Assignment 7

The due date for submitting this assignment has passed.

Due on 2021-10-23, 23:59 IST.

As per your records you have not submitted this assignment.

1) Which of the following determinations is unnecessary for tax water than a lake to use as source of supply for boiler feed?
   - Turbidity
   - Rechlorinated water
   - Carbon dioxide (pH)
   - Hardness
   - Alkalinity

   1 point

2) In the boiling of a city in one year 2017 was 190,000. If average increase in population per decade is 35%, the estimated population of the city using geometric increase method in year 2020 will be
   - 1 point

3) Waterborne diseases are illnesses caused by microorganisms, like viruses and bacteria, that are ingested through contaminated water or by coming in contact with two. Following table contains the list microbes and waterborne diseases. Match List I with List II and select the correct answer:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Proteus</td>
<td>Waterborne-Irritation</td>
</tr>
<tr>
<td>2. Bacteria</td>
<td>Hepatitis</td>
</tr>
<tr>
<td>3. Alcohol</td>
<td>Omphalitis</td>
</tr>
<tr>
<td>4. Virus</td>
<td>Typhoid fever</td>
</tr>
</tbody>
</table>

   1 point

4) In the theory of coagulation, “the net force on the colloid is repulsive at greater distance and becomes attractive only after passing through maximum net repulsive force. called ‘energy barrier’.” The above statement relevant to which of the following mechanism?
   - 1 point

5) This data given below is common for question 5 and 6:

<table>
<thead>
<tr>
<th>Name</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>mg/l</td>
<td>1.5</td>
</tr>
<tr>
<td>Y</td>
<td>mg/l</td>
<td>0.5</td>
</tr>
<tr>
<td>Z</td>
<td>mg/l</td>
<td>2.0</td>
</tr>
</tbody>
</table>

   (a) FeSO₄ + H₂O
   (b) Ca(OH)₂ + H₂O
   (c) Ca(OH)₂ + Mg(OH)₂
   (d) Ca(OH)₂ + NaOH

   1 point

6) The amount of CaCO₃ required to react with Fe(CO₃)₂ is _______ g/m³ (round off to nearest integer) CaCO₃

   1 point

7) Following statements are associated with alum coagulation:

   I. Decrease in the turbidity of treated water.
   II. Formation of hydroxide flocs of alum.
   III. Change in the pH of treated water.
   IV. A decrease in permanent hardness.

   1 point

8) The methods of air testing for identifying a solute is:

   I. Field test
   II. Laboratory test
   III. Industrial test
   IV. Chemical test

   1 point

9) The following statements are true:

   I. Biodegradable materials can be easily decomposed by microorganisms.
   II. Non-biodegradable materials cannot be decomposed by microorganisms.

   1 point

10) A water test for determining the amount of lead in water can be performed by:

   I. Spectrophotometry
   II. Atomic absorption spectrometry
   III. Colorimetric
   IV. Titration

   1 point