4th Grade Weather

Read and answer each question carefully.

1) What instrument is used to measure air pressure?
   A) thermometer  
   B) anemometer  
   C) hygrometer  
   D) barometer 

2) What instrument is used to measure the wind speed?
   A) hygrometer  
   B) barometer  
   C) anemometer  
   D) thermometer
3) Which one of the following symbols on a weather map indicates a front?

A)

B)

C)

D)
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4) Scientists that study the weather are called _________________.

A) climatologists
B) weather station
C) weather maps
D) meteorologists

Use the map below to answer questions 5, 6 and 7.

5) What do you expect the weather to be like in Denver?
   A) rainy
   B) thunderstorms
   C) hot
   D) cloudy
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6) Refer to the map. If you are in Portland, what should you wear?
   A) snowshoes and gloves
   B) shorts and t-shirts
   C) raincoat and umbrella
   D) sweaters and long pants

7) Refer to the map. Which city shows a cold front?
   A) Denver
   B) Seattle
   C) Salt Lake City
   D) Billings

8) The state of the atmosphere at any given time is called _________________.
   A) altitude
   B) climate
   C) weather
   D) temperature

9) Seattle has warm summers, cool winters and lots of rain. This is a description of _________________.
   A) climate
   B) altitude
   C) weather
   D) meteorology
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10) Which might be the best description of weather in Tucson?
   A) warm to hot summers, cool winters
   B) hot summers, cool to warm winters
   C) high Sonoran Desert
   D) mostly sunny

11) Which might be the best description of climate in Tucson?
   A) hot summers, warm to cool winters
   B) high Sonoran Desert
   C) mostly sunny
   D) partially cloudy

Use the data below to answer questions 12, 13, and 14.

<table>
<thead>
<tr>
<th>State</th>
<th>Rainfall (in./yr.)</th>
<th>Average High (F)</th>
<th>Average Low (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>56.90</td>
<td>88°</td>
<td>67°</td>
</tr>
<tr>
<td>Arizona</td>
<td>7.11</td>
<td>94°</td>
<td>64°</td>
</tr>
<tr>
<td>Colorado</td>
<td>15.31</td>
<td>70°</td>
<td>44°</td>
</tr>
<tr>
<td>Montana</td>
<td>11.37</td>
<td>65°</td>
<td>37°</td>
</tr>
<tr>
<td>Tennessee</td>
<td>48.49</td>
<td>78°</td>
<td>56°</td>
</tr>
<tr>
<td>Utah</td>
<td>15.31</td>
<td>72°</td>
<td>44°</td>
</tr>
</tbody>
</table>

12) Compare the data for Utah and Colorado. Which is the most likely explanation for the difference in average high temperatures?
   A) Utah has more humidity.
   B) Colorado has more humidity.
   C) Utah has higher altitudes.
   D) Colorado has higher altitudes.
13) Refer to the table. If you are planning to grow a crop that needed a lot of water, what state would you want to live in?

A) Tennessee  
B) Utah  
C) Montana  
D) Arizona

14) Refer to the table. What is the average high temperature for Arizona?

A) 88°  
B) 94°  
C) 64°  
D) 65°

Use the Weather Record Sheet to answer questions 15, 16, 17 and 18.
15) Refer to the table. On January 18, 2006, what was the wind speed and wind direction?

A) Gentle winds from the North
B) Moderate from the West
C) Strong winds from the Southwest
D) Moderate winds from the Northwest

16) Refer to the table. When the barometric pressure went down, what happened to the temperature over the next few days?

A) got hotter
B) stayed the same
C) went up and down
D) got colder

17) Refer to the table. Over the next few days your class charts the barometric pressure. You notice the pressure is dropping. What do you predict will happen to the weather?

A) It will be sunny.
B) It will be hotter.
C) It will not change.
D) It will rain.

18) Refer to the table. On what day do you think there was a mistake reading or recording of the barometric pressure?

A) January 13, 2006
B) January 15, 2006
C) January 20, 2006
D) January 18, 2006
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19) Partly cloudy is an example of _________________.
   A) weather
   B) altitude
   C) climate
   D) humidity

20) Meteorologists build weather stations and use different tools to
   A) change the weather.
   B) make the weather.
   C) forecast the weather
   D) help the weather.

21) What is true about the air pressure in Tucson compared to the top of Mt. Lemmon?
   A) The air pressure is less on Mt. Lemmon than in Tucson.
   B) There is no measurable air pressure on Mt. Lemmon.
   C) There is no difference in air pressure between Mt. Lemmon and Tucson.
   D) The air pressure is greater on Mt. Lemmon than in Tucson.
22) What is the amount of water vapor in the air called?
   A) humidity
   B) wind
   C) barometric pressure
   D) air pressure

23) What is the blanket of air surrounding the earth called?
   A) atmosphere
   B) cold front
   C) stationary front
   D) air pressure

24) Why do meteorologists build weather stations?
   A) to study weather maps
   B) to study data on weather conditions
   C) to study people’s behavior
   D) to study the length of days

25) What do climatologists mostly study?
   A) average weather conditions in an area over a long period of time
   B) changes in barometric pressure over one week
   C) changing conditions in the atmosphere to predict the weather over a short period of time
   D) changes in temperature over one week