

Chemistry - 12th Class Chemistry Chapter 5 Short Questions Preparation

Q1. How halogen acids are ionized in water?

Ans 1: In water hydrogen halides give hydroflorine ,hydrochloric,hydrobromic and hydrochloric acids.Hydrofluoric acid is week acid due to limited ionization,The other three acids are vert strong acid,The acidic strength increases in the order.

Q2. Why HF is weaker acid that other halogen acid?

Ans 1: In water hydrogen halides give hydrofluoric ,hydrochloric ,hydrobromic and hydroiodic acid,The strength hydrogen halogen bond is very high in HF. The bond strength is reflected in the case of dissociation of hydrogen and halides, Hydrofluoric acid is week acid due to limited ionization, The other three acid are very strong acids, The acidic strength increase in order.

Q3. Describe factor of acidic strength of oxyacids of halogens?

Ans 1:

- 1. Number of oxygen atoms attached to the oxyacid halogens.
- 2. oxidation state of hydrogen in oxyacid of halogens.
- 3. Tendency to lose proton from oxyacid of halogens.
- Q4. Why Fluorine acts as a strong oxidation agent?

Ans 1: Oxidizing power of fluorine is higher, because it has low energy of dissociation and higher hydration energy of its ions, Due to the relative strength as oxidizing agents, it is possible for each free halogen to oxidize the ions of other halogens next to it in the family . Fluorine can oxidize all the halide ions molecule halogens.

Q5. The elements of group VIII-A are called noble gases. Comment?

Ans 1: Elements of group VIII-A are called noble gases because, these elements are colourless, odourless monoatomic gases which are chemically un-reactive.

Q6. Compare halogen acids in their reducing properties?

Ans 1: HF,HCI,HBr and HI acts as reducing agents in the following order: HF<HCI < HBr<HI

Q7. What is peculiar behaviour of Fluorine?

Ans 1: The halogen form a homologous series but fluorine differ from the other halogens in many respects which is due to :

- 1. Small in size of D atom and F ion,
- 2. High first ionization energy and electronegativity.
- 3. Low dissociation energy of F₂molecule as compared to Cl₂and Br₂.
- 4. Restriction of the valence shell to an octet
- 5. Direst combination with inert gasses.

Q8. What is bleaching powder?

Ans 1: Bleaching powder is yellowish white powder with strong smell of chlorine and is used to bleach different things. It has chlorine known as "available chlorine".

Q9. What are the major application of Neon?

Ans 1: Neon is largely is used in making neon advertising signs, in high voltage indicators and TV tubes, Neon and helium arc is used in making glass laser.

Q10. Arrange the following ions in order of increasing size F,Cl,Br,I

Ans 1: F<CI<Br<I