BIOLOGY

BOOKS - VK GLOBAL PUBLICATION BIOLOGY (HINGLISH)

LIFE PROCESSES

Ncert Intext Questions

1. Why is diffusion insufficient to meet the oxygen requirements of multicellular

organisms like humans?

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2. What criteria do we use to decide whether something is alive?

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3. What are outside raw materials used for by an organism?

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4. What processes would you consider essential for maintaining life?

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5. What are the differences between autotrophic nutrition and heterotrophic nutrition?

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6. Where do plants get each of the raw materials required for photosynthesis?

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7. What is the role of the acid in our stomach?

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8. What is the function of digestive enzymes?

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9. How is the small intestine designed to absorb digested food?

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10. What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration?

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11. What are the different ways in which glucose is oxidised to provide energy in various organisms?

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12. How is oxygen and carbon dioxide transported in human beings?

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13. How are the lungs designed in human beings to maximise the area for exchange of gases?

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14. What are the components of the transport system in human beings? What are the functions of these components?

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15. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?

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16. What are the components of the transport system in highly organised plants?

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17. How are water and minerals transported in plants?

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18. How is food transported in plants?

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19. Describe the structure and functioning of nephrons.

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20. What are the methods used by plants to get rid of excretory products?

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21. How is the amount of urine produced regulated?

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Ncert Exercises

1. How are fats digested in our bodies? Where does this process take place?

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2. What is the role of saliva in the digestion of food?

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3. What are the necessary conditions for autotrophic nutrition and what are its byproducts?

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4. What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration.

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5. How are the alveoli designed to maximise the exchange of gases?

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6. What would be the consequence of a deficiency of haemoglobin in our body?

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7. Describe double circulation in human beings. Why is it necessary?

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

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9. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structure and functioning.

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Very Short Answer Questions

1. Why is energy required by an organism even during sleep?

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2. Give the energy transformation that takes place in the process of photosynthesis.

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3. What is chlorophyll?

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4. Name the various factors which affect the rate of photosynthesis.

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5. Define photolysis.

View Text Solution

6. Define light reaction.

View Text Solution

7. Define dark reaction.

View Text Solution

8. What are peristaltic movements?

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9. Name the various cells through which water moves upward to reach the leaves.

View Text Solution

10. What will happen to a plant if its xylem is removed?

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11. In which chamber of heart is oxygenated and deoxygenated blood found?

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12. What makes red blood corpuscles red?

View Text Solution

13. What is the main function of kidneys in humans?

View Text Solution

14. In which part of nephron is water reabsorbed?

View Text Solution

15. In which region of kidney Malpighian corpuscles are found?

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16. What process in plants is known as transpiration?

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17. What is urethra?

View Text Solution

18. Which is the major nitrogenous waste product in human beings? How is it removed from the body?

View Text Solution

19. What is osmoregulation?

View Text Solution

20. In which form

(i) oxygen is carried to the tissues?

(ii) CO_2 moves out of the blood?

View Text Solution

21. Why do the walls of trachea not collapse when there is less air in it?

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22. Which part of root is involved in the exchange of respiratory gases in plants?

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23. Name two organisms in which food material is broken down outside the body and absorbed.

View Text Solution

24. What prevents backflow of blood inside the heart during contraction?

View Text Solution

25. Which is the first enzyme to mix with food in the digestive system?

View Text Solution

26. Why does lack of oxygen in muscles often lead to cramps among cricketers?

View Text Solution

27. Where is pyruvic acid converted into lactic acid during deficiency of oxygen in tissues of human beings?

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28. Where does the oxygen come from when it is liberated during photosynthesis?

View Text Solution

29. In which forms do most plants absorb nitrogen?

View Text Solution

30. If salivary amylase is lacking in the saliva, which event in the mouth cavity will be affected?

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31. What protects the inner lining of stomach from hydrochloric acid?

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32. What is chyme?

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Short Answer Questions I

1. What is compensation point?

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2. What happens to visible light of the sun when it falls on chlorophyll?

View Text Solution

3. How does water affect the rate of photosynthesis in plants?

View Text Solution

4. What is peptic ulcer? How is peptic ulcer caused?

View Text Solution

5. How does respiration occur in the leaves?

View Text Solution

6. What is ascent of sap?

View Text Solution

7. What is transpiration pull?

View Text Solution

8. What is root pressure?

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9. What is the role of intercostal muscles in respiration and where are these found?

View Text Solution

10. State the function of Bowman's capsule and glomerulus.

View Text Solution

11. What happens to glucose which enters the nephron along with the filtrate?

View Text Solution

12. Write down the functions of lymph nodes.

View Text Solution

13. Why is cigarette smoking injurious to health?

View Text Solution

14. State the function of epiglottis.

View Text Solution

15. Why are white blood corpuscles called soldiers of the body?

View Text Solution

16. Name the parts of the body responsible for excretion in

(i) Amoeba

(ii) Earthworm.

View Text Solution

17. What happens to the rate of breathing during vigorous exercise and why?

View Text Solution

18. How do the guard cells regulate opening and closing of stomatai pores?

View Text Solution

19. Two green plants are kept separately in oxygen-free containers, one in the dark and the other in continuous light. Which one will live longer? Give reasons.

View Text Solution

20. In each of the following situations what happens to the rate of photosynthesis?

(i) Cloudy days

(ii) No rainfall in the area

(iii) Good manuring in the area

(iv) Stomata get blocked due to dust

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21. Name the energy currency in the living organisms. When and where is it produced?

View Text Solution

22. Match the terms in Column (A) with those in Column (B):

Column A	Column B
(*i*) Trypsin	(*a*) Pancreas
(*ii*) Amylase	(*b*) Liver
(*iii*) Bile	(*c*) Gastric glands
(*iv*) Pepsin	(*d*) Saliva

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23. Explain the statement, 'Bile does not contain any enzyme but it is essential for digestion.'

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Short Answer Questions Ii

1. What are the adaptations of leaf for photosynthesis?

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2. Mention the major events during photosynthesis.

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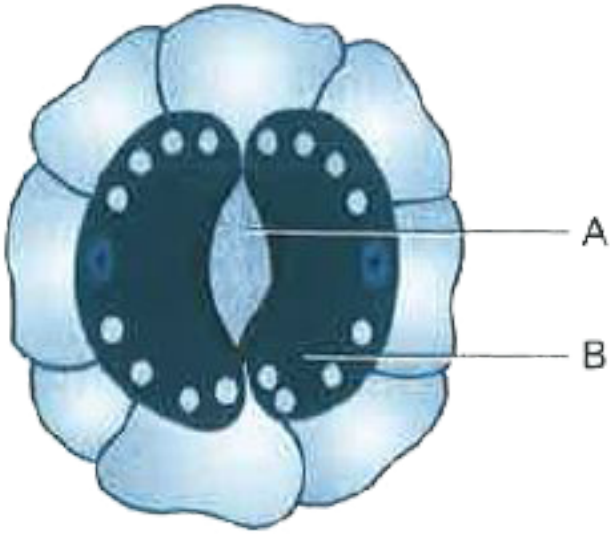
3. Study the given diagram: Name the parts 'A' and 'B' and state one function of each.



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

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5. What are the various processes that take place in the duodenum?

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6. How does respiration occur in the roots of the plant?

View Text Solution

7. (i) Explain why the rate of photosynthesis in plants is low both at lower and higher temperatures,

(ii) Is green light most or least useful in photosynthesis and why?

View Text Solution

8. How does respiration occur in the stem of the plant?

View Text Solution

9. Give reasons:

(i) Plants look green.

(ii) The respiratory surface of earthworm is its skin.

(iii) Nutrition is necessary for an organism.

(iv) We boil the leaf in alcohol when we are testing it for starch.

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10. Draw and label the parts of the human excretory system.

View Text Solution

11. State the functions of the following components of transport system:

(i) Blood (ii) Lymph

View Text Solution

12. State differences between artery, vein and capillary.

View Text Solution

13. Is 'nutrition' a necessity for an organism? Discuss.

View Text Solution

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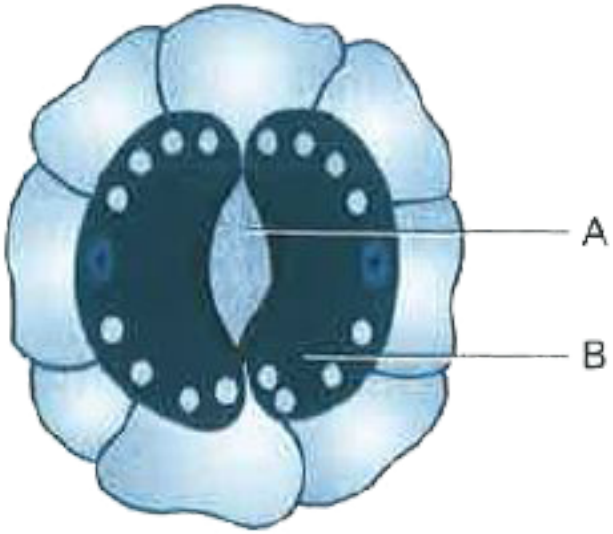

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Long Answer Questions

1. What is the difference between autotrophic nutrition and heterotrophic nutrition?

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2. Describe the glands involved in the digestive system.

View Text Solution

3. What are the common features between all the respiratory organs? Explain the mechanism of gaseous exchange between tissues and blood.

View Text Solution

4. Explain the nutrition process in an Amoeba.

View Text Solution

5. Give the role of liver in the human beings.

View Text Solution

6. Distinguish between breathing and respiration.

View Text Solution

7. (i) Describe aerobic respiration.

(ii) Describe the process of anaerobic respiration.

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8. Explain process of breathing in man.

View Text Solution

9. Describe the structure of human kidney.

View Text Solution

10. Describe the process of digestion of food in human beings.

View Text Solution

11. Differentiate between blood and lymph.

View Text Solution

12. Define the terms, 'nutrition' and 'nutrients'. List two differences between 'holozoic

nutrition' and 'saprophytic nutrition'. Give two examples of each of these two types of nutrition.

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13. Describe internal structure of a human heart.

View Text Solution

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Hots Higher Order Thinking Skills

1. If a plant is releasing carbon dioxide and taking in oxygen during the day, does it mean that there is no photosynthesis occurring? Justify your answer.

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2. The leaves of a plant first prepare food A by photosynthesis then food A gets converted into food B. What are A and B?

View Text Solution

3. Why do fishes die when taken out of water?

View Text Solution

4. What would happen if green plants disappeared from the Earth?

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5. Why is small intestine in herbivores longer than in carnivores?

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6. What will happen if mucus is not secreted by the gastric glands?

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8. Why do veins have thin walls as compared to arteries?

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9. Why and how does water enter continuously into the root xylem?

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10. Why is more concentrated yellowish urine excreted in summers?

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11. Leaves of a healthy potted plant were coated with vaseline to block the stomata. Will this plant remain healthy for long? State three reasons for your answer.

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