

The p-Block Elements

1. H_2S is more acidic than H_2O because

- (a) oxygen is more electronegative than sulphur.
- (b) atomic number of sulphur is higher than oxygen.
- (c) H — S bond dissociation energy is less as compared to H — O bond.
- (d) H — O bond dissociation energy is less also compared to H — S bond.

▼ Answer

Answer: b

2. The boiling points of hydrides of group 16 are in the order

- (a) $\text{H}_2\text{O} > \text{H}_2\text{Te} > \text{H}_2\text{S} > \text{H}_2\text{Se}$
- (b) $\text{H}_2\text{O} > \text{H}_2\text{S} > \text{H}_2\text{Se} > \text{H}_2\text{Te}$
- (c) $\text{H}_2\text{O} > \text{H}_2\text{Te} > \text{H}_2\text{Se} > \text{H}_2\text{S}$
- (d) None of these

▼ Answer

Answer: b

3. In the manufacture of sulphuric acid by contact process Tyndall box is used to

- (a) convert SO_2 and SO_3
- (b) test the presence of dust particles
- (c) filter dust particles
- (d) remove impurities

▼ Answer

Answer: b

4. Fluorine differs from rest of the halogens in some of its properties. This is due to

- (a) its smaller size and high electronegativity.
- (b) lack of d-orbitals.
- (c) low bond dissociation energy.
- (d) All of the these.

▼ Answer

Answer: b

5. The set with correct order of acidity is

- (a) $\text{HClO} < \text{HClO}_2 < \text{HClO}_3 < \text{HClO}_4$
- (b) $\text{HClO}_4 < \text{HClO}_3 < \text{HClO}_2 < \text{HClO}$
- (c) $\text{HClO} < \text{HClO}_4 < \text{HClO}_3 < \text{HClO}_2$
- (d) $\text{HClO}_4 < \text{HClO}_2 < \text{HClO}_3 < \text{HClO}$

▼ Answer

Answer: b

6. When chlorine reacts with cold and dilute solution of sodium hydroxide, it forms

- (a) Cl^- and ClO^-
- (b) Cl^- and ClO_2^-
- (c) Cl^- and ClO_3^-
- (d) Cl^- and ClO_4^-

▼ **Answer**

Answer: a

7. The formation of $\text{O}_2^+ [\text{PtF}_6]^-$ is the basis for the formation of first xenon compound. This is because

- (a) O_2 and Xe have different sizes.
- (b) both O_2 and Xe are gases.
- (c) O_2 and Xe have comparable electro-negativities.
- (d) O_2 and Xe have comparable ionisation enthalpies.

▼ **Answer**

Answer: d

8. Partial hydrolysis of XeF_4 gives

- (a) XeO_3
- (b) XeOF_2
- (c) XeOF_4
- (d) XeF_2

▼ **Answer**

Answer: b

9. Helium is preferred to be used in balloons instead of hydrogen because it is

- (a) incombustible
- (b) lighter than hydrogen
- (c) more abundant than hydrogen
- (d) non polarizable

▼ **Answer**

Answer: a

10. The increasing order of reducing power of the halogen acids is

- (a) $\text{HF} < \text{HCl} < \text{HBr} < \text{HI}$
- (b) $\text{HI} < \text{HBr} < \text{HCl} < \text{HF}$
- (c) $\text{HBr} < \text{HCl} < \text{HF} < \text{HI}$
- (d) $\text{HCl} < \text{HBr} < \text{HF} < \text{HI}$

▼ **Answer**

Answer: a
