

CLASS XI SUBJECT: BIOLOGY BREATHING & EXCHANGE OF GASES
ASSIGNMENT NO. 9

- Q1. Explain two phases of aerobic respiration?
- Q2. How does exchange of gases takes place in the following organisms:-
(a) Poriferans, coelenterates & flatworms. (b) Earthworms. (c) Arthropods
(d) Fishes, Tadpoles of frog (e) Reptiles, birds & mammals
- Q3. Describe with help of labeled diagram human respiratory system.
- Q4. List the steps involved in pulmonary respiration.
- Q5. How is inspiration & expiration accomplished in human beings?
- Q6. Define the following terms:-
(i) Tidal volume (ii) IRV (iii) ERV (iv) Residual volume
- Q7. Name the apparatus by which volume of air involved in breathing can be measured.
- Q8. Explain the pulmonary capacities:- IC, FRC, EC, VC & Total lung capacity.
- Q9 (a) Name the factors that affect the rate of diffusion of gases in the lungs.
(b) Mention the components of the diffusion membrane of human respiratory system.
- Q10(a) What percentage of O₂ is transported by RBC's in the blood? What happens to the remaining?
(b) In what form in O₂ carried in the blood? What happens to this, form when blood reaches the tissues?
(c) Name the factors that affect the binding of O₂ to haemoglobin to form oxyhaemoglobin in the tissue.
- Q11(a) What are three forms in which CO₂ is transported in blood? Explain.
(b) How does CO₂ gets released into the alveoli.
- Q12(a) Where is respiratory rhythm centre located?
(b) How does pneumotoxic centre alter the respiratory rate? Where is it located in human?
- Q13(a) What is asthma? Explain. (b) What is emphysema? What are its major causes?
(c) What are occupational disorders? Give two examples of such disorders.