

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Two technicians are discussing electromagnetic induction. Technician A says that the induced voltage can be increased if the speed is increased between the conductor and the magnetic lines of force. Technician B says that the induced voltage can be increased by increasing the strength of the magnetic field. Which technician is correct? 1) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 2) How can the electromagnetic strength of an energized coil of wire be increased? 2) _____
- A) Place an iron core in the middle of the coil
 - B) Increase current flow through the coil
 - C) Increase the number of turns in the coiled wire
 - D) Any of these
- 3) Technician A says that magnetism can cause electric current to flow in a conductor. Technician B says that magnetic lines of flux can never penetrate rubber insulation on a conductor. Who is right? 3) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 4) Technician A says that magnets are used in some crankshaft position sensors. Technician B says magnets are used in potentiometers. Which technician is correct? 4) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 5) Where is the force of magnetic lines strongest in a bar magnet? 5) _____
- A) At each end
 - B) In the middle of the magnet
 - C) Only at the north pole of the magnet
 - D) None of these
- 6) Magnetic field strength is measured in _____. 6) _____
- A) ampere-turns
 - B) flux
 - C) density
 - D) coil strength

- 7) The conventional theory for current flow is being used to determine the direction of magnetic lines of force. Technician A says that the left-hand rule should be used. Technician B says that the right-hand rule should be used. Which technician is correct? 7) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 8) An ignition coil is an example of a _____. 8) _____
- A) solenoid
 - B) step down transformer
 - C) step up transformer
 - D) relay
- 9) Technician A says that objects with high permeability allow magnetic lines of flux to flow easily through their material. Technician B says that some objects are good insulators that will not allow magnetic lines of flux to flow through their material. Which technician is correct? 9) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 10) Technician A says that a relay is an electromagnetic switch. Technician B says that a solenoid uses a movable core. Which technician is correct? 10) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

Answer Key

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- 1) C
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- 2) D
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- 3) A
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- 4) A
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- 5) A
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- 6) A
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- 7) B
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- 8) C
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- 9) A
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- 10) C
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