



**Guidelines:-**

**Dear Students,**

- This is a revision assignment and you need to practice and **not** write down the answers in the Biology notebook.

**Assessment Sheet**

Q1. Give reasons:

- a) Diffusion is not sufficient to meet oxygen requirements of all cells in multicellular organisms.

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- b) Fishes die when they are taken out of water.

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- c) Transpiration is a necessary evil.

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Q2. Rahul wanted to build up his body very quickly without following the right exercise regime and balanced diet. Instead he started eating readymade food supplement.

- i) Was the step taken by Rahul right in your opinion? Justify your answer.

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- ii) What are the harmful effects of taking artificial health supplements without consulting a physician?

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Q3. What substances are contained in the gastric juice? What are their functions?

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Q4. Differentiate between arteries & veins (Any 3 points)

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Q5. Draw a labelled diagram showing the human respiratory system.

Q6. What is emulsification? Name the organ where fat is emulsified in the alimentary canal of human beings.

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Q7. Why are intestinal villi highly vascular?

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Q8. Which materials are selectively reabsorbed by the nephron /uriniferous tubule?

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### Fill-ups:-

1. The exit of food from the stomach is regulated by a ..... muscle.
2. .... is the longest part of the alimentary canal.
3. The process of breakdown of glucose, (a six-carbon molecule) into pyruvate, (a three-carbon molecule), takes place in the .....
4. .... is the site of the complete digestion of carbohydrates, proteins and fats.
5. Breaking of pyruvate using oxygen takes place in the .....
6. Rings of cartilage are present in the wind pipe to ensure that the .....
7. The blood has ..... cells which plug the leakage in the vessels by helping to clot the blood at the point of injury.
8. .... transports products of photosynthesis from the leaves to other parts of the plant.

### Question Bank

Q1. Give reasons for the following :

- a) Walls of ventricles are thick.
- b) HCl is secreted in the stomach.
- c) Deer has a longer small intestine as compared to Tiger.

Q2. Name the gland that secretes lipase and explain its function.

Q3. Separation of oxygenated and deoxygenated blood is important for humans. Comment.

Q4. Nephron is the structural and functional unit of kidney. Which substances are reabsorbed by it that help in the formation of urine?

Q5. Draw a well labelled diagram of human heart and do any 4 labels.

Q6. Define the process of excretion and role of kidneys in osmoregulation.

Q7. Enlist the role of pepsin and trypsin in digestion.

Q8. How are alveoli designed for the maximum diffusion of respiratory gases?

Q9. What causes the movement of food inside the alimentary canal?

Q10. Name the part of the cell where breakdown of glucose into pyruvate takes place.

Q11. State the functions of the following:

- a) Trachea    b) Alveoli    c) Nasal cavity

Q12. Differentiate between: (three points)

- a) Aerobic respiration and anaerobic respiration  
b) Breathing and Respiration

Q13. Explain the process of breathing in humans.

Q14. Discuss the mechanism of gaseous exchange between tissues and blood.

Q15. Show with the help of a flow chart the breakdown of glucose in the living organisms.

Q16. A product is formed in our muscles due to breakdown of glucose when there is lack of oxygen. Identify the product and also mention the effect of this product on humans.

Q17. Analyse the following situation:

A seed with a hard seed coat also respire. Respiration helps the seed to gain energy and the process of germination is initiated. How do seeds with hard seed coat respire?

Q18. "Lymph is another type of fluid involved in transportation." Justify the statement by explaining the process.

Q19. Design an experiment to show the phenomenon of transpiration.

Q20. Design an experiment to show the movement of water and minerals from roots to different parts of the plant.

Q21. Choose the correct statement that describes **arteries**:

- a) They have thick elastic walls, blood flows under high pressure; collect blood from different organs and bring it back to the heart.  
b) They have thin walls with valves inside, blood flows under low pressure and carry blood away from the heart to various organs of the body.  
c) They have thick elastic walls, blood flows under low pressure; carry blood from the heart to various organs of the body.  
d) They have thick elastic walls without valves inside, blood flows under high pressure and carry blood away from the heart to different parts of the body.

Q22. What will happen if the liver of a person stops working? How it is going to affect his digestive system?

Q23. In case stomach starts functioning as an absorptive organ, what modifications would be expected in its structure?

Q25. Write one feature which is common to each of the following pairs of terms or organs:-

- A) Glycogen and starch      b) chlorophyll and haemoglobin

Q25. Explain the steps of nutrition in Amoeba.

### MULTIPLE CHOICE QUESTIONS

Question 1. Which of the following are energy foods?

- (a) Carbohydrates and fats      (b) Proteins and mineral salts  
(c) Vitamins and minerals      (d) Water and roughage

Question 2. The procedure used for cleaning the blood of a person by separating urea from it is called:

- (a) osmosis      (b) filtration      (c) dialysis      (d) double circulation

Question 3. Which part of nephron allows the selective reabsorption of useful substances like glucose, amino acids, salts and water into the blood capillaries?

- (a) Tubule      (b) Glomerulus      (c) Bowman's capsule      (d) Ureter

Question 4. Single circulation, i.e., blood flows through the heart only once during one cycle of passage through the body, is exhibited by which of the following:

- (a) hyla, rana, draco  
(b) whale, dolphin, turtle  
(c) labeo, chameleon, salamander  
(d) hippocampus, exocoetus, anabas

Question 5. A blood vessel which pumps the blood from heart to the entire body:

- (a) artery      (b) capillary      (c) Vein      (d) Haemoglobin

Question 6. Name a circulatory fluid in the human body other than blood.

- (a) Platelets      (b) RBC      (c) Lymph      (d) Plasma

Question 7. Which plant tissue transports water and minerals from the roots to the leaf?

- (a) Xylem      (b) Phloem      (c) Parenchyma      (d) Collenchyma

Question 8. Name the substances whose build up in the muscles during vigorous physical exercise may cause cramps.

- (a) Ethanol + Carbon dioxide + Energy  
(b) Lactic acid + Energy  
(c) Carbon dioxide + Water + Energy  
(d) Pyruvate