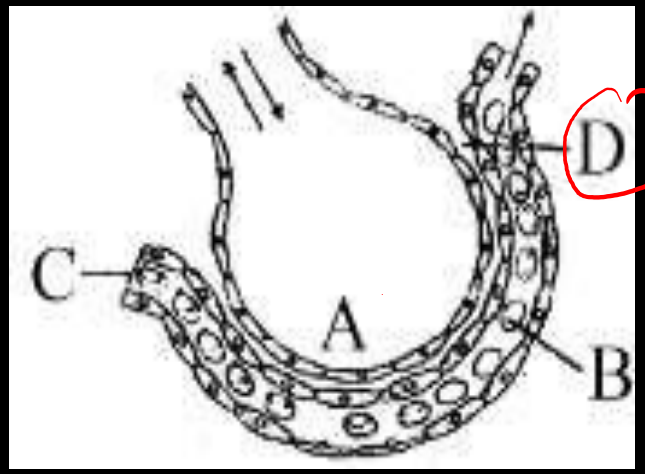
ARJUNA NEET
Practice Test -03

136. The figure given below shows a small part of human lung where exchange of gases takes place. In which one of the options given below, the one part, A, B, C or D is correctly identified along with its function



Pulmonary artery - lungs

D → Basement

(a) C : arterial capillary-passes oxygen to tissues

(a) A : alveolar cavity-main site of exchange of respiratory gases

(b) D : Capillary wall-exchange of O2 and CO2 takes place here

(c) B : red blood cell-transport of CO2 mainly

137. **How much oxygen blood supplies to tissues in one circulation in normal condition**

(a) 75%
(b) 4%
(c) 25%
(d) 20%

Normal → 75%

100 - 20ml O_2

$\frac{25}{100} \times 20$ mL

15ml O_2

138. **Body tissues obtain O_2 from oxyhaemoglobin because of its dissociation in tissues caused by**

(a) Low oxygen concentration and high CO_2 concentration

(b) Low CO_2 concentration

(c) Low H^+ concentration

(d) High CO_2 concentration

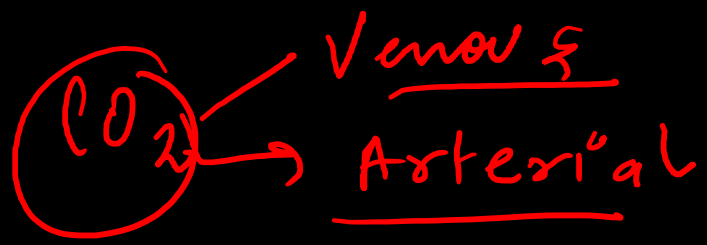
Shift to Right

139. **Partial pressure of carbon dioxide in Alveoli, atmospheric air and tissues will be:**

(a)(0.3, 40, 45) mm Hg
(b) (0.3, 104, 28) mm Hg
(c) (40, 0,3, 45) mm Hg
(d) (104, 159, 40) mm Hg

140. Respiratory centre of brain is stimulated by

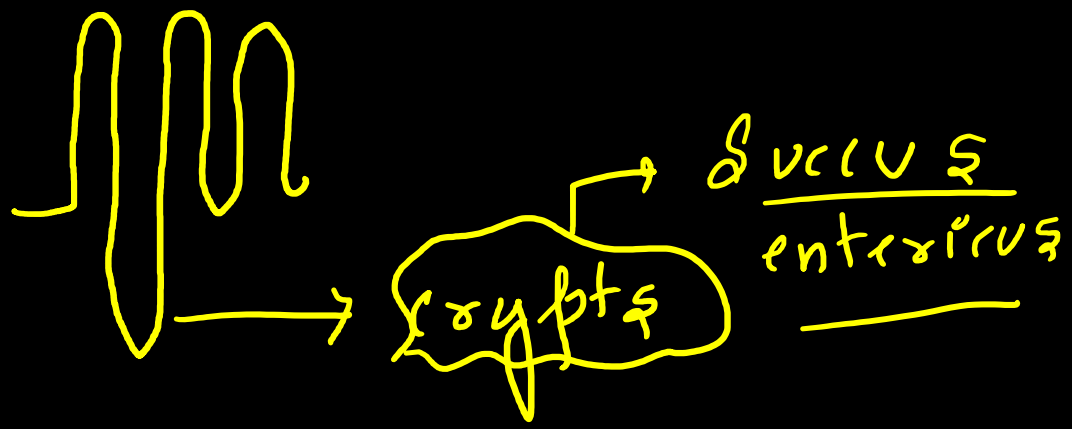
(a)Carbon dioxide content in venous blood
(b)Carbon dioxide content in arterial blood
(c)Oxygen content in venous blood
(d)Oxygen content in arterial blood



141. Crypts of Leiberkuhn are found in between the villi. They secrete :

(A)Glucagon
(B) Succus entericus
(C) Insulin
(D) None

Intestinal juice



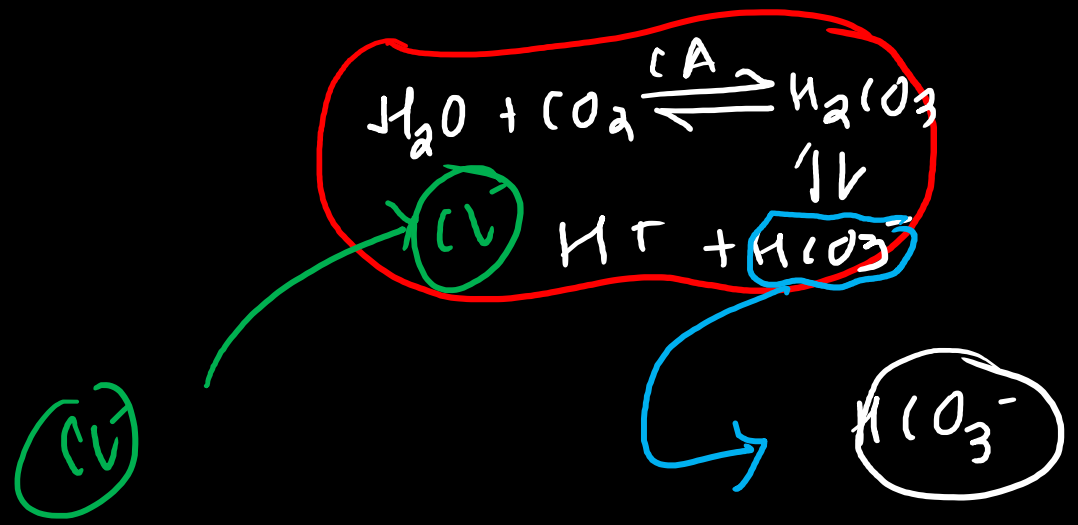
142. Monophyodont teeth are → comes once in the lifetime

(A) Incisors and Canines
(B) Canines and Premolars
(C) Premolar and molar
(D) Canines and Molars

Last Molar, Both Premolar

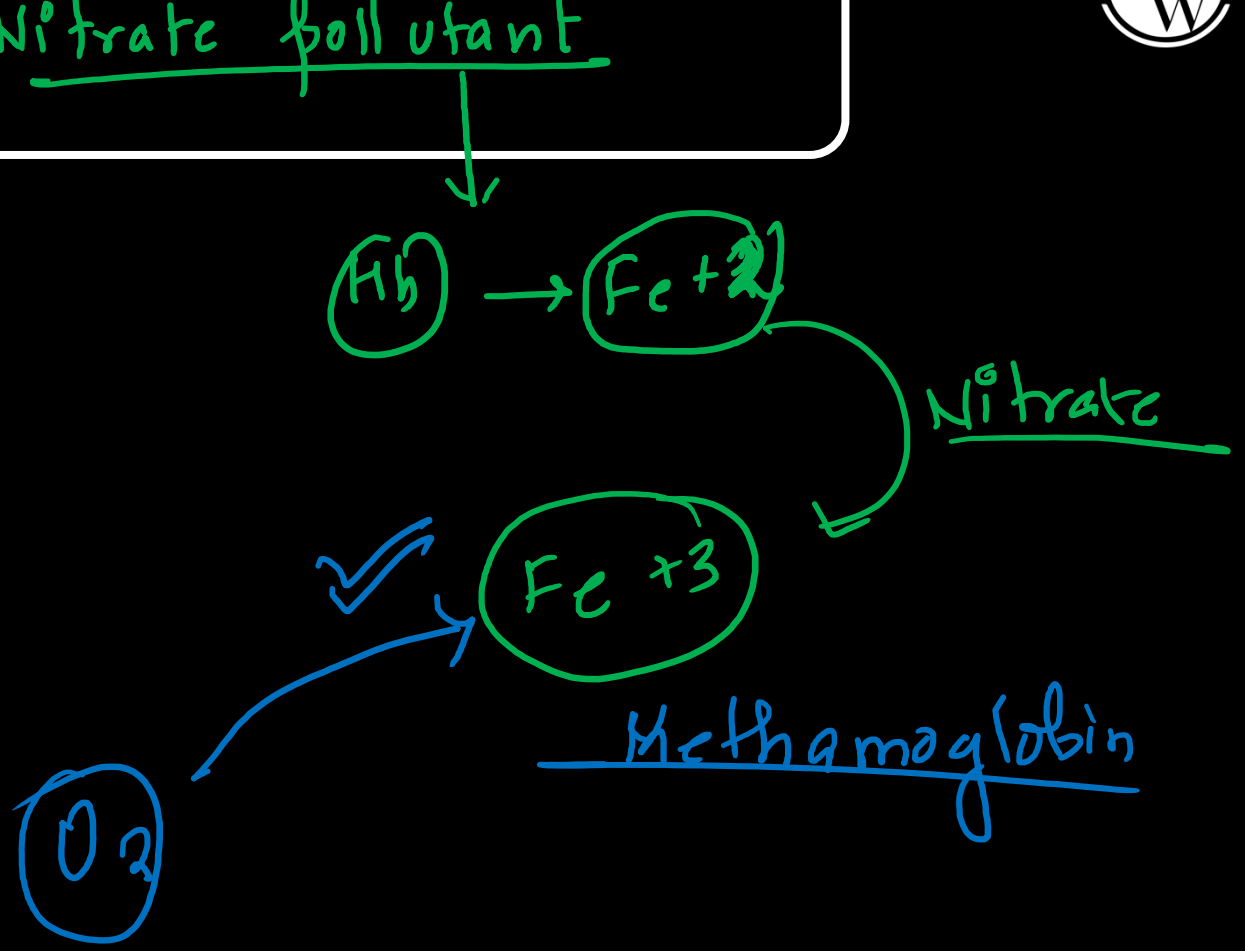
143. Exchange of bicarbonates and chloride ions between RBC and plasma is called

(A) Chlorideshift
(B) Bohr'seffect
(C) Haldane'seffect
(D) Intra cellular respiration



144. “Methemoglobin” refers to

(A) A colourless respiratory pigment
(B) Oxidised haemoglobin
(C) Oxygenated haemoglobin
(D) Deoxygenated haemoglobin



145. Select the incorrect statement

(a) alimentary canal begins with an anterior cavity called buccal cavity
(b) tooth is embedded in a socket of mandible bone only
(c) human shows strict diphyodont type of dentition
(d) oesophagus and the trachea open into the pharynx

(A) a, b, c and d
(C) a, c and d
(B) a, b and c
(D) a, b and d

146. The oesophagus is a thin, long tube which extends _____ passing through the neck.

(A) Anteriorly
(B) posteriorly
(C) horizontal
(D) obliquely

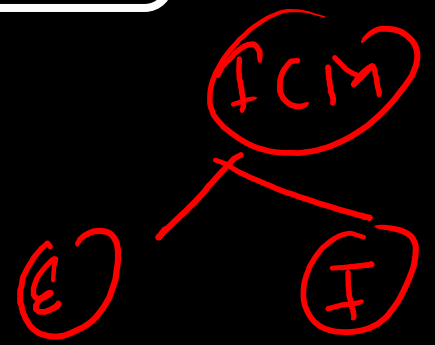
147. In human _____ is a small blind sac, which hosts some symbiotic micro-organism.

(A) Caecum
(B) Colon
(C) Rumen
(D) All of these

148. **The primary muscle of inspiration is**

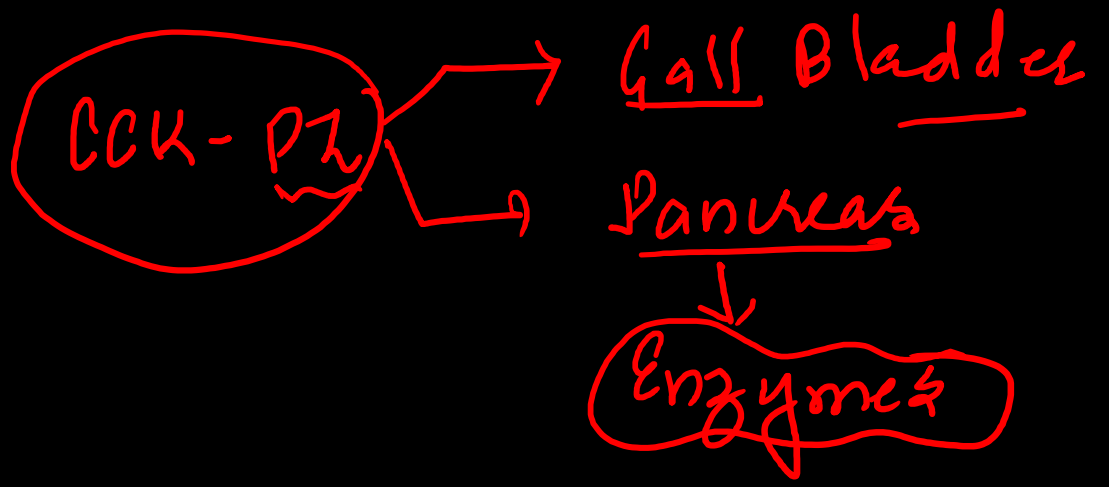
(A) Diaphragm
(B) Intercostal muscle
(C) Abdominal muscle
(D) Oblique muscle

Diaphragm



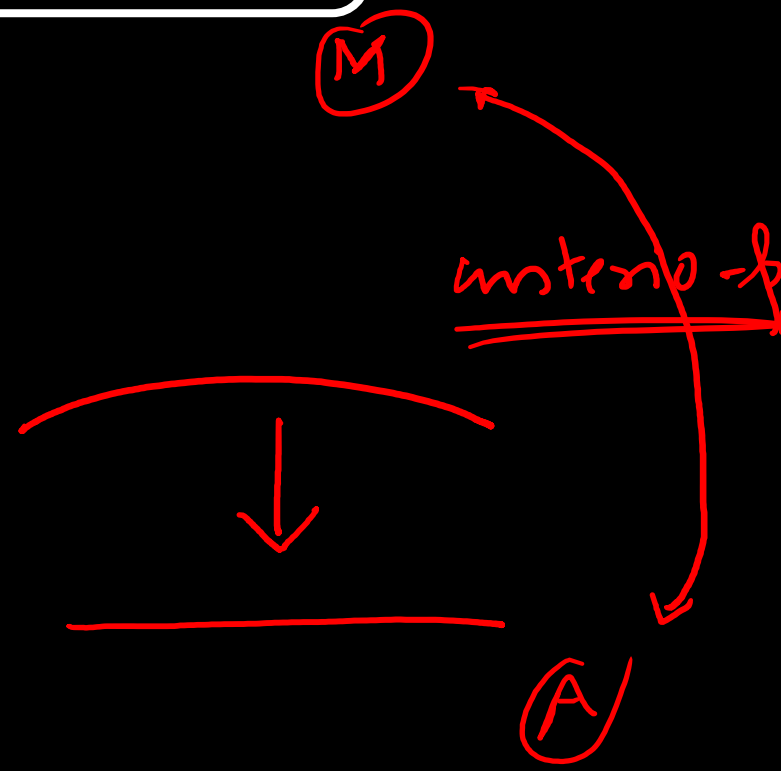
149. **Cholecystokinin (CCK) helps in secretion of**

(A) Alkaline buffer
(B) Pancreatic enzymes
(C) Gastric secretion
(D) Water and bicarbonate ions



150. **By the contraction in diaphragm volume of thoracic chamber increases in the**

A) Dorso-ventral axis
(B) Antero-posterior axis
(C) Dorso-posterior axis
(D) Antero-ventral axis



151. **In stomach after physical and chemical digestion food is called**

(A) Chyme
(B) Chyle
(C) Amino acid
(D) Bolus

lymph rich in fat

↳ Mouth

152 **Brunner's gland are found in which of the following layers:**

(A) Submucosa of stomach
(B) Mucosa of ileum
(C) Submucosa of duodenum
(D) Mucosa of oesophagus

153. **Glisson's capsule is associated with**

(A) liver
(B) pancreas
(C) lungs
(D) kidney

154 **Lactose composed of**

(A) Glucose + galactose
(B) Glucose + fructose
(C) Glucose + glucose
(D) Glucose + mannose

155. Pepsinogen is secreted by

(A) chief-cells
(B) oxyntic cells
(C) mast cells
(D) parietal cell

156. Largest gland of body

(A) Pancreas
(B) Duodenum
(C) Liver
(D) Thyroid

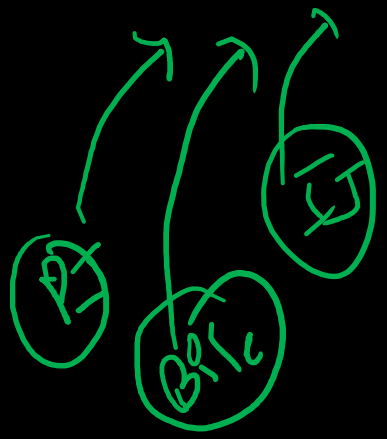
157. Which of the following is the correct matching of the site of action on the given substrate, the enzyme acting upon it and the end product?

(a) Small intestine : $Proteins \xrightarrow{pepsin} Amino\ acids$

(b) Stomach : $Fats \xrightarrow{lipase} micelles$

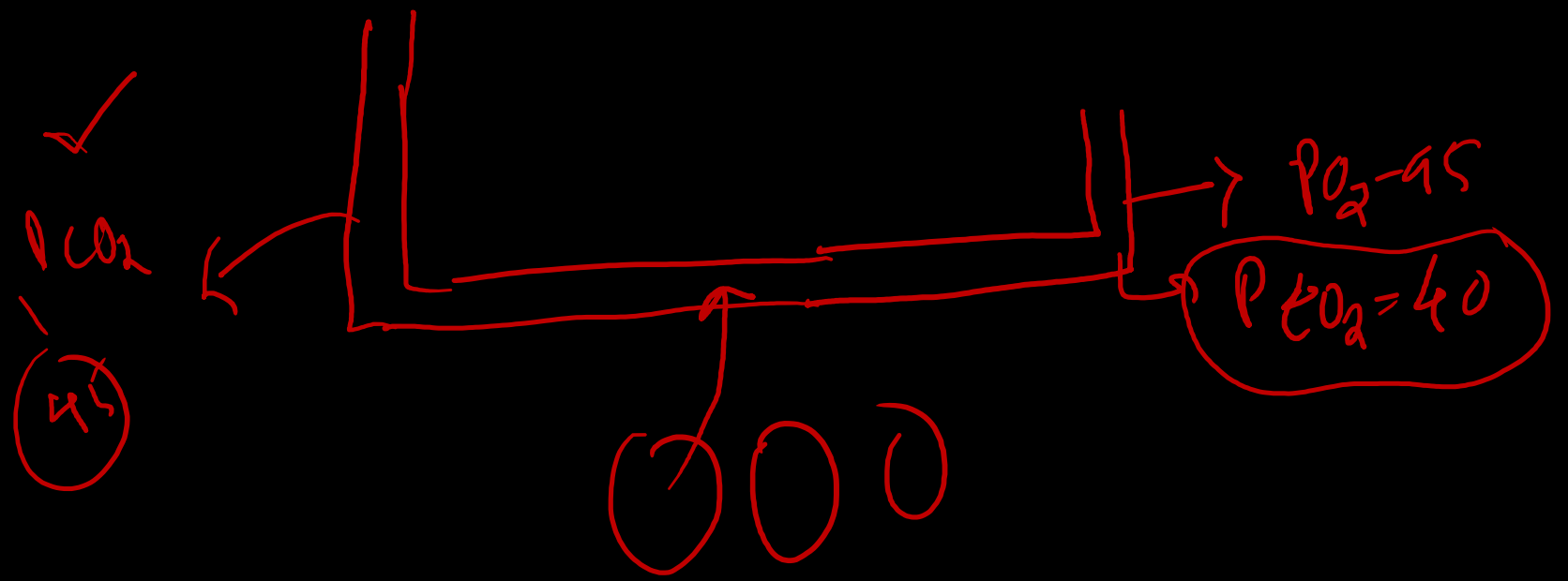
(c) Duodenum : $Triglycerides \xrightarrow{Trypsin} monoglycerides$

(d) Small intestine : $Starch \xrightarrow{amylase} Maltose$



158. Which of the following statement about the partial pressure of CO_2 is true ?

(a) It is higher in alveoli than in pulmonary artery
(b) It is higher in systemic arteries than systemic vein.
(c) It is higher systemic veins than in systemic arteries
(d) It is higher in the pulmonary veins than in pulmonary arteries



159. First enzyme involved in complex carbohydrate metabolism is

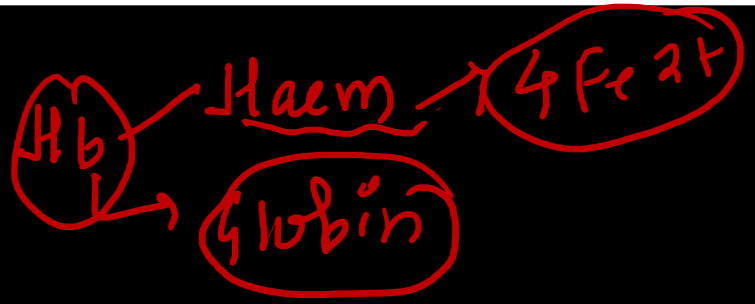
(a) Salivary amylase (Ptyalin)
(b) nuclease
(c) Rennin
(d) lingual lipase

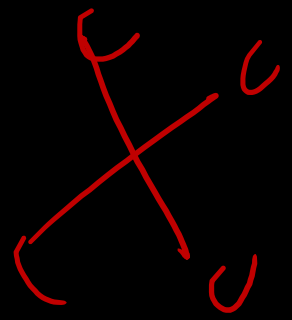
160. When the percentage saturation of haemoglobin with O_2 is plotted against the PO_2, we get

(a) J-shaped curve
(b) L-shaped curve
(c) S-shaped curve/sigmoid curve
(d) Rectangular graph

161. Each molecule of haemoglobin when fully saturated carries how many molecules of O_2

(a) 1
(b) 2
(c) 4
(d) 20





162. Which of the following statements about the mechanism of ventilation/breathing is false ?

(a) As the diaphragm relaxes, air is expelled from the respiratory system

(b) During respiration the lungs act as suction pump

(c) Inspiration is a passive and expiration is an active process

(d) For quite breathing external intercoastal muscles and diaphragm play an important role

163. What will be the PO_2 and PCO_2 in the atmospheric air

(a)PO_2 lesser, PCO_2 lesser

(b) PO_2 higher, PCO_2 lesser

(c) PO_2 higher, PCO_2 higher

(d) None of the above

$P_{O_2} = 159$

$P_{CO_2} = 0.3$

164. Additional muscles for forceful breathing are

(a) Diaphragm
(b) Abdominal muscles and internal intercoastal muscles
(c) External intercoastal muscle
(d) Both (A) & (C)

165. In comparison to solubility of O_2 in blood the solubility of CO_2 is

(a) 25 times lesser
(b) Slightly higher
(c) Slightly greater
(d) 20-25 times greater

166. Gas exchange in animals always involves

(a) Anaerobic cellular respiration
(b) Diffusion across membranes
(c) Active transport of gases
(d) None

167. The barrier between the air in alveolus and blood in pulmonary capillary consists of 3 layers and its total thickness

(a) 1 mm
(b) More than 1 mm
(c) Much less than 1 mm
(d) 2 mm

(NCERT)

168. Trachea divides into right and left primary bronchi at __5__th thoracic vertebra.

(a) 4
(b) 5
(c) 6
(d) 9

NCERT

169. Respiratory or exchange part of the respiratory system consists of

(a) The parts starting with external nostrils upto terminal bronchioles
(b) Alveoli and their ducts
(c) All bronchi and terminal bronchioles
(d) All bronchioles

170. Binding of O_2 with haemoglobin is primarily related to

(a) PO_2

NCERT

(b) PCO_2

(c) H^+ conc.

(d) None

171. The chamber formed dorsally by the vertebral column, ventrally by sternum, laterally by ribs and on the lower side by dome-shaped diaphragm is

(a) Abdominal cavity
(b) Thoracic cavity
(c) Pelvic cavity
(d) Cranial cavity

172. The process of exhalation/expiration is begun mainly due to

(a) The contraction of intercoastal muscles
(b) The contraction of the diaphragm
(c) The relaxation of muscles
(d) Low pressure in thoracic cavity

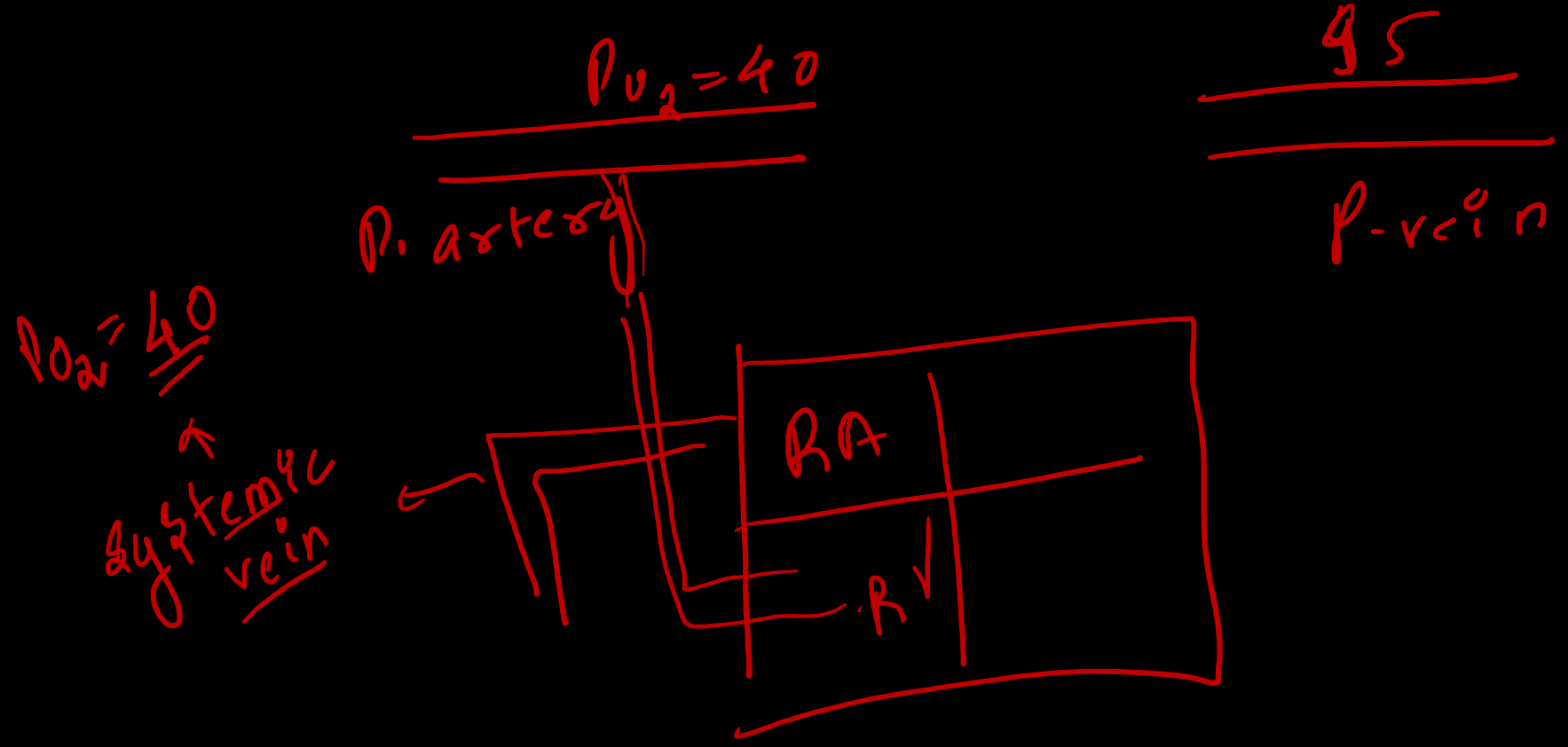
173. Which of the following would have the same O2 content ?

(a) Blood entering in lungs – blood leaving the lungs

(b) Blood entering the right side of the heart-blood leaving the right side of the heart

(c) Blood entering the right side of the heart - blood leaving the left side of the heart

(d) Blood entering the tissue capillaries – blood leaving the tissue capillaries



174. The enzyme essential for the transport of CO_2 as bicarbonate in blood is:

(a)Carboxypeptidase
(b) Succinic dehydrogenase
(c) Carbonic anhydrase
(d) Thrombokinase

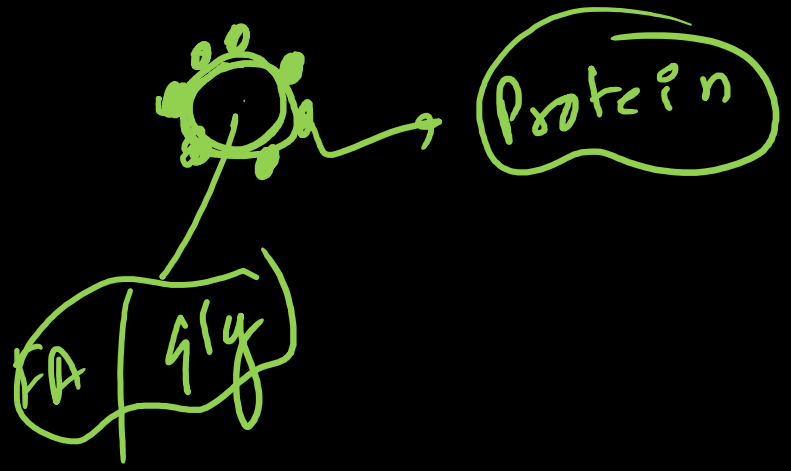
$H_2O + CO_2 \xrightleftharpoons{CA} H_2CO_3 \xrightleftharpoons{CA} H^+ + HCO_3^-$

175. Exchange of gases between the blood and the tissue of the body is called:

(a) Internal respiration
(b) Cellular respiration
(c) External respiration
(d) None of these

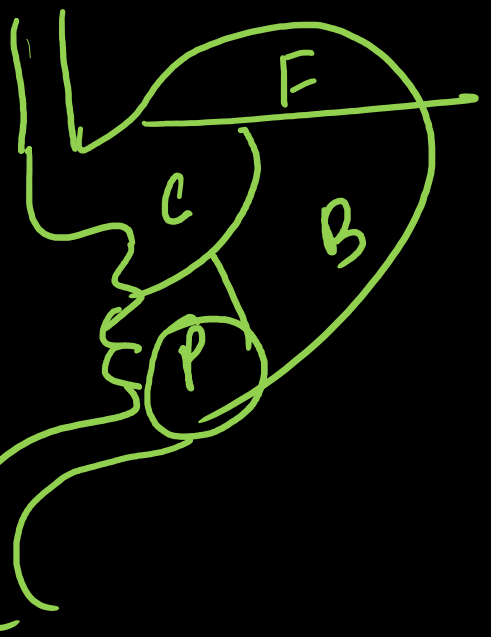
176. Chylomicrons are-

(a)Undigested proteins
(b) Undigested carbohydrates
(c) Fat droplets coated with glycerol and Protein
(d) Fat droplets coated with phospholipids



177. Pylorus is situated at the junction of

(a) Oesophagus and stomach
(b) Stomach and duodenum
(c) Duodenum and ileum
(d) Ileum and rectum



Duo

178. Surgical removal of gall bladder in human beings would lead to

(a) Impairment of the digestion of fat
(b) Increased acidity in the intestine
(c) Jaundice
(d) None of the above

179. People living at sea level have around 5million RBC per cubic millimeter of blood whereas those living at an altitude of 5400 metres have around 8 million RBC per cubic millimeter of blood. This is because at high altitude:

(a) people get pollution free air to breathe in and more oxygen is available
(b) atmospheric O_2 level is less and hence more RBCs are needed to absorb the required amount of O_2 to survive
(c) there is more UV radiation which enhances RBC production
(d) people eat more nutritive food, therefore more RBCs are formed

180. Digestion is the breaking down of large food molecules into smaller ones. The main purpose of this is to –

(a) Make the food soluble
(b) Enable the digestive enzymes to be used up
(c) Provide many different types of molecules for absorption
(d) Make the passage of food along the gut easier