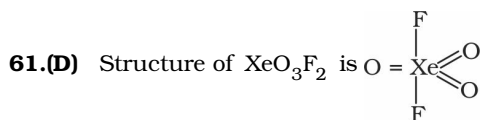


Daily Tutorial Sheet 5

JEE Main (Archive)

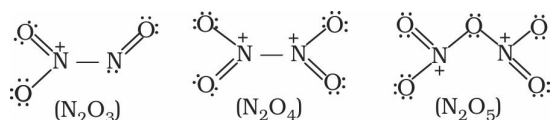


No. of bond pairs = 5, No. of π - bonds = 3, No. of lone pairs = 0.

62.(A) Electron affinity order : $\text{Cl} > \text{F} > \text{O}$

Due to strong electron-electron repulsions, the electron affinity of fluorine is less than chlorine.

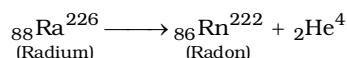
63.(C) Structures of oxides of nitrogen are :



Thus, N₂O₃ and N₂O₄ contain one N — N bond.

64.(D) Rn (Radon do not occur in nature)

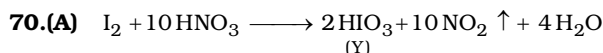
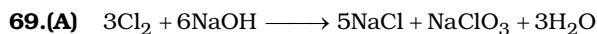
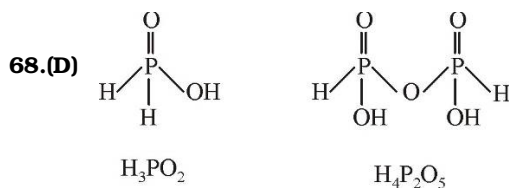
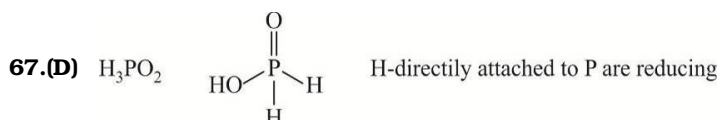
It is obtained as a decay product of Ra



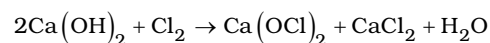
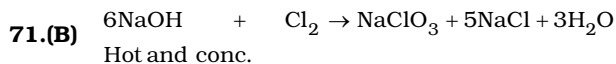
Technically no option is matching.

65.(A) Due to intermolecular hydrogen bonding HF has highest boiling point among hydrogen halides.

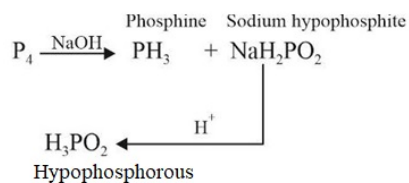
66.(C) NO , N_2O , NO_2 , N_2O_3



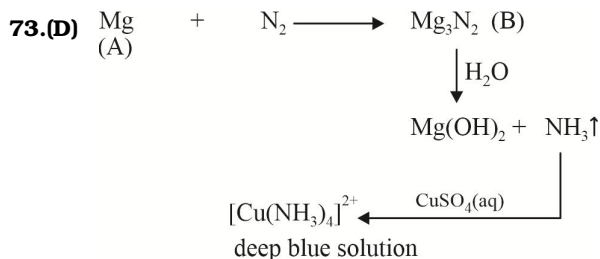
Oxidation state of I in $\text{HIO}_3 = 5$



72.(C)



Basicity of $\text{H}_3\text{PO}_2 = 1$ (one replaceable H^+ ion per molecule)

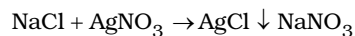
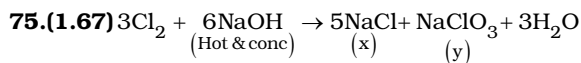


74.(C) $\text{N}_2\text{O}_3, \text{Li}_2\text{O}, \text{Al}_2\text{O}_3$

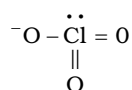
N_2O_3 is an acidic oxide (it is a non metal oxide)

Whereas, Li_2O oxide of Li (alkali metal) is basic in nature and Al_2O_3 reacts with both acids and alkali and hence it is amphoteric in nature.

Other examples of amphoteric oxides are $\text{ZnO}, \text{BeO}, \text{Ga}_2\text{O}_3, \text{Cr}_2\text{O}_3$ etc.

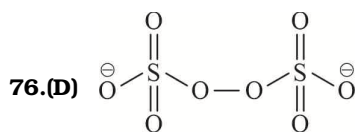


Y is NaClO_3 $\text{Na}^+\text{ClO}_3^-$



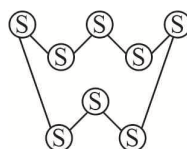
$$\text{Bond order} = 1 + \frac{\text{no of } \pi \text{ bond}}{\text{no. of } \sigma \text{ bond}} = 1 + \frac{2}{3} = \frac{5}{3} = 1.67$$

(in Resonance)



($\text{S}_2\text{O}_8^{2-}$)

(Number of S — O bonds = 8)



(rhombic sulphur)

(Number of S — S bonds = 8)