

Manual Drivetrains and Axles 9th Edition

Chapter 11

Multiple Choice Quiz B

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. The differential cover must be removed before removing the rear axle on:
  - A. C-lock type axle
  - B. Press fit type axle
  - C. Retainer plate type axle
  - D. Welded tube type axle
  
2. Brinelling in bearings is typically caused by:
  - A. Regular wear and tear
  - B. Excessive lubrication
  - C. Impact loads or vibrations
  - D. High speeds
  
3. The most frequent use of ball bearings is found in:
  - A. Front-wheel-drive vehicles
  - B. Electric vehicles
  - C. Rear-wheel-drive vehicles
  - D. Hybrid vehicles
  
4. What is the main reason for using sealed bearings in front-wheel-drive vehicles?
  - A. To enhance the vehicle's speed
  - B. To reduce friction and seizure resistance
  - C. For aesthetic purposes
  - D. To increase the weight of the vehicle
  
5. A symptom of a defective wheel bearing is:
  - A. Enhanced steering sensitivity
  - B. A decrease in fuel consumption
  - C. Roughness felt in the steering wheel
  - D. Improved vehicle acceleration
  
6. Tapered roller bearings are unique in that they:
  - A. Can operate at very high speeds
  - B. Require no lubrication
  - C. Convert sliding friction into rolling motion
  - D. Need to be adjusted for proper clearance
  
7. The purpose of the outer race in a bearing is to:
  - A. Support the steel balls or rollers
  - B. Reduce the weight of the vehicle
  - C. Increase the fuel efficiency
  - D. Enhance the aesthetic appeal of the vehicle

8. Antifriction bearings convert:

- A. Heat into energy
- B. Sliding friction into rolling motion
- C. Rolling motion into sliding friction
- D. Kinetic energy into potential energy

9. Proper adjustment of tapered roller bearings results in:

- A. 12 lb-ft preload
- B. 30 lb-ft preload
- C. 0.001-0.005" endplay
- D. None of these

10. What is a critical symptom to identify a defective wheel bearing?

- A. Increased tire pressure
- B. Noise that changes with vehicle speed or cornering
- C. Enhanced vehicle stability
- D. Decreased engine performance

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Answer Key

1. A

2. C

3. C

4. B

5. C

6. D

7. A

8. B

9. C

10. B