

Chemistry

(1)(i) Halogens have the general electronic configuration $ns^2 2p^5$. So its outer shell contains 7 electrons

(ii) As Halogens need only one electron so it readily acquires an electron from other elements to attain a stable noble gas configuration

(2) oxygen gas and hydrochloric acid (HCl)

(4)(i) Chlorine (Cl) - $1s^2 2s^2 2p^6 3s^2 3p^5$

(ii) Iodine (I) - $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4p^6 4d^{10} 5s^2 5p^5$

5 The number of valence electron in Halogens is 7.