Autumn Holiday Homework

Biology

1) Who coined the term 'cell'?
ans) d) Robert Hooke

2) Which of the following connects the pharynx to the stomach?
ans) b) Oesophagus

3) Transpiration is a function of the
ans) a) 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) d) Alveoli

6) Which of the following refers to the initial U-shaped part of the small intestine?
ans) Duodenum

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

8) The outermost part of a rose flower is
ans) b) Sepal

9) Which of the following is the main source of energy?
ans) d) Carbohydrates

10) Which of these connects the leaf to the stem?
ans) a) Petiole

11) What is the shape of the trees found on the mountain
ans) c) Cone

12) What is the function of tail in fish?
ans) b) Changing direction.

13) The corolla is made up of units called
ans) b) Petals

14) In plant cells, which of the following organelles has smaller units called dictyosomes?
ans) c) Golgi apparatus

15) During photosynthesis plants give out
ans) b) Oxygen

16) The enzyme maltase converts maltose into glucose.

17) Frog have webbed feet which allow them to swim in water.

18) Fertilisation results in the growth and transformation of the ovary into a fruit.

19) Centrosome consists of one or two rod-like bodies called centriole.

20) One complete sequence of parts contraction and relaxation is called cardiac cycle.

21) a) The organelle which digests old or injured parts of its own cell. - Lysosome

b) A thin, sticky film composed of mucous, food particles and bacteria, which develops on the surface of the teeth over a period of time. - Plaque

c) The pattern or arrangement of veins on a leaf. - venation

d) The surface of a booth. - Enamel

22) ans)

1) Chloroplast	C. Manufacture of food in plants.
2) Cell membrane	E. Entry and exit of materials.
3) Ribosome	D. Synthesis of proteins.
4) Amylase	A. Converts Starch into maltose
5) Erepsin	B. Converts peptones into amino acids.

23) a) The part of plant which grows under the ground.- Root system
b) The parts of plant which grows above the soil.- Shoot System

24) i) Spines :- Spines are modified leaves that help to reduce water loss.
ii) Leaf Tendrils - In cases of some weak-stemmed plants the leaves on the leaflets are modified into wiry, coiled structures called Tendrils. They are sensitive to touch. As they touch an object they coil around it providing support to the plant to climb up.
Ex:- Sweet Pea.
iii) Scale leaves: Some plants like onion and ginger have thin and dry or thick and fleshy scale leaves. Their main function is to protect the buds.

25) Based on their different shapes and function human teeth are of four kinds as following.
a) Incisors: These are chisel shaped and used to cut and bite the food.
b) Canines: These are pointed teeth and used for tearing the food.
c) Premolars: These help in crushing and grinding the food.
d) Molars: These have broad uneven surface and used for fine crushing and grinding of food

ii) The last part of the small intestine called Ileum contains glands which produces intestinal juice. This juice contains enzymes. Due to the action of these enzymes. Due to the action of these enzymes the food completely digested in the ileum. The inner lining of the small intestine contains a larger number of tinny finger like projections called villi. These villi greatly increase the inner surface area for absorption of digested food. The villi absorbs the amino acids and glucose to pass them into the blood system. The fatty acid pass them into special tubes called lymph vessels. Vitamins and mineral salts are directly absorbed through the walls of the intestine.

26(a) The three groups of food on the basis of their functions are:

a) Energy giving food - These food gives us energy to do work. Carbohydrate and fats present in the food provides energy. The main source of these food are Rice, potato, oil and butter.

b) Body building food - These food help in the growth and repair of damaged cells and tissues. These food contain proteins. The main source of these food is Pulses, Milk and egg, etc.

c) Protective food - These help our self keeping

healthy and disease free. These food contains vitamins and minerals. The main source of these food are vegetable and fruits.

2) Ans) If all the seeds had to germinate in the same place, there would be an unhealthy competition for food and light between the plants. Thus, seed dispersal is important, which scatters the seeds far and wide. The different methods of seed dispersal are:-

i) Dispersal by explosion:- Fruits of plants like pea, bean, castor, etc burst open once they are ripe, thereby scattering the seeds in all directions. This mechanism is also referred as 'explosion'.

ii) Dispersal by wind:- Seeds of certain plants develope wing-like hairy structures, which allow them to be carried away by the wind. Once mature and dry, they burst open and release seeds, which are dispersed by wind. Ex.- Moringa (drumstick), Calotropis (milk weed), etc

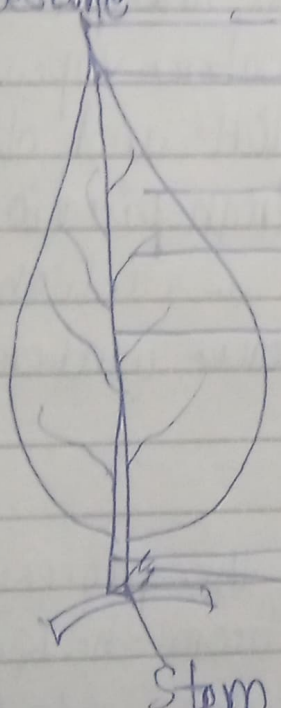
iii) Dispersal by water:- Plants which grow along the coastal regions like coconut tree produce fruits and float in water and hence get transported by the waves. The fruit is protected by a waterproof outer covering.

iv) Dispersal by animals:- Certain birds eat fruits like tomato, guava and chilly along with their soft parts. Since, these seeds are hard and thick, they escape digestion and are passed out with their droppings.

Fruits of plants like Xanthium and Urena are covered with tiny hooks and those of spear grass have stiff hairs. When ripe and dry, they cling to the bodies of passing animals or to the clothing of humans and get transported over great distances.

26) Ans) 1) Oesophagus
2) Gall bladder
3) Stomach
4) Pancreas
5) Small intestine

29) Ans)



Structure:-

1) Petiole: This is the basal part of the leaf. It is attached to the stem at the node.
2) Leaf blade or lamina: The green, flat and broad part of the leaf is known as lamina or leaf blade. The outer age of leaf blade is called leaf margin.

4) Midrib: Petiole continues to the lamina as midrib. This laterally gives outline branches called veins. Petiole, Midrib and Veins conduct water and food.

Function:-

1) Photosynthesis:- The process by which a plant leaf prepares or synthesizes food from water and carbon dioxide in the presence of chlorophyll and sunlight is called photosynthesis.

2) Transpiration:- The process by which water is lost in the form of water vapour by evaporation from the surface of leaf and other aerial parts of the plant is called Transpiration. It has a cooling effect and it develops a suction force to make the roots absorb more water and minerals from soil.

3) a) Egestion:- It refers to the process of removal of undigested food from the body. Large intestine plays a major role in Egestion.

b) Breathing:- It is a physical process that includes inhalation and exhalation.

c) Internode:- The parts of the stem between two nodes is called an internode.

d) Plaque :- The sugary or starchy food that get stuck in the teeth along with bacteria on the teeth's surface form a yellow coloured film called plaque

e) Bisexual flower :- The flower consisting of both the male and female reproductive part i.e. the Androecium and Gynoecium is called a bisexual flower.