ENGLAND GCSE PHYSICS EDEXCEL FOUNDATION · UNIT 13 · 25 QUESTIONS

Electromagnetic Induction — 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 **Hardcover books are stacked on a table. What force pulls them down?**

- A gravity
- B friction
- C tension
- D air resistance

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

3 **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 a vein
- C an artery
- D a ventricle

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

5 **A wristwatch is used to time a race. What is speed calculated from?**

- A mass and time together
- B distance only, not time
- C distance and time
- D time only, not distance

Understand It with Pulse | Flag a mistake

6 **A passenger train carries people around the country. Which part of the blood is like the train, carrying oxygen around the body?**

- A white blood cells
- B red blood cells
- C platelets
- D plasma

Understand It with Pulse | Flag a mistake

7 **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 120 V
- B 240 V
- C 250 V
- D 480 V

Understand It with Pulse | Flag a mistake

8 **What does a generator do?**

- A turns electricity into movement
- B turns movement into electricity
- C makes a magnet
- D stores electricity

Understand It with Pulse | Flag a mistake

9 **What is the voltage of mains electricity in homes in the UK?**

- A 12 V
- B 230 V
- C 110 V
- D 400 V

Understand It with Pulse | Flag a mistake

10 **Why does a bicycle dynamo light get brighter when the cyclist pedals faster?**

- A the bulb gets hotter
- B the coil turns faster
- C the magnet gets stronger
- D the wires get shorter

Understand It with Pulse | Flag a mistake

11 **A transformer has a primary voltage of 240 V. The secondary coil has 5 times fewer turns than the primary coil. What is the secondary voltage?**

- A 1200 V
- B 48 V
- C 96 V
- D 250 V

Understand It with Pulse | Flag a mistake

12 **A magnet is moved into a coil. What is induced in the coil?**

- A heat only
- B a potential
- C a new magnet
- D sound

Understand It with Pulse | Flag a mistake

13 **How does a loudspeaker work?**

- A the cone vibrates the magnet
- B current moves a coil in a field
- C a magnet makes sound on its own, with no coil
- D a battery makes the cone hot

Understand It with Pulse | Flag a mistake

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

- A 60
- B 120
- C 240
- D 180

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

17 **A transformer has a primary voltage of 230 V. The number of turns on the secondary coil is 5 times smaller than on the primary coil. What is the secondary voltage?**

- A 46 V
- B 92 V
- C 240 V
- D 1150 V

Understand It with Pulse | Flag a mistake

18 **Why does the National Grid use step-up transformers?**

- A to make more electricity
- B to raise the voltage and cut the current
- C to change direct current to sound
- D to raise the current and cut the voltage

Understand It with Pulse | Flag a mistake

19 **What happens to the induced potential if the coil turns faster?**

A it becomes direct

B it decreases

C it stays the same

D it increases

Understand It with Pulse | Flag a mistake

20 **A transformer has a primary voltage of 230 V. The secondary coil has 10 times fewer turns than the primary coil. What is the secondary voltage?**

A 240 V

B 23 V

C 2300 V

D 46 V

Understand It with Pulse | Flag a mistake

21 **How can more potential be induced in a coil?**

A move the magnet slower, gently

B use fewer turns

C hold the magnet still

D move it faster, more turns

Understand It with Pulse | Flag a mistake

22 **How does a microphone work?**

A sound makes a magnet stronger and bigger

B sound moves a coil in a field

C sound heats a coil

D sound charges a battery

Understand It with Pulse | Flag a mistake

23 **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

24 **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

25 **A transformer has a primary voltage of 240 V. The number of turns on the secondary coil is 5 times smaller than on the primary coil. What is the secondary voltage?**

- A 250 V
- B 1200 V
- C 96 V
- D 48 V

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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