

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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