**Chemical Feed**

1. The use of sodium hypochlorite increases the pH because it will form \_\_\_\_\_\_\_\_\_ when

added to the water.

1. Carbonate ions
2. Bicarbonate ions
3. Hydroxyl ions
4. Cations
5. Which of the following chemicals is used to increase the pH entering an activated sludge basin if the pH entering the tank is less than 6.0?
6. FeCL2
7. NaOH
8. HNO3
9. CaSO4
10. Given the following conditions, what is the problem? Chlorine residual is dropping; feed rate is not changed; and the feed rate rotameter did not drop when the cylinder valve closed.

a. Leak in vacuum line after rotameter

b. Leak in vacuum line before rotameter

c. Cylinder is out of gas

d. Ejector nozzle is plugged

1. As water temperature increases, the disinfection action of chlorine will
2. Increase
3. Decrease
4. Double
5. Indeterminate as it also depends on the pH
6. A wastewater plant is treating 1.5 MGD at a chlorine dosage of 8.75 mg/L. If the sodium hypochlorite being used is 11.5% available chlorine, what is the chlorine usage in pounds per day?
7. 109
8. 486
9. 952
10. 1259

**Chemical Feed - KEY**

1. C

2. B

3. B

4. A

5. 952

(Dosage, mg/L) (mgd) (8.34 lbs./gal)

Chlorine, lbs/day = Percent available chlorine/100%

(8.75 mg/L) (1.5 mgd) (8.34 lbs./gal)

= 11.5% /100% available chlorine

= 952 lbs/day