

# Life Processes Class 10 Extra Questions

1. The xylem in plants is responsible for the transportation of  
**(a) water      (b) food      (c) amino acids      (d) oxygen.**
2. The kidneys in human beings are a part of the system for  
**(a) nutrition      (b) respiration      (c) excretion      (d) transportation**
3. The autotrophic mode of nutrition requires  
**(a) carbon dioxide and water      (b) chlorophyll      (c) sunlight      (d) all of the above**
4. The breakdown of pyruvate into carbon dioxide and water, to release energy occurs in  
**(a) cytoplasm      (b) mitochondria      (c) chloroplast      (d) nucleus**
5. What is the role of saliva in the digestion of food?
6. What processes would you consider essential for maintaining life?
7. What external raw materials do an organism use?
8. How is the amount of urine produced regulated?
9. What is the function of digestive enzymes?
10. Explain the role of the acid in our stomach.
11. What are the criteria to decide whether something is alive?
12. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?
13. What are the parts of the circulatory system of highly organized plants?
14. What methods are used by plants to get rid of excretory products?
15. Why is diffusion insufficient to meet the oxygen requirements of multi-cellular organisms like humans?
16. Where do plants get the raw materials necessary for photosynthesis?
17. What are the necessary conditions for autotrophic nutrition and what are its by-products?
18. How are the alveoli designed to maximize the exchange of gases?
19. What would be the consequences of hemoglobin deficiency in our bodies?

20. How are fats digested in our bodies? Where does this process take place?
21. How are the lungs designed in human beings to maximize the area for the exchange of gases?
22. What are the advantages of a terrestrial organism over an aquatic organism in obtaining oxygen for respiration?
23. How are water and minerals transported in plants?
24. What are the different ways in which glucose is oxidized to provide energy in various organisms?
25. How are oxygen and carbon dioxide transported in humans?
26. What are the differences between aerobic and anaerobic respiration? Give examples of anaerobic mode of respiration.
27. How is the small intestine equipped to absorb digested food?
28. How is food transported in plants?
29. What are the components of the circulatory system in humans? What are their functions?
30. What are the differences between the transportation of materials in the xylem and phloem?
31. State the differences between autotrophic nutrition and heterotrophic nutrition.
32. Describe double circulation in human beings. Why is it necessary?
33. Describe the structure and functioning of nephrons.
34. Compare the structure and function of alveoli in the lungs and nephrons in the kidneys.
35. Define photosynthesis. Write the equation and explain the steps.
36. How do stomata open and close?
37. Explain the digestion of food in the mouth, stomach, duodenum, and small intestine.
38. Name the components of pancreatic juice and explain their functions.
39. Explain the function of the pancreas and liver in the human digestive system.
40. Name the components of gastric juice and explain their functions.
41. What are autotrophs? Explain the conditions necessary for autotrophic nutrition.
42. Define the following types of nutrition with examples

1. Holozoic
2. Saprophytic
3. Parasitic

43. What is chlorophyll? Explain its role in photosynthesis.

44. What do you mean by nutrient? Name four nutrients present in our food.

45. Name the substances on which the following enzymes act.

1. Amylase
2. Lipase
3. Pepsin
4. Trypsin

46. Explain how the following circumstances affect the rate of photosynthesis.

1. A cloudy morning but bright sunshine in the afternoon
2. No rainfall in the area for an extended period.
3. Dust gathered on the leaves

47. Leaves of a healthy potted plant were coated with Vaseline. Will this plant remain healthy for long? Give a reason for your answer.

48. Give reasons.

1. The small intestine in herbivores is longer than that of carnivores.
2. The stomach has a lining of mucus.

49. 56. Name the following:

1. The process of converting light energy into chemical energy in plants.
2. Organisms that cannot make their own food.
3. Organisms that prepare their food.
4. This cell organelle is the site of photosynthesis.
5. The cells surrounding a stomatal pore.
6. An enzyme secreted by gastric glands that acts on proteins.

50. Answer the following.

1. Which organ secretes bile?
2. Where is bile stored?
3. What is the function of bile?

51. Explain why bile juice does not contain any digestive enzyme, yet it is essential for digestion.

52. Tooth enamel is one of the hardest substances in our body. How does it undergo damage eating chocolates and sweets?

53. How would non-secretion of hydrochloric acid in our stomach affect food digestion? Explain.

54. Meena who is studying in Class X gets tired very soon and her skin color is turning pale, her hemoglobin content in the blood is also low She is confused about this situation.

- a. Which disease is she suffering from?
- b. What is the role of hemoglobin in our blood?

55. What is the advantage of a four-chambered heart?

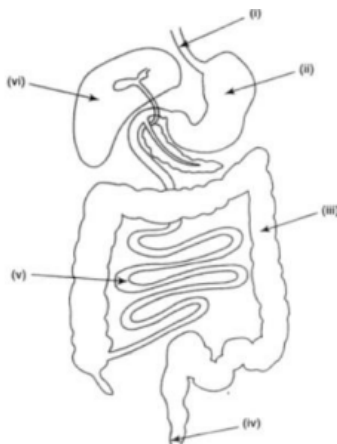
56. Why is chlorophyll extracted from the leaf before testing it for the presence of starch?

57. A farmer floods his field every day thinking that watering in this manner will give a better yield of his wheat crop. What will be the result of this action of the farmer?

58. Label a, b, and c in the following equation for respiration.

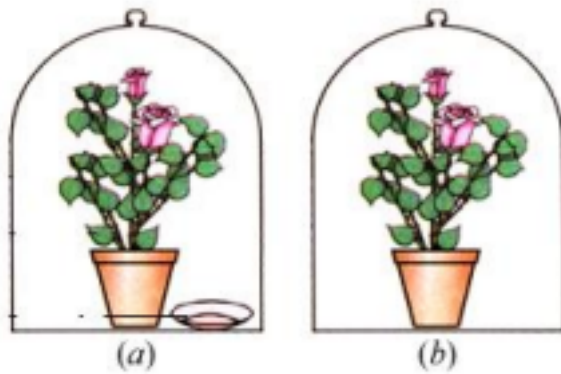
	Glycolysis		In presence of O <sub>2</sub>			
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	----->	C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	----->	c. _____ +	6H <sub>2</sub> O +	38ATP
		a. _____ —	In b. _____			

59. Study the following diagram and answer the following questions



- a. Label i, ii, iii, iv, v, vi
- b. What are the changes happening to food in part (ii)
- c. Name the juice secreted by (v).
- d. Give two functions of (iii)

60. Study the following diagram and answer the following questions:



- a. Name the atmospheric gas which is essential for photosynthesis.
- b. What is kept in figure a and why?
- c. State the difference between the plants in the pots a and b after a few days.

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