

Chapter 1: Heating, Ventilation, and Air Conditioning

MULTIPLE CHOICE

1. When a vehicles air conditioning is turned on to lower the temperature of the vehicle there is the added benefit of _____?
- Dehumidification
 - Humidification
 - Static discharge removal
 - Greater fuel mileage

ANS: A PTS: 1

2. All technicians working with refrigerant part of the trucks air condition system must be:
- Trustworthy
 - Honest
 - Certified
 - Careful

ANS: C PTS: 1

3. An air conditioning system must be capable of removing heat from the cab of the vehicle at a faster rate than:
- The radiator
 - The intercooler
 - The other heat sources infiltrating the cab
 - The heat coming in for an open window

ANS: C PTS: 1

4. Which of the following statements is true?
- The compressor pumps liquid refrigerant
 - The compressor is a dividing point between the high pressure side and the low pressure side.
 - The compressor is designed to compress liquid refrigerant
 - The compressor can be damaged by pumping refrigerant vapor

ANS: B PTS: 1

5. The condenser is a component that:
- Transforms liquid refrigerant into vaporous refrigerant
 - Is always located behind the trucks radiator
 - Receives cold liquid refrigerant from the compressor
 - Is responsible to remove the heat that was once inside the truck cab.

ANS: D PTS: 1

6. An orifice tube is an example of a:
- Heat exchanger
 - Pressure regulating device
 - Temperature regulating device
 - Responsible to raise the pressure of the refrigerant as it passes through

ANS: B PTS: 1

7. A thermostatic expansion valve:
- a. Has no moving parts
 - b. Is positioned between the compressor and the condenser
 - c. Regulates the flow of refrigerant into the evaporator
 - d. Can only sense refrigerant pressure

ANS: C PTS: 1

8. The evaporator used in a truck air conditioning system is:
- a. Usually located in front of the vehicles radiator
 - b. In some way isolated from the ambient air
 - c. Responsible for heating the air within the vehicle cab
 - d. Not a type of heat exchanger

ANS: A PTS: 1

9. When refrigerant enters the evaporator it:
- a. It is under very high pressure
 - b. Is in a purely vaporous state
 - c. Is extremely hot to the touch
 - d. Is a low pressure liquid

ANS: D PTS: 1

10. The receiver drier is a component used to:
- a. Turn liquid refrigerant into vaporous refrigerant
 - b. Dry the air the is routed through the evaporator
 - c. Separate and store liquid refrigerant
 - d. Direct only vaporous refrigerant to the TXV

ANS: D PTS: 1

11. The manifold gauge set is a tool used to:
- a. measure the temperature of the refrigerant
 - b. measure the operating pressure of the refrigeration system
 - c. measure the engine intake manifold pressure
 - d. measure the engine exhaust manifold pressure

ANS: B PTS: 1

12. A vacuum pump is used by a technician to:
- a. Remove air from the system after repairs have been performed
 - b. Remove moisture from the system after repairs have been performed
 - c. Remove refrigerant from the air conditioning system
 - d. Both A and B are correct

ANS: D PTS: 1

13. An antifreeze recycling machine are used:
- a. Dispose of used engine coolant
 - b. Remove contaminants from the coolant
 - c. Restore the antifreeze to the properties it was when it was new
 - d. Both B and C are correct

ANS: D PTS: 1

14. Technicians will use an electronic weigh scale to:
- a. Weigh the amount of antifreeze in the engine cooling system
 - b. Weigh the amount of engine oil during routine maintenance
 - c. Weigh the amount of refrigerant dispensed into the air conditioning system
 - d. Weigh the output of the vehicles charging system

ANS: C PTS: 1

15. The accumulator used in an air conditioning system:
- a. Is used to store vaporous refrigerant
 - b. Is used to prevent liquid refrigerant from returning to the compressor
 - c. Is used to remove oil from the circulation refrigerant
 - d. Is used to store all the refrigerant from the air conditioning system

ANS: C PTS: 1