

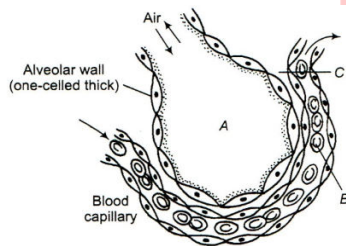
Topic :-Breathing and Exchange of Gases

- Each haemoglobin molecule can carry maximum of
 - Two molecules of O₂
 - Three molecules of O₂
 - Four molecules of O₂
 - One molecules of O₂
- Hypoxia is caused due to
 - Lesser O₂ in atmosphere
 - Lesser RBC in blood
 - Lesser CO₂ in atmosphere
 - Both (a) and (b)
- During oxygen transport, the oxyhaemoglobin at the tissue level liberates oxygen to the cells because
 - O₂ concentration is high and CO₂ is low
 - O₂ concentration is low and CO₂ is high
 - O₂ tension is low and CO₂ tension is high
 - O₂ tension is high and CO₂ tension is low
- O₂ exchange with CO₂ by simple diffusion over the entire body surface takes place in
I. sponges II. Coelenterates III. Flatworms
Select the correct option to complete the given statement
 - I and II
 - II and III
 - I and III
 - All of the above
- Breathing involves ...A... during which atmospheric air is drawn in and ...B... by which the alveolar air is released out.
Choose the correct option for A and B to complete the given NCERT statement
 - A-expiration; B-osmosis
 - A-expiration; B-inspiration
 - A-inspiration; B-expiration
 - A-inspiration; B-diffusion
- If a large number of people are enclosed in a room, then
 - Oxygen decreases and carbon dioxide increases
 - Oxygen increases and carbon dioxide decreases
 - Both oxygen and carbon dioxide decreases
 - Both oxygen and carbon dioxide increases
- The total number of lobes and alveoli present in both the lungs of man are
 - 17 and 30 million, respectively
 - 5 and 300 million, respectively
 - 19 and 300 million, respectively
 - 18 and 300 lakh, respectively
- Which of the following combines irreversibly with blood haemoglobin?
 - SO₂
 - O₂
 - CO
 - CO₂

9. Identify the correct group of statements
 I. Oxygen is carried by haemoglobin
 II. Oxygen is carried by carbonic anhydrase
 III. CO₂ is carried by haemoglobin
 IV. SO₂ is carried by haemoglobin
 V. Only oxygen is transported by the blood
 VI. Only CO₂ is transported by the blood

Choose the correct option

- a) I and VI b) II and III c) IV and V d) I and III
10. What is true about RBCs in humans?
 a) They carry about 20-25 per cent of carbon dioxide
 b) They transport 99.5 per cent of oxygen
 c) They transport about 80 per cent oxygen only and the rest 20 per cent of it is transported in dissolved state in blood plasma
 d) They do not carry carbon dioxide at all
11. Respiratory centre of the brain is stimulated by
 a) CO₂ content in venous the blood b) CO₂ content in arterial the blood
 c) O₂ content in arterial the blood d) O₂ content in venous the blood
12. Identify A,B and C in the given diagram and choose the correct option accordingly



- a) A-Alveolar cavity, B-WBC, C-Capillary wall b) A-Alveolar cavity, B-RBC, C-Systemic wall
 c) A-Alveolar cavity, B-RBC, C-Capillary wall d) A-Alveolar cavity, B-WBC, C-Systemic wall
13. Why breathing is accelerated when the person opens his nose after holding the breathe by closing his nose?
 a) CO₂ build up in the body b) CO build up in the body
 c) H⁺ decreases in the body d) CO₂ decrease in body
14. Listed below are four respiratory capacities (I-IV) and four jumbled respiratory volumes of a normal human adult.

Respiratory Capacity	Respiratory Volume
I. Residual volume	1.
II. Vital capacity	1.
III. Inspiratory reserve volume	1.
IV. Inspiratory capacity	4600 mL

Which one of the following is the correct matching of two capacities and volumes?

- a) II 3000 mL, III 4600 mL
 c) IV 3500 mL, I 1200 mL
- b) III 1200 mL, IV 3000 mL
 d) I 4600 mL, II 3500 mL
15. Exchange of gases in lungs occurs through
 a) Simple diffusion b) Active transport c) Osmosis d) Plasmolysis

16.

Partial pressure Of Gases	Blood (De oxy genated)	Blood (Oxyge nated)	Tissues
O ₂	40	B	40
CO ₂	A	40	C

Choose the correct option for A, B and C to complete the given data

- a) A-40, B-95, C-40
 b) A-45, B-95, C-45
 c) A-35, B-95, C-45
 d) A-35, B-95, C-95
17. Floating ribs of thoracic cage are
 a) 1st to 7th pair b) 8th to 9th pair c) 8th to 10th pair d) 11th to 12th pair
18. At which thoracic vertebra does trachea divide into right and left primary bronchi?
 a) 5 b) 6 c) 9 d) 4
19. The partial pressure of oxygen in the alveolar air is
 a) 45 mm Hg b) 95 mm Hg c) 104 mm Hg d) 110 mm Hg
20. Inspiration is initiated by
 a) Extension of the diaphragm b) Contraction of the diaphragm
 c) Extension of the lungs d) Contraction of the lungs