

*Electric and Hybrid Electric Vehicles, 1st Edition*

**Quiz 17A**

NAME \_\_\_\_\_

1. The oil pump in the Toyota/ Lexus power-split hybrid system \_\_\_\_\_.  
A) only turns when the ICE is operating  
B) is located in the rear cover of the transmission behind MG2  
C) only turns when MG2 is operating  
D) Both answers a and b are correct  
1. \_\_\_\_\_
  
2. The final drive assembly in an electric vehicle transmission assembly \_\_\_\_\_.  
A) transfers torque from the electric motor to the drive wheels  
B) reduces motor speed to produce ideal torque at low and high speeds  
C) provides for a parking mechanism for the assembly  
D) All of the answers are correct  
2. \_\_\_\_\_
  
3. The electric motor in the Ford/ Lincoln 10R80 MHT transmission provides \_\_\_\_\_.  
A) stop-start capabilities  
B) extra power  
C) extra low-speed torque  
D) All of the answers are correct  
3. \_\_\_\_\_
  
4. The hydraulic impulse storage accumulator eliminates the need for a(n) \_\_\_\_\_.  
A) sprag  
B) auxiliary pump  
C) mechanical pump  
D) filter  
4. \_\_\_\_\_
  
5. Technician A says that a mild hybrid vehicle transmission contains two or three electric motors. Technician B says that mild a hybrid with stop-start usually has one electric motor. Which technician is correct?  
A) Technician A only  
B) Technician B only  
C) Both technicians A and B  
D) Neither technician A nor B  
5. \_\_\_\_\_
  
6. Modifications to automatic transmissions used in hybrid vehicles include \_\_\_\_\_.  
A) electric auxiliary transmission fluid pumps  
B) modified torque converter lockup schedule  
C) hydraulic impulse storage accumulator  
D) All of these answers are correct  
6. \_\_\_\_\_
  
7. In a Toyota/ Lexus hybrid electric vehicle, how is reverse achieved?  
A) The ICE reverses direction and powers the wheels  
B) MG2 is used to power the vehicle in reverse  
C) MG1 is used to power the vehicle in reverse  
D) Either b or c depending on model and year  
7. \_\_\_\_\_

8. In a Toyota/ Lexus hybrid electric vehicle, what is the purpose of MG1? 8. \_\_\_\_\_
- A) Start the ICE
  - B) Charge the HV battery
  - C) Provide additional power to MG2
  - D) All of the answers are correct
9. What is the first step when diagnosing a hybrid vehicle transmission? 9. \_\_\_\_\_
- A) Check the fluid level
  - B) Verify the customer concern
  - C) Check for trouble codes
  - D) Check for technical service bulletins (TSBs)
10. How many electric motor/generators does the GM 2ML70 transmission have? 10. \_\_\_\_\_
- A) two
  - B) one
  - C) three
  - D) Any of these, depending on the model year

## Answer Key

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1. D  
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3. D  
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4. B  
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