



The p-block Elements

Q.No.1: The pair in which phosphorous atoms have a formal oxidation state of +3 is: **JEE 2016**

- A. Pyrophosphorous and hypophosphoric acids
- B. Orthophosphorous and hypophosphoric acids
- C. Pyrophosphorous and pyrophosphoric acids
- D. Orthophosphorous and pyrophosphorous acids

Q.No.2: The reaction of zinc with dilute and concentrated nitric acid, respectively, produces: **JEE 2016**

- A. NO_2 and NO
- B. NO and N_2O
- C. NO_2 and N_2O
- D. N_2O and NO_2

Q.No.3: Which of the following are Lewis acids? **JEE 2018**

- A. PH_3 and SiCl_4
- B. BCl_3 and AlCl_3
- C. PH_3 and BCl_3
- D. AlCl_3 and SiCl_4

Q.No.4: The compound that **does not** produce nitrogen gas by the thermal decomposition is **JEE 2018**

- A. NH_4NO_2
- B. $(\text{NH}_4)_2\text{SO}_4$
- C. $\text{Ba}(\text{N}_3)_2$
- D. $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$

Q.No.5: Correct statements among a to d regarding silicones are:

- (a) They are polymers with hydrophobic character.
 - (b) They are biocompatible.
 - (c) In general, they have high thermal stability and low dielectric strength.
 - (d) Usually, they are resistant to oxidation and used as greases. **JEE 2019**
- A. (a), (b), (c) and (d)
 - B. (a), (b), and (c) only
 - C. (a) and (b) only
 - D. (a), (b) and (d) only

Q.No.6: Aluminium is usually found in +3 oxidation state. In contrast, thallium exists in +1 and +3 oxidation states. This due to: **JEE 2019**

- A. inert pair effect
- B. diagonal relationship
- C. lattice effect
- D. lanthanoid contraction

Q.No.7: Good reducing nature of H_3PO_2 is attributed to the presence of: **JEE 2019**

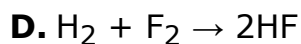
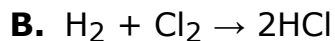
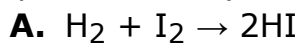
- A. Two P – OH bonds
- B. One P – H bond
- C. Two P – H bonds
- D. One P – OH bond

Q.No.8: The electronegativity of aluminium is similar to: **JEE 2019**

- A. Carbon
- B. Beryllium
- C. Boron

D. Lithium

Q.No.9: Among the following reactions of hydrogen with halogens, the one that requires a catalyst is: **JEE 2019**



Q.No.10: The pair that contains two P – H bonds in each of the oxoacids is :

JEE 2019

