

Name: _____ Date: _____

1. What is the primary function of the final drive assembly in an electric vehicle transmission?
 - A. To provide a parking mechanism for the assembly
 - B. To transfer torque from the electric motor to the drive wheels
 - C. To reduce motor speed to produce ideal torque at low and high speeds
 - D. All of the above

2. In a Toyota/Lexus hybrid electric vehicle, what role does MG1 play?
 - A. To start the ICE
 - B. To charge the HV battery
 - C. To provide additional power to MG2
 - D. All of the above

3. What is the gear ratio of the planetary gear set in a power-split transmission?
 - A. 72% to the ring gear, 28% to the sun gear
 - B. 60% to the ring gear, 40% to the sun gear
 - C. 80% to the ring gear, 20% to the sun gear
 - D. 50% to the ring gear, 50% to the sun gear

4. During full-throttle acceleration in a hybrid vehicle, what happens to MG1?
 - A. It stops the generator
 - B. It rotates in a clockwise direction
 - C. It draws power from MG17
 - D. All of the above

5. How does the oil pump in the Toyota/Lexus power-split hybrid system operate?
 - A. Only when the ICE is operating
 - B. Located in the rear cover of the transmission behind MG2
 - C. Only when MG2 is operating
 - D. Both A and B

6. In the context of hybrid vehicles, what is the purpose of an auxiliary electric pump or hydraulic impulse storage generator?
 - A. To assist in power generation
 - B. To provide additional torque
 - C. To maintain hydraulic pressure
 - D. To cool the electric motor

7. What is the role of MG2 in a hybrid vehicle transmission during deceleration and braking?
 - A. To prevent the generator from operating
 - B. To discharge the HV battery
 - C. To act as a generator
 - D. All of the above

8. In a hybrid vehicle transmission, what is the first step when diagnosing a problem?

- A. Check the fluid level
- B. Verify the customer concern
- C. Check for trouble codes
- D. Check for Technical Service Bulletins (TSBs)

9. What is the function of the eCVT transmission in a hybrid vehicle?

- A. To control the gear ratio to the final drive
- B. To stop the ICE to provide power to the drive wheels
- C. To limit lubrication pressure when the ICE is operating
- D. All of the above

10. How does the GM parallel hybrid truck feature enhance its functionality?

- A. Stop-start capabilities
- B. Regenerative braking
- C. Full electric mode
- D. Both A and B

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Chapter 12

Multiple Choice Quiz A

Answer Key

1. D

2. D

3. A

4. B

5. D

6. C

7. C

8. B

9. A

10. D