

HW

① Question 1

Choose the correct answer out of the four available choices given below each questions

1) Who coined the term "cell"?

Ans Robert Hooke

2) Which of the following connects the pharynx to the stomach?

Ans Oesophagus

3) Transpiration is a function of the

Ans Leaves

4) Which of the following is not good for the eyes?

Ans Looking at the sun directly

5) Oxygen and carbon dioxide are exchanged at the

Ans Alveoli

6) Which of the following refers to the circular U-shaped part of the small intestine?

Ans Duodenum

7) Vacuole is a watery sac bounded by a membrane termed as

Ans Vacuolar membrane or Tonoplast

8) The outermost part of a rose flower is

Ans Sepals

9) Which of the following is the main source of energy?

Ans Carbohydrates

10) Which of these connects the leaf to the stem?

Ans Petiole

11) What is the shape of the trees found on the mountains?

Ans Cone

12) What is the function of tail in fish?

Ans ~~Petals~~ Changing direction

13) The corolla is made up of units called

Ans Petals

14) In plant cells, which of the following organelles has smaller units called dictyosomes.

Ans Golgi apparatus

15) During photosynthesis plants give out .

Ans Oxygen

B) Fill In The Blanks →

- 1) The enzyme amylase maltase converts maltose into glucose.
- 2) Frogs have webbed back feet which allow them to swim in water.
- 3) Fertilisation results in the growth and transformation of the ovary into a fruit.
- 4) Centrosome consists of one or two rod-like bodies called centrioles.
- 5) One complete sequence of part contraction and relaxation is called peristalsis.
Cardiac Cycle

A) Name the following.

1) The organelle which digests old or injured parts of its own cell.

Ans Lysosomes

2) A thin, sticky film composed of mucus, food particles and bacteria, which develops on the surface of the teeth over a period of time.

Ans Plaque

3) The pattern or arrangement of veins on a leaf.

Ans Venation

4) The surface of a tooth.

Ans ~~Enamel~~ Enamel

5) Tiny openings found on the lower side of the leaf for the exchange of gases.

Ans Stomata

Question 3

A. Match the following.

Column - A

Column - B

- | | |
|------------------|--|
| 1. Chloroplast | a. Converts starch into maltose. (4) |
| 2. Cell membrane | b. Converts peptones into amino acids. (5) |
| 3. Ribosome | c. Manufacture of food in plants. (1) |
| 4. Amylase | d. Synthesis of proteins. (3) |
| 5. Erypsin | e. Entry and exit of materials. (2) |

Name the following →

a) The part of the plant which grows under the ground.

Ans Root System

b) The part of the plant which grows above the soil.

Ans Shoot System

Mention the functions of the following.

c) Spines →

Spines are modified leaves that help to reduce ~~to~~ water loss. Ex-Cactus etc.

ii) Tendrill → weak leaves
 In case of some stemmed plants, the leaflets are modified into wiry, coiled structures. ~~called~~ They are called tendrils. They are sensitive to touch. As they touch any object they coil around it and support the plant to grow climb up.
 Ex - Sweet Pea etc.

iii) Scale Leaves →
 Plants like guava and onion have thin and dry thick and fleshy or thin and dry scale leaves respectively. The function of the scale leaf is to protect the buds.

Answer the following questions →

c) Name the types of teeth seen in humans.

Ans → Based on the # shape and function of the teeth are classified into four ~~rates~~ categories:-

Incisors: These are chisel shaped and used for cutting and biting the food.

Canines: These are pointed teeth, used for tearing the food.

Premolars: They help in crushing and grinding the food.

Molars: They have broad uneven surfaces and for finer crushing and grinding of food.

ci) How is the small intestine best suited for the digestion and absorption of food?

Ans The last part of the small intestine is ileum which contains ^{glands} which produces intestinal juice. This juice contains enzymes. Due to the action of enzymes the food is completely ~~is~~ digested in the ileum. On the inner lining of the small intestine, there are tiny finger like projections, called villi. These increase the area for absorption of food. The villi absorb glucose and amino acids to pass them through the blood system. The fatty acids and glycerol pass into special tubes called lymph vessels.

Vitamins and minerals, ^{salts} are directly absorbed through the walls of the small intestine.

Foods are classified into three groups on the basis of the functions they perform in our body. Name these three groups and briefly state their functions. Also give two sources of each.

Ans The three groups of food on the basis of their function are:-

① Energy giving food:

They provide our body with energy to work. Carbohydrates and fats in the food provide our body energy.

Sources -

- a) Rice
- b) Potato
- c) Oil
- d) Butter

② Body building food:

They help in the repair and growth of damaged cells and tissues. These foods contain proteins.

Sources -

- a) Pulses
- b) Meat

③ Protective food.

They keep ourselves healthy and disease free. These foods contain vitamins and minerals.

Sources -

- ① Fruits
- ② Vegetables

A) Why is seed dispersal important? Explain the different methods of seed dispersal.

Ans Dispersal of seeds is very important for the survival of plant species. It also prevents the overcrowding of plants in an area. If the plants will ~~grow~~ grow in a very small area the water, minerals and sunlight available for the plants will be limited. As a result of this, many of the plants will die. So, dispersal of seeds is very important.

Methods of seed dispersal

Dispersal by wind:

Seeds of some plants are not only light in weight but also have silky hairs or wings so that they are easily carried away by the wind.

Ex - Cotton, Dandelion etc.

Dispersal by water:

It takes place in some aquatic plant and in some which grow near a water body.

Ex- ~~Coco~~Coconut, Water Lily etc.

Dispersal by animals:

Some seeds have spine like structures so that they get stuck to the fur of animals and get spread to different places.

Ex- Xanthium, Tiger Nail

Dispersal by bursting:

Some fruits burst open when they mature. The force of bursting is enough to spread the seeds.

Ex- Balsam, Castor

B) Label the parts in the given diagram.

1. Oesophagus
2. Gall Bladder
3. Stomach
4. Pancreas
5. Small Intestine

Question
A. Describe the structure and function of leaves.

Ans → ~~Start~~ Structure of leaves -

A leaf has three main parts: - petiole, lamina and midrib

Petiole: The basal part of the leaf which is attached to the stem at the node is the petiole.

Lamina: The flat, green and board part of the leaf is called leaf blade or lamina. The outer edge of the leaf blade is called leaf margin.

Midrib: Petiole continues to the lamina as midrib. This laterally gives out finer branches called veins. Petiole, midrib and veins conduct water and food.

Function of leaves -

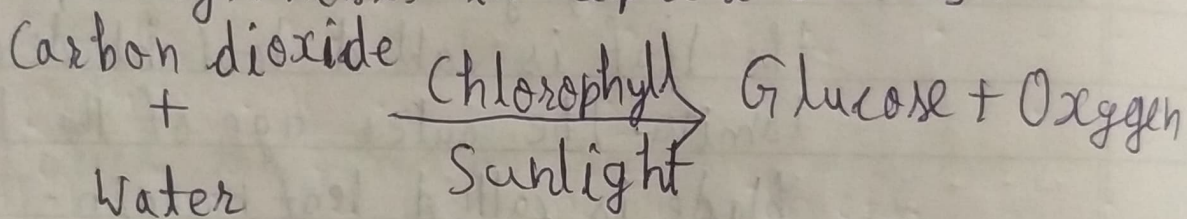
They perform two main functions: -

Photosynthesis, Transpiration

Photosynthesis:

It is the process by which a plant leaf prepares or synthesizes food ~~in the~~ with the help of carbon dioxide and water in the presence of sunlight and ~~photosynthesis~~ chlorophyll.

Photosynthesis is represented as:



Transpiration:

The process by which water is lost in the form of water vapour ~~from the~~ by evaporation from the surface of the leaves and other ~~aerial~~ aerial parts of the plant is called transpiration. It has a cooling effect and develops a suction force in the ~~roots to absorb water.~~

roots to absorb more water from with ~~me~~ mineral ions from the soil.

B. Define the following terms.

a) Egestion

Ans → The process of eliminating undigested food through the anus is called egestion.

2) Breathing

Ans → The process by which an organism takes in air containing oxygen to the lungs and gives out air loaded with carbon dioxide is called breathing.

3) Internodes

Ans → The part of the stem between two successive nodes is called internode.

4) Plaque

Ans → When we eat sugary or starchy foods they get stuck in our teeth. This along with bacteria forms a yellow coloured film on the teeth surface is called plaque.

5) Bisexual flower

Ans → Flowers that have both the male and female reproductive parts i.e. androecium and gynoecium.

Ex - Lily, Tulip, Sunflower etc.