nutrition food supplying system

4) where do plants get each of the raw material s required for photosynthesis?

A) Plants get carbon dioxide from the air, water from the soil, and sunlight from the sun for photosynthesis.

6) with the help of chemical quation explain the process of phtotosynthesis in deail with the help of a flow chart?

A) Photosynthesis is the process by which plants, algae, and some bacteria convert carbon dioxide (CO_2) and water (H_2O) into glucose ($C_6H_{12}O_6$) and oxygen (O_2) using light energy. It occurs in the chloroplasts and involves two main stages: light-dependent reactions and the Calvin Cycle.

7) name the three end products of photosynthesis?

A) The three end products of photosynthesis are glucose ($C_6H_{12}O_6$), oxygen (O_2), and water (H_2O).

8) what is the connecting substance between light reactin and dark reaction?

A) The connecting substances between the light reaction and the dark reaction (Calvin Cycle) in photosynthesis are ATP and NADPH.

9) msot leaves have the upper surface more green and shinyu than the lower ones why?

A) The upper surface of most leaves is more green and shiny than the lower surface to optimize sunlight absorption for photosynthesis and reduce water loss through transpiration.

10) explain the structure of chloroplast with a neatl labeled sketch.

A) The chloroplast has a double-membrane structure, with a fluid-filled matrix called the stroma. Inside the stroma are flattened membranous sacs called thylakoids, stacked into grana. Chlorophyll, responsible for capturing light energy, is located in the thylakoid membranes.

11) what is the role of acid in stomach?

A) The role of acid in the stomach is to aid in the digestion of food, particularly proteins, and to protect the body from harmful microorganisms.

12) what is the function of digestive enzyme?

A) The function of digestive enzymes is to break down large food molecules into smaller, absorbable forms that the body can use for energy and nutrition.

13) how is the small intestine designed to absord digested food, explain.

A) The small intestine is designed for efficient absorption of digested food through villi and microvilli that increase the surface area, specialized transport proteins, a rich network of blood vessels and lacteals, peristaltic contractions, mucus secretion, and bicarbonate release for a favorable pH environment.

15) what is the role of saliva in the digestion of food?

A) The role of saliva in the digestion of food is to moisten and lubricate the food, initiate the digestion of carbohydrates through the action of the enzyme amylase, and aid in swallowing.

16) what will happpen to protein digestion as the medium of intestine is gradually rendered alkaline?

A) As the medium of the intestine becomes more alkaline, the activity of pepsin (the enzyme responsible for breaking down proteins) decreases, and the activity of pancreatic enzymes (such as trypsin, chymotrypsin, and peptidases) increases to complete protein digestion into absorbable amino acids.