ENGLAND GCSE COMBINED SCIENCE EDEXCEL FOUNDATION · UNIT 25 · 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 so it can be fixed.

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

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

Understand It with Pulse | Flag a mistake

2 **A tennis ball is served fast. What is its speed like?**

- A low
- B high
- C zero
- D negative

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

A the hour

B the second

C the minute

D the day

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

A kinetic energy of motion

B thermal energy from heat

C chemical energy

D light energy from the Sun

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

A it becomes zero

B it decreases

C it increases

D it stays the same

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

A thermal

B gravitational potential

C kinetic

D elastic

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

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

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

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

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

A a flat line at zero current

B a curve that rises steeply then stops

C a curve that flattens out

D a straight line through zero

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10 **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 8 A

C 4 A

D 36 A

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11 **What is the same everywhere in a series circuit?**

- A the resistance
- B the power
- C the current
- D the potential difference

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

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

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

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

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14 **What is electric current?**

- A the flow of heat
- B the flow of electrons only
- C the flow of energy
- D the flow of charge

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15 **A component has a potential difference of 12 V across it and a current of 4 A through it. What is its resistance?**

- A 1.5 ohms
- B 48 ohms
- C 3 ohms
- D 6 ohms

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

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

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

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

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18 **A resistor has a potential difference of 6 V across it and a resistance of 4 ohms. What is the current?**

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

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

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

Understand It with Pulse | Flag a mistake

20 **A device works at 230 V with a current of 2 A. What is its power?**

- A 230 W
- B 460 W
- C 470 W
- D 920 W

Understand It with Pulse | Flag a mistake

21 **A component has a potential difference of 12 V across it and a current of 2 A through it. What is its resistance?**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

24 **A resistor has a potential difference of 6 V across it and a resistance of 3 ohms. What is the current?**

- **A** 4 A
- **B** 18 A
- **C** 2 A
- **D** 1 A

Understand It with Pulse | Flag a mistake

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

A it decreases

B it becomes zero

C it stays the same

D it increases

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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