Questions Week II

Green chemistry

1. Define Atom Economy. What is the significance of atom economy?
2. How can Green chemistry be useful at different stages of life cycle of a product?
3. List out the 12 principles of Green chemistry. Explain any three with examples.

Industrial effluents of Dairy & Textile Industries

1. Waste waters from dairy industry need biological treatment. Why?
2. What is sludge and how is it treated?
3. What do you understand by aerobic and anaerobic digestion?
4. At what different steps of processing does the textile industry pollute the environment?
5. How can this pollution be taken care of or prevented?

Industrial Effluents from Petroleum and Agro Industries

1. At what different levels of processing does petro-chemical industry produce waste waters?
2. What are the major pollutants present in this waste water and how can they be removed?
3. Right from production to dissipation how do the different agricultural products contaminate water?
4. What are the methods applied to treat agricultural waste waters?

Borax

① Explain how borax may be used as:
   a) water softener
   b) buffer
   c) In medicines

2) How is borax manufactured?

3) Borax is a polyborate, illucidate with its structure.

Chlorine Gas

① What are the advantages and disadvantages of diaphragm cell electrolysis method of chlorine production? How are these disadvantages taken care of in membrane cell Electrolysis method?

② List different applications of chlorine. With equations explain how chlorine is used to disinfect water.

③ Give the methods of storing chlorine safely and write the hazards associated with it.