Pretest Heating Control Information Section

1. What is the minimum temperature change noticeable to the average person? 2°C
2. What are the two most common types of temperature actuators? Bi-metal and hydraulic filled.
3. How are the contacts closed in a low voltage thermostat? Rotation of the bi-metal strip tips a mercury bulb.
4. What are some of the advantages of solid-state thermostats? Longer lasting, more control.
5. What are some of the basic rules for installing thermostats? Specific mounting height, away from heat sources, away from dead air spaces.
6. Where are thermostat kits an acceptable form of heat control? Entry ways, bathrooms, kitchen, garage, and service or storage areas. Where accurate control is not important.
7. What is an example of a slow-response heating system? Ceiling heating cable.
8. Which type of heating load is best suited to control from a line voltage thermostat? High mass, slow response.
9. Which thermostat has a faster cycling rate? (line or low voltage) Low voltage
10. What is the typical operating voltage of low-voltage thermostats? Less than 30V
11. What is the only amperage rating that is a concern for a low-voltage thermostat controlling electric heat? Current draw of the relay or zone valve they control.
12. How is a heat anticipator connected in the circuit with the contacts? (series or parallel) Series or parallel but typically series.
13. How is the cycling rate improved and the mechanical lag diminished in a low-voltage thermostat? Heat anticipator.

14. How is a heat anticipator matched to a relay or zone valve? Adjustment on thermostat.

15. What are the two types of relays for electric heaters? Magnetic and thermal.

16. Which relay is quieter? Thermal

17. How are the contacts closed in a thermal relay? Heating a bi-metal rod.

18. What size wire is typically used between a low-voltage thermostat and a relay? 18/2 LVT

19. What are the four types of line-voltage thermostats? Single-pole wall-mounted, single-pole kit, double-pole wall-mounted, double-pole kit.

20. What are the main advantages of line-voltage thermostats? Lower cost and direct control of heat. (No relay)

21. What is the main advantage of a dual-diaphragm thermostat? Accuracy. (Less temperature swing)

22. What is the main advantage of thermostat kits? Disadvantage? Cheaper and easier to install but not as accurate (sense temp at heater level) and difficult to change temp setting.

23. What is the advantage of two-pole thermostats over single-pole? Has a definite off position.