

Name \_\_\_\_\_

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

- 1) 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 \_\_\_\_\_. 1) \_\_\_\_\_  
A) closing the valves in some cylinders  
B) releasing compression in some cylinders  
C) disabling the spark in some cylinders  
D) None of these
- 2) The high voltage batteries are designed to be charged no more than \_\_\_\_\_. 2) \_\_\_\_\_  
A) 100 %  
B) 80 %  
C) 60 %  
D) None of these
- 3) Kinetic energy is \_\_\_\_\_. 3) \_\_\_\_\_  
A) the energy that the driver exerts on the brake pedal  
B) the energy needed from the batteries to propel a vehicle  
C) the energy in any moving object  
D) the energy that the motor produces to propel the vehicle
- 4) Technician A says that the powertrain control module (PCM) or controller can control the voltage to the motor(s) in a hybrid electric vehicle. Technician B says that the PCM or controller can control the electric motors by varying the frequency of the applied current. Which technician is correct? 4) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians A and B  
D) Neither technician A nor B
- 5) In a Toyota Prius regenerative braking system, how many pressure SWITCHES are used? 5) \_\_\_\_\_  
A) One  
B) Two  
C) Three  
D) Four
- 6) Regenerative braking uses the inertia of the vehicle to recapture energy during braking. Where is this recaptured energy stored? 6) \_\_\_\_\_  
A) In the 12 volt battery bank  
B) In the high voltage battery bank  
C) In the electrohydraulic master cylinder  
D) In large resistors
- 7) Regenerative braking helps keep the HV battery charged to more than 90%. 7) \_\_\_\_\_  
A) True  
B) False

- 8) The hybrid vehicle electric motor is usually a(n) \_\_\_\_\_ type motor. 8) \_\_\_\_\_
- A) DC
  - B) AC
  - C) HVAC
  - D) None of these
- 9) During braking on a hybrid electric vehicle equipped with a regenerative braking system, what occurs when the driver depresses the brake pedal? 9) \_\_\_\_\_
- 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.
- 10) Which type of regenerative braking system uses an electrohydraulic system? 10) \_\_\_\_\_
- A) Series
  - B) Parallel
  - C) Both Series and parallel
  - D) Neither series nor parallel

## Answer Key

Testname: CHASSIS8\_21B

- 1) A  
Page Ref: 327
- 2) B  
Page Ref: 328, 332
- 3) C  
Page Ref: 324
- 4) C  
Page Ref: 327
- 5) B  
Page Ref: 329
- 6) B  
Page Ref: 327
- 7) B  
Page Ref: 332
- 8) B  
Page Ref: 330
- 9) B  
Page Ref: 325
- 10) A  
Page Ref: 326