

*Electric and Hybrid Electric Vehicles, 1st Edition*

**Quiz 2B**

NAME \_\_\_\_\_

1. Electric motors are better than an internal combustion engine to propel a vehicle because \_\_\_\_\_.  
A) they produce high torque at low speeds  
B) they do not burn fuel and therefore do not release carbon dioxide into the environment  
C) they require only a single speed transmission  
D) All of the above are correct 1. \_\_\_\_\_
  
2. Technician A says that a diesel hybrid is not possible. Technician B says that a diesel hybrid is possible but is not in production at this time. Which technician is correct?  
A) Technician A only  
B) Technician B only  
C) Both technicians A and B  
D) Neither technician A nor B 2. \_\_\_\_\_
  
3. Which type of motor or engine produces more torque at lower speed?  
A) Electric motor  
B) Gasoline motor  
C) Air motor  
D) Hydro-generator 3. \_\_\_\_\_
  
4. One-pedal driving means \_\_\_\_\_.  
A) the vehicle only has one pedal  
B) the vehicle has the ability to slow and often stop using just the accelerator pedal  
C) the vehicle does not use regenerative brakes but just friction brakes  
D) the vehicle uses the accelerator pedal to accelerate and the parking brake level to slow and stop 4. \_\_\_\_\_
  
5. An electric vehicle is also called a \_\_\_\_\_.  
A) self-driving vehicle  
B) battery electric vehicle (BEV)  
C) hybrid electric vehicle (HEV)  
D) plug-in hybrid electric vehicle (PHEV) 5. \_\_\_\_\_
  
6. Technician A says that in a parallel hybrid design, only the electric motor is connected to the transmission. Technician B says that in a parallel hybrid design, the vehicle can be propelled by the electric traction motor, the internal combustion engine, or both. Which technician is correct?  
A) Technician A only  
B) Technician B only  
C) Both technicians A and B  
D) Neither technician A nor B 6. \_\_\_\_\_

7. Technician A says that full hybrid electric vehicles need to be plugged into a standard AC electrical outlet to charge. Technician B says that the high voltage battery in an HEV uses a generator driven by the internal combustion engine for recharging. Which technician is correct? 7. \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B
8. All of the following are characteristic of a hybrid electric vehicle (HEV) EXCEPT \_\_\_\_\_. 8. \_\_\_\_\_
- A) High voltages (safety issue)
  - B) Lower fuel economy
  - C) Lower amount of carbon dioxide released into the atmosphere
  - D) Quiet
9. What is the typical battery configuration in a micro hybrid? 9. \_\_\_\_\_
- A) A 12-volt battery and a 144-volt battery
  - B) Two 12-volt batteries
  - C) A 12-volt battery and a 42-volt battery
  - D) A 12-volt battery and a 300-volt battery
10. What is the difference between a hybrid electric vehicle (HEV) and a plug-in electric vehicle (PHEV)? 10. \_\_\_\_\_
- A) Both an HEV and PHEV have to be plugged in.
  - B) Only the PHEV needs to be plugged in to achieve maximum range.
  - C) A PHEV does not use an ICE.
  - D) An HEV uses a high-voltage battery that has a higher capacity than a PHEV.

## Answer Key

Testname: EV1\_2B

1. D

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2. B

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3. A

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4. B

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5. B

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6. B

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7. B

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8. B

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9. B

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10. B

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