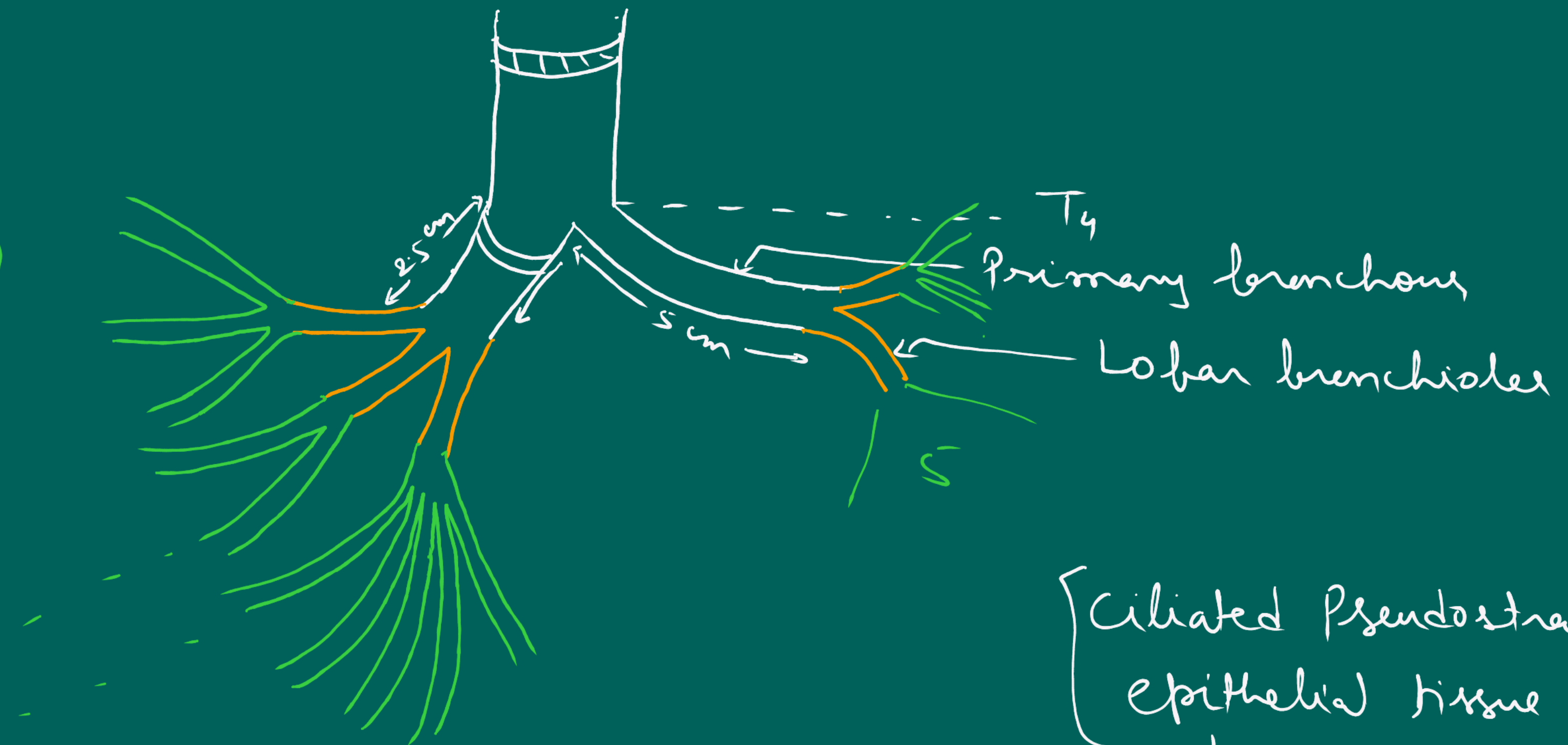
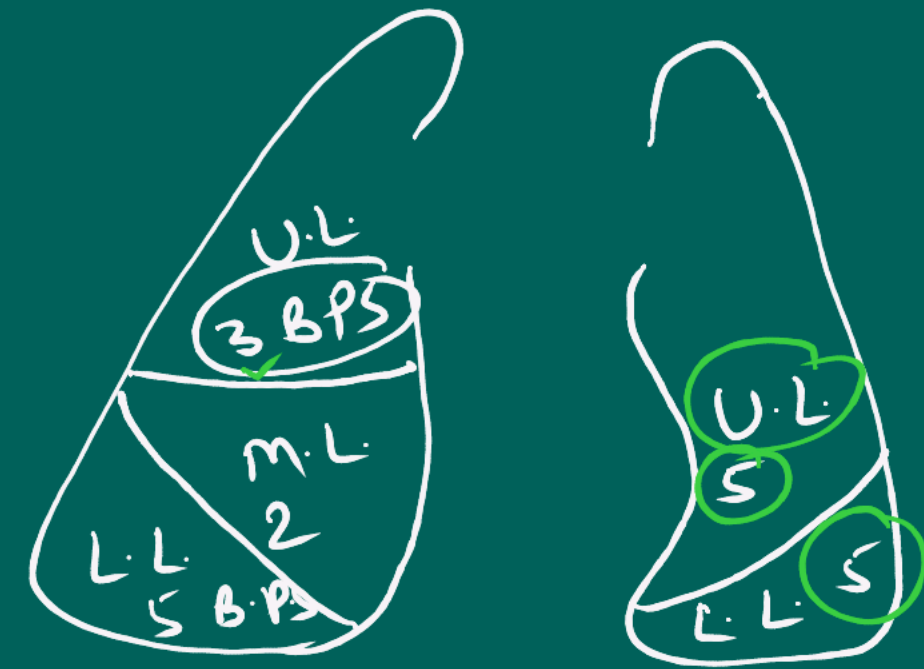


Bronchial tree :-



{Ciliated Pseudostratified
epithelial tissue
↳ mucous gland

Terminal bronchioles → Respiratory bronchioles → Alveolar bronchioles

ciliated columnar
epithelial tissue.

Absence of mucus gland.



ciliated cuboidal
epithelial tissue

BPS



Dead air space



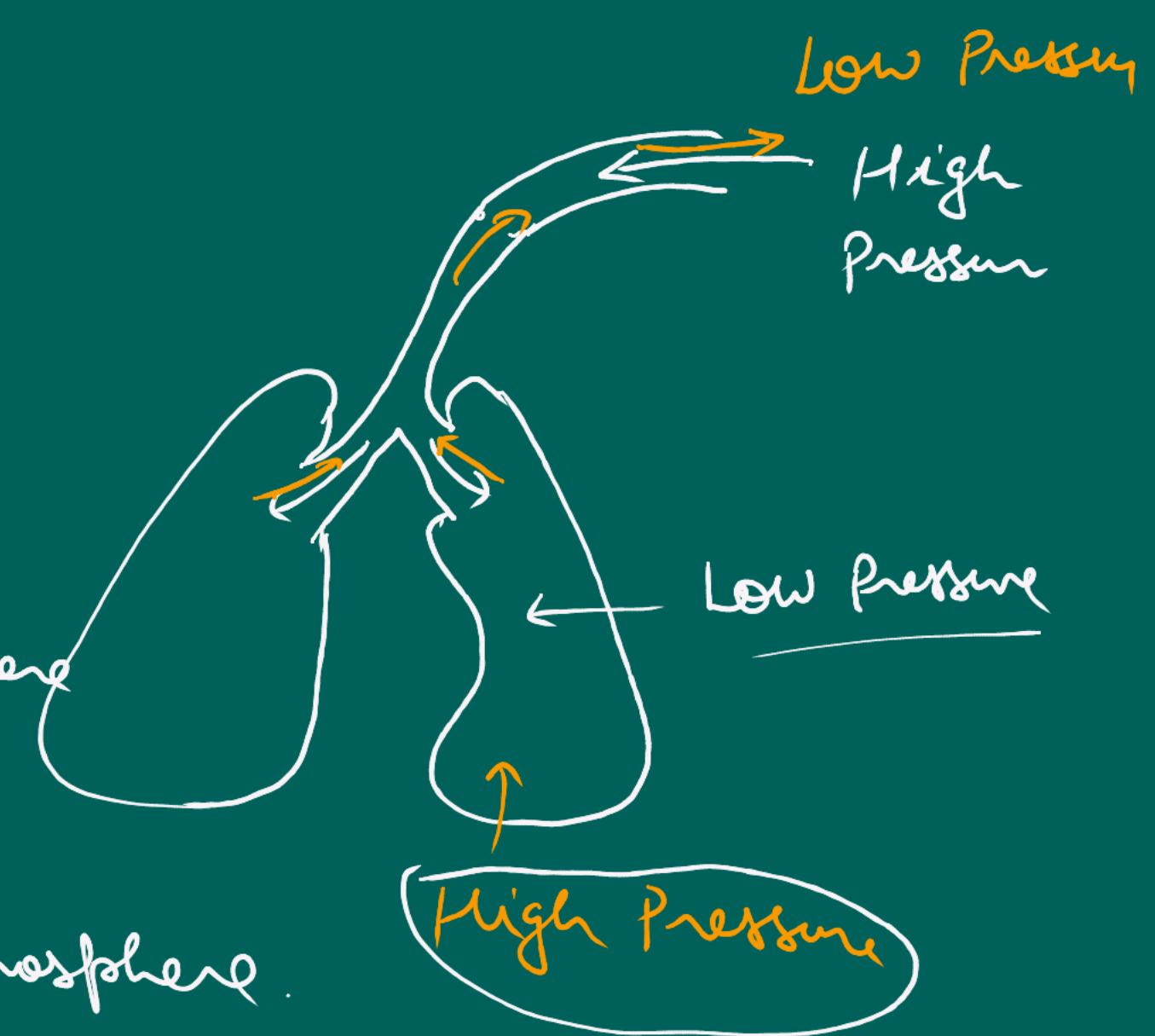
Physiology of respiration :-

① Breathing or External respiration :-

↳ Physical Process

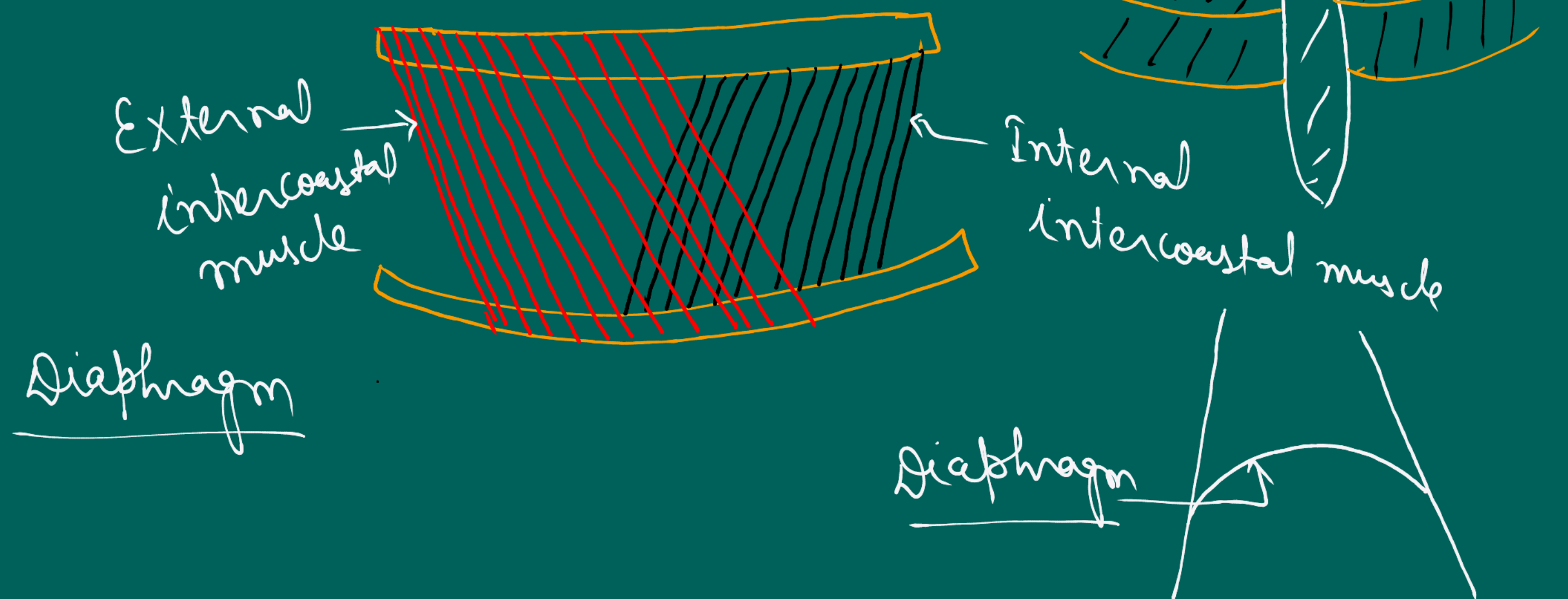
Inspiration - Inhale of air from atmosphere to lung.

Expiration - Exhale of air from lungs to atmosphere.



✓ Accessory structure related to breathe :-

Intercoastal muscle



Inspiration:-

⇒ Active Process

External intercostal muscle



Expiration:-

Passive Process

Internal intercostal muscles

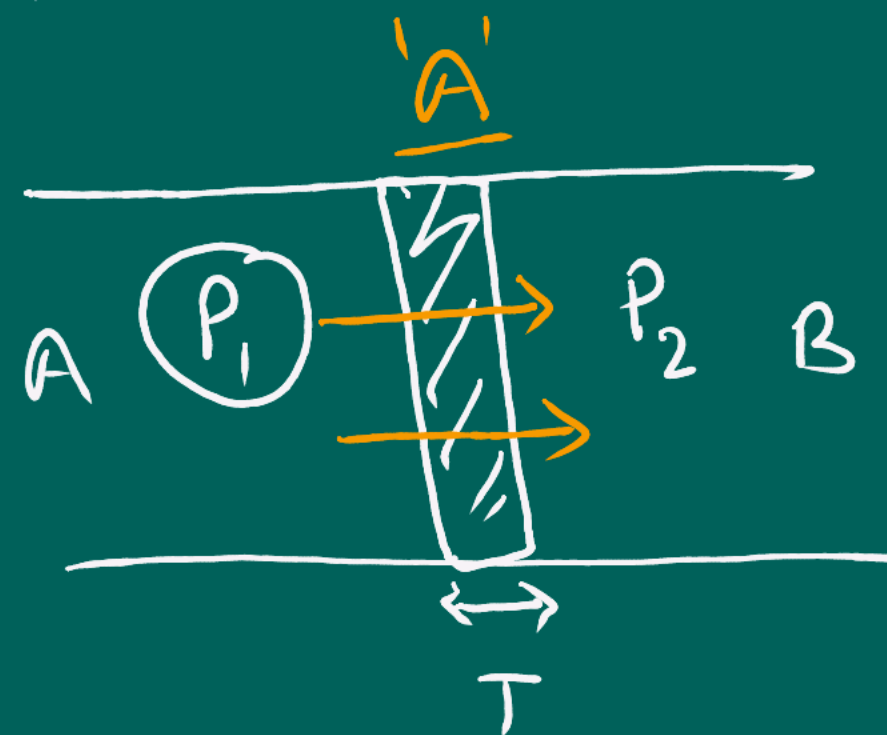


✓ Fick's law :-

Exchange of respiratory gases

Simple diffusion

$P_1 > P_2$



$V_G \propto (P_1 - P_2) \dots (s)$

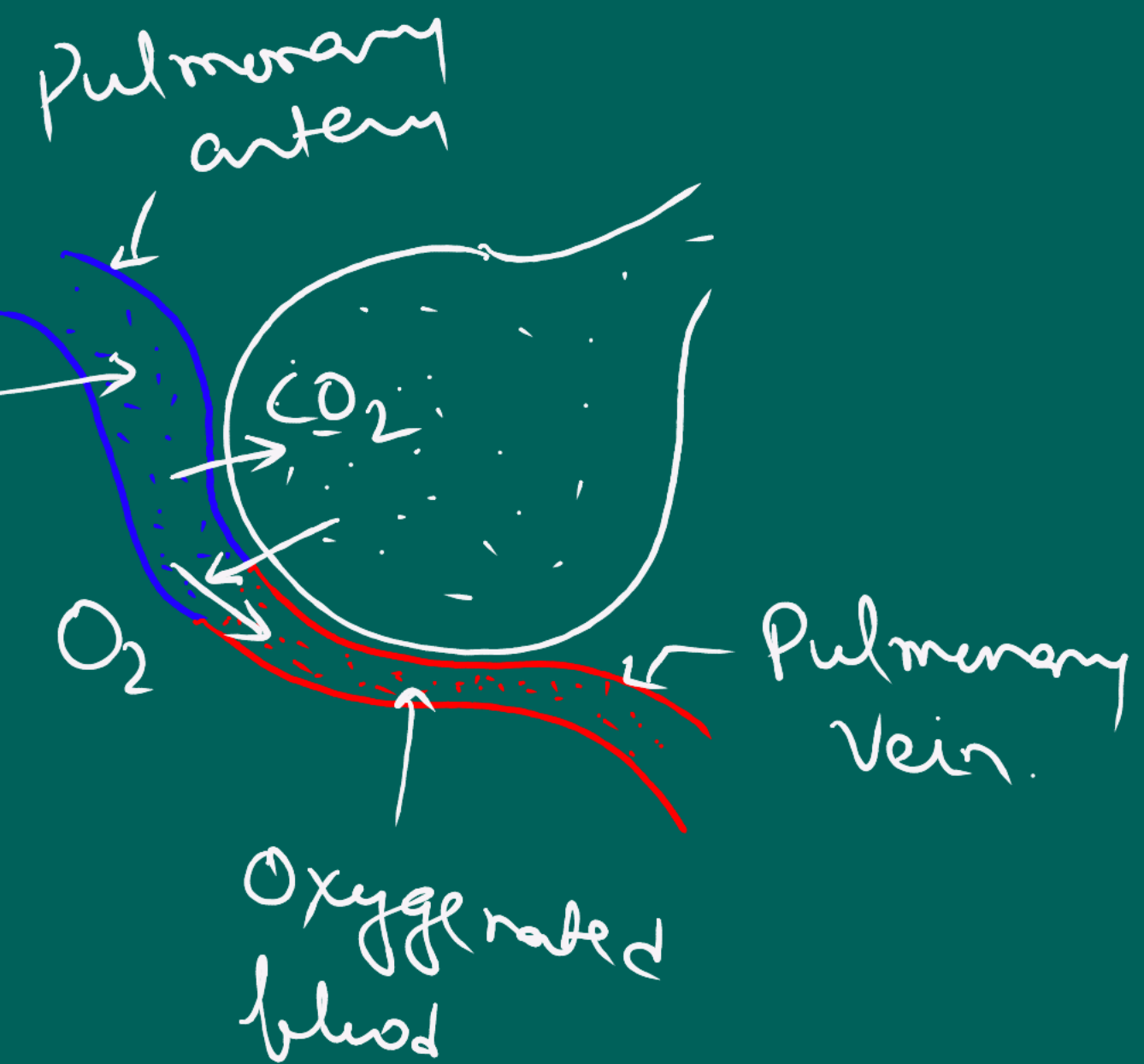
$V_G \propto A \dots (ss)$

$V_G \propto \frac{1}{T} \dots (ssi)$

By combining eqⁿ. (s), (ss) & (ssi)

$V_G \propto \frac{A(P_1 - P_2)}{T}$

✓ $V_G = \frac{D A (P_1 - P_2)}{T}$



D = Diffusing coefficient.

$D = \frac{\text{Solubility}}{\sqrt{\text{mol. wt.}}} \text{ at } 35^\circ\text{C}$