

HVAC Tech Tips

A PROGRESS ENERGY NEWSLETTER

technician quiz

There have been many requests for a quiz to test both existing and potential employees to see what training is needed as well as whether or not to hire potential prospects. This [BASIC REFRIGERATION] quiz will indicate at what level the subject needs for training.

Match the questions with the correct answers on the bottom (only one answer per question).

- **9–10 correct** | **TOP TECHNICIAN**
(system design, air balancing, whole house pressure and leakage testing, duct leakage testing)
- **5–8 correct** | **TOP SERVICE MECHANIC**
(manual j and wright soft calculations, system charging, leakage testing, air balancing)
- **3–4 correct** | **SERVICE MECHANIC, TOP INSTALLER**
(system charging, basic electricity part one and two, manual j load calculations)
- **0–2 correct** | **APPRENTICE, INSTALLER, OFFICE HELP**
(basic electricity part one, a/c charging, duct sealing)

answer key

Q1. What is the state of refrigerant in the middle of a condenser or evaporator?	SATURATED
Q2. What is the state of refrigerant entering or leaving a compressor?	SUPERHEATED VAPOR
Q3. What is the state of refrigerant in the liquid line?	SUBCOOLED LIQUID
Q4. What is the device used to measure sensible heat?	THERMOMETER
Q5. What is the Btu quantity to raise 5 lb. of water 1 F?	5
Q6. What Btu quantity does it take to raise 1 lb. of water [212 F] rise to 1 lb. of steam [212 F]?	970
Q7. What does a pressure drop in a liquid line create?	FLASH GAS
Q8. What is the nominal Btuh rating a 2½ ton air conditioner?	30,000
Q9. What must you raise in order to raise the boiling point of liquid?	PRESSURE
Q10. What is the average atmospheric pressure [in psig] at sea level?	14.7

ANSWERS TO CHOOSE FROM — • barometer • level • superheated vapor • solid • subcooled liquid • saturated • 144 • 970 • 5 • 14.7 • 0 • 12,000 • 30,000 • sling psychrometer • flash gas • pressure • temperature • thermometer

Email questions and comments to techtips@advancedenergy.org.