

## Quiz 01

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### 1. 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

### 2. 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

### 3. 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

### 4. A main advantage of steam type humidifiers over pan type humidifiers is that the steam:

- a. type humidifiers are inexpensive
- b. is minimal time lag with steam type humidifiers
- c. types can achieve higher relative humidity
- d. types do not require a humidistat
- e. type humidifiers require less space

### 5. Air conditioning with respect to heating coils is achieved with:

- a. a combination of tempering control functions
- b. the selected mixing of warm return air and cooler outside air
- c. selective heating by passing air through the heating coils
- d. proportioning the amount of air flow through the face damper for heat addition, or through the bypass dampers for no heat addition
- e. all of the above

### 6. Dehumidification is achieved by:

- a. absorbing the moisture with a sponge filter
- b. absorbing moisture with a chemical drying agent
- c. cooling the air to a corresponding dew point temperature
- d. heating air to a corresponding wet bulb temperature

e. saturating the air until the precipitation point at room temperature is reached

**Quiz 01 Answers:**

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**1 = d, 2 = c, 3 = e, 4 = b, 5 = e, 6 = c**