QUEBEC APPLIED SCIENCE AND TECHNOLOGY, SECONDARY IV · UNIT B

Material World - Chemical Changes, Electricity and Energy — Practice Test

Quebec Applied Science and Technology, Secondary IV • 25 questions

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 current of 3 amperes flows through a resistor of 6 ohms. The voltage, in volts, is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **A force of 100 newtons acts on an area of 5 m². The pressure, in pascals, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A device uses 24 volts and draws 3 amperes. Its power, in watts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **An object moves at constant speed 20 metres per second for 5 seconds. The distance travelled, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A force can change the speed or the direction of an object or its**



A colour

B mass

C shape

D temperature

Understand It with Pulse | Flag a mistake

6 **A lamp of power 60 watts runs for 10 seconds. The energy transformed, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A live wire produces a magnetic field whose strength decreases with**

A wire colour

B wire length only

C distance from the wire

D air temperature

Understand It with Pulse | Flag a mistake

8 **A material that allows electric current to pass is a**

A conductor

B insulator

C magnet

D lens

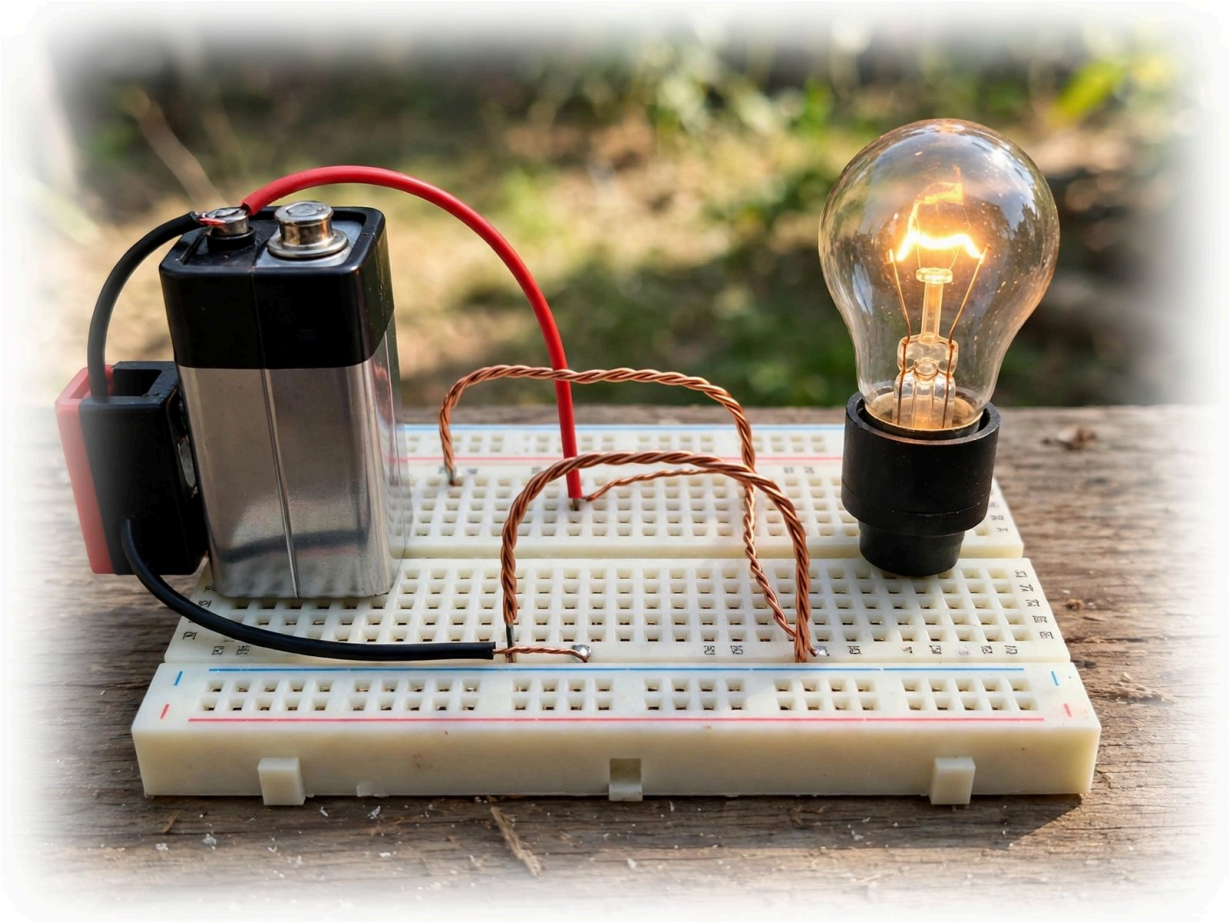
Understand It with Pulse | Flag a mistake

9 **A motor of power 500 watts runs for 4 seconds. The energy transformed, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **An electric circuit needs a power supply, conductors and a**



A load

B magnet

C glacier

D lens

Understand It with Pulse | Flag a mistake

11 **Archimedes principle states that the buoyant force equals the weight of the**

A whole container

B object itself

C air above

D displaced fluid

Understand It with Pulse | Flag a mistake

12 **At constant speed the distance travelled equals speed multiplied by**

A mass

B time

C force

D area

Understand It with Pulse | Flag a mistake

13 **Bernoulli principle states that faster moving fluid has**

A higher pressure

B lower pressure

C no pressure

D frozen pressure

Understand It with Pulse | Flag a mistake

14 **Combustion is a chemical change that releases**

A heat and light

B cold and darkness

C water only

D salt only

Understand It with Pulse | Flag a mistake

15 **Electromagnetism links electricity and**



A gravity

B magnetism

C heat only

D light only

Understand It with Pulse | Flag a mistake

16 **Energy efficiency compares useful energy output with total energy**

A colour

B mass

C time

D input

Understand It with Pulse | Flag a mistake

17 **Mass measures the amount of matter while weight measures the force of**

A gravity on that mass

B air on that mass

C light on that mass

D water on that mass

Understand It with Pulse | Flag a mistake

18 **Oxidation is a chemical change involving the addition of**

A nitrogen

B oxygen

C salt

D water

Understand It with Pulse | Flag a mistake

19 **Pascal principle states that pressure applied to a confined fluid is transmitted**

A equally in all directions

B only downward

C only upward

D only sideways

Understand It with Pulse | Flag a mistake

20 **A current of 2 amperes flows through a resistor of 9 ohms. The voltage, in volts, is**



ANSWER

Understand It with Pulse | Flag a mistake

21 **A force of 120 newtons acts on an area of 4 m². The pressure, in pascals, is**

ANSWER

Understand It with Pulse | Flag a mistake

22 **A device uses 15 volts and draws 5 amperes. Its power, in watts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **An object moves at constant speed 15 metres per second for 4 seconds. The distance travelled, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A current of 5 amperes flows through a resistor of 4 ohms. The voltage, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A force of 90 newtons acts on an area of 3 m². The pressure, in pascals, is**



ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	18	**10.**	A	**19.**	A
2.	20	**11.**	D	**20.**	18
3.	72	**12.**	B	**21.**	30
4.	100	**13.**	B	**22.**	75
5.	C	**14.**	A	**23.**	60
6.	600	**15.**	B	**24.**	20
7.	C	**16.**	D	**25.**	30
8.	A	**17.**	A		
9.	2000	**18.**	B		

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