

Chapter 21: Constituents of food

Q. 1. Fill in the blanks:

- (1) When we inhale the air from outside it goes into **trachea** and then into lungs.
- (2) The small air sacs in the lungs are called **alveoli**
- (3) **Oxygen** gas is transported to all parts of the body.
- (4) Smoking can cause a life-threatening disease like **lung-cancer**.
- (5) The lower end of the alimentary canal is the **anus**.
- (6) The stomach is like a **bag**

Q. 2. Choose the appropriate word from the brackets:

(Circulation. Trachea, Diaphragm)

- (1) Respiration takes place because of its up and down movement. **Diaphragm**
- (2) The process of keeping the blood flowing continuously throughout the body. **Circulation**
- (3) Air that enters through the nose passes into this tube. **Trachea**

Q. 3. Match the following:

| Group 'A' | Answers | Group 'B' |
|-------------|---------------------|------------------|
| (1) Lungs | Respiration | (a) Circulation |
| (2) Stomach | Digestion | (b) Respiration |
| (3) Heart | Circulation | (c) Coordination |
| (4) Brain | Coordination | (d) Digestion |

Q. 4. Answer the following questions in one sentence each:

(1) What is a digestive juice?

Answer: A digestive juice is a liquid produced by the digestive system that helps break down food into simpler substances.

(2) What is a gland? Which are the digestive glands?

Answer: A gland is an organ that produces and releases substances; the digestive glands are the salivary glands, liver, and pancreas.

(3) What is meant by a system in a body?

Answer: A system in the body is a group of organs working together to perform a specific function.

(4) What is meant by circulation of blood?

Answer: Circulation of blood is the process by which blood flows through the body, delivering oxygen and nutrients and removing waste products.

(5) What is the function of the excretory system?

Answer: The excretory system removes waste products and excess water from the body.

(6) What is the nervous system made up of?

Answer: The nervous system is made up of the brain, spinal cord, and nerves.

(7) What is the function of the skeletal system?

Answer: The skeletal system gives shape to the body, protects internal organs, and helps in movement.

Q. 5. Answer the following questions:

(1) Name the systems that carry out the different functions of the body.

Answer: The systems are the digestive system, respiratory system, circulatory system, excretory system, nervous system, and skeletal system.

(2) How do the actions of inhalation and exhalation take place?

Answer: Inhalation occurs when the diaphragm contracts and air enters the lungs, while exhalation happens when the diaphragm relaxes and air is pushed out.

(3) Describe how the exchange of oxygen and carbon dioxide gases take place in the lungs.

Answer: Oxygen from the air in the lungs passes into the blood, and carbon dioxide from the blood moves into the lungs to be exhaled.

(4) What are the ill-effects of smoking on health?

Answer: Smoking can cause lung diseases, heart problems, cancer, and reduced oxygen supply to the body.

(5) Which digestive organs are included in the digestive system? Which digestive glands are associated with the alimentary canal?

Answer: The digestive organs include the mouth, esophagus, stomach, small intestine, and large intestine. The digestive glands are salivary glands, liver, and pancreas.

(6) What are the functions of the stomach?

Answer: The stomach stores food, mixes it with digestive juices, and breaks it down into simpler substances for digestion.

(7) Write the difference between the small intestine and the large intestine.

Answer: The small intestine is longer, absorbs nutrients, and completes digestion, while the large intestine is shorter, absorbs water, and removes waste.

(8) Why is circulation of blood necessary?

Answer: Circulation of blood is necessary to supply oxygen and nutrients to the body and to remove carbon dioxide and waste products.

(9) Which internal organs are vital and work ceaselessly?

Answer: The brain, heart, and lungs are vital organs that work ceaselessly.

(10) Which organ maintains coordination of the body? How is it maintained?

Answer: The brain maintains body coordination by controlling and communicating with all other body systems through the nervous system.

(11) Why do we call saliva a digestive juice?

Answer: Saliva is called a digestive juice because it contains enzymes that help break down starch into simpler sugars.

Q. 6. Use your brain power!

(1) Name the organs that bring about respiration. (Textbook page 111)

Answer: The nose, windpipe (trachea), lungs, and diaphragm bring about respiration.

(2) Name the organs of the digestive system. (Textbook page 111)

Answer: The mouth, esophagus, stomach, small intestine, large intestine, rectum, and anus are the organs of the digestive system.

(3) Which systems work together to provide the body with energy? (Textbook page 113)

Answer: The digestive system, respiratory system, and circulatory system work together to provide the body with energy.

(4) Why do we sometimes choke suddenly while eating? (Textbook page 114)

Answer: We sometimes choke while eating because food accidentally enters the windpipe instead of the food pipe, blocking airflow.

(5) How is the air that we inhale purified in our body? (Textbook page 114)

Answer: The air we inhale is purified in the nose by tiny hairs and mucus, which trap dust and germs.

OPEN-ENDED QUESTIONS

(1) You are standing near a store when the shopkeeper is packing your things. One young man is smoking cigarette vigorously standing next to you. What will you tell him?

Answer: I would politely ask the young man to stop smoking or move away, explaining that smoking in public harms others through secondhand smoke and is harmful to his health as well.

(2) "Drinking alcohol is always bad as it causes ill-effects on the body." How will you persuade people about this sentence?

Answer: I would explain that drinking alcohol can damage the liver, brain, and heart, lead to addiction, and affect relationships and work performance. I would also suggest healthier alternatives and encourage them to seek support if needed.

(3) What's the solution? (Textbook page 114)

- A person fainted and a crowd of people has surrounded him.

Answer: The crowd should be asked to step back to allow fresh air to reach the person. Someone should check for breathing and call for medical help immediately. If possible, the person should be laid flat with their legs raised slightly to improve blood flow.