

# AP Inter 2<sup>nd</sup> Year Chemistry Answer Key 2024

① These are the solutions having the same osmotic pressure at a given temperature.

Ex: Blood is isotonic with saline

② It is an electrochemical cell which acts as a source of electrical energy without being previously charged up by any electric current. These cells cannot be reused again.

Ex: Leclanche cell or dry cell.

③ In metallurgy of Copper, silica acts as an acidic flux to remove iron oxide (FeO) as slag  $[FeSiO_3]$

$$FeO + SiO_2 \rightarrow FeSiO_3$$

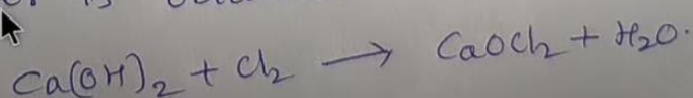
④ HCl gas reacts with atmospheric oxygen in the presence of  $CuCl_2$  catalyst at 723K to form chlorine

$$4HCl + O_2 \xrightarrow[723K]{CuCl_2} 2Cl_2 + 2H_2O$$

⑥ electronic configuration of  $Fe^{2+} = [Ar] 3d^6 4s^0$   
number of unpaired electrons in it is  $n=4$ .

spin only magnetic moment  $\mu = \sqrt{n(n+2)} = \sqrt{4(4+2)} = \underline{4.9}$  (B.P)

⑤ when  $Cl_2$  reacts with dry slaked lime ~~bleaching~~ powder is obtained.



⑦ In the ~~presence~~ <sup>process</sup> of heating raw rubber with Sulphur at 373 - 415K to improve its physical properties.

Addition of Sulphur introduces Sulphur bridges between polymer chains. This causes more tensile strength.

⑧ Triethylaluminium and titanium tetrachloride  $[(C_2H_5)_3Al + TiCl_4]$ .

It is used in the preparation of high density polythene.

⑨ These are the drugs used to remove the excess acid in the stomach and maintain the normal pH level.

⑩ ~~total~~ soap is used in soft water only. But detergent can be used in both soft and hard water.