

CBSE CLASS 10th CHAPTER 6. LIFE PROCESSES Solved Questions

1 MARKS QUESTIONS

1. A farmer floods his field everyday thinking that watering in this manner will result a better yield of his wheat crop. What will be the result of this action of the farmer.

Ans.This will result in water logging of the soil due to which roots cannot breathe and ultimately plants will die .

2. Name the term for transport of food from leaves to other parts of plants.

Ans.Translocation

3. Which pancreatic enzyme is effective in digesting proteins?

Ans.Trypsin

4. Which enzyme is present in saliva breaks down starch?

Ans.Salivary amylase.

5. After a vigorous exercise you may experience cramps in your leg muscles. Why does this happen?

Ans.Accumulation of lactic acid.

6. Name the organelle in which photosynthesis occurs.

Ans.Chloroplast.

7. Name the type of blood vessels which carry blood from organs to the heart.

Ans.Veins.

8. Name the respiratory structures of i.Mosquito ii)earth worm.

Ans.(i) mosquito—System of air tubes. (ii)earth worm—moist skin.

9. Write the two functions of kidneys.

Ans.Osmoregulation and excretion.

10. What are spiracles.

Ans The holes found on the lateral side of insect's body.

2 MARKS QUESTIONS

1. Differentiate autotrophs and heterotrophs.

Ans. The organism which prepare their own food are called autotrophs for eg: green plants . The organisms which depend on the food prepared by other organisms are called heterotrophs for eg: animals

2. Differentiate between aerobic respiration and anaerobic respiration.

Ans.

| Aerobic respiration | Anaerobic respiration |
|---|--|
| 1. It occurs in the presence of oxygen | It occurs in the absence of oxygen. |
| 2. Glucose is completely broken down to carbon dioxide and water. | Glucose is incompletely oxidised to ethanol or lactic acid |
| 3. More energy is released 38 ATP. | Less energy is produced 2ATP. |

3. Explain the role of the following in the process of digestion in the human body (a) saliva (b) trypsin

Ans:

(a) saliva- Saliva contains an enzyme salivary amylase which digests starch

(b) trypsin.-helps in digestion of proteins.

4. What is double circulation.?

Ans. In double circulation blood goes through the heart twice during each cycle in vertebrates. 5 Write any two points of difference between respiration in plants and respiration in animals.

5 Write any two points of difference between respiration in plants and respiration in animals.

Ans:

| Respiration in plants. | Respiration in animals |
|---|--|
| 1. In plants separate respiratory organs are absent | 1. In animals respiratory organs are generally present |
| 2. The rate of respiration is slow. | 2. The rate of respiration is fast. |
| 3. They lack respiratory surface | 3. Respiratory surface is generally present. |

6. Differentiate between Holozoic nutrition and saprophytic nutrition.

Ans:

| Holozoic nutrition | Saprophytic nutrition |
|--|--|
| In this nutrition organisms derive their food by consuming complex organic materials by the process of ingestion and then converting the complex molecules into simpler ones to obtain nutrients. Eg. animals and human beings. | In this type of nutrition organism derive their food from the dead and decaying materials. Eg.fungi |

7. Why do veins have thin walls compared to arteries?

Ans: Veins do not have thick walls because blood is no longer under pressure but blood emerges from the heart under high pressure. So arteries have thick walls

8. Where does the plants get each of the raw materials. (a) CO₂ (b) water (c) minerals

Ans.

(a) CO₂- from air,

(b) water- from soil

(c) minerals- from soil along with water.

9. What do the following transport? (a) xylem (b) phloem (c) pulmonary vein (d) venacava

Ans.

(a) xylem- water and minerals (b) phloem- prepared food.

(c) Pulmonary vein- oxygenated blood (d) vena cava - deoxygenated blood

10. Write one function each of the following components of transport system in human beings.

(a) arteries (b) veins (c) capillaries

Ans.

(a) arteries- carry blood from heart to different parts of body

(b) veins- carry blood from different parts of body to the heart. (c) Capillaries- exchange of material between blood and surrounding cells.

11. (a) How is fat digested in our body? (b) Where does this takes place?

Ans. (a) fats are emulsified by bile salts. The emulsified fats are acted upon by pancreatic and intestinal lipase to form fatty acids and glycerol.

(b) digestion of fats occurs in small intestine.

3 MARKS QUESTIONS

1. What is the function of epiglottis in man? Draw a labelled diagram showing the human respiratory system.

Ans: Epiglottis. It is an adjustable flap of fibrocartilage that covers glottis when food is being swallowed.

Diagram of human respiratory system. Fig 6.9 (NCERT text book page no.104.)

3. What is known as double circulation Briefly explain the process .

Ans. It is passage of the same blood twice through the heart first on the right side, then on the left side in order to complete one cycle. It has two components, pulmonary circulation and systemic circulation.

Hint. Pulmonary circulation and systemic circulation 4. How water is transported upwards in plants? Hint. Transpiration pull

5. Name the tissue that transports the prepared food in plants . Explain the mechanism of transport of food in plants. Ans. phloem Hint: translocation using energy from ATP.

6. Briefly describe the excretory system in human beings.

Hint a pair of kidneys a pair of ureters, a urinary bladder and a urethra.

7. Describe the functioning of nephrons.

Hint: filtration, reabsorption, secretion

8. What are the differences between the transport of materials in xylem and phloem

hint transport in xylem: water transport using transpirational pull

Transport in phloem: food, transport using energy from ATP

9. Draw and label the sectional view of the human heart.

Diagram NCERT text book fig 6.10 page 106

10. Differentiate between osmoregulation and excretion excretion is the elimination of metabolic waste products from the body.

Osmoregulation is regulating osmotic pressure of the body fluids by controlling the amount of water and salts in the body

5 MARKS QUESTIONS

1. Write the process of digestion.

Hint. digestion in mouth, stomach, duodenum, digestion in jejunum . Digestion of carbohydrates, digestion of proteins, digestion of fats

2. Which chamber of human heart receives oxygenated blood? Explain how oxygenated blood from this chamber is sent to all parts of the body.

Ans Left atrium

Hint. Explanation of systemic circulation

3. Draw the diagram of cross section of a leaf and label the following in it.

A) Chloroplast b) guard cell c) lower epidermis d) upper epidermis

Name the two stages in photosynthesis.

Ans Draw fig 6.1 NCERT text book page 96 Two stages light reaction and dark reaction

4. Draw a neat diagram of the human respiratory system and label the parts.

b) How are the alveoli designed to maximise the exchange of gases. Suggest any two features.

Draw fig 6.9 and explain the structure and function of alveoli

5. a) Draw a diagram of human alimentary canal.

b) label the following on the diagram Oesophagus, liver gall bladder, duodenum

c) What is the function of liver in human body

Ans. Draw fig 6.6 in page 99 of NCERT and label the parts mentioned. Liver. Secretes bile that emulsifies fats . Bile provide alkaline medium for digestion of proteins.