ENGLAND GCSE COMBINED SCIENCE EDEXCEL HIGHER · UNIT 26 · 25 QUESTIONS

Magnetism and the Motor Effect — 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 passenger aeroplane flies at a steady speed and height. What is the resultant force on the aeroplane?**

- **A** 5000 N
- **B** 1000 N
- **C** 0 N
- **D** 10000 N

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

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

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3 **A calculator runs on a small current. What is current measured in?**

- A watts, the unit of power
- B amperes
- C volts, the unit of voltage
- D ohms, the unit of resistance

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4 **Hardcover books have mass. What is mass measured in?**

A kilograms

B joules

C watts

D newtons, the unit of force

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5 **A passenger train travels at a steady speed. What is its acceleration?**

A 1 m/s²

B 0 m/s²

C 9.8 m/s²

D 10 m/s²

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6 **A yellow school bus is full of children. What is its mass like?**

- **A** smaller than when empty
- **B** larger than when empty
- **C** zero
- **D** the same as when empty

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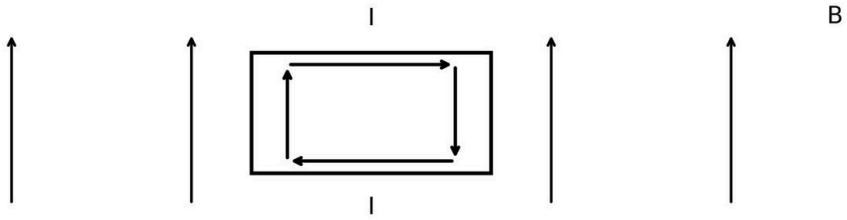
7 **The diagram shows a coil in a magnetic field with a current through it. What happens to the coil?**



- **A** it moves sideways
- **B** it turns
- **C** it heats up
- **D** it stays still

Understand It with Pulse | Flag a mistake

8 **How can the force on a wire be increased?**

A by increasing the current

B by using a weaker magnetic field

C by using a shorter length of wire

D by switching the current off

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9 **What does a solenoid with an iron core become?**

A a generator making electricity

B a permanent magnet made of steel

C a motor that spins around

D an electromagnet

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10 **What is inside an electromagnet to make it stronger?**

A an iron core

B a wooden core

C a copper core

D an air core

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11 **Which metals are magnetic?**

A copper, zinc and aluminium

B lead, tin and aluminium

C iron, nickel and cobalt

D aluminium, copper and lead

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12 **What is an electromagnet used for in a scrapyard?**

A lifting scrap aluminium and copper

B lifting scrap iron

C melting scrap metal for recycling

D cutting scrap metal into pieces

Understand It with Pulse | Flag a mistake

13 **What happens when a north pole and a south pole are brought together?**

A they repel

B nothing happens

C they attract

D they neutralise

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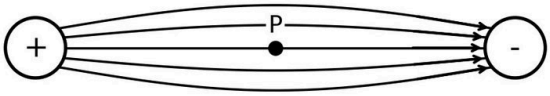
14 **The diagram shows the electric field around two charges. In which direction do the field lines go?**



- **A** in circles
- **B** from negative to positive
- **C** from positive to negative
- **D** they do not have a direction

Understand It with Pulse | Flag a mistake

15 **What does Fleming's left-hand rule give?**

- **A** the size of the current
- **B** the direction of a field line
- **C** the strength of a magnet
- **D** the force direction

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16 **Why does a motor need a magnetic field?**

- A the field charges the battery
- B the field makes the coil heavier
- C it pushes on the current
- D the field cools the coil

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17 **Where is the field strongest in a solenoid?**

- A inside the coil
- B outside the coil, far away
- C in the middle of the wire
- D at the ends of the wire only

Understand It with Pulse | Flag a mistake

18 **In Fleming's left-hand rule, what does the thumb show?**

A the field

B the motion

C the current

D the force

Understand It with Pulse | Flag a mistake

19 **Which poles attract each other?**

A south and south, which are the same

B north and north, which are the same

C north and south

D no poles attract each other at all

Understand It with Pulse | Flag a mistake

20 **How can the strength of an electromagnet be increased?**

A by increasing the current

B by using fewer turns on the coil

C by using a steel core instead of iron

D by switching the current off

Understand It with Pulse | Flag a mistake

21 **Which of these is a magnetic material?**

A wood

B copper

C iron

D aluminium

Understand It with Pulse | Flag a mistake

22 **What is the motor effect?**

A a force on a magnet with no current

B a force on a current in a field

C a force that only works in space

D a force on a wire with no field

Understand It with Pulse | Flag a mistake

23 **Which of these is NOT a magnetic material?**

A nickel

B cobalt

C copper

D iron

Understand It with Pulse | Flag a mistake

24 **What does the motor effect need?**

A a current with no magnet

B current in a field

C a magnet with no current

D a battery with no wire

Understand It with Pulse | Flag a mistake

25 **How can the field of a solenoid be made stronger?**

A by using a steel core instead of iron

B by switching the current off

C by using fewer turns on the coil

D by increasing the current

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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