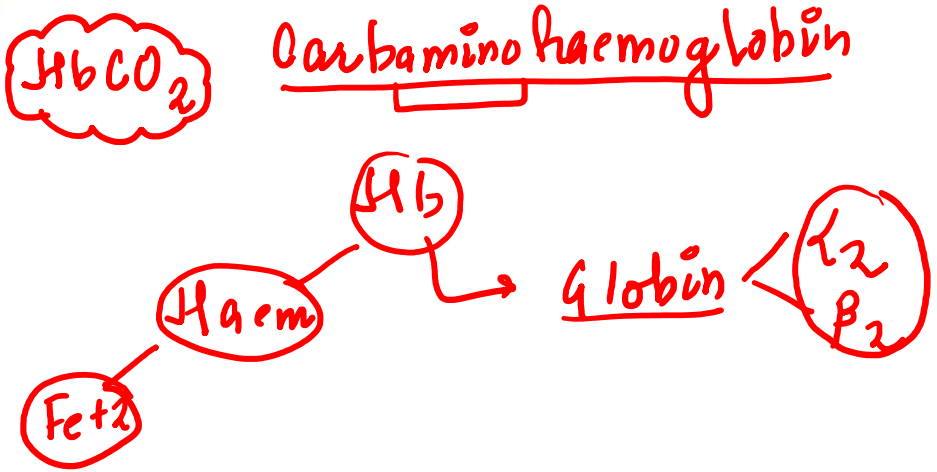
1. The binding of Hb with Carbon dioxide forms
   (A) Methamoglobin
   (B) Carbamino-haemoglobin
   (C) Oxyhemoglobin
   (D) None of these



2. The formation of Carbonic acid from Carbon dioxide and water has catalyzed the enzyme

(A) Carbonic anhydrase
(B) Carbonic anhydride
(C) Carbonic hydrase
(D) Both (A) and (C)

In RBC

$$CO_2 + H_2O \xrightleftharpoons{C.A} H_2CO_3 \xrightleftharpoons{C.A} H^+ + HCO_3^-$$

3. Name the chronic respiratory disorder caused mainly by cigarette smoking

(A) Asthma
(B) Respiratory acidosis
(C) Respiratory alkalosis
(D) Emphysema

Bronchi

Allergic

ALVEOLI

Excessive cigarette

4. Approximately seventy percent of carbon dioxide absorbed by the blood will be transported to the lungs
(A) as bicarbonate ions (70%)
(B) in the form of dissolved gas molecules
(C) by binding to RBC
(D) as carbamino-haemoglobin

HCO_3^- (70%)
7% (Plasma)
20-25% ($HbCO_2$)

5. What amount of carbon dioxide is delivered by every 100 ml of deoxygenated blood to the alveoli?

(A) 4 ml
(B) 5 ml
(C) 15 ml
(D) 20 ml

4 ml CO_2 → 100 ml

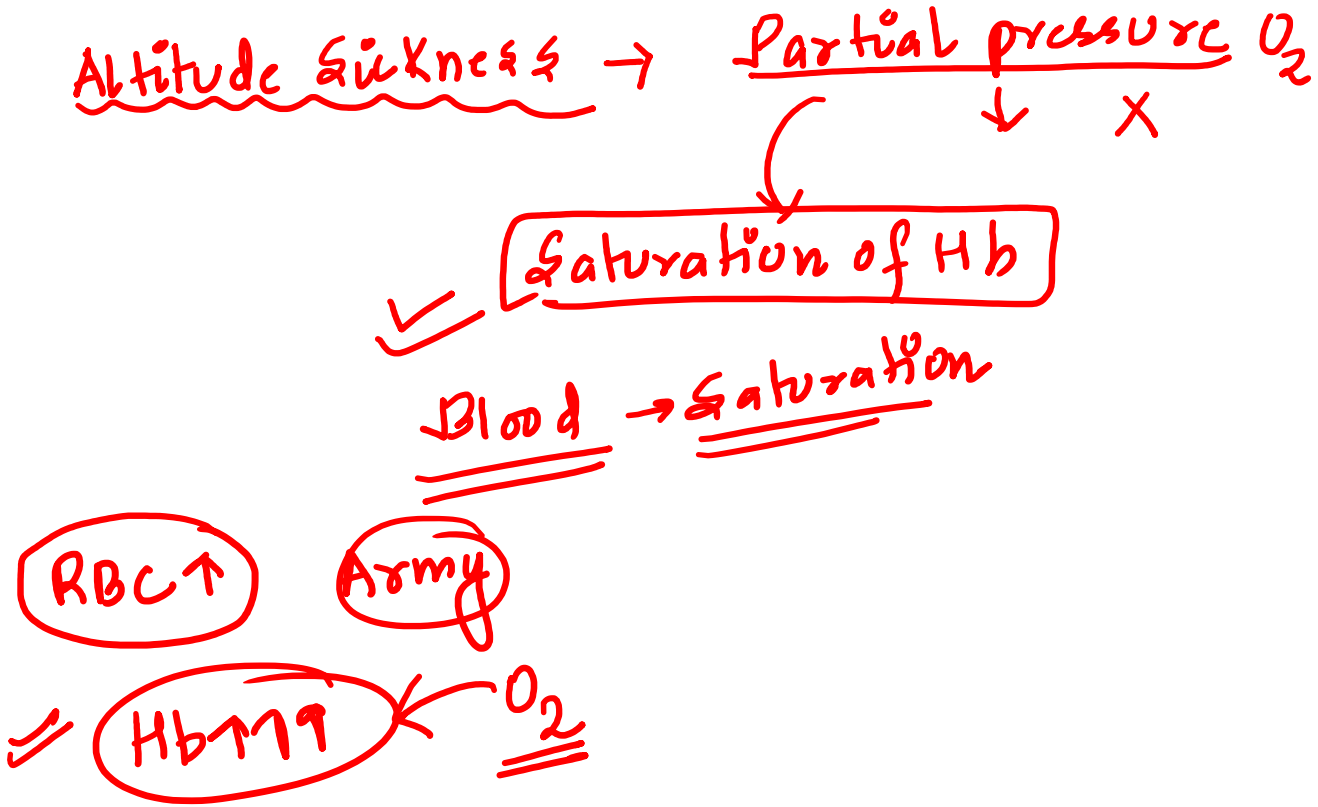
7. People who have migrated from the planes to an area adjoining Rohtang Pass about six months back

(A) have more RBCs and their haemoglobin has a lower binding affinity to O_2

(B) are not physically fit to play games like football

(C) suffer from altitude sickness with symptoms like nausea, fatigue, etc.

(D) have the usual RBC count but their haemoglobin has very high binding affinity



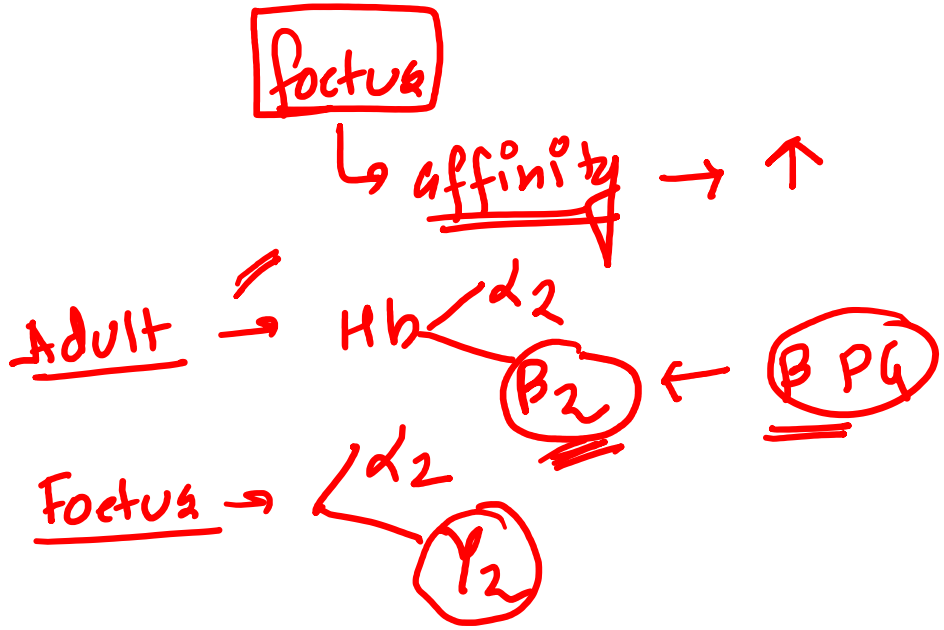
8. The haemoglobin of a human foetus

(A) has a lower affinity for oxygen than that of the adult

(B) its affinity for oxygen is the same as that of an adult

(C) has only 2 protein subunits instead of 4

(D) has a higher affinity for oxygen than that of an adult



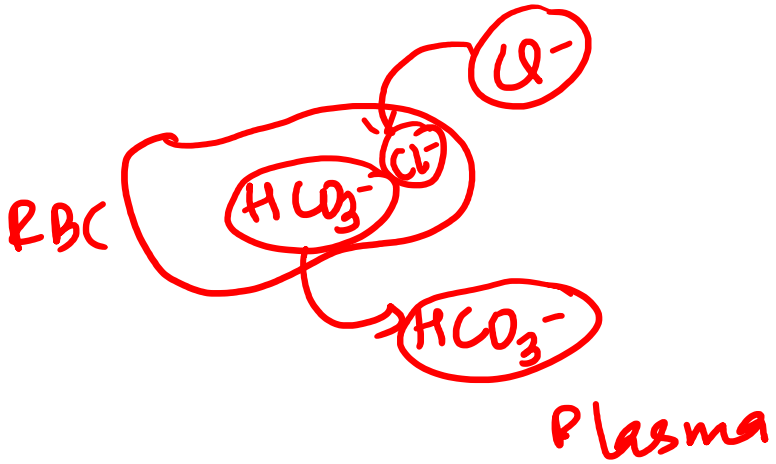
9. The process of migration of chloride ions from pi as RBC and carbonate ions from RBC to plasma is:

(A) Chloride shift

(B) Ionic shift

(C) Atomic shift

(D) Na^+ Pump



9. The process of migration of chloride ions from pi as RBC and carbonate ions from RBC to plasma is:

(A) Chloride shift
(B) Ionic shift
(C) Atomic shift
(D) Na^+ Pump

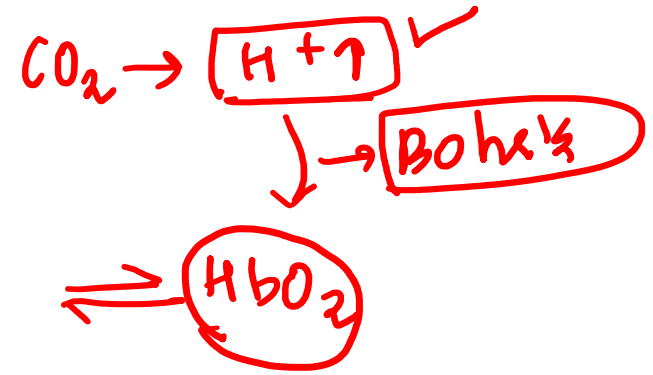
10. The effect of CO_2 concentration on dissocation of oxyhaemoglobin is called

(A) Bohr's effect

(B) Root effect

(C) Haldane effect

(D) None of these



11. The 'blue baby' syndrome results from:

(A) Methaemoglobin (Fe+3 in Hb)

(B) Excess of dissolved oxygen

(C) Excess of TDS (total dissolved solids)

(D) Excess of chloride