Chapter- 6.

LIFE PROCESSES.

Section A (One-mark questions)

1. Define nutrition? What are the different modes of nutrition?
2. What is the mode of nutrition in fungi?
3. Name the pigment, which can absorb solar energy.
4. Name the two stages in photosynthesis.
5. Name the factors, which affect photosynthesis.
6. Define a herbivore and a carnivore.
7. What is compensation point?
8. Other than chlorophyll, which other pigment is necessary for photosynthesis?
9. Where does digestion begin?
10. What is the name given to the process of using the absorbed food for producing energy?
11. What happens to visible light of the Sun when it falls on chlorophyll?
12. Name the product and by product of photosynthesis.
13. In which biochemical form the photosynthetic moves in phloem tissue?
14. What are the raw materials of photosynthesis?
15. What is the similarity between chlorophyll and hemoglobin?
16. Name the products of photolysis of water.
17. What are the end products of light dependant reaction?
18. Which cell organelle is the site of photosynthesis?
19. What is the difference between digestion of heterotrophs and saprotrophs?
20. Give example of two plants and two animal parasites.
21. Name the enzyme present in saliva, what is its role in digestion?
22. Which chemical is used to test for starch? Which colour shows the presence of starch?

23. How does amoeba engulf its food?

24. Name the parts of the digestive system of a grasshopper.

25. What are the functions of the liver and the pancreas?

26. Define breathing.

27. How is respiration different from breathing?

28. In which kind of respiration is more energy released?

29. Which part of the roots is involved in exchange of respiratory gases?

30. What are (i) stomata and (ii) lenticels?

31. Give two points of differences between respiration in plants and respiration in animals.

32. Name the respiratory organs
    of (i) fish
    (ii) mosquito
    (iii) earthworm
    (iv) dog

33. From where do the following take in oxygen? (i) prawn (ii) rat.

34. State the function of epiglottis.

35. Define photolysis.

36. What are the living organisms that cannot make their own food called?

37. What are chemotrophs?

38. Give the term- rhythmic contraction of alimentary canal muscle to propel food.

39. Name the three secretions of gastric glands.

40. What is the function of mucus in gastric gland?

Section B(Two marks questions)

1. After long running, you may experience cramps in your leg muscles. Whats the reason behind this?

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

3. How do villi enhance absorption of food in the intestine?

4. Why bile juice is considered important even though it does not contain any digestive enzymes?

5. Which organs secrete the following enzymes:
   (i) Trypsin
   (ii) Pepsin

6. Name the factors that affect photosynthesis.

7. Name the vestigeal part of human alimentary canal?

8. What is the name given to rhythmic wave like manner occurring in alimentary canal?

9. The bark of woody plants is dead but the inner layers inside the bark are living. How do they get oxygen and release carbon dioxide?

10. What are lenticels?

11. How does photosynthesis occur?

12. Name the mode of nutrition in an organism that uses simple substances like CO2 and water to prepare food inside its body?

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

14. Read following statements from A to E and identify the relevant life process from the following word list.
    growth, transport, synthesis, regulation, nutrition
    A. A butterfly sucking the nectar from the flowers in a garden.
    B. A boy shouts with excitement when his school team wins the match on the last ball.
    C. After finishing lunch, Mohan's blood distributes the food molecules to different cells of his body.
    D. Green plants prepares starch (complex substance) from simpler chemicals. E. Radha finds her height has increased by 4 cm since her last birthday.

15. What is osmoregulation?

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

17. Which organ of the plant body helps in osmo-regulation?

18. Which organelle of the cell in animals helps in osmo-regulation?

19. How does transpiration pull help in ascent of sap?

20. In what form excretion takes place in plants?

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

22. What is meant by double circulation? Mention its advantages.

23. Who has longer small intestine tiger or cow?

24. Leaves of a healthy potted plant are coated with Vaseline to block the stomata. Will this plant remain healthy for long? State three reasons to support your answer.

25. Outline inhalation-exhalation cycle.

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

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

27. Why is there extra air in our lungs after exhaling?

28. Which cell are the site of exchange of gases?

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

30. Why blood is necessary for oxygen delivery to all parts of the body in larger animals?

31. Define homeostasis.

32. Name the organ systems that help us maintain homeostasis.

33. What in kidneys is analogous to alveloli in lungs?

34. State the role and function of lymph in human transport system.

35. What is the basic reason of urine production?

36. State the role of kidneys in human transport system.

37. Who discovered systemic blood circulation system in human body?

38. What is pulmonary circulation and systemic circulation?

39. Which fluid is also know as tissue fluid?

40. What is sphygmomanometer?

41. What is the function of ureter?

Section C (Three marks questions)

1. During daytime transpiration and photosynthesis are interlinked. What do you mean by this statement?

2. 'Sweating in animals' is equivalent to what in plants?

3. What factor contribute to rate of transpiration?

4. How does transpiration help plants?

5. Name the mineral required for healthy growth of teeth.

6. Name the chemical used to detect presence of starch.

7. What is the function of mucus secreted in stomach during digestion?

8. What is the optimum temperature for photosynthesis?

9. Differentiate between Blood and Lymph

10. How does diaphragm help in inhalation?

11. Which activity is basic to living?

12. Give one term-science that deals with life processes.

13. What is the similarity between chlorophyll and haemoglobin?

14. Define Chemosynthesis.

15. What is photolysis of water? What are its products?

16. What are the important enzymes of pancreatic juice and their function?

17. Give reasons of dental caries in people.

Section D (five marks questions)

11.Draw a neat diagram of alimentary canal and label the following parts.

i-The largest gland.

ii-The gland that secretes digestive enzymes as well as hormones.

iii-The part where digested food is absorbed.

2. Draw the cross section of the leaf and label the following parts.

i-Upper epidemis.

ii-Chloroplast.

iii-List 3 events which occur during this process.

iv-How is unused energy stored in plants

3. Explain with the help of a diagram, how amoeba takes its nutrition?

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

5. Draw a neat diagram of an excreting unit of a human kidney and label the following parts.

i-Bowman's capsules.

ii-Renal artery.

iii-Glomerulus.

iv-Collecting duct.

6.What is nutrition? Give the autotrophic nutrition in plants in brief.

7.Classify the heterotrophic mode of nutrition. Write in brief about each of them.

8.Mention the main steps in the process of photosynthesis. Write in short about each step.

9.What are the different types of respiration? Discuss in brief.

10.Describe the process of exchange of gases in tissues.

11.How is water moved in plants? Explain the physical forces that help in the process.

12.What is double circulation? Briefly explain it.

13. What is the role of heart chambers in blood circulation in human heart?
14. Briefly explain the structure of excretory system of human.
15. How is urine formed? Briefly explain it.
16. Draw the diagram of alimentary canal of man and label the following parts.
    Mouth, Oesophagus, Stomach, Intestine
17. How do carbohydrates, proteins and fats get digested in human beings?
18. Explain the mechanism of photosynthesis.
19. Explain the three pathways of breakdown in living organisms.
20. Describe the flow of blood through the heart of human beings.
21. Describe the process of urine formation in kidneys.
22. Why is the process of diffusion insufficient to meet the oxygen requirement of human beings?
23. Draw a diagram of human alimentary canal showing duodenum, small intestine, liver and pancreas.
24. Draw a diagram of the human urinary system and label in it.
25. Write the functions of the following in the digestive process:
    (i) Bile (ii) Bicarbonate secreted by the duodenal wall. (iii) Pancreatic amylase.