ENGLAND GCSE PHYSICS EDEXCEL HIGHER · 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 **A calculator runs on a small current. What is current measured in?**

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

Understand It with Pulse | Flag a mistake

2 **A guitar is plugged into an amplifier. What flows through the cable?**

- A water
- B sound waves travelling along it
- C electric current
- D light

Understand It with Pulse | Flag a mistake

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

- A 0 m/s²
- B 10 m/s²
- C 1 m/s²
- D 9.8 m/s²

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4 **A yellow school bus stops at a station. What happens to its speed?**

- A it becomes negative
- B it stays the same
- C it becomes zero
- D it increases

Understand It with Pulse | Flag a mistake

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

A it becomes zero

B it stays the same

C it decreases

D it increases

Understand It with Pulse | Flag a mistake

6 **A passenger aeroplane takes off. Which force lifts it up?**

A weight

B lift

C thrust

D drag

Understand It with Pulse | Flag a mistake

7 **What is the frequency of mains electricity in the UK?**

A 50 Hz

B 5 Hz

C 230 Hz

D 60 Hz

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8 **What is a transformer used for?**

A storing electricity

B changing the current only

C making electricity

D changing the voltage

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

10 **How can the output of a generator be increased?**

- A turn the coil slower
- B use a weaker magnet
- C use fewer turns on the coil
- D turn the coil faster

Understand It with Pulse | Flag a mistake

11 **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 240 V
- B 1150 V
- C 46 V
- D 92 V

Understand It with Pulse | Flag a mistake

12 **A microphone and a loudspeaker both use a coil in a magnetic field. How do they differ?**

- A one uses light and the other uses heat
- B they work in exactly the same way
- C one needs no magnet at all
- D sound to current, current to sound

Understand It with Pulse | Flag a mistake

13 **A transformer has 200 turns on the primary coil and 50 turns on the secondary coil. What is the turns ratio?**

- A 4
- B 8
- C 3
- D 5

Understand It with Pulse | Flag a mistake

14 **What is induced potential?**

- A a changing field makes one
- B a potential from a battery
- C a potential that never changes
- D a potential from static charge

Understand It with Pulse | Flag a mistake

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

A the hour

B the second

C the minute

D the day

Understand It with Pulse | Flag a mistake

16 **A transformer has a primary voltage of 230 V. The secondary coil has 5 times fewer turns than the primary coil. What is the secondary voltage?**

A 46 V

B 240 V

C 1150 V

D 92 V

Understand It with Pulse | Flag a mistake

17 **What does a step-down transformer do at the end of the National Grid?**

- A it lowers the voltage for homes
- B it raises the voltage for homes
- C it stores electricity
- D it turns off the power

Understand It with Pulse | Flag a mistake

18 **What does a generator do?**

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

Understand It with Pulse | Flag a mistake

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

A 240

B 60

C 180

D 120

Understand It with Pulse | Flag a mistake

20 **How does a generator make electricity?**

A a coil turns in a field

B a magnet is heated

C a battery is charged

D a current flows through a coil

Understand It with Pulse | Flag a mistake

21 **A transformer has a primary voltage of 230 V. The number of turns on the secondary coil is 10 times smaller than on the primary coil. What is the secondary voltage?**

- A 240 V
- B 2300 V
- C 23 V
- D 46 V

Understand It with Pulse | Flag a mistake

22 **How does a microphone work?**

- A sound moves a coil in a field
- B sound charges a battery
- C sound makes a magnet stronger and bigger
- D sound heats a coil

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

- A hold the magnet still
- B move it faster, more turns
- C move the magnet slower, gently
- D use fewer turns

Understand It with Pulse | Flag a mistake

25

A transformer has a primary voltage of 240 V. The secondary coil has 10 times fewer turns than the primary coil. What is the secondary voltage?

A 24 V

B 250 V

C 2400 V

D 48 V

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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