



# KALPAVRUKSHA MODEL SCHOOL

## Answers Assignments - 3

**Class: VII**

**Sub: Biology**

**Date: 03.07.2021**

**Topic: Nutrition in animals**

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### **I. Answer the following questions:**

1. Name the digestive juice secreted by the liver. Which component of food does it digest?

Ans: The liver secretes bile. It helps in the digestion of fats (breaking down of fat).

2. What is the role of HCl and mucus secreted by the walls of the stomach?

Ans: The roles of HCl secreted by the walls of the stomach are:

- a. It kills microorganisms.
- b. Provides an acidic medium for effective digestion.
- c. The mucus protects the inner lining of the stomach.

3. What are villi? What is their function?

Ans: Villi are tiny finger-like outgrowths (projections) develop from the walls of the small intestine. They increase the surface area for absorption of the digested food.

4. Describe the digestion in human being.

Ans: The digestive system of humans is well developed. It consists of the gut or alimentary canal, along with many associated digestive

glands. The alimentary canal is divided into mouth, oesophagus, stomach, small intestine, large intestine and rectum.

**Mouth:**

The food is ingested through the mouth. The mouth contains tongue, teeth and salivary glands. Teeth break the food into smaller particles. This process is called mastication. The chewed food is mixed with saliva.

**Tongue** – The tongue is a muscular organ. Tongue helps to mix saliva in the food. It also helps to push the food down the food-pipe or oesophagus. Taste receptors are present in tongue and give us the sense of taste.

**Oesophagus** – It is a tube-like structure connecting the mouth and the stomach. The walls of oesophagus contracts and relax to produce wave like movement is called peristalsis.

**Stomach** – It is a muscular J- shaped thick walled bag. Stomach helps the food to mix digestive juices. The digested semi-solid food is called chyme. The digestive juices break down protein from food. The hydrochloric acid kills the harmful bacteria present.

**Small intestine** – The chyme enters into the small intestine. The small intestine is the longest part of the digestive system. Liver secretes bile juice, which acts on fat and pancreas secretes the pancreatic juice, which acts on carbohydrate to convert simple sugar. There are

numerous finger-like projections on the wall of the small intestine.

These projections are called villi. They absorb the nutrition.

Large intestine: The digested food enters into large intestine after small intestine. It absorbs the excess water from undigested food. The undigested food is stored in the rectum and finally throws out of the body through the anus. The throwing out of waste of digested food from rectum is called egestion.

5. When we eat something while talking or laughing, we get hiccups or choking sensation. We say that the food has gone down the wrong pipe.

Discuss.

Ans: This happens because we have a flap at starting of the wind pipe known as epiglottis. It opens whenever we need air and closes whenever food comes in. So while eating in hurry or while laughing the epiglottis opens for us to take in air but food too moves in choking the pipe.

6. Prerana has just had a nice lunch of rajma-chawal, chapati, paneer and raita. Trace the path her lunch will follow till all the nutrients are absorbed.

Ans: Mouth - food pipe - stomach - small intestine.

7. How is the small intestine suited for absorbing nutrients?

Ans: The inner walls of small intestine has Villi. Villi are tiny finger-like outgrowths (projections) develop from the walls of the small intestine. They increase the surface area for absorption of the digested

food. These villi are connected with capillaries that carry absorbed nutrients to all the cells of the body. So villi help the small intestine to be well suited for absorption of nutrients.