ENGLAND GCSE PHYSICS EDEXCEL HIGHER · UNIT 10 · 25 QUESTIONS

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

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

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

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

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

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

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

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

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

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5 **A guitar string is tightened. What happens to the pitch?**

- A it disappears
- B it rises
- C it falls
- D it stays the same

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

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

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7 **A device works at 6 V with a current of 3 A. What is its power?**

- A 9 W
- B 28 W
- C 18 W
- D 36 W

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8 **What is the unit of current?**

- A the watt
- B the ohm
- C the amp
- D the volt

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9 **A lamp runs at 6 V with a current of 2 A. What is its power?**

- A 22 W
- B 24 W
- C 12 W
- D 6 W

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10 **A current of 4 A flows for 30 seconds. How much charge flows?**

- A 240 C
- B 130 C
- C 120 C
- D 60 C

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

- **A** it decreases
- **B** it stays the same
- **C** it becomes zero
- **D** it increases

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12 **A resistor has a potential difference of 24 V across it and a resistance of 3 ohms. What is the current?**

- **A** 8 A
- **B** 16 A
- **C** 72 A
- **D** 4 A

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13 **A component has a potential difference of 6 V across it and a current of 4 A through it. What is its resistance?**

- A 0.75 ohms
- B 3 ohms
- C 1.5 ohms
- D 24 ohms

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14 **A current of 3 A flows for 60 seconds. How much charge flows?**

- A 63 C
- B 360 C
- C 180 C
- D 90 C

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

- **A** its resistance stays the same
- **B** it stops conducting at once
- **C** its resistance falls
- **D** its resistance rises

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

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

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17 **A lamp runs at 12 V with a current of 3 A. What is its power?**

- A 46 W
- B 18 W
- C 36 W
- D 72 W

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18 **A current of 2 A flows for 60 seconds. How much charge flows?**

- A 240 C
- B 130 C
- C 120 C
- D 60 C

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19 **A resistor has a potential difference of 6 V across it and a resistance of 2 ohms. What is the current?**

- A 3 A
- B 12 A
- C 1.5 A
- D 6 A

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20 **A current of 5 A flows for 20 seconds. How much charge flows?**

- A 25 C
- B 100 C
- C 50 C
- D 200 C

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21 **Why does the resistance of a filament lamp increase as the current increases?**

- **A** the filament gets longer
- **B** the filament gets hotter
- **C** the filament melts away
- **D** the filament gets colder

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22 **A device works at 12 V with a current of 2 A. What is its power?**

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

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23 What is the frequency of UK mains electricity?

- **A** 100 Hz
- **B** 50 Hz
- **C** 60 Hz
- **D** 230 Hz

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

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

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25

What happens to the total resistance when resistors are added in parallel?

A it increases

B it decreases

C it becomes zero

D it stays the same

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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