

not possible

HW  
30/6/21

1. Distinguish between the concept of knowing acids and bases on basis of Arrhenius Theory and Lewis Theory.

ans:- (1) Arrhenius Theory

- Acids release  $H^+$  ions when dissolved in water.
- Bases release  $OH^-$  ions when dissolved in water.

(2) Lewis Theory

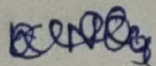
- Acids are  $H^+$  donors.
- Bases are  $H^+$  acceptors.

2. Although  $NH_3$  doesn't contain any  $OH^-$  ions it still behaves as a base. Why?

ans:- It is because  $NH_3$  is a  $(H^+)$  ion acceptor. According to Lewis Theory bases are  $H^+$  ion acceptors.

3. What is the oxidation state of K atom in potassium permanganate?

ans:-

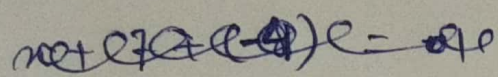


$KMnO_4$  overall charge = 0

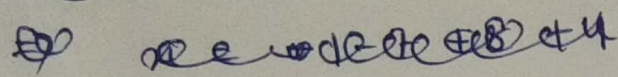
Oxid<sup>n</sup> state of Mn = 7

Oxid<sup>n</sup> state of O = ~~2~~ (-2) = ~~2~~

let the oxid<sup>n</sup> state of K atom be  $x$ .



$$\Rightarrow n + 7 + 4(-2) = 0$$



$$\Rightarrow n = 8 - 7$$

$$\Rightarrow n = +1$$