

1. How much air is left inside the lungs after a maximum forceful expiration in a normal adult person ? What technical name is given to this air ?
2. Write the chemical reaction catalyzed by the zinc enzyme - carbonic anhydrase.
3. Why is it difficult to breath at high altitude ?
4. List three major forms in which CO_2 is transported in our blood.
5. Differentiate between bronchioles and tracheoles.
6. An earthworm can carry gaseous exchange through its body surface while a cockroach cannot. What is the reason ?
7. How does the diaphragm help in inspiration ?
8. Why is the larynx raised while swallowing the food ?
9. What is the role of carbonic anhydrase ? Show by a series of reactions, how carbonic anhydrase starts the reaction leading to the formation of haemoglobonic acid (H.Hb).
10. Where is pneumotaxic centre located in humans ? What is its significance in breathing ?
11. A student unknowingly crushed a cockroach under his shoes. Finding that no red fluid comparable to vertebrate blood come out, he is curious to know whether the cockroaches are at any disadvantage. How will you satisfy his curiosity ?