NUTRITION IN ANIMALS Questions Living science Class 8

A. Choose the most appropriate answer.

1. Which of these is not a part of nutrition? a. digestion b. absorption c. Egestion d. excretion

2. The pointed teeth in your mouth are a. premolars. b. incisors. c. molars. d. canines.

3. The last part of digestion of food takes place in the a. stomach. b. small intestine. c. large intestine. d. oesophagus.

4. Which of the following organs does not secrete digestive juices? a. stomach b. small intestine c. liver d. oesophagus

5. The greatest amount of digestion of food takes place in the a. mouth. b. stomach. c. small intestine. d. large intestine.

B. Give one-word answers.

1. In the body, what is the name of the process of breaking down of food into a simple, soluble form?

2. What is the name given to the process of using the absorbed food for producing energy?

3. Name the cavity in unicellular animals in which food is present. 4. Does digestion begin in the mouth or in the stomach?

5. What does saliva change starch into? 6. Where does most of the digestion of food take place?

7. Name the white hardest substance in the human body that covers the teeth.

8. In which part of the digestive system is water absorbed from undigested food?

9. What is the semi-digested food that is chewed again by ruminants called?

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C. Answer in brief.

1. List and explain in one sentence each of the various processes involved in nutrition in animals.

2. Explain through diagrams ingestion of food in a. Amoeba. b. Hydra.

3. Name the organs that make up the alimentary canal.

4. Name the four types of teeth in your mouth. What are their functions?

5. What is the difference between milk teeth and permanent teeth?

6. Where is saliva produced? What are its functions? 7. What is peristalsis? Explain with the help of a diagram.

8. What is the function of a. saliva; b. bile juice; c. pancreatic juice?

9. What happens to food in the a. stomach; b. small intestine?

10. Briefly explain the process of digestion in ruminants.

HOTS QUESTIONS

1. Which food do you think will take a longer time to get digested—sugar or beans (beans contain lot of proteins)?

2. Digestion needs the help of two more systems in the body to provide energy from food. Which are these systems and how do they help?

3. If you eat food while hanging upside down, do you think it will still go through the alimentary canal? Give reasons.

Nutrition in Animals class 7 Solution

A. 1. d. Excretion 2.d.canines 3.c.Smalll intestine 4. d. Oesophagus 5.c. Small intestine

6.digestion 7.b. fatty acid and glycerol 8. d. liver 9. a. incisor 10.b. canines

B. 1.Digestion is the process of breaking down food into simple soluble compounds.

2..The process of producing energy from the absorbed food is known as assimilation.

3. In unicellular animals, food is present in the cavity called food vacuole.

4. It is a false statement, as the digestion of food begins in the mouth.

5. Saliva is the watery and slippery secretion produced inside the mouth.

6. The initial digestion of proteins takes place in the stomach.

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7. The white hard substance covering the teeth is called enamel

8. Most of the water from the undigested food is absorbed in the large intestine.

9. The semi digested food that is chewed again by ruminants is called cud.

10. Most of the water from the undigested food is absorbed in the large intestine.

c.1. A frog catches its prey using its long and sticky tongue.

2. A spider injects digestive juices into the body of its prey, which digest their body parts. Thus, a spider digests its food.

3. Organs that make up the human alimentary canal are mouth, pharynx, oesophagus, stomach, small intestine, large intestine and anus

4. Milk teeth : Milk teeth are twenty in number Milk teeth start falling out by the age of 6 years

Permanent teeth. Permanent teeth are 32 in number.. Permanent teeth does not fall throughout the life until their is any deficiency.

5. Saliva is the watery and slippery secretion produced inside the mouth.

6. The function of taste buds is to detect the various tastes like sweetness, saltiness, sourness and bitterness of food

7. Food can stay in the stomach from a few minutes to a few hours, depending on its type. Solid food stays in the stomach for 45 hours, but liquid food remains only for a few minutes

8. The acid in the stomach helps in digesting proteins. It also kills the bacteria that enter the stomach through food.

D.

1. The various process involved in obtaining nutrition in animals are as follows:

1) Ingestion The process of taking food inside our mouth is known as ingestion.

2) Digestion The process of breaking down food into molecules is known as digestion.

3) Absorption The process of absorbing the digested food through the villi of small intestine is known as absorption.

4) Assimilation The process of producing energy from the absorbed food is known as assimilation.

5) Egestion The process of removing the wastes from our body through the anus is known as Egestion.

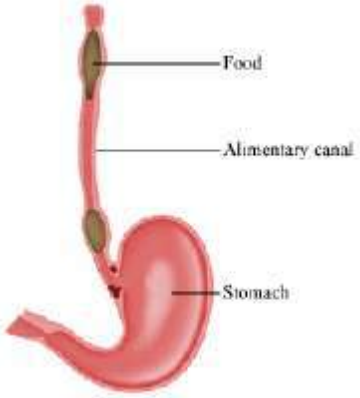
3. The four types of teeth in our mouth are:

1) Incisors They help us in biting and cutting the food.

2) Canines They help us in piercing and tearing the pieces of meat.

3) Premolars They assist the molars by holding the food with their cusps and also crushing them.

4) Molars They help us in chewing and grinding the food so that it can be swallowed easily.



4. Peristalsis can be defined as the wave like action of the muscles of the organs present in the alimentary canal to push the food forward or downward

5. (a) Saliva It helps in breaking down the starch, present in food, into sugar. It also makes the food wet and slippery, thereby making it easier to swallow.

(b) Bile juice It is secreted by the liver and helps in breaking down the fats, present in the food, into fatty acid and glycerol.

(c) Pancreatic juice It is secreted by the pancreas and helps in converting starch into sugar and proteins into amino acids.

6. (a) Stomach secretes acid and digestive juices that kill the bacteria, if any, present in the food. Further, the digestive juices break the proteins, present in the food, into simpler substances, thereby digesting the food partially.

(b) Small intestine also secretes some digestive juices, and also receives the bile juice secreted by the liver and the pancreatic juice secreted by the pancreas. The bile juice along with the digestive juice converts the fats into fatty acids and glycerol. The pancreatic juice breaks down the starch into sugar, and proteins into amino acid.

7. The digested food is absorbed inside the small intestine which have finger like projections called villi in its inner wall. These villi comprise networks of fine blood capillaries close to their surface. The food from the villi passes into these capillaries thereby getting absorbed into the blood.

8. The stomach of a ruminant is divided into four chambers. As soon as the ruminant swallows the food, it enters the first chamber called rumen where it gets partially digested (converted to cud). From here, the food enters the second chamber from where it again reaches the mouth for rumination, which is thorough chewing. The food is again swallowed, and now it enters the third and the fourth chamber for digestion. From here, it enters the small intestine for the absorption of nutrients.

Hotes:

1. As compared to sugar, beans will take longer time for digestion, as they contain a lot of proteins. The digestion of sugar starts in the mouth, while the digestion of proteins starts in the stomach. So, the proteins of the beans will take longer time to get digested.

2. Two more systems which help the digestive system to provide energy to our body are the respiratory system and the cardiovascular system. The glucose absorbed in the digestive system combines with the oxygen, taken in during respiration, to form energy. These two are then transported throughout the body via blood of the cardiovascular system

3. Yes. Even if we eat food while hanging upside down, it will go through the alimentary canal because of the process of peristalsis. The muscles of the oesophagus will push the food downwards in a wave like action throughout the alimentary canal.

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