

Acoustics and Electromagnetism Level 1 Quiz – Answer Key

1) What is electricity?

Select one:

- a) A force that attracts or repels objects.
- b) A type of magnet.
- c) **The flow of electrons, tiny particles that carry energy.**
- d) A source of light.

2) What is magnetism?

Select one:

- a) A flow of energy like electricity.
- b) **A force that can attract or repel objects, like iron.**
- c) A type of current.
- d) A form of heat.

3) Opposite poles of a magnet attract each other.

Select one:

- a) **True**
- b) False

4) What happens when an electric current travels through a wire?

Select one:

- a) It creates heat.
- b) **It produces a magnetic field around the wire.**
- c) It stops the flow of electricity.
- d) It changes the wire's color.

5) How can we increase the strength of a magnetic field created by electricity?

Select one:

- a) By using a longer wire.
- b) **By wrapping the wire into a coil.**
- c) By cooling the wire.
- d) By using a thicker wire.

6) What is it called when a moving magnetic field creates electricity in a wire?

Select one:

- a) Electromagnetism.
- b) **Induction.**
- c) Conduction.
- d) Static electricity.

7) Which of the following can generate electricity by using electromagnetism?

Select one:

- a) **A wind turbine.**
- b) A light bulb.
- c) A heater.
- d) A refrigerator.

8) Which of these is an example of using electromagnetism in daily life?

Select one:

- a) A toaster.
- b) **A speaker.**
- c) A bicycle.
- d) A water bottle.

9) You can use a magnet to generate electricity if you move it near a coil of wire.

Select one:

- a) **True**
- b) False

10) What device uses electromagnetism to take pictures of the inside of the human body?

Select one:

- a) A speaker.
- b) A phone.
- c) A microwave.
- d) **An MRI machine.**