**Quiz 4. Diagnose and Overhaul Differential Assembly**

**Multiple Choice**

**Direction:** Select the letter of the correct answer.

1. The drive shaft components that provides a means of connecting two or more shafts together is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. pinion flange c. yoke

b. U-joint d. biscuit

2. The internally splined, externally machined that lets the yoke rotate at transmission output speed and slide at the same time.

a. cross member c. center bearing

b. slip yoke d. None of the above

3. The \_\_\_\_\_\_\_\_\_\_\_\_ allows two rotating shafts to operate at a single angle to each other.

a. slip yoke c. Universal joint

b. center bearing d. All of the above

4. What is called an angle in a rear drive shaft that reduced vibration.

a. right angle c. slide yoke angle

b. cancelling angle d. Universal angle

5. The single cardaer/spicer universal joint is also known as the \_\_\_\_\_\_\_.

a. cross joint c. both a and b

b. four-point joint d. neither a nor b

1. Technician A says the axle hub nut on a FWD vehicle sets the amount of bearing play at the wheel. Technician B says 4WD bearings are normally removed from the steering knuckle after the knuckle has been removed from the car. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

2. While discussing the possible causes for a clunking noise heard during acceleration, Technician A sys a CV joint could be the cause. Technician B says insufficient ring and pinion gear backlash could be the cause. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

3. While reviewing the procedure for replacing an axle boot, Technician A says the position of the old boot should be marked on the shaft prior to removing it. Technician B says that if the boot is dimpled or collapsed after installing it, a dulled screwdriver should be used to allow air to enter the boot. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

4. A vehicle make a loud clunking sound during a left turn; during a right turn, the noise is still apparent but is less pronounced. Technician A says that the left inner CV joint may be the source of the noise. Technician B says the right outer CV joint may be causing the problem. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

5. While diagnosing a vibration that becomes more noticeable with vehicle speed, Technician A says the drive shaft may be out of balance. Technician B says the tires may be out of balance. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

6. A whirring noise is coming from the drive axle only when the vehicle is driven straight. Technician A says the differential side gears could be worn. Technician B says the noise could be caused by worn drive pinion gear bearings. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

7. The interpretation of a ring and pinion gear contact pattern test is being discussed. Technician A says that excessive toe contact will require that the drive pinion be moved closer to the ring gear. Technician b says that the ideal contact pattern will be centered on the coast side of the ring gear. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

8. Which of the following is not likely cause of a fluid leak at the axle shaft seals in a RWD axle housing?

a. Incorrect installation of the seal

b. Damaged companion flange journal

c. Damaged axle tube

d. Damaged axle shaft journal

9. Which of the following would not typically cause a rear axle shaft to break?

a. Incorrect wheel bearing adjustments

b. Misaligned axle housing

c. Overloaded vehicle

d. Slipping clutch

10. Technician A says that limited-slip differential clutch packs are designed to slip when the vehicle turns a corner. Technician B says that a special additive is placed in the hypoid gear lubricant to promote clutch pack slippage on corners. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

11. Technician A says side bearing preload limits the amount the differential case is able to move laterally in the axle housing. Technician B says that adjusting backlash sets the depth of the mesh between the ring and pinion gears’ teeth. Who is correct?

a. Technician A c. Both A and B

b. Technician B d. Neither A nor B

Technician A says that a hunting gearset is one in which one drive pinion gear tooth contacts only certain ring gear teeth. Technician B says that a partial nonhunting