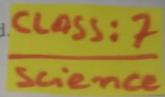
- G. 1. Respiration is the process of taking in oxygen, using it for the release of energy by oxidation of food and eliminating the waste products, carbon dioxide and water.
  - 2. The end product of aerobic respiration are carbon dioxide and water. The end product of aerobic respiration are ethyl alcohol and lactic acid. CLASS: 7
  - 5. The respiration process can be expressed in chemical equation as:



C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> + 6O<sub>2</sub> → 6CO<sub>2</sub>↑ + 6H<sub>2</sub>O + Energy Glucose Oxygen Carbon dioxide Water

- 4. Gills are respiratory organs in fishes. These are feathery structures behind the head usually are covered by a flap called operculum. The gills are fed with blood from the heart.
- 5. The main respiratory organs in human beings are nose, throat, trachea, bronchi and
- H. 1. Respiration in Stems: The stems of herbaceous plants have stomata. The exchange of respiratory gases oxygen and carbon dioxide in the stem of herbaceous plants takes place through stomata by the process of diffusion. Respiration in Leaves: The lower surface of all the leaves of a plant have tiny pores
  - called stomata. Some plants have stomata on the top surface of their leaves. The exchange of respiratory gases in the leaves take place by the process of diffusion through stomata. The diffused oxygen is used in respiration. The carbon dioxide produced during respiration diffuses out from the leaf into the air through the stomata.
  - 2. Differences between breathing and cellular respiration:

	Breathing	Cellular respiration
1.	It takes place outside the cells in the lungs.	It takes place within the cells.
2.	It is physical process of diffusion. Oxygen diffuses in, carbon dioxide diffuses out.	It is a biological process in which glucose is oxidised and carbon dioxide and water are released.
3.	There is no release of energy.	There is a gradual and stepwise release of energy.
4.	Enzymes are not involved.	Several respiratory enzymes are involved in the process.

## Transportation in Plants and Animals

- A. 1. Plasma, Corpuscles; 2. Amoeba, Paramecium
- B. 1. (a); 2. (c); 3. (b); 4. (a); 5. (b)
- C. 1. blood; 2. carbohydrates; 3. nutrition; 4. blood
- D. 1. (iv); 2. (v); 3. (ii); 4. (iii); 5. (i)