**Chapter 1**

**Nutrition in Living Organisms-Plants**

1. What is nutrition?
2. Complete the flow chart

Autotrophic nuNNNutrition

Holozoic

Saprotrophic

Modes of Nutrition

1. Name an organism which shows both autotrophic and heterotrophic nutrition.
2. Write down the equation of photosynthesis.
3. We all know that chlorophyll is must for photosynthesis so will coleus plant having red leaves carry on photosynthesis or not. State the reason for it.
4. Sun is the ultimate source of energy for all living organism, justify.
5. Give reason for the following
6. Plants with variegated leaves cannot perform photosynthesis.
7. Pitcher plant feeds on insects
8. When vaseline is applied on both sides of a leaf of plant it becomes yellow and falls off.
9. Cascuta appears like yellow thread like structure without any leaves growing on other plants.
10. Complete the given statements
11. \_\_\_\_\_\_\_\_\_\_\_ is living partnership between a fungus and an \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. When the food gets digested outside the cell or sometimes outside the body of an organism , it is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. The leaves are green due to presence of a pigment \_\_\_\_\_\_\_\_\_\_ and that helps leaves to capture solar energy.
14. \_\_\_\_\_\_\_\_\_ is the process that supplies food directly or indirectly to all living organisms.
15. Some bacteria in the soil, convert gaseous \_\_\_\_\_\_\_\_ into usable form which is soluble and thus absorbed by roots along with water.
16. The plant on which cuscuta grows is known as \_\_\_\_\_\_\_\_\_.
17. Pitcher plant is an example of an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
18. \_\_\_\_\_\_\_\_\_\_\_\_ is a bacterium that lives in the root of leguminous plant.
19. How are the nutrients replenished in the soil?
20. Rhizobium and leguminous plant exhibit symbiotic relationship, justify.
21. Name the following organisms
22. 2 plants having saprophytic nutrition
23. An organism that helps in fixing nitrogen in soil
24. 2 plants in symbiotic relationship in lichen
25. 2 hetrotrophic plants
26. Identify me
27. I am a plant that feeds on dead and decaying matter, who am I?
28. I am a bacterium that lives in leguminous roots and help in fixing nitrogen, who am I?
29. I am a green colour pigment present in leaves and must for photosynthesis, who am I?
30. I am carbohydrate and initial product of photosynthesis, who am I?
31. How is an insectivorous plant able to derive its nutrition from an insect?
32. Suppose all the plants in a given area were destroyed, how will the population of deer (herbivore) and lion (carnivore) be affected?
33. Name the mode of nutrition where sometimes organisms have digestion outside the body of organism that has extracellular digestion.
34. Define the following terms
35. Symbiotic relationship
36. Parasite
37. Saprophyte
38. Nutrients
39. Autotrophs
40. From where do plants obtain raw materials like water and minerals, carbon dioxide?
41. A girl took a leaf peel and puts it under the microscope, she observes that there are some tiny pores on the surface of leaves
42. What is the name of these pores?
43. What is the function of these pores?
44. How are the water and minerals absorbed by roots transported to different parts of the plant?
45. Complete the given chart showing the replenishment of the soil

1. ‘The process of obtaining food for all organisms is not same’, justify.
2. When we leave bread outside and allow it to get stale after few days we see cottony growth and development of colored patches.
3. Why is there development of cottony outgrowth and coloured patches?
4. What type of nutrition do these organisms The student should look around in his surrounding and make list of animals that he can easily see i

**Chapter 2**

**Nutrition in living organisms-Animals and Man**

* 1. The student should carefully look around in his surroundings andmake a list of animals he is able to see. Then classify them according totheir food habits.
  2. ‘Different animals have different modes of intake of food’, justify the given statement with the help of three examples.
  3. What are the threemain steps through which animals get required nutrition?
  4. Give 2 examples of organism having this mode of nutrition

1. Saprophytic nutrition
2. Parasitic nutrition
3. Holozoic nutrition
   1. What happens to the food in our mouth?
   2. Complete the following statements
4. \_\_\_\_\_\_\_\_\_\_ helps in the bowel movement in the human body.
5. When Amoeba comes in contact with food, it produces \_\_\_\_\_\_\_\_\_\_ around the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. The ruminants like cow, buffalo have special\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. The inner wall of small intestine have large number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ called \_\_\_\_\_\_\_\_\_ that help in absorption of food.
8. The first set of teeth are 20 small teeth also known as \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_or\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. The act of getting and eating food is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. The longtubular beak of humming bird helps it to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from flowers.
11. The alimentary canal begins at the \_\_\_\_\_\_\_\_\_ and ends at \_\_\_\_\_\_\_\_\_\_\_.
12. The \_\_\_\_\_\_\_\_\_ are teeth situated next to canines and used for crushing and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. The process of elimination of undigested food is known as \_\_\_\_\_\_\_\_\_\_\_.
    1. Define the following terms
14. Holozoic nutrition
15. Ingestion
16. Assimilation
17. Omnivores
18. Permanent teeth
    1. Name the different categories in which animals are classified on the basis of their food habits and give oneexample of each category.
    2. How many set of teeth does aman have during his lifetime and how are they different from each other.
    3. Correct the given statements
19. An adult human typically have 30 teeth –15 in upper jaw and 14 in lowerjaw.
20. The process of digestion of food in human beings begins in the oesophagus.
21. The liver is the smallest gland in the human body.
22. The inner wall of the intestine secretes the pancreatic juice.
23. Roundworm and tapeworm have holozoic nutrition.
    1. Complete the given chart Type of teeth Function

Incisors

Teeth

Grinding of food

* 1. What is the function of the tongue in the process of digestion?
  2. Name the hardest substance of human body and state where do you find it?
  3. With the help of diagram explain the process nutrition in Amoeba.
  4. Give reason for the following

1. Ruminants are able to digest cellulose.
2. No digestion takes place in the large intestine.
3. Many snakes are able to swallow animals that are larger than size of their head.
4. Parasite benefits when it lives on or in the host.
5. Humans are said to have holozoic nutrition.
   1. Complete flow chart showing the sequence of steps involved in nutrition in humans

Egestion

Digestion

* 1. What are the different type of secretions in the small intestine that help in digestion?
  2. Name the widest part of alimentary canal and state what happens to food there?
  3. What happens to pulses eaten by a man in the alimentary canal of human beings?
  4. How does the small intestine help in the absorption of food ?
  5. Differentiate between the stomach of human being from that of ruminants.
  6. Draw a labelled diagram of the alimentary canal.
  7. Differentiate between autotrophs and heterotrophs.
  8. Draw a diagram of buccal cavity showing the position of different type of teeth .
  9. How many type of taste buds found on tongue and what are their functions?