

UNIT - 6: HUMAN ORGAN SYSTEM

Subject: Science

Class: VI

I. Choose the appropriate answer

- Circulatory system transports these throughout the body
a. Oxygen b. Nutrient c. Hormones d. All of these
- Main organ of respiration in human body is
a. Stomach b. Spleen c. Heart d. Lungs
- Breakdown of food into smaller molecules in our body is known as
a. Muscle contraction b. Respiration c. Digestion d. Excretion

II. Fill in the blanks

- A group of organs together make up an Organ system
- The part of the skeleton that protects the brain is Skull
- The process by which the body removes waste is Excretion
- The Skin is the largest sense organ in our body
- The endocrine glands produce chemical substances called hormones

III. True or False. If False, give the correct statement

- Blood is produced in the bone marrow. False
- All the waste products of the body are excreted through the circulatory system. False
- The other name of food pipe is alimentary canal. False
- Thin tube like structures which are the component of circulatory system are called blood vessels. False
- The brain, the spinal cord and nerves form the nervous system. True

IV. Match the following

- | | | |
|--------------------|---|-------------------------------|
| 1. Ear | - | Sound |
| 2. Skeletal System | - | Protection of internal organs |
| 3. Diaphragm | - | Flat muscle |
| 4. Heart | - | Cardiac muscle |
| 5. Lungs | - | Air sacs |

V. Arrange in Correct sequence

- Stomach → Large intestine → Oesophagus → Pharynx → Mouth → Small Intestine → Rectum → Anus.

Answer:

Mouth → Pharynx → Oesophagus → Stomach → Small Intestine → Large intestine → Rectum → Anus.

2. Urethra → Ureter → Urinary Bladder → Kidney.

Answer:

Kidney → Ureter → Urinary Bladder → Urethra.

VI. Analogy

1. Arteries : Carry blood from the heart:: venis :carry blood to the heart.

2. Lungs: Respiratory system:: heart: Circulatory system.

3. Enzymes: Digestive glands:: hormones : Endocrine glands

VII. Give very short answer

1. Describe about skeletal system.

- The skeletal system consists of bones, cartilages and joints.
- Bones provide a framework for the body.
- Bones along with muscles help in movements such as walking, running, chewing and dancing etc.

2. Write the functions of epiglottis.

The entry of food into the wind pipe is prevented by a flap like structure called Epiglottis.

3. What are the three types of blood vessels?

- Arteries
- Veins
- Capillaries

4. Define the term "Trachea".

- Trachea is commonly called as windpipe.
- It is a tube supported by cartilaginous rings that connects the pharynx and larynx to the lungs, allowing the passage of air.
- The trachea divides into right and left bronchi and enter into the lungs.

5. Write any two functions of digestive system.

- Digestive system is involved in the conversion of complex food substances into simple forms.

- Absorption of digested food.

6. Name the important parts of the eye.

The important parts of eye are cornea, iris, lens and pupil.

7. Name the five important sense organs.

- Eyes
- Ears
- Nose
- Tongue
- Skin

VIII. Give short answer

1. Write a short note on rib cage.

- The rib cage is made up of 12 pairs of curved, flat rib bones. It protects the delicate vital organs such as heart and lungs.

2. List out the functions of the human skeleton.

- The skeletal system gives shape to the body.
- Bones provide a framework for the body.
- Bones along with muscles help in movements such as walking, running, chewing and dancing etc.
- It protects the soft internal organs.
- The adult human skeletal system consists of 206 bones and few cartilages, ligaments and tendons.

3. Differentiate between the voluntary muscles and involuntary muscles.

Voluntary muscles	Involuntary muscles
They are attached to the bones.	They are found in the walls of digestive tract, urinary bladder, arteries and other internal organs.
They can be controlled by our will. Example: Muscles of arm.	They cannot be controlled by our will.

IX. Answer in detail

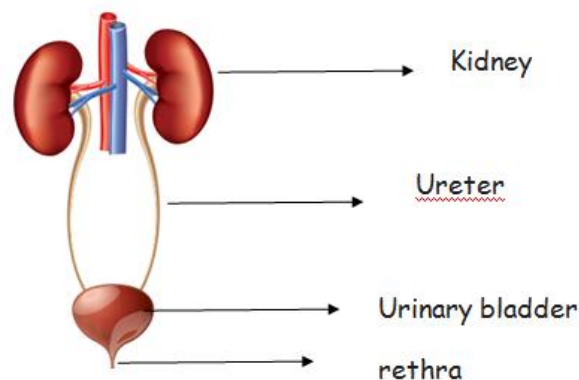
1 List out the functions of Endocrine system and Nervous system.

- Endocrine system regulates various functions of the body and maintain the internal environment.
- Endocrine glands produce chemical substances called "Hormones" which control various activities of the body.
Eg. Growth hormone controls growth, Adrenalin hormone acts at the time of fear stress etc.
- Functions of nervous system:
 - **Sensory input:** The conduction of signals from sensory receptors.
 - **Integration :** The interpretation of the sensory signals and the formulation of responses.
 - **Motor output:** The conduction of signals from the brain and spinal cord to effectors such as muscle and gland cells.

2. Label the diagram given below to show the four main parts of the urinary system and answer the following questions.

- A. Which organ removes extra salts and water from the blood?
- B. Where is the urine stored?
- C. What is the tube through which urine is excreted out of the body?
- D. What are the tubes that transfer urine from the kidneys to the urinary bladder called?

Answer:



- A. Kidney removes extra salts and water from the blood.
- B. Urine is stored in urinary bladder.
- C. Urine is excreted out of the body through urethra.
- D. Ureter transfers urine from the kidneys to the urinary bladder.

X. Questions based on Higher Order Thinking Skills

1. What will happen if the diaphragm shows no movement?

- The diaphragm is the primary organ of breathing.
- The movement of the diaphragm expands the lungs and creates a vacuum.
- Due to this the air is sucked in.
- If the diaphragm does not move the lungs do not expand or contract and breathing stops.
- The person will die.

2. Why is the heart divided into two halves by a thick muscular wall?

The oxygenated and deoxygenated blood are separately circulated. So the heart is divided into two halves by a thick muscular wall.

3. Why do we sweat more in summer?

- Sweating plays an important health role as it helps to maintain constant body temperature by cooling us down.
- When it is hot and we sweat that moisture evaporates and cools us immediately.
- This is why we sweat more when the summer is very hot.

4. Why do we hiccup and cough sometimes when we swallow food?

Normally, the entry of food into the windpipe is prevented by a flap like structure called Epiglottis. But when we eat in a hurry, the flab gets lesser time to close the windpipe. Thus some of the food particles enter into the windpipe. It creates a hindrance in the movement of air in the windpipe and results in coughing or hiccup.