Assignment 2

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

1. An industrial waste water stream contains a stream having a BOD concentration of 19 mg/L and a flow of 20 m³/sec. If the flow of wastewater is increased to 50 m³/sec and BOD concentration in 200 mg/L, then the BOD concentration in the stream at a point downstream of point of confluence of waste water with the stream will be?

   - 2 EY mg/L
   - 10 mg/L
   - 15 mg/L
   - 16.9 mg/L

   No. The answer is incorrect.
   Accepted answers: None.

2. When waste water is disposed into a running stream, four zones are formed. In which one of the following zones will the minimum level of dissolved oxygen be found?

   - Zone of degradation
   - Zone of active decomposition
   - Zone of recovery
   - Zone of inter water

   No. The answer is incorrect.
   Accepted answers: None.

3. Consider the following statements:
   - The rate of BOD degradation in a stream can be affected by:
     - Rate of stream flow to the stream width
     - Stream BOD value concentration
     - BOD degradation rate constant
   - Which of the above statements are correct?

   - 1 and 2 only
   - 1 and 3 only
   - 2 and 3 only
   - 1, 2 and 3

   No. The answer is incorrect.
   Accepted answers: None.

4. For a wastewater sample, the three day BOD at incubation temperature of 20 degrees C is estimated as 250 mg/L. Taking the value of half order BOD degradation rate constant as 0.22 day⁻¹, the five day BOD (mg/L) of the wastewater at incubation temperature of 20 degrees C will be?

   No. The answer is incorrect.
   Accepted answers: None.

5. Choose the correct statements with regards to BOD and COD:
   - 1. BOD test is faster than COD test.
   - 2. COD test, just like the BOD test, doesn’t measure oxidant demand due to nitrification species.
   - 3. COD will always be higher or equal to the BOD value for a given sample.
   - 4. COD oxidizes biodegradable and non-biodegradable organic matter in a given sample.

   - 1, 2 and 4
   - 1 and 3
   - 2, 3 and 4
   - 1 and 3 only

   No. The answer is incorrect.
   Accepted answers: None.

6. Exceptional case is when a drinking water in 10 pathogens organisms. After chlorination is fully mixed into the water, it passes to a 100开奖 hamburger where the pathogens are inactivated. The concentration of chlorine is perfectly constant in the water sample, so the rate of inactivation of pathogens can be assumed to be proportional to the initial concentration of chlorine instead of pathogens. Assuming the proportionality constant of the coefficient is equal to 1.26, the time required to inactivate 10% concentration of pathogens is 170 minute.

   No. The answer is incorrect.
   Accepted answers: None.

7. Calculate the concentration of pathogens (number/L) expected in a plug flow contact chamber if it has retention time of 5.0 hr.

   No. The answer is incorrect.
   Accepted answers: None.

8. The evaporation and contact with water bodies is caused by:

   - Discharge of toxic substances
   - Excessive discharge of suspended solids
   - Excessive discharge of suspended solids
   - None of the above

   No. The answer is incorrect.
   Accepted answers: None.

9. Discharge of toxic substances:

   6 L of wastewater is diluted to 1000 L with distilled water in standard BOD bottle. Initial DO in the bottle is determined to be 8.5 mg/L. After 4 days at 25°C, it found to be 5 mg/L.

   Q1 Determine BOD of the waste water assuming distilled water has DO=0.

   No. The answer is incorrect.
   Accepted answers: None.

10. Determine the ultimate BOD (in mg/L) for the sample

   No. The answer is incorrect.
   Accepted answers: None.