



INDIAN SCHOOL AL BURAIMI
BIOLOGY WORKSHEET

STD: XI

NAME:

DATE : 14.04.26

WORKSHEET 1

1. Name the following:
 - (a) Disorder due to inflammation of bronchi and bronchioles.
 - (b) Where is the enzyme – carbonic anhydrase present in high concentration?
 - (c) Name the instrument used for clinical assessment of pulmonary functions.
 - (d) Muscles that facilitate breathing.
 - (e) The apparatus by which volume of air involved in breathing can be measured
2. Name the sites of gaseous exchange in
 - (a) Insects (b) Fish (c) Earthworms (d) Birds
 - (e) Frogs (f) Cockroaches (g) Poriferans, coelenterates & flatworms
3. (a) What percentage of O₂ is transported by RBC's in the blood? What happens to the remaining?
 - (b) In what form is 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.
4. (a) What are three forms in which CO₂ is transported in blood? Explain.
 - (b) How does CO₂ gets released into the alveoli.
5. What is the role of oxyhaemoglobin after releasing molecular oxygen in the tissues?
6. Cigarette smoking causes emphysema. Give reason.
7. (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.
8. In addition to respiratory function, lungs also play a role in
 - (a) Temperature regulation (b) pH regulation (c) Body balance (d) Excretion
9. a) Compared to O₂, diffusion rate of CO₂ through the diffusion membrane per unit difference in partial pressure is much higher. Explain.
 - b) Explain the transport of O₂ and CO₂ between alveoli and tissue with diagram.

Assertion and reasoning

10. Assertion : Most fish when out of water die of suffocation.
Reason: Atmospheric air contains far less oxygen content than the dissolved oxygen in water.
11. Assertion: Insects develop a complex system of air tubes called trachea for respiration
Reason: Exchange of gases through body surface is not possible in insects.
12. Assertion: Aerobic animals are not truly aerobic.
Reason: They produce lactic acid anaerobically.
13. Assertion: Alveoli are the primary sites for exchange of gases.
Reason: All factors in our body are favourable for diffusion of O₂ from alveoli to tissues and that of CO₂ from tissues to alveoli.
14. Assertion: The maximum volume of air a person can breathe in after a forced expiration is called Vital Capacity
Reason: The vital capacity includes RV, ERV, TV and IRV.