Chemistry - 12th Class Chemistry Chapter 5 Short Questions Preparation

Q1. 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.

Q2. Give uses of iodine.

Ans 1: The major application of iodine are in pharmaceutical industry,It is used as disinfectants and germicides,Tincture of iodine and iodex are popular preparation of iodine.Diet with insufficient iodine ions leads to an enlargement of the thyroid,To ensure the present of iodine ion in the diet,sodium or potassium iodine is added to the common salt which is known as iodized salt.

Q3. On what factor oxidizing power of halogens depends upon?

Ans 1:

1. Energy of dissociation
2. Electrons affinity of atoms
3. Heat of vapourization

Q4. Give two application of Radon gas.

Ans 1: 1.Radon is being radioactive is used in earthquake prediction.
2.Radon being radioactive is used in radiotherapy for cancer.

Q5. Write four properties of hydrogen fluorides?

Ans 1:

1. HF is a colourless volatile liquid.
2. HF attacks glass and has found application as non aqueous solvent.
3. HF has meeting point as -83.8 degree,
4. HF has boiling point as 19.5 degree.

Q6. Give reason that fluorine is gas ,iodine is solid?

Ans 1: Iodine molecule has larger size than fluorine,The intermolecular attraction is greater in the larger molecule having greater masses.Due to the larger size of iodine molecule the van der Waal forces are stronger than smaller size molecule of fluorine.

Q7. Halogens are strong oxidizing agents ,Justify.

Ans 1: All the free halogens acts as oxidizing agents when they reacts with metals or nonmetals.On forming ionic compounds with metals,the halogen s gain electron and are converted to negative halide ions.

Q8. 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 F_2molecule as compared to $Cl_2$and Br_2.
4. Restriction of the valence shell to an octet
5. Direst combination with inert gasses.

Q9. Compare halogen acids in their reducing properties?

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

Q10. 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.
