1. The primary difference between a chemical metering pump and a centrifugal pump is……
    a. a chemical metering pump requires routine maintenance
    b. a chemical metering pump operates on single phase AC current
    c. a centrifugal pump has a rotating impeller
    d. a centrifugal pump operates on 3 phase AC current

2. Which of the following is likely to occur if a valve is left closed on the discharge side of a chemical feed pump?
    a. The discharge piping/fittings will burst
    b. The pump will automatically shut down
    c. The pump will continue to run but no liquid will be injected
    d. The impeller will start to spin backwards

3. True or false? Advancements in technology now allow uninterrupted operation of chemical feed pumps without the need for calibration checks.
    a. True
    b. False

4. On a diaphragm metering pump the flexible diaphragm and the ball check valves must be routinely replaced. On a peristaltic pump the _____ must be routinely replaced.
    a. Impeller
    b. Rollers
    c. Tubing
    d. All of the above

5. If a chemical feed pump injects 200 milliliters per minute of a sodium hypochlorite solution, estimate how many gallons of sodium hypochlorite will be used over a 30 day period if it pumps for 16 hours every day.
    a. 0.416
    b. 416
    c. 1,522
    d. 15,218

Solution:
(200ml/min) X (1L/1000ml) X (1gal/3.785L) X (60min/hr) X (16hr/day) X (30 days)
= 5,760,000 / 3785
= 1,521.8 gallons