

## Quiz 52

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### 1. The purpose of the "freeze-stat" temperature controller used with hot water coils is to:

- a. close the outside air dampers and stop the fan if the heat source fails or the low limit temperature controller malfunctions
- b. increase the hot water flow through the coil if outside air temperature is too low
- c. increase the heat source temperature if the outside air temperature decreases
- d. open the outside air dampers wide when the outside air temperature rises
- e. increase the fan output if the return air temperature is too low

### 2. The purpose of the flow switch or sail switch used with hot water coils is to:

- a. stop the fan and close the outside air dampers if the low limit temperature controller malfunctions or the heat source fails
- b. open the outside air dampers wide when the outside air temperature rises
- c. increase the heat source temperature if the outside air temperature decreases
- d. close the outside air dampers and stop the fan if the flow of water is interrupted due to pump failure or closing of the hand valves
- e. increase the hot water flow through the coil if the outside air temperature is too low

### 3. The thermostat which is sometimes installed in the return air duct serves to:

- a. limit temperature of the heated outside air
- b. control the throttle of the steam in the tubes
- c. sense the temperature of the steam in the coils
- d. minimize temperature fluctuations in discharge air
- e. heat re-circulated air

### 4. Which of the following is not a cause of freezing in hot water coils?

- a. failure of the circulating pump
- b. very low circulating water velocity
- c. very high circulating water velocity
- d. failure of the heat source
- e. poor air venting of the coil

### 5. To prevent freezing of the steam coil when steam pressure at the coil inlet is too low or is lost:

- a. a second preheat coil is installed at the outside air inlet
- b. a modulating steam control valve is installed at the coil inlet
- c. a two-position steam control valve is installed at the coil inlet
- d. the fan output is increased
- e. provisions are made to stop the fan and close the outdoor air dampers

**Quiz 52 Answers:**

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**1 = a, 2 = d, 3 = e, 4 = c, 5 = e**