ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY HIGHER · UNIT 24 · 25 QUESTIONS

Magnetism and Electromagnetism — 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 train carries people around the country. Which part of the blood is like the train, carrying oxygen around the body?**

A plasma

B red blood cells

C platelets

D white blood cells

Understand It with Pulse | Flag a mistake

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

A the case

B the circuits

C the screen only

D the buttons only

Understand It with Pulse | Flag a mistake

3 **A passenger aeroplane flies at a steady speed and height. What is the resultant force on the aeroplane?**

A 5000 N

B 10000 N

C 0 N

D 1000 N

Understand It with Pulse | Flag a mistake

4 **A guitar string vibrates to make a sound. What type of wave is the sound wave?**

- A transverse
- B longitudinal
- C electromagnetic
- D standing

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5 **A yellow school bus carries children to school. Which blood vessel carries blood away from the heart, like a bus leaving the station?**

- A a capillary
- B an artery
- C a ventricle
- D a vein

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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 **The force on a wire in a magnetic field is 4 N. If the current doubles, what is the new force?**

- A 2 N
- B 12 N
- C 8 N
- D 4 N

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

A nothing happens

B they neutralise

C they repel

D they attract

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9 **A transformer has a primary voltage of 240 V. The number of turns on the secondary coil is 10 times smaller than on the primary coil. What is the secondary voltage?**

A 24 V

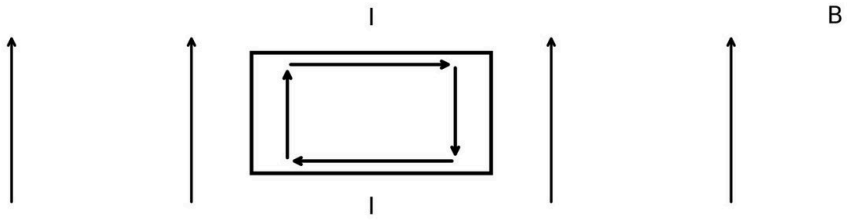
B 2400 V

C 250 V

D 48 V

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



A it stays still

B it moves sideways

C it turns

D it heats up

Understand It with Pulse | Flag a mistake

11 **A generator coil turns 5 times per second. How many turns is that in one minute?**

- A 360
- B 600
- C 240
- D 300

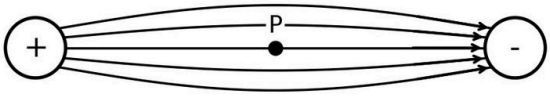
Understand It with Pulse | Flag a mistake

12 **A transformer has 200 turns on the primary coil and 10 turns on the secondary coil. What is the turns ratio?**

- A 40
- B 20
- C 21
- D 19

Understand It with Pulse | Flag a mistake

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



A they do not have a direction

B in circles

C from negative to positive

D from positive to negative

Understand It with Pulse | Flag a mistake

14 **The force on a wire in a magnetic field is 2 N. If the current doubles, what is the new force?**

- A 1 N
- B 2 N
- C 4 N
- D 6 N

Understand It with Pulse | Flag a mistake

15 **What is a permanent magnet?**

- A a magnet made of iron only
- B a magnet that stays magnetic
- C a magnet that can be switched off
- D a magnet that is very strong

Understand It with Pulse | Flag a mistake

16 **A transformer has a primary voltage of 230 V. The number of turns on the secondary coil is 2 times smaller than on the primary coil. What is the secondary voltage?**

- A 240 V
- B 115 V
- C 460 V
- D 230 V

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

- A an iron core
- B a wooden core
- C an air core
- D a copper core

Understand It with Pulse | Flag a mistake

18 **A generator coil turns 10 times per second. How many turns is that in one minute?**

- A 600
- B 1200
- C 540
- D 660

Understand It with Pulse | Flag a mistake

19 **A transformer has 100 turns on the primary coil and 10 turns on the secondary coil. What is the turns ratio?**

- A 9
- B 20
- C 10
- D 11

Understand It with Pulse | Flag a mistake

20 **The force on a wire in a magnetic field is 6 N. If the current doubles, what is the new force?**

- A 18 N
- B 3 N
- C 12 N
- D 6 N

Understand It with Pulse | Flag a mistake

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

- A a shorter wire
- B a smaller current
- C a weaker field
- D a larger current

Understand It with Pulse | Flag a mistake

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

A iron

B aluminium

C copper

D wood

Understand It with Pulse | Flag a mistake

23 **A generator coil turns 2 times per second. How many turns is that in one minute?**

A 60

B 120

C 180

D 240

Understand It with Pulse | Flag a mistake

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

- A the current
- B the field
- C the force
- D the motion

Understand It with Pulse | Flag a mistake

25 **A transformer has a primary voltage of 240 V. The number of turns on the secondary coil is 2 times smaller than on the primary coil. What is the secondary voltage?**

- A 480 V
- B 240 V
- C 250 V
- D 120 V

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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