

*Electric and Hybrid Electric Vehicles, 1st Edition*

**Quiz 1A**

NAME \_\_\_\_\_

1. What precautions need to be taken to ensure the hybrid or electric vehicle work area is safe? 1. \_\_\_\_\_
  - A) The area should be clean and dry.
  - B) The work area should be clearly marked.
  - C) No special precautions are needed.
  - D) The area should be clean and dry and clearly marked.
  
2. A CAT III certified DMM should be used whenever measuring high-voltage circuits or components. The CAT III rating relates to \_\_\_\_\_. 2. \_\_\_\_\_
  - A) high voltage
  - B) high energy
  - C) high electrical resistance
  - D) both high energy and high voltage
  
3. What should be done if the HV rubber gloves inspection dates are found to be expired? 3. \_\_\_\_\_
  - A) Use them anyway if they look OK.
  - B) Use them if they pass the air test.
  - C) Send the gloves to a qualified inspection laboratory.
  - D) Throw the gloves away.
  
4. Which of these is NOT a step in de-powering the high voltage system? 4. \_\_\_\_\_
  - A) Remove the ignition key
  - B) Disconnect the 12 volt battery
  - C) Remove the ground interlock fuse
  - D) Remove the high voltage service plug
  
5. All of the following will shut off the high voltage to components and circuits EXCEPT \_\_\_\_\_. 5. \_\_\_\_\_
  - A) opening the driver's door
  - B) turning the ignition off
  - C) disconnecting the 12-volt auxiliary battery
  - D) removing the main fuse, relay, or HV plug
  
6. When hoisting a hybrid or electric vehicle, what precautions must the technician follow to ensure personal safety and avoid damage to the vehicle? 6. \_\_\_\_\_
  - A) Make sure the lift points do not contact HV cables.
  - B) Do not lift the vehicle by the battery case.
  - C) Ensure the lift points are clear of battery cooling and refrigeration lines.
  - D) All of the answers are correct.
  
7. On a HEV that uses a "START" push button, what precaution should be taken when de-powering the vehicle? 7. \_\_\_\_\_
  - A) Make sure the key fob is at least 15 feet away from the vehicle
  - B) Make sure the key is somewhere inside the vehicle
  - C) Put the key fob in the trunk
  - D) No special precautions are needed

8. How long can power be retained in the high voltage system once it has been disabled? 8. \_\_\_\_\_
- A) 10 minutes
  - B) Less than 90 seconds
  - C) 9 hours
  - D) None of these
9. Technician A says that DMMs are assigned CAT ratings based on voltage capacity alone. Technician B says that DMMs are rated according to their ability to handle potential electrical energy. Which technician is correct? 9. \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B
10. Technician A says that CAT I meter leads may be used to test HV system components as long as the DMM itself is rated CAT III. Technician B says that CAT IV test leads are clamp-on inductive type leads. Which technician is correct? 10. \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B

## Answer Key

Testname: EV1\_1A

1. D  
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2. D  
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3. C  
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5. A  
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6. D  
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