

Class 10 Nutrition Important questions-2

Question 1

How are autotrophs classified?

Answer

Autotrophs are classified based on their source of energy. If they use the light energy of the sun, they are called photoautotrophs. If they use chemical energy of certain compounds such as ammonia and nitrites, they are called chemoautotrophs.

Question 2

What are photoautotrophs?

Answer

Those organisms that synthesize food with the help of the light energy of the sun, carbon dioxide and water are called photoautotrophs. The process of synthesis of food in this manner is called photosynthesis.

For example-

cyanobacteria (blue-green bacteria, prokaryotes), algae and all green plants.

Question 3

Which are the two types of photosynthetic pigment?

Answer

Chlorophylls and carotenoids are the two types of photosynthetic pigments.

Question 4

What are the types of chlorophylls?

Answer

Chlorophyll a and chlorophyll b are the two types of chlorophylls.

Question 5

Which is the pigment present in the carrot?

Answer:

Carotene.

Question 6

How is the radiant energy of the sun utilized in the green plants?

Answer

Radiant energy consists of both light and heat energy. The light energy is trapped into chlorophyll molecules and then used to split water into hydrogen and oxygen in order to release energy. The heat energy maintains the optimum.

Question 7

What are the various factors effecting photosynthesis?

Answer

The various factors affecting photosynthesis are:

- I. Light intensity
- II. Carbon dioxide concentration
- III. Temperature
- IV. Chlorophyll concentration
- V. Water and pollution

Question 8

How does light affect photosynthesis?

Answer

Low light intensity lowers the rate of photosynthesis. As the intensity is increased the rate also increases. However, after reaching an intensity of 10,000 lux (lux is the unit for measuring light

intensity) there is no effect on the rate. Very high intensity may, in fact, slow down the rate as it bleaches the chlorophyll.

Question 9

What are macrophagous feeders?

Answer

The animals that take in large pieces of food are called macrophagous feeders. For example, hydra and sea anemone.

Question 10

What are microphagous feeders?

Answer

The animals that take in very small particles of food are called microphagous feeders. For example, earthworm and mussels.

Question 11

What are detritivores?

Answer

Detritivores are those animals that feed on dead plant and animal bodies after breaking them into small pieces. The digestion takes place inside the body.

Question 12

What is symbiosis?

Answer

An association between two organisms of different species is called symbiosis. 'sym' means together and 'bio' refers to living thing. For example, cattle and egret, man and intestinal bacteria, etc.

Question 13

This material is created by <http://physicscatalyst.com/> and is for your personal and non-commercial use only.

What is parasitism?

Answer

An association between two individuals where one is harmed and the other is benefitted. The dependent one is called the parasite and the other one is called the host. For example, leech is an ectoparasite which sucks blood of the host; tapeworm lives in the digestive tract of man and causes disease.

Question 14

What are haustoria?

Answer

Haustoria are specialized structures found in saprophytes that are used to draw nutrients directly from the vascular system of the host. They are modified roots. For example, in *Cuscuta*.

Question 15

What is coprophagy?

Answer

Feeding on faeces is called coprophagy.

Question 16

What are carrion feeders?

Answer

The organisms that feed on decomposing animal bodies are called carrion feeders.

Question 17

What are insectivorous plants?

Answer

The plants that trap and feed on insects are called insectivorous plants. These plants do not have photosynthetic apparatus. However, they grow in nitrogen-deficient soil and hence, feed on insects to meet this deficiency. For example: pitcher plant, sundew, venus fly catcher.

Question 18

What are the two types of digestion?

Answer

Two types of digestion are:

Mechanical: Mechanical digestion involves grinding of food into smaller particles by the teeth.

Chemical: Chemical digestion involves treatment of food by enzymes and breaking them into the simplest form in which they can be easily dissolved and then absorbed by the body.

Question 19

Which are the two sets of teeth in human?

Answer

The two sets of teeth in a man are the milk teeth and the permanent teeth. Milk teeth are first to appear and are only 20 in no. they start falling y the age of 5 and are replaced by permanent teeth which are 32 in no.

Question 20

Give two examples each of saprophytes and saprozoans?

Answer

(i) saprophytes- Mucor, yeast

(ii)saprozoans- chilomonas, Mastigamoeba

Question 21

How are parasites classified?

Answer

Parasites may be classified as:

- i. Ectoparasites that which live on the outer surface of the host (ticks, mites, leeches) and

- ii. Endoparasites that which live inside the body of the host (tapeworm, liver fluke). Parasites are also classified as obligate or facultative.
- iii. Obligate parasites have to live parasitically or saprophytically. For example, - Candida, Pythium.

Question 22

How does ingestion take place in paramecium?

Answer

Paramecium has a specific oral apparatus. Its oral groove consists of cilia which produce water currents. Only micro food particles reach cytopharynx through the cytostome along with the water current. When cytopharynx is full with food vacuole which pinches off from the cytopharynx and gets ingested.

Question 23

Name the digestive glands in the human digestive system and mention their secretion?

Answer

The digestive glands in human digestive system are present outside the digestive tract and within the tract.

Outside the digestive tract Salivary glands the main salivary glands are:

Parotid Submandibular or submaxillary and sub lingual. They secrete saliva which contains salivary amylase.

Liver it is large organ present on the right side just below the diaphragm. It secrete by juice which emulsifies the fats and lipids.

Pancreas: it is present at the bend of the duodenum. It secretes pancreatic juice which consists of enzymes like the pancreatic amylase, trypsin and lipase.

Within the digestive tract

Gastric glands: They are present along the stomach wall and secrete gastric juice. Gastric juice contains hydrochloric acid and enzymes like pepsin and rennin.

Intestinal glands they are present on the intestinal wall in the ileum region. They secrete intestinal juice that contains maltase, sucrose, lactase and erepsin.

1-

physicscatalyst.com