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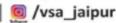


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Assignment - 11 Class - VII Subject - Science Chapter - 2 (Nutrition in animals)

2. Describe the process of digestion in ruminants.

Ans.

Digestion process in Ruminants

Dentition in ruminants:

Dentition is quite different in rumination.

- Incisors are absent on the upper jaw.
- Canines are absent in both the jaws.
- Molars are very strong as these animals, chew the cud.

Rumination: Ruminants swallow the food without chewing. After feeding, they bring the food from the stomach back into the mouth and chew it leisurely. This process is called rumination and such animals are called as ruminants. Rumination is also called second chewing.

The process of digestion in ruminants:

- Grass-eating animals swallow the food quickly and store it in the rumen. Rumen also inhabits cellulose digesting bacteria which establish a symbiotic relationship with the animal stomach.
- Digestion in ruminants is a good example of symbiosis. Microorganisms present in the stomach of ruminants help in digesting cellulose and in turn obtain shelter and nourishment form the animal. A symbiotic relationship exists between microorganisms and the ruminants.

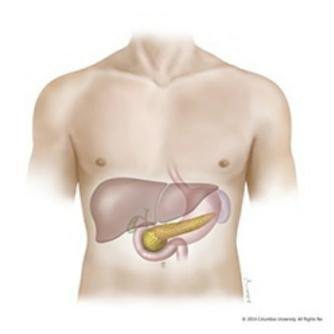
- As rumen is full, the food is taken into second part of the stomach, the reticulum.
- Digestive juices of the reticulum partially digest the food. The partially digested food in the reticulum is called as cud.
- While resting, cow brings back the cud into the mouth for regurgitation.
- Food is chewed completely and swallowed into omasum for further digestion.
- Then the food moves into abomasum for digestion brought about by digestive juices.
- A large sac-like structure called the caecile
 lies between the small and large intestines.

- The symbiotic bacteria present in the caecum help in the complete digestion of cellulose. Digestion of food is completed in the intestine.
- As the symbiotic bacteria are not present in the human digestive system, humans cannot digest cellulose.

3. What are pancrease and liver? Write their functions.

Ans. Pancrease

The pancreas is an organ located in the abdomen. It plays an essential role in converting the food we



eat into fuel for the body's cells. The pancreas has two main functions: an exocrine function that helps in digestion and an **endocrine** function that regulates blood sugar.

Liver

The **liver** is a reddish brown gland situated in the upper part of the abdomen on the right side. It is the largest gland in the body. It secretes bile juice that is stored in a sac called the gall bladder. The bile plays an important role in the digestion of fats.