

Automotive Heating and Air Conditioning, 9th Edition

Quiz 3B

NAME _____

1. The compressor in an A/C system is needed to _____.
A) keep the refrigerant circulating
B) make the gas hotter than ambient air
C) increase the gas pressure
D) All of these
1. _____

2. In an A/C system, the refrigerant changes state from a _____ in the evaporator.
A) liquid to a gas
B) gas to a liquid
C) Both A and B
D) Neither A nor B
2. _____

3. Compressing a vapor _____.
A) increases the pressure and decreases the temperature
B) decreases the pressure and increases the temperature
C) decreases the pressure and decreases the temperature
D) increases the pressure and increases the temperature
3. _____

4. The temperature of the refrigerant as it leaves the compressor on the discharge side should be _____.
A) warm
B) cool
C) cold
D) hot
4. _____

5. Evaporator icing can be controlled by _____.
A) increasing compressor RPM
B) warming the orifice tube
C) reducing compressor displacement
D) Any of these
5. _____

6. An accumulator is very similar to a(n) _____.
A) receiver-drier
B) evaporator
C) condenser
D) orifice tube
6. _____

7. Pressures are controlled in an orifice tube (OT) system by _____.
A) using a variable valve
B) cycling an electromagnetic compressor clutch on and off as needed
C) using a variable displacement compressor
D) Either B or C
7. _____

8. The refrigerant enters the evaporator as a _____. 8. _____
- A) low-pressure mist
 - B) low-pressure liquid
 - C) high-pressure gas
 - D) high-pressure liquid
9. What does the term "superheat" mean? 9. _____
- A) The amount of heat added to a liquid.
 - B) The heat outside the vehicle.
 - C) Heat added to a vapor.
 - D) None of these
10. A/An _____ is a variable valve that changes the size of the valve opening in response to the cooling load of the evaporator. 10. _____
- A) orifice tube
 - B) compressor
 - C) thermal expansion valve (TXV)
 - D) receiver-drier

Answer Key

Testname: AHAC9_3B

1. D
Page Ref: 23
2. A
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3. D
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4. D
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5. C
Page Ref: 30
6. A
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7. D
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8. A
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9. C
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10. C
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