Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO. 1

CLASS: X **April-'25**

Biology Assignment

Chapter :5 Life Processes

MULTIPLE CHOICE QUESTIONS

1.In which mode of nutrition an organism de-rives its food from the body of another living organism without killing it?
(a) Saprotrophic nutrition
(b) Parasitic nutrition
(c) Holozoic nutrition
(d) Autotrophic nutrition

2. Roots of the plants absorb water from the soil through the process of:
(a) diffusion
(b) transpiration
(c) osmosis
(d) None of these

3. In amoeba, food is digested in the:
(a) food vacuole
(b) mitochondria
(c) pseudopodia
(d) chloroplast

4. Which region of the alimentary canal absorbs the digested food?
(a) Stomach
(b) Small intestine
(c) Large intestine
(d) Liver

5.When a few drops of iodine solution are added to rice water, the solution turns blue- black in colour. This indicates that rice water contains:
(a) fats
(b) complex proteins
(c) starch
(d) simple proteins

6. What are the products obtained by anaerobic respiration in plants?
(a) Lactic acid + Energy
(b) Carbon dioxide + Water + Energy
(c) Ethanol + Carbon dioxide + Energy
(d) Pyruvate

Assertion-Reason Questions

1.Assertion (A): In plants there is no need of specialised respiratory organs.
Reason (R): Plants do not have great demands of gaseous exchange.

2.Assertion (A): Bile is essential for digestion of lipids.
Reason (R): Bile juice contains enzymes.

3. **Assertion (A):** Arteries are thick-walled and elastic in nature.
Reason (R): Arteries have to transport blood away from the heart.

4. **Assertion (A):** Rings of cartilage are present in the throat.
Reason (R): These ensure that the air-passage does not collapse.

5. **Assertion:** The movement of water and dissolved salts in xylem is always upwards.
Reason: The upward movement of water is due to low pressure created by transpiration.

Short Answer Type Questions [2 Marks]

1. Write the balanced chemical equation of photosynthesis.

2. List the events taking place during the process of photosynthesis.

3. How does an amoeba takes its food. Explain it with the help of the diagram

4. Why is diffusion insufficient to meet the oxygen requirements of multicellular organisms like humans?

5. What are the necessary' conditions for autotrophic nutrition and what are its byproducts.

Short Answer Type Questions [3 Marks]

1. How opening and closing of stomata takes place?

2. Draw the well labelled diagram of the following.

(a) Human digestive system (b) Human respiratory system

3. Diagrammatically explain the opening and closing of stomata.

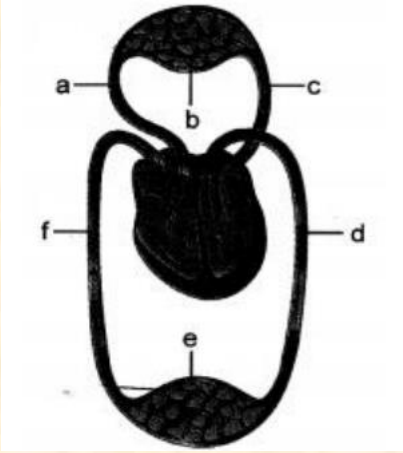
4. Differentiate in a tabular form between autotrophic and heterotrophic nutrition.

Long Answer Type Question [5 Marks]

1. (i) Explain how does the exchange of gases occur in plants across the surface of stems, roots and leaves.

(ii) How are water and minerals transported in plants?

2. (i) In the given representation of transport and exchange of oxygen and carbon dioxide in human heart label the parts marked as a, b, c, d, e, and f.



(ii) Write two points of difference between pulmonary artery and pulmonary vein.

3. Draw a diagram of human alimentary canal and label the following parts:

(a) largest gland.

(b) Gland that secretes digestive enzymes and hormone.

(c) Part where HCl is produced.

(d) Part where digested food is absorbed.

4. What are villi? Explain their function in the digestive system.

5. (i) The upward movement of water normally requires a pump in our houses, but in tall trees water rises up without any external support. Explain the mechanism.

(ii) State three points of difference between the transport of materials in xylem and phloem tissues.

6. What is lymph? How is composition of lymph different from blood plasma? What is the direction of its flow? List two functions of lymphatic system.