FA RP 1 Quiz   **Name_____**
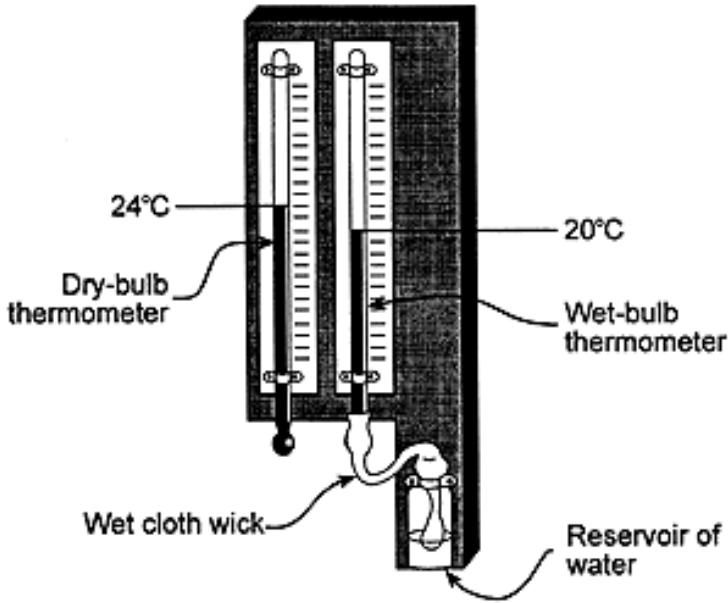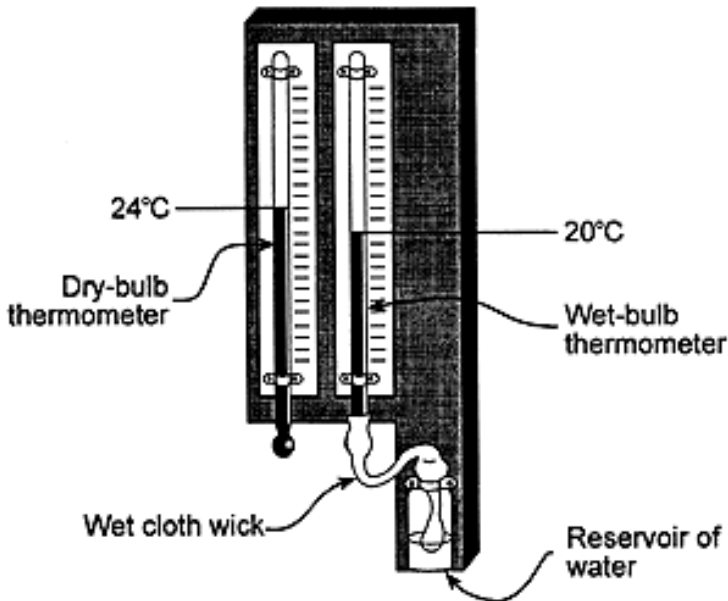**Mr. Chase**   **29-MAY-08**

1. Base your answer on the accompanying diagram, which shows a hygrometer located on a wall in a classroom. The hygrometer's temperature readings are used by the students to determine the relative humidity of the air in the classroom.
Based on the temperature readings shown in this diagram, determine the relative humidity of the air in the classroom. [1]

2. Base your answer on the accompanying diagram, which shows a hygrometer located on a wall in a classroom. The hygrometer's temperature readings are used by the students to determine the relative humidity of the air in the classroom.
Besides relative humidity, identify another weather variable of the air in the classroom that may be determined by using both temperature readings on the hygrometer. [1]
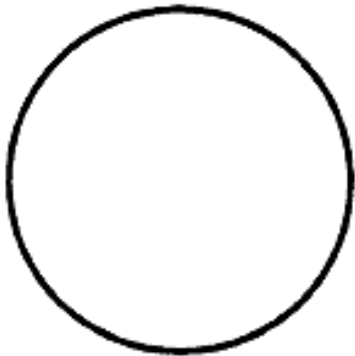
3. A student using a sling psychrometer obtained a dry-bulb reading of 20°C and a wet-bulb reading of 16°C for a parcel of air outside the classroom.
a State the dewpoint.
b State the change in relative humidity as the air temperature and the dewpoint get closer to the same value.
c On another day, the student determined the dewpoint was 70°F. Record the dewpoint, using the proper format, in the correct location on the weather station model provided or one similar on a separate piece of paper.
Note: On the actual exam, this was 3 individual questions.

4. The atmospheric conditions at a given location are represented by the weather station model (see image).

On a separate piece of paper, fill in the correct information for *each* variable listed, based on this weather station model. [2]
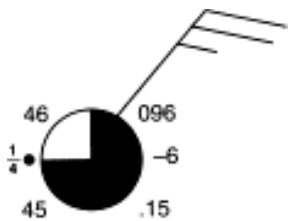Air pressure: _____ **mb**
Air temperature: _____ °**F**
Amount of precipitation during last six hours: _____ **inch(es)**
Cloud cover: _____ **%**
Present weather:_____

5. Base your answer on the accompanying station model, which shows the weather conditions at Rochester, New York, at 4 p.m. on a particular day in June.

The winds shown by this station model were blowing from which compass direction and at what wind speed?

83   021

                    −25\

82   .50