PRINCIPLES OF BLOOD GASES DETERMINATION

- Blood gases determination is the determination of PH, PO_2, PCO_2 and HCO_3^- in the blood.
- Blood gases is the amount of oxygen and carbon dioxide present in the blood. Haemoglobin an ion containing protein in the red blood cells carries oxygen in the blood. When the partial pressure of oxygen (PO_2) in the lungs is high, haemoglobin takes up the oxygen and releases it when the partial pressure of oxygen is low.
- The transfer of carbon dioxide in the lungs occurs when the partial pressure of carbon dioxide (PCO_2) in the blood from the tissues is higher than the partial pressure of carbon dioxide in the alveolar air in the lung.
- Blood gases measurements are used to evaluate oxygenation and acid base(PH) status of the blood.
- **PH of the blood**
- PH of blood is an important parameter of determining the acid base balance of the body. The PH of the extracellular fluid should be maintained at between 7.35—7.45 in order to maintain proper function of the body.
- Carbonic acid (H_2CO_3), influence the acid base balance. The equilibrium between acid and base ions is held constant by bicarbonate ions(HCO_3^-), which act as a buffering system.