

Name \_\_\_\_\_

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

- 1) Which type of regenerative braking system uses an electro-hydraulic system? 1) \_\_\_\_\_  
A) Series  
B) Parallel  
C) Both Series and parallel  
D) Neither series nor parallel
  
- 2) When the electric motor is acting as a generator it produces alternating current (AC). This current is converted to direct current (DC) by use of \_\_\_\_\_. 2) \_\_\_\_\_  
A) Large diodes  
B) Large capacity filters  
C) Special AC batteries  
D) None of these
  
- 3) What position is the throttle pedal in during regenerative braking? 3) \_\_\_\_\_  
A) Fully lifted  
B) About 10%  
C) The throttle is ignored  
D) None of these
  
- 4) During braking on a hybrid electric vehicle equipped with a regenerative braking system, what occurs when the driver depresses the brake pedal? 4) \_\_\_\_\_  
A) The friction brakes are only used as a backup and not used during normal braking.  
B) The motors become generators.  
C) The driver needs to apply a braking lever instead of depressing the brake pedal to energize the regenerative braking system.  
D) The batteries are charged to 100 percent SOC.
  
- 5) Inertia is \_\_\_\_\_. 5) \_\_\_\_\_  
A) The energy of any moving object that has mass (weight)  
B) The force that the driver exerts on the brake pedal during a stop  
C) The electric motor force that is applied to the drive wheels  
D) The force that the internal combustion engine and the electric motor together apply to the drive wheels during rapid acceleration
  
- 6) In the Toyota Prius, which controller is responsible for regenerative braking control? 6) \_\_\_\_\_  
A) The engine ECU  
B) The ABS ECU  
C) The body control module (BCM)  
D) The Hybrid ECU

- 7) The high voltage batteries are designed to be charged no more than \_\_\_\_\_. 7) \_\_\_\_\_
- A) 100%
  - B) 80%
  - C) 60%
  - D) None of these
- 8) Regenerative braking uses the inertia of the vehicle to recapture energy during braking. Where is this recaptured energy stored? 8) \_\_\_\_\_
- A) In the 12 volt battery bank
  - B) In the high voltage battery bank
  - C) In the electrohydraulic master cylinder
  - D) In large resistors
- 9) In a Toyota Prius regenerative braking system, how many pressure sensors are used? 9) \_\_\_\_\_
- A) One
  - B) Two
  - C) Three
  - D) Four
- 10) Some hybrid vehicles reduce the internal combustion engine's braking capacity during deceleration so that the regenerative braking is more efficient. This is done by \_\_\_\_\_. 10) \_\_\_\_\_
- A) Closing the valves in some cylinders
  - B) Releasing compression in some cylinders
  - C) Disabling the spark in some cylinders
  - D) None of these

## Answer Key

Testname: HYBRID4\_10A

- 1) A  
Page Ref: 142
- 2) A  
Page Ref: 147
- 3) A  
Page Ref: 145
- 4) B  
Page Ref: 145
- 5) A  
Page Ref: 141
- 6) B  
Page Ref: 147
- 7) B  
Page Ref: 144, 149
- 8) B  
Page Ref: 142
- 9) D  
Page Ref: 146
- 10) A  
Page Ref: 148