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परमाणु ऊर्जा शिक्षण संस्था, मुंबई

Atomic Energy Education Society

Session: 2023 – 24

CLASS- **VII** SUBJECT : **SCIENCE**

WORKSHEET No. – **2**

Name of the Chapter: **Nutrition in Animals**

I Choose the correct answer. (1 x 10 = 10M)

1. d. Small intestine
2. b. Sugar
3. d. Bile juice
4. a. Gall bladder
5. d. Excretion
6. a. Small intestine
7. a. Digest the cellulose
8. c Glucose
9. c. Capture of food and movement
10. c) liver

II Answer in one sentence. (1 x 10 = 10M)

1. The villi increase the surface area for absorption of the digested food.
2. The digestive juices convert complex substances of food into simpler, soluble and absorbable form.
3. Molar and premolar teeth are used for chewing and grinding the ingested food.
4. (i) Mucous (ii) Hydrochloric acid (iii) Digestive juice.
5. Liver secretes bile juice which is stored in a sac like structure called gall bladder.
6. The process by which digestive food pass into the blood vessels through the walls of small intestine is called absorption.
7. The finger like projections in amoeba are called pseudopodia.
8. The partially digested food in rumen is called cud. Later the cud returns to the mouth and animal chews it.
9. The process by which absorbed food is utilised to build complex substances like proteins and to give energy is called assimilation.

10. Bacteria in food are killed in stomach. The inner lining of stomach secretes hydrochloric acid and digestive juices which kill the bacteria in food.

III Answer in two to three sentences. (2 x 10 = 20M)

1. Large intestine is the part of the alimentary canal which is 1.5 metres long and wider and shorter than small intestine.
   Its main function is to absorb water and some salts from the undigested food.
   It also helps in the egestion of undigested food.
2. Ruminants have a large sac-like structure known as rumen which is located in between
   the small intestine and large intestine. The cellulose of the food is digested here by the action of certain bacteria which are not present in humans.

3. (a) Large intestine (b) Small intestine (c) Tongue (d) Liver.

4.

Sr No	Milk teeth	Permanent teeth
1	These are first set of teeth that grow during infancy.	Milk teeth are replaced by a second set of teeth called permanent teeth.
2	They fall off at the age of 6-8 years.	They are never replaced.

5. Food is pushed into the stomach by the peristaltic movement of the walls of oesophagus. Sometimes the food is not accepted by stomach and then the walls of food pipe move the food in opposite direction and food comes out as vomiting.

6.

Sr No	Ingestion	Egestion
1	The process of taking in of food inside the body.	The process of throwing out of undigested food materials from the body.
2	It occurs through mouth.	It occurs through rectum.

7. 1 – rumen and 2 – stomach

8. Fig. 2.7 (textbook)

9. The given figure is the human tongue.

   1. Salt 2. Sour 3. Sweet 4. Bitter.

10. a. suck the nectar of plants

    b. feed on mother's milk

    c. swallow the animals they prey upon

    d. filter tiny food particles floating nearby

III Answer in three to four sentences. (3 x 5 = 15M)

1. (i) It helps in talking.

   (ii) It helps to mix saliva with the food.

   (iii) It also helps in swallowing food.

2. The ruminants mainly live on grass and bush which always contain cellulose or roughage. For the splitting of cellulose a lot of chewing and saliva, both are necessary. So, the ruminants need to chew the grass for a long time. So, they chew it twice. If they chew for long while eating, they will get less time to eat.

3. Diarrhoea: Sometimes you may have experienced the need to pass watery stool frequently. This condition is called diarrhoea.

   Causes: Diarrhoea may be caused by an infection, food poisoning or indigestion. It is most common in India. It can be fatal. This is because of the excessive loss of water and salts from the body. It should not be neglected.

   Prevention: It can be prevented or cured by taking plenty of boiled and cooled water with a pinch of salt and sugar dissolved in it. This mixture is called ORS (Oral Rehydration Solution).

4. Starfish feeds on aquatic animals covered by hard shells of calcium carbonate. After opening the shell, the starfish pops out its stomach through its mouth to eat the soft animal inside the shell. After eating the animal, the stomach goes back into the bod slowly digested.

5. If we do not clean our teeth and mouth after eating, many harmful bacteria start to live in it. These bacteria breakdown the sugars present from the leftover food and release acids. The acids gradually damage the teeth. This is called tooth decay. It causes tooth loss in many cases.

III Answer the following. (5 x 5 = 25M)

1. The animals in which partially food returns back into mouth and the animal chews it are called ruminants.

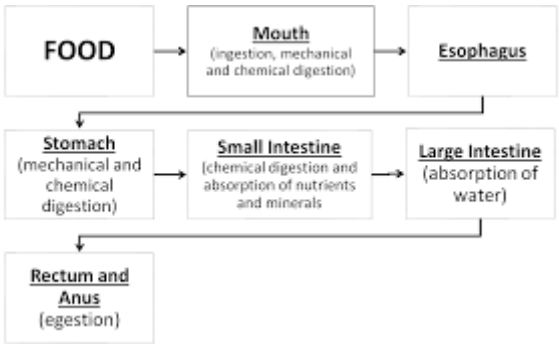
   The food of ruminants like grass is rich in cellulose (a type of carbohydrate). Ruminants have a large sac-like structure between the small intestine and large intestine. The cellulose of the food is digested here by the action of certain bacteria which are not present in humans. In this way ruminants can digest the cellulose but many animals including human cannot digest cellulose.

2.

Sr. No	Types of teeth	Number	Function
1	Incisors	4 +4 = 8	Cutting and biting the food
2	Canines	2 + 2 = 4	Tearing and piercing.
3	Premolars	4 + 4 = 8	Crushing and grinding
4	Molars	6 + 6 =12	Crushing, grinding and chewing

3. Amoeba feeds on some microscopic organisms when it senses food, it pushes out pseudopodia around the food particle vacuole. Digestive juices are secreted into the food vacuole. They act on the food and break it down into simpler substances. Gradually digested food is absorbed. The absorbed are used for growth maintenance and multiplication. The undigested food (residue) is expelled outside by the vacuole.

   Fig. 2.10

4. 

   role of liver: It secretes bile juice which helps in digestion of fats.

role of pancreas: The pancreatic juice acts on carbohydrates, fats and proteins and changes them into simpler forms.

5. **Fig 2.2**