B 24 W

C 12 W

D 22 W

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	B	**19.**	B
2.	B	**11.**	B	**20.**	C
3.	A	**12.**	C	**21.**	B
4.	C	**13.**	B	**22.**	A
5.	C	**14.**	A	**23.**	B
6.	D	**15.**	B	**24.**	A
7.	A	**16.**	A	**25.**	C
8.	A	**17.**	B		
9.	D	**18.**	B		

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