ENGLAND GCSE PHYSICS EDEXCEL FOUNDATION · 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 guitar is plugged into an amplifier. What flows through the cable?**

- A electric current
- B water
- C light
- D sound waves travelling along it

Understand It with Pulse | Flag a mistake

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

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

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

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

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

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

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5 **A wristwatch measures time. What is the unit of time?**

- A the day
- B the second
- C the hour
- D the minute

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6 **Hardcover books are dropped. What happens to their speed as they fall?**

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

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

- A 480 C
- B 240 C
- C 64 C
- D 120 C

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8 **A lamp runs at 24 V with a current of 2 A. What is its power?**

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

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

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

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

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

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11 **A component has a potential difference of 10 V across it and a current of 5 A through it. What is its resistance?**

- A 2 ohms
- B 50 ohms
- C 1 ohms
- D 4 ohms

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12 **What does an ammeter measure?**

- A resistance
- B power
- C voltage
- D current

Understand It with Pulse | Flag a mistake

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

- A 100 C
- B 110 C
- C 200 C
- D 50 C

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

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

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15 A current of 3 A flows for 10 seconds. How much charge flows?

- A 15 C
- B 30 C
- C 13 C
- D 60 C

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16 A lamp runs at 12 V with a current of 5 A. What is its power?

- A 60 W
- B 70 W
- C 30 W
- D 120 W

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17 **A device works at 12 V with a current of 5 A. What is its power?**

- A 120 W
- B 30 W
- C 60 W
- D 70 W

Understand It with Pulse | Flag a mistake

18 **A resistor has a potential difference of 12 V across it and a resistance of 6 ohms. What is the current?**

- A 4 A
- B 72 A
- C 2 A
- D 1 A

Understand It with Pulse | Flag a mistake

19 **A component has a potential difference of 10 V across it and a current of 4 A through it. What is its resistance?**

- A 1.25 ohms
- B 2.5 ohms
- C 5 ohms
- D 40 ohms

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

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

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

- A 310 C
- B 300 C
- C 150 C
- D 600 C

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

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

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

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

Understand It with Pulse | Flag a mistake

24 **A current of 5 A flows for 30 seconds. How much charge flows?**

- **A** 75 C
- **B** 35 C
- **C** 300 C
- **D** 150 C

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25

A lamp runs at 24 V with a current of 3 A. What is its power?

A 82 W

B 144 W

C 36 W

D 72 W

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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