

2-9 Our Skeletal system

I Technical words:

1. Vertebrae:

A series of 33 small bones present in the back bone.

2. Ligaments:

Strong tissues that bind the bones, at a joint.

3. Muscles:

Muscles are the soft tissues which lie between our skin and bones.

II Short answers:

1. Write three functions of the human skeleton.

Ans i) The bones of the skeleton give shape, strength and support to our body.

ii) Muscles are attached to the bones and helps in movement.

iii) White blood cells and red blood cells are produced by the bone marrow in hollow bone.

2. Name the different kinds of movable joints in your body.

Ans There are four types of movable joints in our body. They are

i) hinge joint : elbows, knees, fingers and toes

ii) ball and socket joint : hip and shoulder

iii) Pivot joint : between the skull and the first two vertebrae of the spine.

III Long Answers:

1. What is the difference between voluntary and involuntary muscles?

| Voluntary muscles | Involuntary muscles |
|---|---------------------------------------|
| i) Muscles attached to our skeleton are under our control | i) Muscles not under our control. |
| ii) Also called skeletal muscles | ii) Also called smooth muscles |
| iii) Stripes present | iii) stripes absent |
| iv) Muscles found in arms and legs | iv) Muscles found in internal organs. |

2. How do muscles work?

Ans 1) Muscles produce movement in the body by pulling on the bones.

ii) When a muscle contracts, the bones come close to each other.

iii) When the knee bends, one muscle contracts and get shorter, whereas the other one relaxes.

iv) When the leg stretches, the reverse happens.

v) Well-developed muscles give a graceful appearance to the body.

HOTS

1. What disadvantage would you face if your backbone is made up of just one long bone?

Ans If the backbone was made up of just one long bone, we would not be able to bend or turn in any direction, and move as we do.

2. Imagine your neck joint to be a hinge joint. What kind of movement would you find very difficult to make?

Ans If our neck has a hinge joint we cannot move our head sideways, upward and downward.

L-10 Our Nervous System

I Technical words

1. Sensory nerves:

The nerves which bring messages from the sense organs to the brain or the spinal cord.

2. Optic nerve:

A sensory nerve which connects the eye to the brain.

II Short answers:

1. What is reflex action?

Ans The automatic actions for which we do not have to think before doing them are called reflex actions. Such actions are controlled by the spinal cord.

2. How can you keep your skin healthy?

Ans We can keep our skin healthy by

i) Soap and water for removing dirt and sweat.

ii) Wearing clean and comfortable clothes.

iii) Dry yourself thoroughly after bathing.

iv) By treating scratch or cut on the skin with an antiseptic lotion.

III Long Answer:

1. Name the different parts of the brain.
What work does each part do?

Ans The three parts of the brain are

i) Cerebrum:

It controls our thought, memory and senses, it is the centre of intelligence.

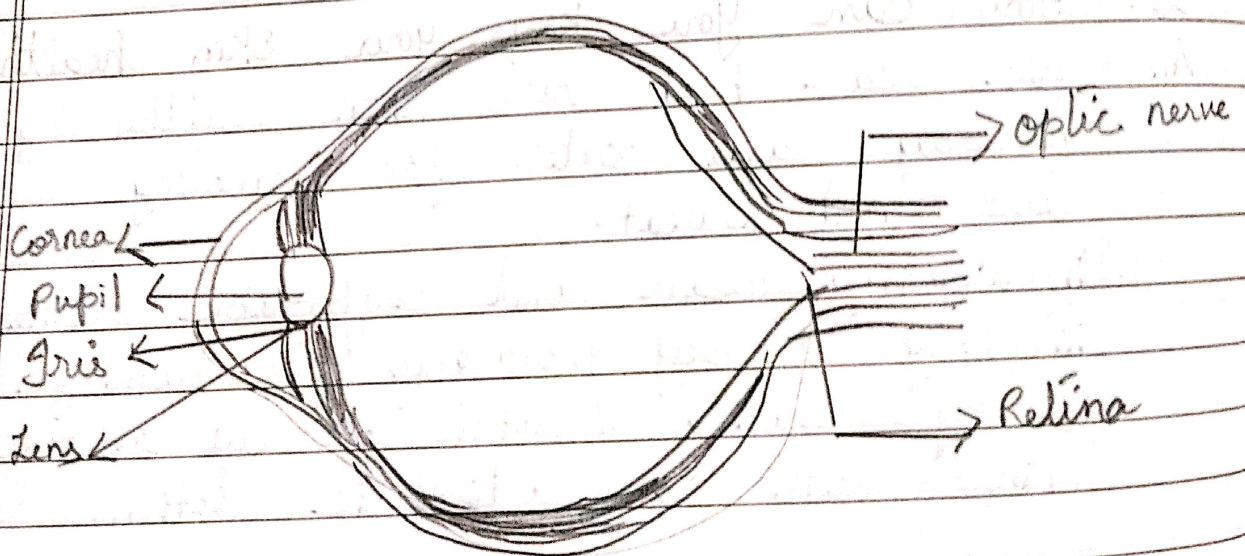
ii) Cerebellum:

It coordinates the actions of the muscles, helps us to balance our body and keeps us in an upright posture.

iii) Medulla:

It controls involuntary actions like movement of lungs and the heart.

2. Draw the human eye and label the parts.



The human eye

IV HOTS

1. While driving a scooter one must wear a helmet. Why?

Ans Wearing a helmet protects the head and brain from injuries in an accident.

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