BUILDING PERFORMANCE INSTITUTE, INC.

A/C and Heat Pump Sample Exam

Module: 1

1 What does PSIG stand for regarding A/C systems?

- A Pounds per Square Inch Guarantee
- B Pounds per Square Inch Gage
- C Pounds per Square Inch Geared
- D Pounds per Square Inch Gross

2 Superheat is a measurement of what factor
What is superheat a measurement of?

- A Rise in liquid pressure
- B Rise in liquid temperature
- C Rise in vapor pressure
- D Rise in vapor temperature above its saturation temperature

Module: 2

3 Which of the following metering devices controls evaporator pressure?

- A Thermostatic expansion valve
- B Fixed orifice
- C Low side float
- D EPR valve

4 Which process causes water to change state from a liquid to a vapor?

- A Latent heat gain
- B Sensible heat gain
- C Latent heat loss
- D Sensible heat loss

5 What is the proper pitch to the drain for a horizontal condensate line?

- A 1/8" per 10' of run.
- B 1/4" per 10' of run.
- C 1" per 10' of run.
- D 3" per 10' of run.

6 What type of metering device is used on a packaged air conditioning unit with gas heat and a single compressor?

- A Line set
- B Catapult assembly
- C Cap tube assembly
- D Capillary tube assembly

7 At what compressor cylinder temperature will oil begin to breakdown?

- A 225 degrees F
- B 300 degrees F
- C 325 degrees F
- D 350 degrees F

Module: 3

8 What could be the trouble with a system showing a low low-side superheat with high condenser subcooling?

- A Refrigerant overcharge
- B Refrigerant undercharge
- C A partial refrigerant restriction
- D Low condenser airflow

9 On a standard gauge manifold set, what is the center hose used for?

- A Measuring high side pressure.
- B Measuring low side pressure.
- C As a spare.
- D Reclaiming refrigerant.

10 Where do you measure for compressor cylinder temperature?

- A No more than six inches out on the discharge line.
- B No more than six inches out on the suction line.
- C More than six inches out on the discharge line.
- D More than six inches out on the suction line.

Answers:
1:B, 2:D, 3:D, 4:A, 5:C, 6:D, 7:B, 8:A, 9:D, 10:A