Important Questions for Class 7 Science Chapter 2: Chapter 2 of Class 7 Science, "Nutrition in Animals," explores how animals obtain and use food for growth, energy, and maintenance of life. It covers different modes of nutrition, including herbivorous, carnivorous, and omnivorous diets.

The chapter explains how animals digest food, focusing on the digestive system's role, including the mouth, stomach, and intestines. It also introduces the concept of food chains and how animals depend on plants for nutrition. The chapter highlights the importance of nutrition for maintaining a healthy body and the role of various nutrients in sustaining life.

Important Questions for Class 7 Science Chapter 2 Overview

Class 7 Science Chapter 2, Nutrition in Animals, focuses on the process by which animals obtain and utilize food. Key topics include the types of animals based on their feeding habits (herbivores, carnivores, omnivores), the process of digestion in humans, ruminants, and other animals, and the role of enzymes in digestion.

Important questions help students understand concepts like digestion, the digestive system, and the difference between autotrophic and heterotrophic nutrition. These questions reinforce knowledge about food chains, the role of nutrition in growth and energy production, and the need for a balanced diet, making them crucial for comprehensive understanding.

Important Questions for Class 7 Science Chapter 2 Nutrition in Animals

Below is the Important Questions for Class 7 Science Chapter 2 Nutrition in Animals -

Very Short Answer Questions (1 Mark)

1. Match the Following:-

Animal	Mode of Food intake
1. Infant	a. Sucking
2. Mosquito	b. Chewing
3. Housefly	c. Suckling
4. Eagle	d. Siphoning
5. Dog	e. Capturing

Ans: The following is the matched table:

Animal	Mode of Food intake
1. Infant	c. Suckling
2. Mosquito	a. Sucking
3. Housefly	d. Siphoning
4. Eagle	e. Capturing
5. Dog	b. Chewing

2. Fill in the blanks:

a) _____ is the elimination of unused parts of the food.

Ans: Egestion is the elimination of unused parts of the food.

b) The digestive system in humans consists of _____ and_____.

Ans: The digestive system in humans consists of alimentary canal and digestive glands.

c) The first set of teeth that grow during infancy and fall off between 6-8 years of age is_____.

Ans: The first set of teeth that grow during infancy and fall off between 6-8 years of age is milk teeth.

d) The working of the stomach was discovered by _____.

Ans: The working of the stomach was discovered by William Beaumont.

Short Answer Questions (2 Mark)

1. Define Nutrition in animals.

Ans: For animals, nutrition is crucial. While some of them eat plants, others are carnivores. It covers how food is consumed, broken down, absorbed, and assimilated by the body's cells. It also involves taking out any food that isn't used.

2. Differentiate between absorption and assimilation.

Ans: The difference between absorption and assimilation is as follows:

Absorption	**Assimilation**
Absorption is the process of ingestion of the digested food from the alimentary canal into the bloodstream through the intestinal villi.	Assimilation is the process of ingestion of digested food and nutrients and the synthesis of new compounds from the molecules that are absorbed to perform respiration and metabolism.

3. What is the function of the large intestine in digestion?

Ans: All of the extra water from undigested and unabsorbed food is reabsorbed in the large intestine. As a result, it facilitates the expulsion of the food's unabsorbed component as faeces. Therefore, restoring the majority of the water to the blood can stop excessive water loss and help the body get rid of food that hasn't been digested.

4. List the different types of teeth present in humans and their functions.

Ans: The different types of teeth present in humans and their functions are:

- Incisors: Incisors or the front teeth are the eight visible teeth that are used to bite the food.
- Canines: Next to incisors are the canines that are used to tear flesh or other food items. These are very sharp and come in around nine to twelve years of age.
- Premolars: Next to canines are the premolars which are typically used for grinding and chewing food.
- Molars: Molars are replaced by the eight premolars. They serve the primary function of chewing and grinding food into small particles.

5. What is diarrhoea?

Ans: Excess water from broken-down food is expelled as loose, watery stool when it is not reabsorbed. Diarrhoea is the term for the common passage of this watery stool, which is brought on by an intestinal microbial infection. Oral rehydration solutions (ORS) can be used to treat the severe dehydration that may result from this.

Long Answer Questions (5 Marks)

1. Explain nutrition in starfish.

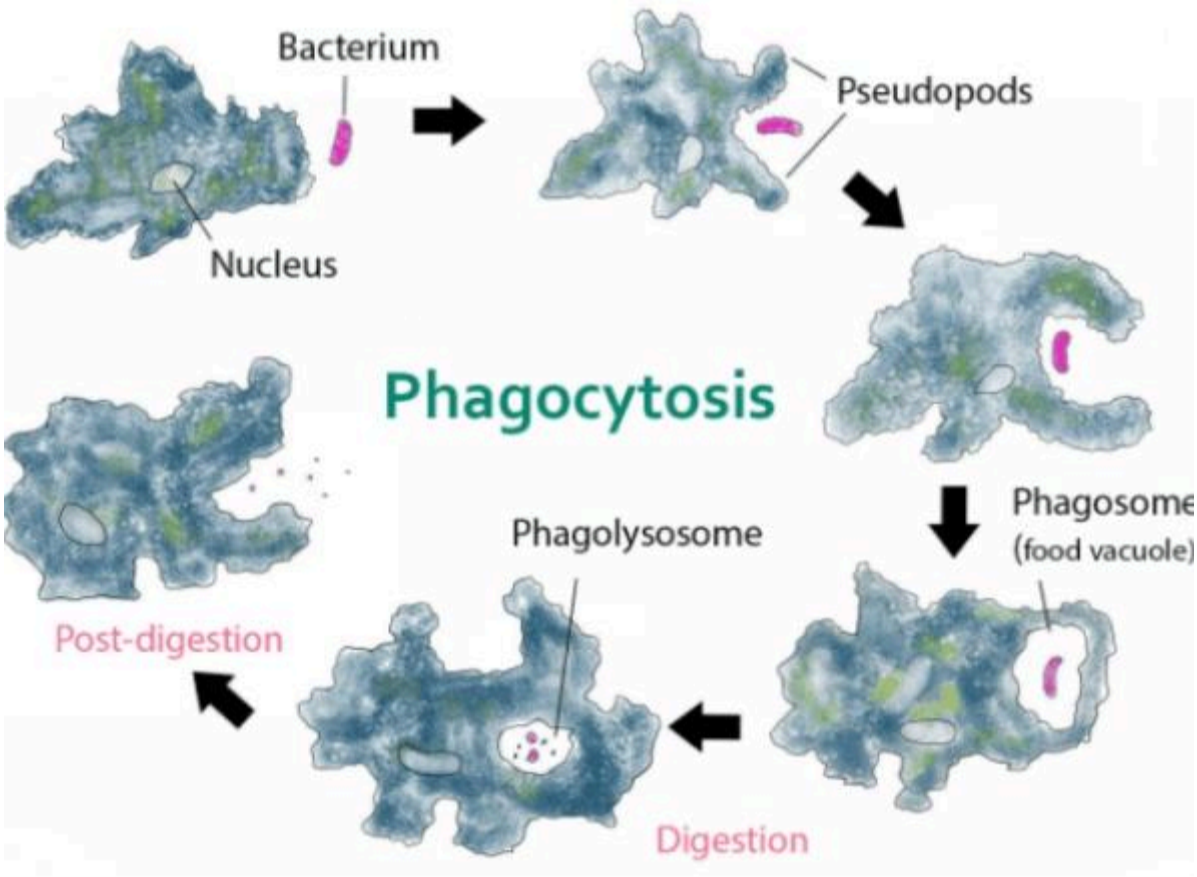
Ans: Starfish is an aquatic invertebrate. It has a unique way of obtaining nutrition from other animals.

- Ingestion: The mouth of the starfish is on the underside of their body.They wrap themselves around the prey and open the shell of the prey. Then through their mouth they push their stomach out and ingest the soft animal.
- Digestion: They digest the animal in the stomach and draw its stomach back into its body.
- Absorption and assimilation: This allows them to feed on organisms larger than the ones which can fit into their small mouth.

2. Explain the process of nutrition in amoeba.

Ans: The process of nutrition in amoeba is done through holozoic nutrition and the process is called phagocytosis.

- Ingestion: Amoeba moves closer to its food with the help of pseudopodia and encircles it forming a food vacuole to engulf the food.
- Digestion: The food is then digested using digestive enzymes present in the lysosomes.
- Absorption and assimilation: The digested food is absorbed by the cytoplasm and the energy thus produced from the food is used to perform different life processes.
- Egestion: To excrete the undigested food, an amoeba ruptures its cell wall and releases it out of the cell.



3. **Explain the process of digestion and absorption in the small intestine.**

Ans: The process of digestion as well as absorption in small intestine is as follows:

- **Digestion:** Digestive fluids from the pancreas, liver, and small intestine work together to facilitate digestion in the small intestine. The liver secretes bile juice, which aids in fat digestion by dissolving large fat droplets into smaller ones. There are no enzymes in it. Enzymes for the breakdown of carbohydrates, proteins, and fats are found in the pancreatic juice that the organ secretes. Trypsin aids in the digestion of proteins, whereas pancreatic amylase aids in the digestion of carbohydrates. Eventually, the intestinal juice's enzymes reduce proteins, lipids, and carbs to their most basic constituents, including glycerol, glucose, amino acids, and fatty acids.
- **Absorption:** Absorption takes place through the walls of the intestine

that are lined with finger-like projections known as villi. These villi improve the surface area available for nutritional absorption. The villi contain blood vessels and hence the digested food is absorbed directly into the bloodstream.

4. **Explain the importance of rumen in ruminants.**

Ans:

In animals that feed grass, the rumen is a section of the stomach. When the ruminant reproduces, it saves the food, chews it again, and swallows it again. The rumen contains certain microorganisms that help break down cellulose. For hours each day, ruminants can chew their fellows.

Numerous tiny organisms found in the rumen help break down food, including grass, whose cell walls are difficult for other animals to digest. For simpler chewing, partially digested food, or cud, is then reintroduced into the mouth. Rumination is the process by which the animal chews on its cud even while it is not eating. This food is fermented in the rumen by the production of gas, which must be belched out to avoid bloating.

Important Points to Remember

Revise the concepts covered in CBSE Class 7 Science Chapter 2 Nutrition in Animals by solving these important questions. You can also download NCERT Solutions for Class 7 Science for all the other chapters to prepare for your exams. All these solutions are available in free PDF format on our website or mobile app.

Nutrition in Animals

- Nutrient requirement, mode of intake food and its utilization by the body is the process of animal nutrition.
- Ingestion, digestion, absorption, assimilation and egestion are the stages of nutrition in animals.
- Ingestion is taking in food. Various animals use different organs for ingestion.
- The breakdown of complex components of food into simpler substances is called digestion.
- Absorption is the process by which food in soluble form passes into the body fluid like blood and is transported to different parts of the body.
- Assimilation involves utilizing the absorbed nutrients for energy, growth and development.
- Egestion is the process of removal of undigested waste.
- Modes of feeding differ in different organisms. For example, bees and hummingbirds suck the nectar of plants, infants of mammals feed on mother’s milk, python swallows animals they prey upon, few aquatic animals filter tiny particles floating nearby and feed upon them.
- Amoeba is a microscopic, single-celled organism found in pond water. It constantly changes its shape and position.
- Pseudopodia is a finger-like projection that is pushed out by amoeba.
- Amoeba ingests food with the help of pseudopodia (false feet) and ingests it in the food vacuole.
- Amoeba feeds on bacteria, microscopic algae and small unicellular organisms.
- The food digested by amoeba is used for growth, maintenance and multiplication.
- Amoeba releases unwanted waste through its body surface.

Nutrition in Humans

- The human digestive system is highly complex.
- The human digestive system consists of the buccal cavity, oesophagus, stomach, small intestine, large intestine ending in rectum and anus.
- The human digestive tract is also called an alimentary canal.
- The digestive tract and associated glands like salivary glands, liver and pancreas make up the digestive system.
- Digestion begins in the mouth and continues in the stomach and the small intestine.
- The cavity of the mouth with all its internal parts like cheeks, teeth, tongue and salivary glands is called the buccal cavity.
- The alimentary canal begins from the buccal cavity.
- Salivary glands, liver and pancreas play a very important role in the process.
- Salivary glands present in the human mouth secrete saliva.
- Saliva moistens the food and helps in chewing of food by teeth. It also contains an enzyme which breaks down the starch into sugars.
- The oesophagus is the food pipe through which the swallowed food passes.
- The liver is the largest gland in our body, secretes bile that is stored in the gallbladder.
- The stomach is a thick-walled bag, receives food from oesophagus at one end and opens into the small intestine at the other.
- Bile plays a vital role in the digestion of fats.
- The pancreas is located just below the stomach and secretes pancreatic juice that acts on carbohydrates, fats and proteins and changes them into simpler forms.
- Digested food is absorbed in the small intestine.
- The small intestine is a coiled structure that receives secretions from the liver and the pancreas.
- Villi are thousands of finger-like projections present in the inner walls of the small intestine.
- The digested food materials are absorbed by the surface of the villi.
- Semi-solid waste in the form of faeces is expelled through the anus.
- A fleshy muscular organ inside the human mouth that is attached to the buccal cavity is the tongue.
- Speaking, combining saliva with food, swallowing, and using taste buds to discern various food flavours are all done using the tongue.
- The teeth aid in breaking up large food particles into smaller ones while chewing.
- Every human has two sets of teeth. After six months, the first set of teeth, known as milk teeth, erupt.
- Permanent teeth eventually take the place of these milk teeth.
- 32 permanent teeth—incisors, canines, molars, and premolars—are present in an adult human.
- Damage to teeth caused by dangerous bacteria that break down sugars and release acids is known as tooth decay.
- Tooth decay causes tooth pain and even tooth loss.

Nutrition in Ruminating Animals

- Ruminants are animals that consume grass.
- Ruminants go through two stages of meal digestion.
- The rumen is a distinct section of ruminants' stomachs used to hold food that has been swallowed.
- During the process of rumination, ruminants rapidly consume grass and store it in their rumen. The grass is partially broken down and turns into a cud in the rumen. The animal chews the cud after it later returns to the mouth in tiny lumps.
- Cellulose is the carbohydrate present in grass.
- Ruminants have a large sac-like structure called caecum that is present between the small intestine and the large intestine.
- Certain kinds of bacteria present in caecum help in digestion of the cellulose of the food.

Benefits of Using Important Questions for Class 7 Science Chapter 2

Using important questions for Class 7 Science Chapter 2 (Nutrition in Animals) has several benefits for students preparing for exams or strengthening their understanding of the topic. Here are some key advantages:

Reinforces Key Concepts: Important questions typically focus on the most significant and frequently tested concepts, which helps reinforce essential learning points. This targeted practice ensures students have a strong grasp of the core ideas in the chapter, such as the process of nutrition in different animals, types of nutrients, and digestion.

Enhances Retention: Regularly practicing these questions improves memory retention of important facts, terms, and processes involved in nutrition. For example, understanding the difference between herbivores, carnivores, and omnivores, or knowing the role of enzymes in digestion.

Boosts Problem-Solving Skills: These questions often involve critical thinking, applying learned concepts to different scenarios, and solving problems. This enhances a student's ability to think logically and solve complex problems related to the topic.

Improves Exam Performance: By practicing a set of important questions, students can familiarize themselves with the exam pattern, typical question formats, and the level of difficulty. This can boost their confidence and improve their performance in actual exams.

Identifies Knowledge Gaps: When answering important questions, students can easily identify areas they may not fully understand. This gives them the opportunity to review and focus on weak spots before the exam.