TEST : 3 CLASS – XII [CHEMISTRY] CHAPTER – p-blockelements (Group-18)

Q.1 F_2 is a stronger oxidizing agent than Cl_2.

OR

Despite lower value of its electron gain enthalpy with negative sign, fluorine, F_2 is a stronger oxidizing agent than Cl_2.

Q.2 Give reason for the following:

Fluorine does not exhibit any positive oxidation state.

Q.3 Bond enthalpy of F_2 is less than that of Cl_2.

Q.4 The halogens are coloured, why?

Q.5 F_2 is most reactive of all the four common halogens.

Q.6 Electron gain enthalpy with negative sign for fluorine is less than that for chlorine.

Q.7 Arrange F_2, Cl_2, Br_2 and I_2 in the order of increasing bond dissociation enthalpy.

Q.8 Halogens are strong oxidizing agents. Why?

Q.9 Which is stronger acid in aqueous solution, HCl or HI and why?

OR

Explain in aqueous medium HCl, is stronger acid than HF.

Q.10 Arrange the following in the order of increasing acidic strength.

HCl, HBr, HI, HF

Q.11 Hydrogen fluoride has a much higher boiling point than hydrogen chloride. Why?

Q.12 Complete the following reaction:

$F_2 + H_2O$ ----------->

Q.13 Fluorine exhibits only -1 oxidation state in its compounds whereas other halogens exhibit many other oxidation states, why?

Q.14 Give reason: Electron gain enthalpies of halogens are largely negative.

Q.15 Assign reason for the following:

Reducing character increases from HF to HI.

Q.16 Name the halogen which does not exhibit positive oxidation state.