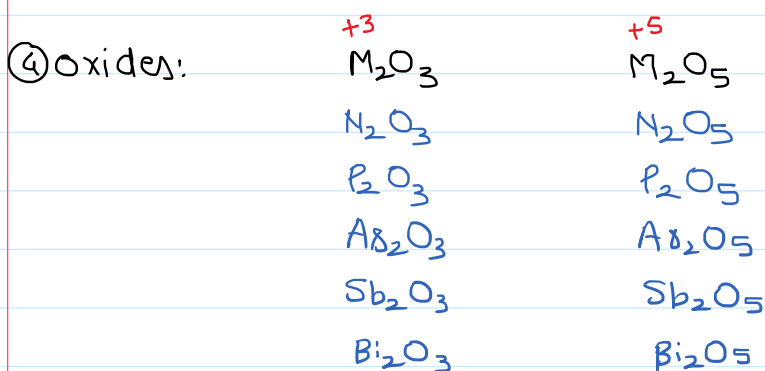
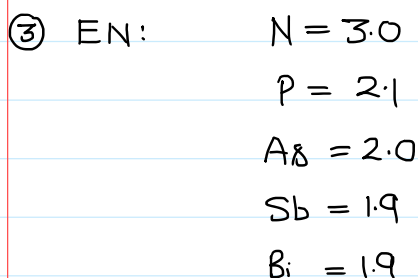
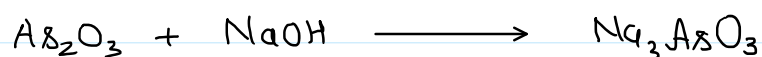
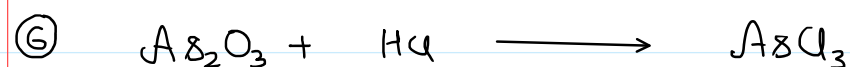
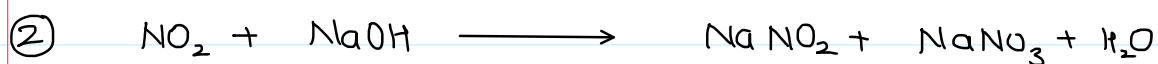
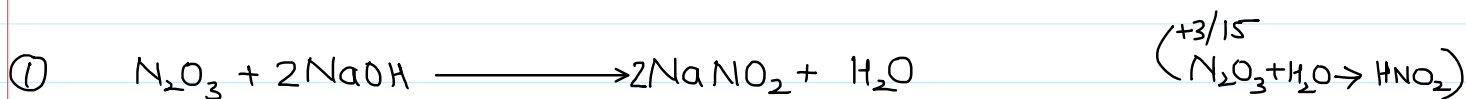


② Size: shell $\uparrow \Rightarrow$ size \uparrow

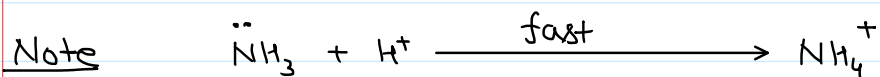
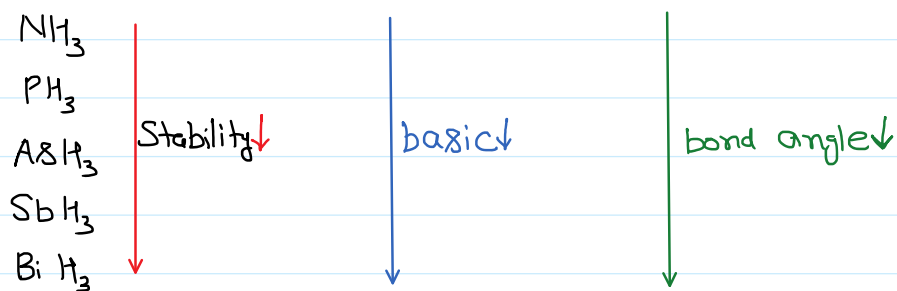


Note:- $NO, N_2O \Rightarrow$ Neutral oxide

(JEE)

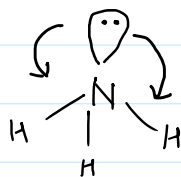
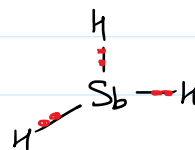
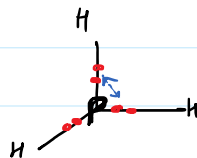


⑤ Hydrides (MH_3)

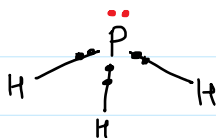


$\odot \Rightarrow$ No reaction / bond

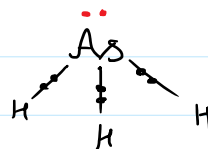
①: NH_3 PH_3



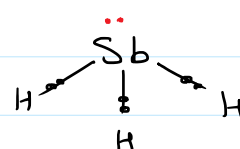
sp^3
 $\theta < 109^\circ 28'$
 $\theta = 107^\circ$



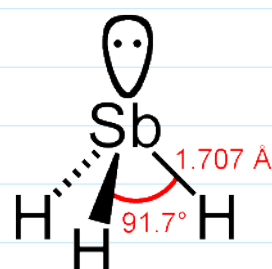
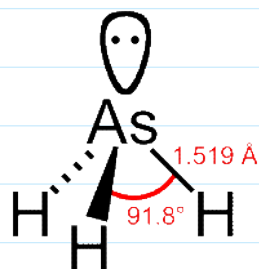
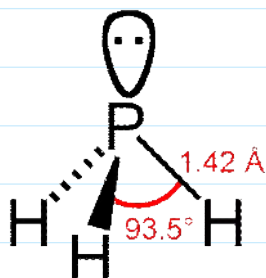
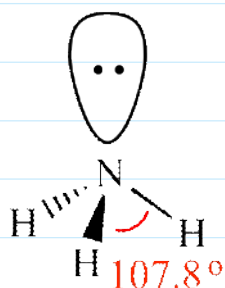
~~sp^2~~
(pure p-orbitals)
 $\theta \approx 90^\circ$



~~sp^2~~
(pure p-orbitals)
 $\theta \approx 90^\circ$

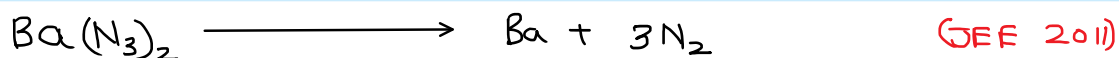
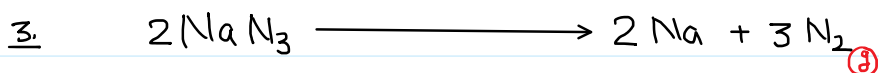
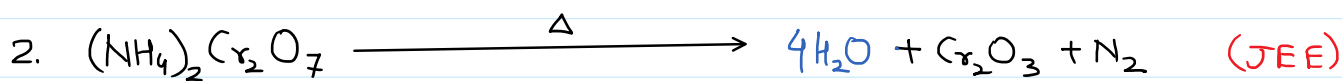
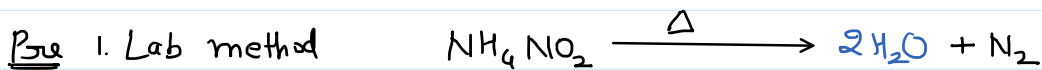


~~sp^2~~
(pure p-orbitals)
 $\theta \approx 90^\circ$

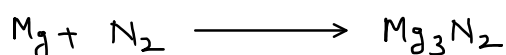
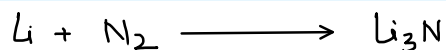


N_2

$N \equiv N$



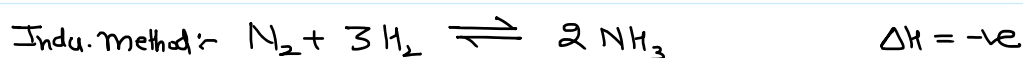
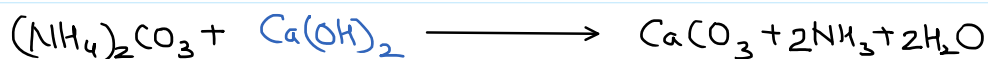
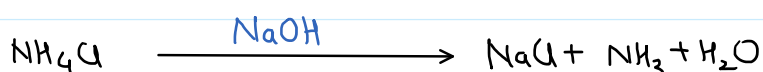
RXN



Imp

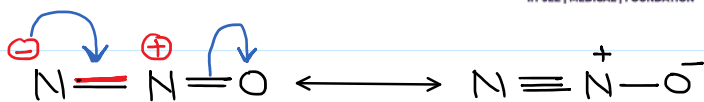
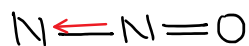
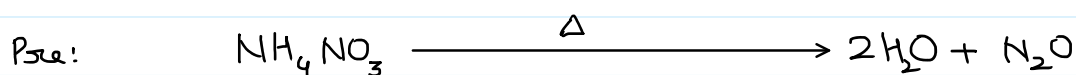
NH₃

Lab method:-



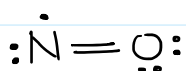
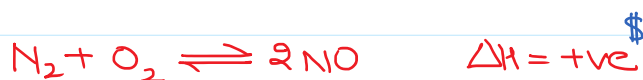
Oxides

1. N_2O



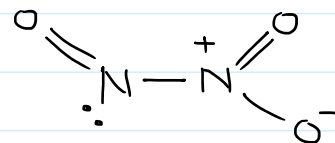
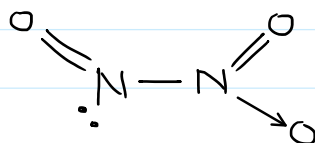
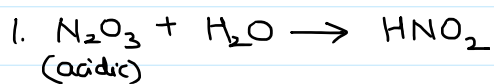
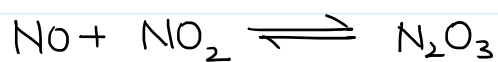
2. NO

Pre

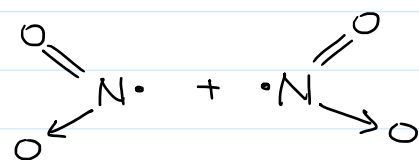
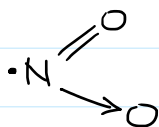
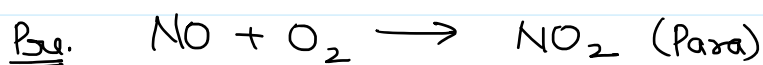


\rightarrow Para mag.

3. N_2O_3

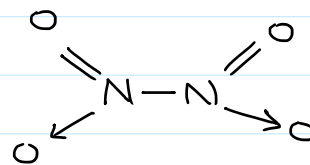


NO_2 (brown gas)



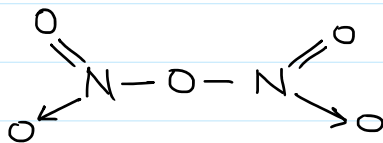
(Para)
brown

(Para)



(Di)
C.L

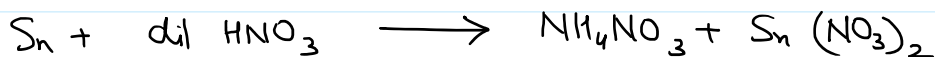
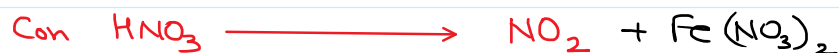
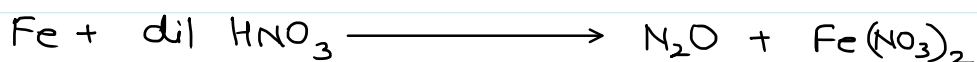
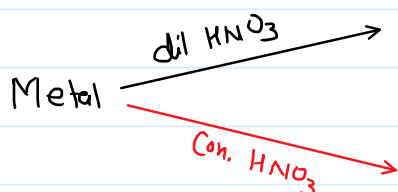
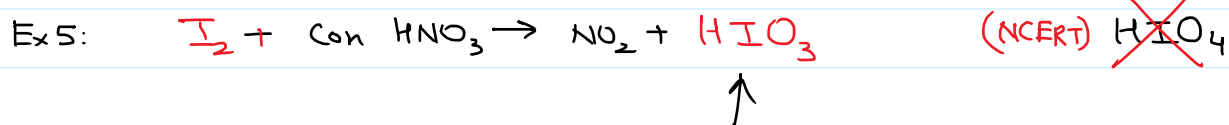
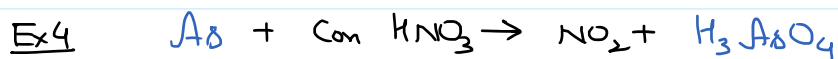
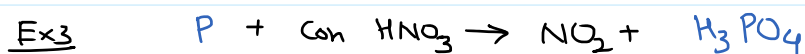
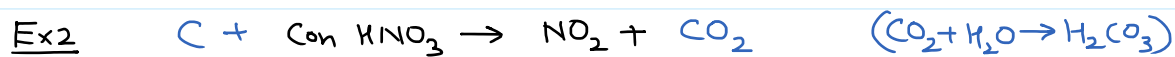
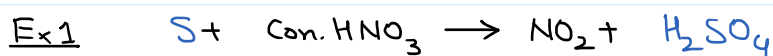
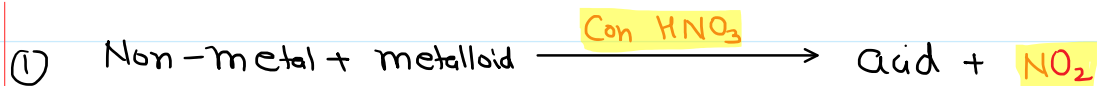
5 N_2O_5



1. Solid (NO_2^+ , NO_3^-)

HNO_3

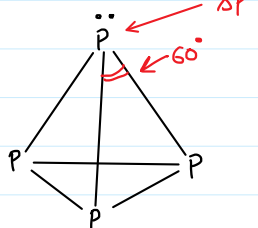
Chemical Prob:-



P

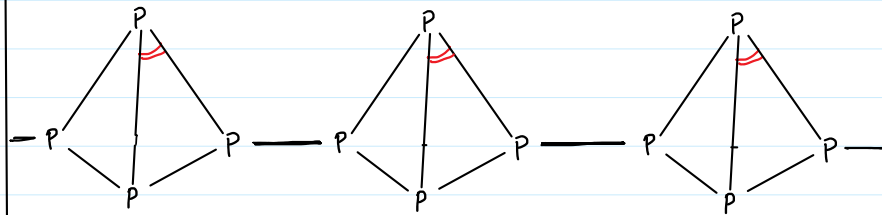
White
(P_4)

1.

2. Unstable due to \angle strain3. $\Delta H_f^\circ = 0$ (T.C)4. $P_4 + O_2 \rightarrow P_2O_5$ glow in night

5. Poisonous in nature

Red

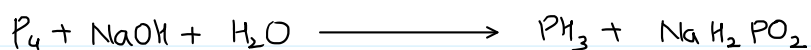


2. more stable

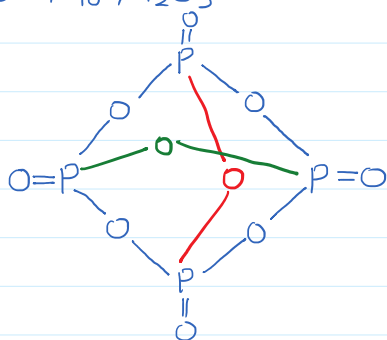
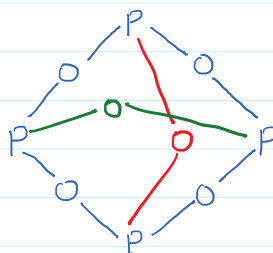
3. $\Delta H_f^\circ = -ve$

4. It does not glow in dark

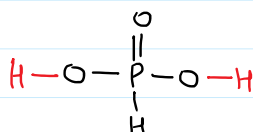
Non-poisonous

 PH_3 

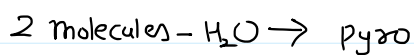
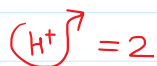
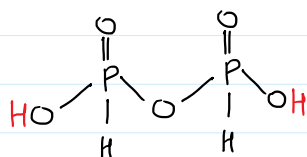
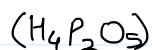
(JEE)

① P_4O_{10} / P_2O_5 ② P_4O_6 / P_2O_3 Oxyacid① H_3PO_3

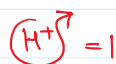
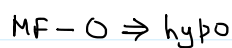
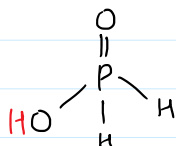
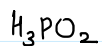
Phosphorous acid (ortho)



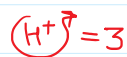
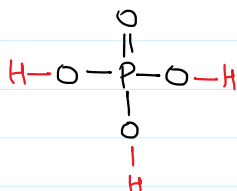
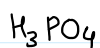
② Pyrophosphoric acid



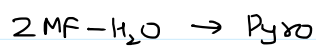
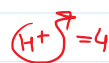
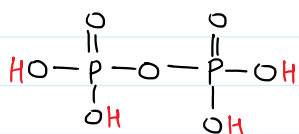
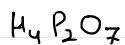
③ hypophosphoric acid



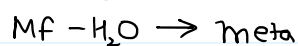
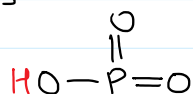
① Phosphoric acid



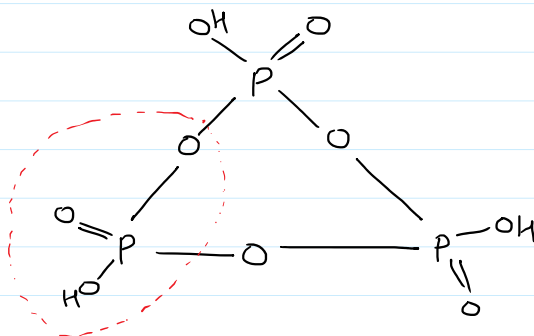
② Pyrophosphoric acid



③ meta phosphoric acid



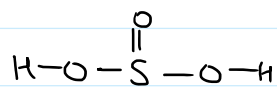
④ Poly $(HPO_3)_3$



Sulphur

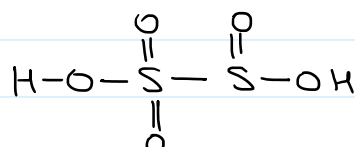
Oxy acid

① (a) Sulphurous acid H_2SO_3



$$OS_S = +4, \quad (H^+)^7 = 2$$

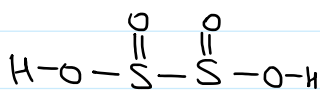
(b) $\text{H}_2\text{S}_2\text{O}_5$



$$OS_s = +5, +3$$

$$\frac{\partial p^3}{\partial p^3}$$

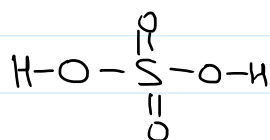
© $H_2S_2O_4$



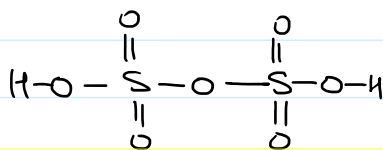
$$OS_5 = +3, +3$$

$$\delta p^3 / \delta p^3$$

(2)(a) Sulphuric acid H_2SO_4

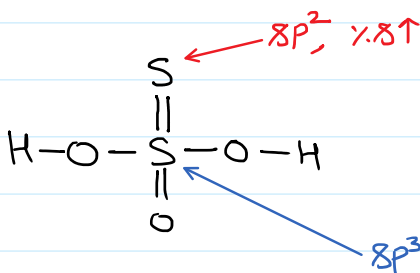


(b) $H_2S_2O_7$



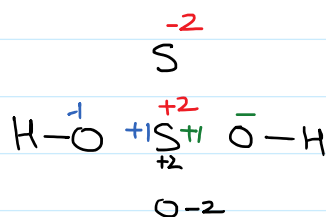
$$OS_S = +6, +6$$

© $H_2S_2O_3$



$$OS = -2, +6$$

(JEE Adv)



$$OS_S = -2, +6$$

③ Polythionic acid

