

# Refrigeration and Air Conditioning

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1. A high velocity of air in oil firing causes?  
 (A) the flame to spark  
 (B) high combustion  
 (C) high rating
2. What is equivalent to one PSI?  
 (A) 7 inches of water column  
 (B) 14.7 inches of water column  
 (C) 47 inches of water column  
 (D) 27.7 inches of water column
3. What is Low Emittance (E) Glass?  
 (A) Glass suspended between the inside and outside panes to restrict the passage of radiant heat.  
 (B) Glass which has energy reflective panels with metallic coating glued to the outside.  
 (C) Glass which has high emissivity due to a film or metallic coating on the glass.  
 (D) Glass which has low emissivity due to a film or metallic coating on the glass.
4. What is done to a heat pump to enable it to operate efficiently at lower temperatures?  
 (A) Two compressors are connected in parallel to decrease the overall compression ratio.  
 (B) Two compressors are connected in series to increase the overall compression ratio.  
 (C) Two compressors are connected in parallel to increase the overall compression ratio.  
 (D) Two compressors are connected in series to decrease the overall compression ratio.
5. Vapor compression refrigeration is some what like  
 (A) Rankine cycle  
 (B) reversed Rankine cycle  
 (C) reversed Camot cycle  
 (D) Carnot cycle  
 (E) none of these

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1058. Refrigerant R-134a vapor enters the condenser at 124 psig, 100° F. It leaves the condenser at 80° F. What will be the approximate pressure?
- (A) 76 psig.  (B) 87 psig.  
 (C) 106 psig.  (D) 124 psig.
1059. A Reciprocating compressor can be driven by direct drive?
- (A) True  
 (B) False
1060. Which of the following pump voltages will provide more energy efficiency?
- (A) 120 static voltage.  (B) 220 line voltage.  
 (C) 110 line voltage.  (D) 240 static voltage.
1061. When applying solder to a splice connection, what is the correct procedure?
- (A) both a and b.  (B) solder is applied directly to the soldering tip.  
 (C) solder is applied at the instant that the heat is applied.  (D) solder is applied to the splice after it has been heated for a few seconds.
1062. Flame speed, in most cases can \_\_\_\_\_.
- (A) be measured with a CO2 analyzer  (B) only be estimated by the technician  
 (C) can exactly be known by the technician.  (D) be measured with a velometer
1063. What are two good characteristics of oil?
- (A) Low floc point and high hygroscopic ability  (B) High floc point and high hygroscopic ability  
 (C) Low floc point and low hygroscopic ability  (D) High floc point and low hygroscopic ability
1064. A worn wrist pin causes the suction pressure to run higher than it normally would?
- (A) True  
 (B) False

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1065. What are two major factors in determining the temperature rise of an electric furnace?

- A Furnace kW and static pressure       B Furnace kW and CFM  
 C Furnace kW and FPM       D Furnace kW and voltage AC

1066. What is known as the removal of blood or other potentially infectious materials on an item's surface and the removal of visible debris or residue such as dust, hair, and skin?

- A infection control       B disinfectants  
 C decontamination       D sanitation