

Name _____

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

- 1) Technician A says that the state of charge of a NiMH battery can be determined by measuring cell voltage. Technician B says that many factors should be considered in determining the state of charge of a NiMH battery, including temperature, output current, and cell voltage. Which technician is correct? 1) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 2) The nominal cell voltage of a nickel metal hydride battery is _____. 2) _____
- A) 2.1 volts
 - B) 1.2 volts
 - C) 1.1 volts
 - D) 2.5 volts
- 3) All of the following statements regarding NiMH batteries are true EXCEPT _____. 3) _____
- A) NiMH batteries can be housed in a steel container
 - B) NiMH cells produce 3.6 volts
 - C) NiMH batteries use potassium hydroxide for electrolyte
 - D) NiMH batteries have excellent cycle life
- 4) The electrolyte in a nickel metal hydride battery is _____. 4) _____
- A) H₂SO₄
 - B) potassium hydroxide
 - C) nickel cadmium
 - D) organic solvent
- 5) When working around high-voltage batteries, what precautions should be adhered to? 5) _____
- A) Do not work on the vehicle if moisture is present on the skin or anywhere on or near the vehicle.
 - B) Be sure to disconnect the HV battery and allow enough time for system capacitors to discharge before proceeding.
 - C) ALWAYS refer to the service manual for approved safety procedures when handling the HV battery pack.
 - D) All of the above.
- 6) Technician A says that one type of NiMH cell is cylindrical. Technician B says that one type of NiMH cell is triangular. Which technician is correct? 6) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 7) The voltage levels in many hybrid electric vehicles includes _____. 7) _____
- A) high voltage battery pack
 - B) 12 volts in the auxiliary battery
 - C) 42 volts for the electric power steering
 - D) all of the above
- 8) The ICE will start on most hybrid electric vehicles when the state-of-charge of the HV battery drops to _____. 8) _____
- A) 40%
 - B) 50%
 - C) 60%
 - D) 70%
- 9) The electrolyte in a nickel lithium-ion battery is _____. 9) _____
- A) H₂SO₄
 - B) potassium hydroxide
 - C) nickel cadmium
 - D) organic solvent
- 10) How are the high voltage batteries cooled in an HEV? 10) _____
- A) Ice packs
 - B) By circulating cabin air
 - C) By forced air from under the vehicle
 - D) By opening a folding roof flap