

Class : XIth

Subject : Biology

Date :

DPP No. : 6

Topic :- Breathing and Exchange of Gases

- Rate of breathing is controlled by
 - The amount of freely available oxygen
 - Carbon dioxide
 - Muscular functions of the body
 - None of the above
- Emphysema is a chronic disorder which is caused due to
 - Damaged trachea
 - Damaged nostrils
 - Damaged alveolar walls
 - Damaged lungs
- pO_2 is the major factor which affects the binding of CO_2 with haemoglobin
 - pCO_2 is low and pO_2 is high in tissues
 - RBC contains a very high concentration of carbonic anhydrase
 - Every 100 mL of deoxygenated blood delivers approximately 4 mL of CO_2 to alveoliSelect the combination of right statements
 - I, III and IV
 - I, II and IV
 - I, II and III
 - II, III and IV
- Although much carbon dioxide is carried in blood, yet blood does not become acidic because
 - CO_2 is continuously diffused through the tissues and is not allowed to accumulate
 - CO_2 combines with water to form H_2CO_3 , which is neutralized by Na_2CO_3
 - In CO_2 transport, blood buffers play an important role
 - CO_2 is absorbed by leucocytes
- Which of the following changes usually tends to occur in plain dwellers when they move to the high altitudes?
 - Increased breathing rate
 - Increased RBC production
 - Increased WBC production
 - Increased thrombocyte countChoose the correct option
 - I and II
 - III and IV
 - I and IV
 - I and II
- Asthama is caused by
 - Infection in the lungs
 - Infection in the trachea
 - Infection of the glottis
 - Spasm in the bronchioles and bronchi
- Blood carries CO_2 mainly, in which form?

- a) Hb. CO₂ b) NaHCO₃ c) Carbonic acid d) Hb. CO₂ and CO
8. Movement of the air into and out of the lungs is carried out by
 a) Imbibition b) Pressure gradient c) Osmosis d) Diffusion
9. Partial pressure of O₂ and CO₂ in atmospheric air compared to those in alveolar air is
 ρ_{O_2} ρ_{CO_2}
 a) Higher Lower b) Higher Higher
 c) Lower Lower d) Lower Higher
10. Right lung of rabbit is divided into
 a) Four lobes b) Two lobes c) Six lobes d) Eight lobes
11. Transport of CO₂ by the blood is primarily dependent upon
 a) Solubility of CO₂ in blood b) Carbonic anhydrase
 c) Binding of haemoglobin to CO₂ d) Binding of haemoglobin to O₂
12. The alveoli of lungs are lined by
 a) Simple epithelium b) Squamous epithelium
 c) Cuboidal epithelium d) Columnar epithelium
13. A muscular transverse partition in mammals that separates thorax from abdomen is called
 a) Diaphragm b) Pharynx c) Stomach d) Duodenum
14. Carbon dioxide (CO₂) is released during
 a) Catabolic reactions b) Anabolic reactions c) Amphibolic reactions d) All of the above
15. Respiratory or exchange part of the respiratory system comprises
 a) Lungs and pleural membrane b) Alveoli and their ducts
 c) Bronchus and their protecting covering d) Diaphragm and alveoli
16. The solubility of CO₂ in the blood is
 a) 10-15 times higher than that of O₂ b) 20-25 times higher than that of O₂
 c) Slightly higher than that of O₂ d) Slightly lower than that of O₂
17. I. Increased partial pressure of O₂
 II. Increased partial pressure of CO₂
 III. Increased partial pressure of H⁺
 IV. Decreased partial pressure of O₂
 All the above situations favours the dissociation of oxyhaemoglobin except
 a) I and II b) II and III c) I and IV d) Only I
18. Haemoglobin of the human blood forms a stable complex compound with which of the following gas leading to death?
 a) Oxygen b) Carbon dioxide c) Carbon monoxide d) Nitrogen
19. Among vertebrates, ...A... use gills whereas reptiles, birds and mammals respire through the ...B... . Amphibians like frogs can respire through ...C... also. Mammals have a well adapted respiratory system
 Select appropriate choice for the blanks A, B and C to complete the given NCERT statement
 a) A-fishes, B-lungs, C-gills b) A-fishes, B-lungs, C-dry skin
 c) A-fishes, B-lungs, C-moist skin d) A-mammals, B-gills, C-moist skin
20. Friction on the lungs surface reduces by

- a) Double layered pleura
- c) Ribs covering lungs

- b) Single layered pleura
- d) Mucous membrane surrounding the lungs

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