

Chapter 11

End-of-Chapter Questions

1. Provide the name of the element for each of the following parts:
 - (a) The least reactive alkali metal;
 - (b) The only noble gas for which many chemical compounds are known;
 - (c) One allotrope of this element is stored under water.

2. Provide the name of the element for each of the following parts:
 - (a) The alkaline earth metal involved in photosynthesis;
 - (b) The halide ion that is added to common salt to prevent the disease of goitre;
 - (c) The dangerous radioactive noble gas.

3. Provide the name of the element for each of the following parts:
 - (a) The alkali metal which imparts a yellow colour to a flame;
 - (b) The nonmetal which has an allotrope which conducts electricity;
 - (c) The dioxide of this element is a constituent of many rocks on Earth.

4. Provide the name of the element for each of the following parts:
 - (a) The most reactive halogen;
 - (b) The Group 13 metal ion found in many rocks;
 - (c) Jupiter's moon, Io, has much of this element on its surface.

5. Write chemical equations for:
 - (a) The reaction between sodium metal and water;
 - (b) The reaction on heating of calcium metal with the oxygen gas in the air.

6. Write chemical equations for:
 - (a) The reaction of aqueous chlorine with sodium iodide solution;
 - (b) The reaction on heating of solid phosphorus with the oxygen gas in the air to give solid tetraphosphorus decaoxide.