Important Questions for Class 7 Science Chapter 7: Chapter 7 of CBSE Class 7 Science, Transportation in Animals and Plants, is an important topic for exams as it explains how essential substances are transported in living organisms.

It covers the human circulatory system, including the heart, blood, and blood vessels, as well as the process of excretion. In plants, it explains how water and nutrients are carried through the xylem, and how food is transported via the phloem. Understanding these concepts is vital for students to learn how organisms maintain life processes and adapt to their environments.

Important Questions for Class 7 Science Chapter 7 Overview

Chapter 7 Transportation in Animals and Plants, introduces the mechanisms that ensure the movement of essential substances within organisms. In animals, the circulatory system is explained, focusing on how blood carries oxygen, nutrients, and waste products throughout the body. The chapter discusses the heart's structure and function, along with the types of blood vessels and their roles.

It also highlights excretion as a process to eliminate harmful substances from the body. In plants, the chapter explores the movement of water, minerals, and food through specialized tissues like xylem and phloem, and emphasizes the role of transpiration in maintaining plant health. This chapter provides a comprehensive understanding of these interconnected processes in living beings.

Important Questions for Class 7 Science Chapter 7 PDF

The Important Questions for Class 7 Science Chapter 7 Transportation in Animals and Plants are created to help students prepare effectively for their exams.

By practicing these questions, students can strengthen their understanding of the concepts and improve their performance. The PDF containing these important questions is available below for easy access and download.

Important Questions for Class 7 Science Chapter 7 PDF

Important Questions for CBSE Class 7 Science Chapter 7 Transportation in Animals and Plants

Here are the important questions beneficial for Important Questions for CBSE Class 7 Science Chapter 7 Transportation in Animals and Plants-

Very Short Answer Questions:

1. The circulatory fluid in humans is

Ans - Blood

2. The fluid portion of the blood is called as

Ans- Plasma

3. The oxygen-carrying component is called

Ans- RBC

4. The function of the platelets is

Ans- Clotting

5. Waste products in blood are filtered by

Ans- Kidneys

6. Water-carrying tissue in plants is

Ans- Xylem

7. Food transporting tissue in plants is

Ans- Phloem

8. Transpiration occurs through

Ans- Stomata

9. Transpiration is a means

Ans- Both a and b

10. The circulatory fluid in sponges is

Ans- Water

Short Answer Questions (3 marks):

11. What is the role of blood in the body?

Ans- Blood serves multiple vital roles including transporting oxygen and nutrients to cells, removing carbon dioxide and waste, providing immunity, and helping in regulating body temperature.

12. Explain the components of the circulatory system in humans.

Ans- The human circulatory system comprises the heart, blood, and blood vessels. The heart pumps blood through arteries and veins. Blood, composed of plasma, red and white blood cells, and platelets, carries oxygen, nutrients, and wastes throughout the body.

Blood vessels, which include arteries (carry blood away from the heart), veins (carry blood back to the heart), and capillaries (facilitate exchange between blood and body cells), are essential for maintaining circulation.

13. How does transport occur in sponges?

Ans- In sponges, transport occurs via the flow of water through their body. Water enters through tiny pores called ostia, is filtered for nutrients and oxygen, and exits through the larger opening called the osculum. This flow enables the sponge to absorb nutrients and expel waste without specialized circulatory systems.

14. What is transpiration? Explain its importance.

Ans- Transpiration is the process by which plants lose water vapor from their leaves and stems. It plays a crucial role in maintaining the water balance within plants, cooling the plant tissues, and driving the uptake of water and nutrients from the soil through xylem tissues.

15. Explain how wastes are removed from the body.

Ans- Wastes are removed from the body primarily through the excretory system which includes the kidneys, ureters, bladder, and urethra. The kidneys filter blood to form urine which is stored in the bladder and then expelled from the body. This process removes nitrogenous wastes, excess salts, and water from the body.

Long Answer Questions (5 marks):

16. Explain the structure of the heart with a diagram.

Ans- The human heart is divided into four chambers: two atria (upper chambers) and two ventricles (lower chambers). It has a septum that separates the right and left sides, preventing the mixing of oxygenated and deoxygenated blood. Valves (such as the tricuspid, pulmonary, mitral, and aortic valves) ensure that blood flows in one direction, from atria to ventricles and then to the lungs and body.

17. How does the transport of food and water occur in plants?

Ans- In plants, transport occurs through specialized tissues: xylem and phloem. Xylem tissues transport water and minerals from roots to leaves, driven by transpiration pull. Phloem transports the prepared food from leaves to other parts of the plant. The movement is driven by the pressure gradient created by the active transport of substances within these tissues.

18. What are blood vessels? Compare the different blood vessels.

Ans- Blood vessels are conduits through which blood circulates in the body. There are three types:

- **Arteries**: Carry oxygen-rich blood away from the heart to tissues. They have thick walls to handle high pressure.
- **Veins**: Carry oxygen-poor blood back to the heart. Veins have valves that prevent backflow of blood.
- **Capillaries**: These are the smallest blood vessels where exchange of oxygen, nutrients, and wastes occur between blood and body cells. They connect arteries and veins and have thin walls to facilitate this exchange.

Benefits of Solving Important Questions for Class 7 Science Chapter 7

Solving important questions for Class 7 Science Chapter 7 which deals with topics such as "Weather, Climate, and Adaptations of Animals to Climate provide several key benefits for students:

Understanding Key Concepts:

- **Comprehensive Review**: Important questions help students review and reinforce key concepts covered in the chapter. By answering these questions, students solidify their understanding of topics like weather, climate, adaptation, and their interrelations.
- **Clarity on Definitions**: They help in understanding scientific terms and definitions related to weather patterns, climatic conditions, and adaptation strategies.

Enhancing Problem-Solving Skills:

- **Application of Knowledge**: These questions often require students to apply their knowledge to different scenarios. They enable students to connect theoretical concepts with real-world phenomena, such as understanding how animals adapt to different climates.
- **Critical Thinking**: Answering these questions requires critical thinking and analysis, prompting students to evaluate different factors and draw conclusions based on given information.

Preparation for Exams:

- **Familiarity with Exam Patterns**: Solving these questions exposes students to the type of questions that may appear in exams. This familiarity helps reduce anxiety and boosts confidence.
- **Time Management**: Practicing these questions allows students to manage their time effectively during exams, ensuring they can answer all questions within the allotted time.

Improved Retention and Recall:

- **Active Learning**: The process of answering important questions is an active learning strategy that aids in better retention of facts and concepts.
- **Regular Revision**: Revising important questions regularly reinforces learning and helps in long-term retention of knowledge, which is crucial for both academic success and overall understanding.

Application in Practical Scenarios:

- **Understanding Real-World Applications**: These questions often include scenarios that require practical application of knowledge. This not only enhances learning but also prepares students for understanding scientific principles in everyday life.
- **Interdisciplinary Connections**: Answering these questions helps students make connections between science and other subjects, such as geography and biology, by understanding how climatic conditions affect both human life and animal behavior.