

Notes of science for 7 class

Unit No: 1 Human Organ System.

Short Questions:-

Q: 1 How is carbon dioxide produced in our body?

Ans: Cells in our body use oxygen and food to produce energy and carbon dioxide.

Q: 2 How is small intestine important in our digestive system?

Ans: Final digestion and absorption of food occurs in small intestine.

Q: 3 Why are we provided with teeth?

Ans: Our teeth are main tools we use to break down food in the mouth.

Q: 4 What are alveoli?

the end of bronchioles

Ans: Cluster of sack like structures that comprises lungs are called alveoli.

Q: 5 Briefly describe the mechanism of breathing.

Ans: Process of breathing is completed in two steps.

- (i) Inhaling:- when air enters the lungs.
- (ii) Exhaling:- when the air moves out of the lungs.

Q: 6 What measures can be taken to prevent diarrhea?

- (i) Wash your hands after using toilet.
- (ii) Wash all fruits and vegetables before cooking or eating.
- (iii) Don't eat uncooked meat and eggs.

Q: 7 Explain the process of digestion of food in mouth and stomach.

Ans: Mouth:-

Process of digestion begins from our mouth our teeth break down the food by cutting and grinding tongue mixes the saliva. Saliva starts the digestion of carbohydrates. The tongue pushes this food to back of our mouth.

Stomach:-

Our stomach is large J-shaped muscular bag. It mixes the food with digestive juice digestion of protein takes place in stomach digestive juice contains an acid which kills the germs present in food.

Q: 8 Describe human respiratory system.

Ans: Our respiratory system consists of following parts.

- (i) **Nose**:- Air enters through our nose or mouth our nose has hair and mucous to clean and warm the air.
- (ii) **Throat**:- Air enters the throat and passes through the larynx.
- (iii) **Trachea**:- Air passes from larynx into trachea or windpipe it is made up of c-shaped rings of cartilage mucous and tiny hairs in trachea also filters the air.
- (iv) **Bronchi**:- Trachea divides into two branches called bronchi. Bronchi carry air to the lungs.
- (v) **Lungs**:- In each lung bronchus divides into small tubes called bronchioles. At the end of bronchioles small sac like structures are present called alveoli. Alveoli are surrounded by blood capillaries where exchange of gases takes place.

Long Start

Q. Write notes on following.

Ans: (i) **Constipation**:- constipation is painful or difficult passing of faeces.

Causes:- It is caused by taking food low in fiber lack of physical activity not drinking enough water.

Control:-

- (i) Adopting a proper lifestyle
- (ii) Taking regular exercise
- (iii) Eating lots of fiber of food
- (iv) Drinking more water
- (v) Go to washroom when needed.

(ii) **Pneumonia**:- It is the infections of lungs when a person has pneumonia the alveoli are filled with pus.

Symptoms:- common symptoms are cough fever chest pain rapid breathing etc.

Prevention:-

- (i) Use antibiotics from doctor's advice
- (ii) Wash your hands to avoid germs
- (iii) Use tissue or handkerchief when you cough or sneeze.

Unit No: 2 Transport in Humans and Plants.

Short Questions:-

Q:1 What do you mean by oxygenated blood?

Ans: The blood in oxygen is called oxygenated blood.

Q:2 What is estimated size of our heart?

Ans: Our heart is about the size of our fist.

Q:3 Which arteries carry de oxygenated blood from heart to the lungs?

Ans: Pulmonary arteries carry de oxygenated blood from heart to the lungs.

Q:4 Name at least two diseases that can damage our kidneys.

Ans: (i) High blood pressure or hypertension

(ii) Diabetes.

Q:5 Which tissues does transport water in plants?

Ans: Xylem tissue transport water in plants.

Q:6 Name three parts of circulatory system.

Ans: (i) Heart

(ii) Blood

(iii) Blood vessels

Q:7 Explain why it is important to circulate blood through the body.

Ans: Oxygen and food is transported through blood to all parts of body.

Q:8 How many chambers does the human heart have?

Ans: Heart has four chamber Two atria and two ventricles.

Q:1 Describe the structure of human heart.

Ans: Heart is a muscular organ It is about size of our fist It is present in our chest It pumps the oxygen rich blood to the body. Heart has four chambers two upper are called atria and two lower

ventricles. These are valves present between two chambers. They keep blood flow in one direction.

Q:2 Compare structure and function of blood vessels.

Ans: The blood travels throughout the body by blood vessels. There are three types of vessels.

Arteries:-

They carry blood away from the heart. They have thick walls. Most of arteries carry oxygenated blood except pulmonary arteries.

Capillaries:-

Capillaries are smallest blood vessels in body. Food and oxygen from the blood capillaries enters into cells. Waste material and CO_2 from cells enters into blood of capillaries.

Veins:-

Veins bring blood back to the heart. Most of veins have deoxygenated blood except pulmonary vein.

Q: 3 Describe the structure of plants root permits the movement of materials.

Ans: Roots are underground part of plant it has following parts.

Root hair:- They are present on roots and absorb water and minerals from the soil.

Xylem tissue:- They move water and minerals towards stem.

Phloem tissue:- They help in transportation of food.

Unit No: 3 Reproduction in Plants.

Short Questions:-

Q:1 Differentiate between sexual and asexual reproduction.

Ans: A sexual reproduction is the reproduction in which a cell from only one parents develops into offspring. In sexual reproduction two gametes from both parents combine to form a zygote.

Q:2 What are male and female parts of flower?

Ans: Male part of flower is called stamen Female part of flower is called carpel.

Q:3 Define pollination.

Ans: Pollination is the transfer of flower pollen grains from the stamen to the carpel of a flower.

Q: 4 Name few pollinators.

Ans: Wind, Water, Insects, Birds, and bats etc are few pollinators.

Q:5 Define sperm and egg.

Ans: Male sex cell is called sperm Female sex cell is called egg.

Q:6 Which part of a seed develops into the first root?

Ans: Radical develops into the first root.

Q:1 Write in detail pollination in plants.

Ans: Transfer of pollen grains from the anther of a flower to a stigma of the carpel is called pollination with the help of process male sex cell reaches the female sex cell wind insects animal and water are agents for pollination.

Ans: Pollen grains stick to the stigma of carpel. Here a pollen tube grows out from pollen grain. Two sperms are present in pollen tube the tube grows down ward through style and enters the ovary. It reaches the ovule one sperm combines with egg to form zygote the other sperm combines with another cell to make stored food. Process of fusion of sperm with the egg is called fertilization.

Q:3 Describe the structure of a seed.

Ans: Seed

After fertilization of ovule becomes a seed the embryo and its stored food are covered by a tough seed coat embryo is consist of following parts.

Radical:-

This part of embryo develops into first root of new plant.

Plumule:-

This part of embryo develops unto first shoot or stem of new plant.

Cotyledons:-

This part of embryo supplies food to the growing young plant.

Q:4 Write note on fruit:-

Ans: Ripened ovary is called a fruit.

Pericarp:- Pericarp

Ovary wall forms the fruit wall called pericarp ovule develops into seed pericarp has three layers the outer layer is skin the middle layer is fleshy the inner layer is hard.

Unit No: 4 Environment and Feeding relationships.