Objective: After studying this chapter, you will be able to service tires, wheels, and wheel bearings.

Tire, Wheel, & Wheel Bearing Diagnosis

1. Problems such as steering vibration, unusual tread wear, or steering pull to one side could be caused by:
   A. steering
   B. suspension
   C. front suspension
   D. All of the above.

2. List three conditions you should look for when performing a tire inspection:
   A. 
   B. 
   C. 

3. List five of the most common types of visible damage: A. B. C. D. E.

4. Which of these is not an impact damage? A. Punctures B. Cuts C. Cracking D. Tear

5. Most tires have a recommended cold inflation pressure of _______ to _______.
   Pounds-per-square inch (psi) below the maximum listed air pressure.

6. A tire’s _______ _________ can often be studied to find causes for unusual wear.

7. _______ will cause excessive wear on the outside edges of a tire’s tread, while _______ will cause excessive wear on the middle of the tread.

8. What are some other effects of running a tire over-inflated? ________________

9. Define / describe the tire load index: __________________________

10. What are some of the other effects of operating a tire under-inflated? ________________

11. How will you know the difference between a tire noise and a wheel bearing noise? ________________
12. Describe the procedure to check for loose wheel bearings:

________________________________________________________________________

**Tire Maintenance**

13. Correct tire maintenance involves periodic:
   __A. rotation
   __B. inspection
   __C. checking inflation pressures
   __D. All the above.

14. Where do you go to find the correct inflation pressure for the tires on your car?

________________________________________________________________________

15. Why is lug-nut torque critical on all vehicles?

________________________________________________________________________

16. Which two (2) of the illustrations below shows correct tire rotation for bias-ply tires?
   ______ And ________

   ![Illustration of tire rotation]

17. Which two (2) of the illustrations above shows correct tire rotation for radial tires?
   ______ And ________

   ![Illustration of tire rotation]

**Wheel Runout & Balance**

18. Describe the following tire terms:
   **Lateral Runout:**
   [Blank]
   **Radial Runout:**
   [Blank]
   **Tire Runout:**
   [Blank]
   **Wheel Runout:**
   [Blank]
19. Describe the noticeable conditions of *static* imbalance:

20. Describe the noticeable conditions of *dynamic* imbalance:

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**Tire Puncture Repair**

21. List the two (2) requirements for proper tire puncture repair:

A. 
B. 

22. Plugging a leaking tire is an acceptable method of permanent repair. **True** / **False**

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**Wheel Bearing Service**

23. Most modern wheel bearing assemblies are *grease able* (un-sealed) or *non-serviceable* (sealed).

24. Serviceable disc-brake wheel bearings require a special grease called____________________

25. Front wheel bearings on front-wheel –drive vehicles are easily serviced and don’t require any special methods or tools. **True** / **False**____________________