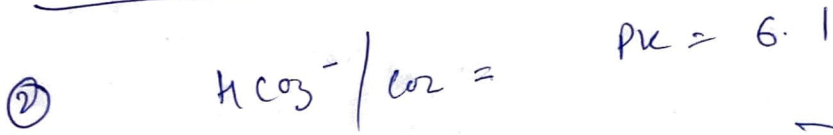


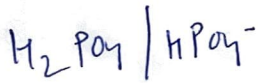
① Bicarbonate



$$\text{pH} = 6.1 + \log \left[\frac{\text{HCO}_3^-}{\text{CO}_2} \right] \text{ paco}_2$$

Phosphate

organic (ATP
ADP)



Tubular lumen

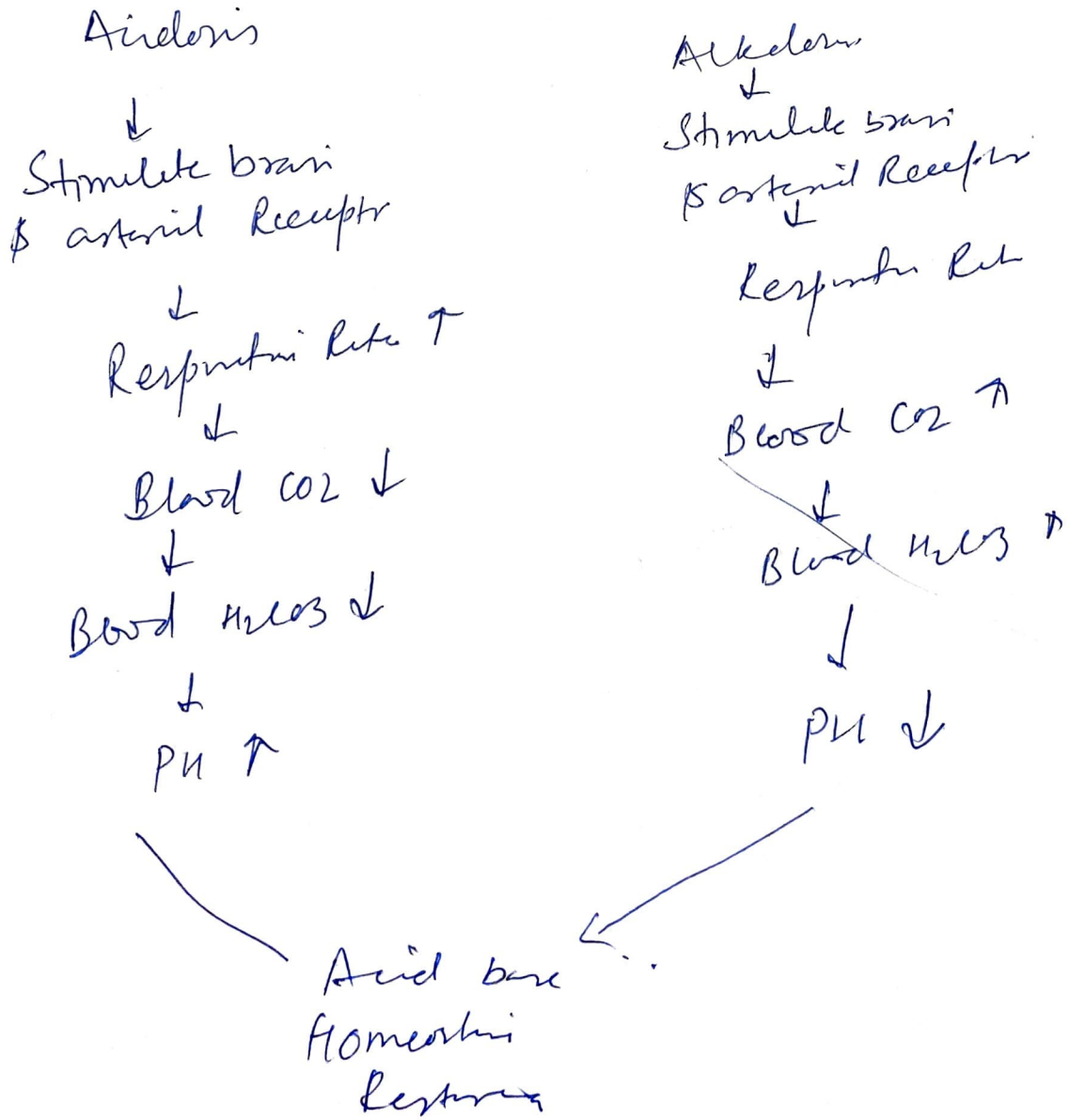
Particulate :-

Respiratory Acidosis

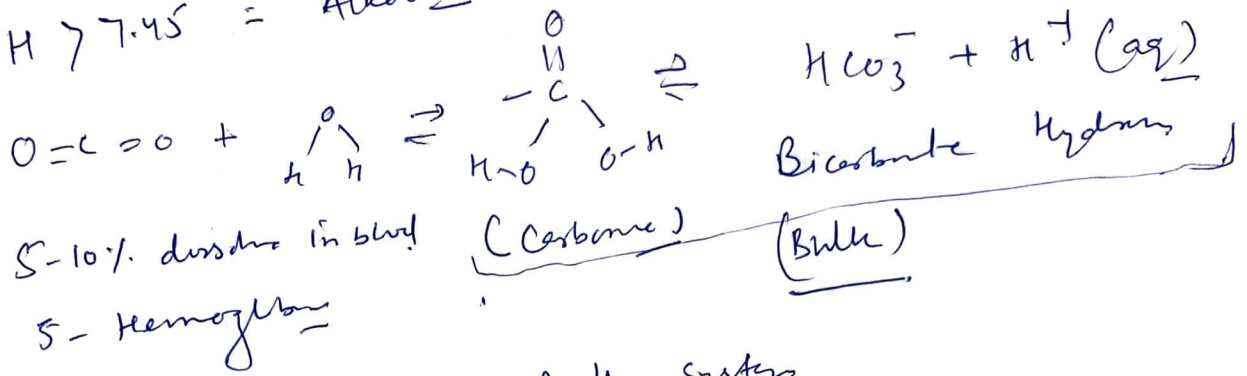
An increase in H_2CO_3 that is caused by Respiratory Condition that interferes with the elimination of CO_2 and Respiratory alkalosis represent a decrease in H_2CO_3 that is caused by excess ~~and~~ elimination of CO_2 .

Metabolic Acidosis decrease in HCO_3^-

Acid base Homeostasis



pH of blood = 7.35-7.45
 pH < 7.35 = Acidosis
 pH > 7.45 = Alkalosis

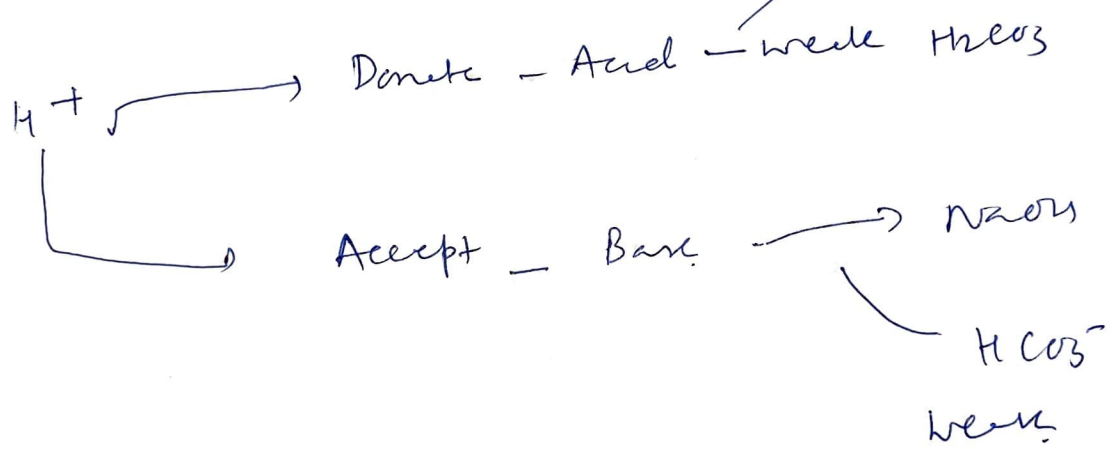


5-10% dissolved in blood (Carbonic) (Bulky)
 5- Hemoglobin

Buffer System

Buffer = reduce the impact of something

Intrinsic $\text{H}^+ \rightarrow \text{pH} \downarrow$ (~~Carbonic acid~~)
 ← strong = HCl



$\text{pH} = \log_{10} \left[\frac{1}{\text{H}^+} \right]$ $\text{H}^+ \Rightarrow \text{pH} \downarrow$ nonlinear
 $\text{H}^+ \rightarrow \text{pH} \uparrow$

$\text{pH} = -\log [\text{H}^+]$
 $7.4 = -\log [\text{concentration}]$