**Water & Wind** (p. 781 – 787)

**I. The Water Cycle**

**1. Define the term water cycle.**

Water Cycle –

**2. Match the following terms with the correct definitions.**

1. \_\_\_\_\_\_\_\_ Evaporation A. Water loss by plants through small pores in the leaves.

2. \_\_\_\_\_\_\_\_ Transpiration B. Phase change of water from a liquid to a gas.

3. \_\_\_\_\_\_\_\_ Precipitation C. Common forms include rain, sleet, hail, and snow.

4. \_\_\_\_\_\_\_\_ Condensation D. Phase change of water from a gas to a liquid.

**3. Explain the difference between humidity and relative humidity.**

Humidity : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Relative Humidity : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Circle the letter of each sentence that is true concerning relative humidity.**

a. It is a percentage.

b. It is all the water vapor that the air can hold.

c. It depends on air temperature.

d. It measures how hot it feels.

**5. Define the term dew point.**

Dew Point –

**6. Circle the letter of each sentence that is true about condensation of water vapor.**

a. It occurs when air gets warmer.

b. It can occur on cold surfaces.

c. It explains why clouds form.

d. It can form on dust particles.

**7. Match the type of cloud with the correct characteristics.**

1. \_\_\_\_\_\_\_\_ Cumulus A. Wispy, feathery clouds; High altitudes

2. \_\_\_\_\_\_\_\_ Stratus B. White, fluffy clouds; Low to high altitude

3. \_\_\_\_\_\_\_\_ Cirrus C. Gray, flat layers; Low altitudes

4. \_\_\_\_\_\_\_\_ Cumulonimbus D. Towering clouds (up to 18 km); Indicate thunderstorms

**II. Air Pressure**

**1. What is the instrument used to measure air pressure?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. How is a barometer used to indicate the following types of weather :**

Fair : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stormy : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3. Match the types of barometer with the correct definitions.**

1. \_\_\_\_\_\_\_\_ Mercury A. Sealed chamber that shows changes in volume.

2. \_\_\_\_\_\_\_\_ Aneroid B. Long tube filled with mercury that is open at one end.

**4. What is one atmosphere equal to in millimeters of mercury?**

1 atm = \_\_\_\_\_\_\_\_\_\_\_\_ mm of Hg

**III. Wind**

**1. Define the term wind.**

Wind –

**2. Circle the letter of the statements that are true concerning wind.** *(Not in the book.)*

a. Winds are caused by differences in air pressure.

b. Winds are caused by differences in heating of Earth’s atmosphere.

c. Air near the equator is less dense, has less pressure, and expands while rising.

d. Air near the poles is dense, has higher pressure, and contracts while sinking.

**3. Define the term Coriolis effect.**

Coriolis Effect –

**4. Winds in the Northern Hemisphere curve counterclockwise and winds in the Southern**

**Hemisphere curve clockwise.**

Circle One : True False

**5. Match each global wind system with the correct characteristics.** *(Not all answers in book.)*

*(Refer to N. Hemisphere)*

1. \_\_\_\_\_\_\_\_ Doldrums A. Windless zones around 30° latitude.

2. \_\_\_\_\_\_\_\_ Trade Winds B. Blow NE → SW between 60° and 90° latitude.

3. \_\_\_\_\_\_\_\_ Prevailing Westerlies C. Blow SW → NE between 30° and 60° latitude.

4. \_\_\_\_\_\_\_\_ Polar Easterlies D. Blow NE → SW between 0° and 30° latitude.

5. \_\_\_\_\_\_\_\_ Horse Latitudes E. Windless zone near the equator.