

Manual Drivetrains and Axles 9th Edition
Chapter 7
Multiple Choice Quiz A

Name: _____ Date: _____

1. What is the primary purpose of using a concentric clutch in dual clutch transmissions?
 - A. To increase the transmission's length
 - B. To reduce the transmission's height
 - C. Allow a shorter transmission assembly
 - D. To increase fuel efficiency

2. How does a dual clutch transmission achieve better fuel economy compared to conventional automatics?
 - A. By using more gears
 - B. By disengaging the clutches when stopped
 - C. Through continuous clutch engagement
 - D. By reducing the engine's RPM

3. What is the role of the speed sensor input shaft in dual clutch transmissions?
 - A. To control the transmission fluid temperature
 - B. To provide input shaft RPM information for gear selection
 - C. To monitor the external environment for optimal shifting
 - D. To regulate the hydraulic pressure

4. What does the clutch shift multiplex solenoid (CSMS1) control in a dual clutch transmission?
 - A. Even clutch and shifting
 - B. Cooling flow for clutches
 - C. Shifting for gearshift fork 1 and 3
 - D. Pressure between odd clutch and shifting

5. What is a key characteristic of the transmission fluid used in dual clutch systems?
 - A. It is usually red in color
 - B. It is typically a high-quality synthetic oil
 - C. It must be changed more frequently than conventional fluids
 - D. It is identical to fluids used in manual transmissions

6. In a dual clutch transmission, what happens during the 1–2 upshift?
 - A. Clutch 1 is released and clutch 2 is applied
 - B. Both clutches are disengaged
 - C. Clutch 2 is released and clutch 1 is applied
 - D. Both clutches are simultaneously engaged

7. What is a common feature of the gear arrangements in dual clutch transmissions?
 - A. All gears are driven by a single clutch
 - B. Gears are arranged to increase torque
 - C. Different synchronizer assemblies are driven by different clutches
 - D. Gears are synchronized manually

8. How is the shift select solenoid typically used in a dual clutch transmission?

- A. To control hydraulic pressure
- B. To engage and disengage clutches
- C. To control shifting for specific gearshift forks
- D. To measure the temperature of the transmission fluid

9. Which of the following is a benefit of using a parallel clutch design in dual clutch transmissions?

- A. Increased transmission length
- B. Smaller diameter drum assembly
- C. Higher gear shifting speed
- D. Reduced fuel consumption

10. What is the main advantage of electronically controlled manual transmissions over traditional automatic transmissions?

- A. Higher torque
- B. More gears
- C. Improved fuel economy and speed of gear changes
- D. Easier maintenance

Manual Drivetrains and Axles 9th Edition

Chapter 7

Multiple Choice Quiz A

Answer Key

1. C

2. B

3. B

4. D

5. B

6. A

7. C

8. C

9. B

10. C