

Class: 11
Subject: Biology
Topic: Breathing and exchange of gases
No. of Questions: 25

- Q1. What are the two factors that contribute towards the dissociation of oxyhaemoglobin in the arterial blood to release molecular oxygen in an active tissue?
- Q2. What do you understand by forceful expiration?
- Q3. What is the role of carbonic anhydrase in RBCs?
- Q4. Blood vessel in the liver has blood with PO_2 of 95 mm Hg that is much higher than the PO_2 of the tissue in the liver. Does O_2 diffuses in the blood from the tissue or diffuse from blood into the tissue.
- Q5. In mammals, the lungs replace the skin very effectively as a respiratory organ. Explain giving three reasons.
- Q6. What is tidal volume?
- Q7. Why does it become difficult to breathe at high altitudes?
- Q8. The maximum number of molecules of oxygen which one molecule haemoglobin can carry?
- Q9. What is pneumonia?
- Q10. Explain how CO_2 produced during oxidation of carbohydrate in the muscles of our heart is released into atmosphere.
- Q11. Give two symptoms of bad cold.
- Q12. What is the dissociation curve? Explain.
- Q13. What is formed when CO_2 combines with globin of reduced hemoglobin?
- Q14. How does exchange of respiratory gases take place in the alveoli of lungs?
- Q15. How much is the "vital capacity" of human? Do people living on mountains have the same, less or more vital capacity as those living in the plains?

- Q16. Why is haemoglobin called conjugated protein? What happens to the molecule at high and low partial pressure of oxygen?
- Q17. Give at least four points of difference between aerobic and anaerobic respiration.
- Q18. Which organelle in the cell is associated with the production of energy?
- Q19. Write the difference between carbamino-haemoglobin and oxyhaemoglobin.
- Q20. Why is it not healthy to breath in a closed room for a very long time?
- Q21. What happens to the leg muscle of an athlete who runs a marathon race?
- Q22. The venous blood in the lungs has a PCO_2 of 46mm Hg. Should the alveolar PCO_2 exceed or be less than 46mm Hg to result in diffusion of CO_2 from the blood into the alveolus?
- Q23. Why is haemoglobin called conjugated protein?
- Q24. Write any three differences between larynx and pharynx.
- Q25. Define external respiration.