ENGLAND GCSE PHYSICS OCR GATEWAY HIGHER · UNIT 3 · 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 wristwatch ticks every second. How many ticks in a minute?**

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

Understand It with Pulse | Flag a mistake

2 **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

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

5 **A basketball bounces. What type of energy is stored when the ball squashes?**

A kinetic

B thermal

C elastic potential

D gravitational potential

Understand It with Pulse | Flag a mistake

6 **A tennis ball bounces. What happens to its kinetic energy?**

A it becomes light energy

B some becomes heat

C it all stays kinetic energy

D it disappears completely

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

8 **A current of 4 A flows for 10 seconds. How much charge flows?**

- **A** 20 C
- **B** 80 C
- **C** 50 C
- **D** 40 C

Understand It with Pulse | Flag a mistake

9 **How does an antistatic mat stop a build-up of charge?**

A it insulates the worker

B it heats the charge away

C charge flows away

D it makes more charge

Understand It with Pulse | Flag a mistake

10 **What happens to the total resistance when resistors are added in series?**

A it increases

B it stays the same

C it becomes zero

D it decreases

Understand It with Pulse | Flag a mistake

11 **A device works at 230 V with a current of 5 A. What is its power?**

- **A** 1150 W
- **B** 575 W
- **C** 1160 W
- **D** 2300 W

Understand It with Pulse | Flag a mistake

12 **A current of 5 A flows for 10 seconds. How much charge flows?**

- **A** 15 C
- **B** 25 C
- **C** 100 C
- **D** 50 C

Understand It with Pulse | Flag a mistake

13 **For a fixed resistor at constant temperature, what is the current-voltage characteristic?**

A a straight line through zero

B a curve that flattens out

C a curve that rises steeply then stops

D a flat line at zero current

Understand It with Pulse | Flag a mistake

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

A they repel

B they attract

C nothing happens

D they neutralise

Understand It with Pulse | Flag a mistake

15 **What is the unit of resistance?**

A the watt

B the amp

C the volt

D the ohm

Understand It with Pulse | Flag a mistake

16 **What colour is the neutral wire in a plug?**

A red

B brown

C green and yellow

D blue

Understand It with Pulse | Flag a mistake

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

- A along the field lines
- B at right angles to the field
- C there is no force on it
- D against the field lines

Understand It with Pulse | Flag a mistake

18 **A component has a potential difference of 20 V across it and a current of 5 A through it. What is its resistance?**

- A 4 ohms
- B 2 ohms
- C 8 ohms
- D 100 ohms

Understand It with Pulse | Flag a mistake

19 **A resistor has a potential difference of 12 V across it and a resistance of 3 ohms. What is the current?**

- A 2 A
- B 4 A
- C 8 A
- D 36 A

Understand It with Pulse | Flag a mistake

20 **A lamp runs at 24 V with a current of 4 A. What is its power?**

- A 96 W
- B 48 W
- C 106 W
- D 192 W

Understand It with Pulse | Flag a mistake

21 **A current of 2 A flows for 20 seconds. How much charge flows?**

- **A** 80 C
- **B** 20 C
- **C** 50 C
- **D** 40 C

Understand It with Pulse | Flag a mistake

22 **Why can static electricity be dangerous when filling a fuel tanker?**

- **A** the fuel becomes magnetic
- **B** the fuel freezes
- **C** a spark could ignite it
- **D** the tanker becomes too heavy

Understand It with Pulse | Flag a mistake

23 **A device works at 6 V with a current of 5 A. What is its power?**

- A 60 W
- B 15 W
- C 30 W
- D 40 W

Understand It with Pulse | Flag a mistake

24 **A current of 2 A flows for 30 seconds. How much charge flows?**

- A 120 C
- B 30 C
- C 32 C
- D 60 C

Understand It with Pulse | Flag a mistake

25

What does a thermistor do when its temperature rises?

A its resistance falls

B its resistance stays the same

C its resistance rises

D it stops conducting at once

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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