

*Automotive Heating and Air Conditioning, 9th Edition*

**Quiz 4A**

NAME \_\_\_\_\_

1. Most piston compressors use what type of valves? 1. \_\_\_\_\_
  - A) Poppet
  - B) Reed
  - C) Sliding
  - D) On-off gate-type valve
  
2. Which of the following is NOT a major component of most compressors? 2. \_\_\_\_\_
  - A) Piston and rings
  - B) Reed valves
  - C) Clutch
  - D) Fins and tubes
  
3. A compressor belt tensioner is bouncing rapidly with the engine running. What should the technician do? 3. \_\_\_\_\_
  - A) Nothing, this is normal
  - B) Remove the tensioner and lubricate the dampener
  - C) Replace the tensioner
  - D) Tighten the tensioner center bolt
  
4. Increasing the number of slots in the clutch armature helps to \_\_\_\_\_. 4. \_\_\_\_\_
  - A) increase holding power
  - B) cool the hub
  - C) reduce bearing vibration
  - D) eliminate stray magnetic fields
  
5. Which of the following is an advantage offered by a scroll-type compressor? 5. \_\_\_\_\_
  - A) Smooth engagement
  - B) Low engagement torque
  - C) Ability to use a small clutch
  - D) All of these
  
6. In a piston-type compressor, the pistons are driven by a \_\_\_\_\_. 6. \_\_\_\_\_
  - A) crankshaft
  - B) swash plate
  - C) wobble plate
  - D) Any of the above, depending on the compressor
  
7. A compressor speed (belt lock) sensor is used by the HVAC ECM to \_\_\_\_\_. 7. \_\_\_\_\_
  - A) prevent a locked-up compressor from destroying the engine drive belt
  - B) determine if the compressor is running by comparing the compressor and engine speed signals
  - C) vary the displacement of the compressor based on compressor speed
  - D) Both A and B

8. The basic designs of AC compressors include \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. 8. \_\_\_\_\_
- A) piston, vane, and scroll
  - B) radial, piston, and vane
  - C) balanced, piston, and scroll
  - D) fixed scroll, moveable scroll, and piston
9. The clutch plate must be removed to \_\_\_\_\_. 9. \_\_\_\_\_
- A) get access to the compressor shaft seal
  - B) remove and replace the compressor
  - C) change the compressor oil
  - D) change the compressor belt
10. Most newer compressors use a \_\_\_\_\_ seal on the compressor shaft. 10. \_\_\_\_\_
- A) cork
  - B) ceramic
  - C) lip
  - D) boron

## Answer Key

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