

Name \_\_\_\_\_

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

1) In what unit is magnetic field strength measured?

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2) How can EMI be reduced or controlled?

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3) What is the difference between mutual induction and self-induction?

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4) What is the relationship between electricity and magnetism?

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5) What is the result if a magnet cracks?

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## Answer Key

Testname: AEEP8\_SHORT11

1) The magnetic field strength is often expressed in the units called ampere-turns.

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2) Electromagnetic interference (EMI) can be reduced by using:

- Resistance in the circuit
- Capacitor in the circuit
- Coils in the circuit
- Shielding
- Ground wire or strap

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3) Self-induction occurs when current starts to flow through a conductor, creating a self-induced voltage that opposes the current. Mutual induction occurs when the magnetic field in one conductor or coil induces a voltage in another conductor or coil.

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4) Whenever electricity is flowing through a conductor, a magnetic field around the conductor is formed. Whenever a conductor is moved through a magnetic field or a magnetic field is moved past a conductor, electricity is created.

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5) A cracked magnet becomes two weaker magnets.

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