

*Electric and Hybrid Electric Vehicles, 1st Edition*

**Quiz 12A**

NAME \_\_\_\_\_

1. Why do cold temperatures reduce the range of an electric vehicle? 1. \_\_\_\_\_
  - A) Cold temperatures reduce battery efficiency
  - B) Additional electrical power from the batteries is needed to heat the batteries
  - C) Passenger compartment heating is a concern for an electric vehicle because it requires the use of resistance units or other technology that reduces the range of the vehicle
  - D) All of the above
  
2. Level 3 charging \_\_\_\_\_. 2. \_\_\_\_\_
  - A) charges the high-voltage battery using DC
  - B) uses a 110/120-volt outlet
  - C) uses the J1772 connector
  - D) Both a and c
  
3. Which type of vehicle is considered to be a ZEV? 3. \_\_\_\_\_
  - A) An electric vehicle (EV)
  - B) A plug-in electric vehicle (PHEV)
  - C) A hybrid electric vehicle (HEV)
  - D) All of the above
  
4. Using a J1772 plug can charge \_\_\_\_\_. 4. \_\_\_\_\_
  - A) most PHEV and EVs
  - B) using 110/120 volts
  - C) using 220/240 volts
  - D) All of the above
  
5. Level 2 charging \_\_\_\_\_. 5. \_\_\_\_\_
  - A) uses a J1772 connector
  - B) uses a 110/120 volt outlet
  - C) can supply 1.4 to 1.9 kW
  - D) does not need EVSE
  
6. Which type (level) of charger may be harmful to the battery? 6. \_\_\_\_\_
  - A) Level 1
  - B) Level 2
  - C) Level 3
  - D) J1772
  
7. What is true about level 1 charging? 7. \_\_\_\_\_
  - A) Uses 110/120 volts
  - B) Can supply 2-5 miles of range per hour of charging
  - C) Can supply 1.4 to 1.9 kW
  - D) All of the above

8. What identifies a plug-in version of a hybrid electric vehicle? 8. \_\_\_\_\_  
A) Different badges  
B) An access door for the charging cable in addition to the normal ICE fueling door  
C) Different instrument panel  
D) Any of the above

9. The storage capacity of HV batteries are rated in \_\_\_\_\_. 9. \_\_\_\_\_  
A) Volts  
B) Li-Ion  
C) kWh  
D) Watts

10. Electric vehicles each use \_\_\_\_\_ for the charge cable connection. 10. \_\_\_\_\_  
A) A unique connector plug  
B) An adapter, depending on the voltage  
C) A standard SAE plug-in connector  
D) A 90 volt transformer

## Answer Key

Testname: EV1\_12A

1. D  
Page Ref: 166
2. A  
Page Ref: 169
3. A  
Page Ref: 166
4. D  
Page Ref: 168
5. A  
Page Ref: 169
6. C  
Page Ref: 169
7. D  
Page Ref: 167
8. D  
Page Ref: 164
9. C  
Page Ref: 164
10. C  
Page Ref: 168