

Automatic Transmissions and Transaxles 8th Edition

Chapter 2

Multiple Choice Quiz A

Name: _____ Date: _____

1. What is the primary function of a drivetrain in a vehicle?
 - A. To control the vehicle's braking system
 - B. To transfer power from the engine to the drive wheels
 - C. To manage the vehicle's electrical systems
 - D. To enhance the fuel efficiency of the engine

2. Which of the following is true about torque and horsepower?
 - A. Torque is the rate of doing work, while horsepower is a twisting force
 - B. Horsepower and torque are essentially the same
 - C. Torque is a twisting force, while horsepower is the rate of doing work
 - D. Neither torque nor horsepower is related to engine performance

3. When power goes through a series of gears, what happens when power transfers through an even number of gears?
 - A. The input and output gears rotate in the same direction
 - B. The input and output gears rotate in opposite directions
 - C. The gear ratio is automatically doubled
 - D. It results in a decrease in torque

4. What is the role of an idler gear in a gear set?
 - A. To allow the drive and driven gears to rotate in the same direction
 - B. To increase the gear ratio
 - C. To reduce the speed of the driven gear
 - D. To multiply the torque

5. How is the gear ratio calculated in a gear set?
 - A. By dividing the number of teeth on the driven gear by the drive gear
 - B. By multiplying the number of teeth on the drive gear by the driven gear
 - C. By adding the number of teeth on the drive and driven gears
 - D. By subtracting the number of teeth on the driven gear from the drive gear

6. What is the purpose of a torque converter in an automatic transmission?
 - A. To lock up the gears at cruising speeds
 - B. To replace the manual transmission clutch
 - C. To increase the vehicle's top speed
 - D. To directly control the gear shifts

7. Which gear type is typically found in rear-wheel-drive axle assemblies?
 - A. Spur gear
 - B. Helical gear
 - C. Hypoid gear
 - D. Bevel gear

8. What is the main advantage of all-wheel-drive (AWD) vehicles?

- A. Higher fuel efficiency
- B. Lower maintenance costs
- C. Enhanced high-speed performance
- D. Improved on-road handling

9. What is the primary difference between a transmission and a transaxle?

- A. A transmission controls engine speed, while a transaxle does not
- B. A transaxle combines the final drive gears and differential with the transmission
- C. A transmission is used only in rear-wheel-drive vehicles
- D. A transaxle is used to increase the torque of the engine

10. What must the powertrain overcome to move the vehicle?

- A. Only air resistance
- B. Only gravitational force
- C. Rolling friction and bearing friction
- D. Only engine inertia

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Answer Key

1. B

2. C

3. B

4. A

5. A

6. B

7. C

8. D

9. B

10. C