Chapter 10

Body Movements

7. Very short answer type questions:

a. Cells

b. Bone marrow

c. 33

d. Ligaments

8. Short answer type questions:

a. The last two pairs of ribs are not attached to the sternum. They are called floating ribs.

b. Four kinds of freely movable joints are:

i) Pivot joint

ii) Ball and socket joint

iii) Hinge joint

iv) Gliding joint

c. Bone marrow is the spongy tissue inside some of your bones, such as your hip and thigh bones. Blood cells are made in bone marrow.

d. Mucous is secreted by a snail's foot as it reduces friction between the foot and the surface it moves on.

e. The function of the bone marrow is to make blood cells.

9. Long answer type questions:

a) Function of skeleton:

i) Support: The hard framework of bones supports the soft muscles and organs. It helps you to stand upright.

ii) Protection: The bones protect the soft organs of your body. For example, the brain is protected by the skull.

iii) Movement: Bones can move at places called joints. Joints enable you to bend your arms, legs, fingers etc.

iv) Making blood cells: The long bones of the body contain bone marrow. Blood cells are made in bone marrow.

b) Movement in arms:

i) There are two sets of muscles present in the upper arm called biceps and triceps.

ii) When you raise your hand, the biceps become shorter and harder while the triceps become softer and longer.

iii) Similarly, when you lower your hand, the triceps become shorter and harder while the biceps become longer and softer.

c) i) The combination of two muscles is required to move a bone.

ii) Contraction of one muscle and relaxation of the other muscle attached to the bones make the bones move.

iii) When a muscle contracts, it pulls the bone away from the joint. When a muscle relaxes, it allows the bone to move away from itself and towards the joint. Thus, the muscles work in pair to move a bone.

iv) The muscles can only pull but not push.

d) Features of the bird's body that enable it to fly are:

i) Birds can fly in the air with the help of their wings. Wings are modified forelimbs.

ii) Hollow bones and streamlined body also make it easy for birds to fly.

iii) Flapping of wings provide movement and lift to the bird.

iv) Birds like duck and swans have webbed feet that help them to swim in water.

e)i) Locomotion in earthworm:

i) An earthworm has a long, tubular segmented body with no bones.

ii) Movement in earthworm is caused by the elongation and shortening of body muscles.

iii) When an earthworm moves, it first extends the front part of the body, keeping the rear part of the body fixed to the ground.

iv) Next, it fixes the front part releases the rear part and then shortens the body by pulling the rear part forward.

v) The number of minutes hair-like bristles are present on the underside of the body that help it to keep its grip on the ground.

ii) Locomotion in Snail:

i) A snail has a hard shell on its back to protect its soft body.

ii) Movement in snail is brought about by its muscular foot. The muscular foot produces wave-like movements that push the body of the snail forward.

iii) The foot also produces a slimy substance called mucous, which reduces friction between the foot and the surface it moves on.

10. Distinguish between:

a) Freely movable and immovable joints

S no	Freely Movable Joints	Immovable Joints
1	These joints allow free movement between the bones.	1. These joints do not allow any movement between the bones.
	Ex: pivot joint, ball and socket joint, hinge joint , gliding joint	Ex: joints of the skull, joints of the tooth socket

b) Hinge joint and ball and socket joint

S no	Hinge Joint	Ball and socket joint
1	These joints allow movement only in one direction.	1. These joints allow maximum movement in all the directions.
	Ex: the joints at knee and elbow.	Ex: The joints at the hip and the shoulder.

c) Endoskeleton and exoskeleton

S no	Endoskeleton	Exoskeleton
1	The skeleton that is inside the body of an organism is called endoskeleton.	1. The skeleton that is outside the body of an organism is called endoskeleton.
	Ex: Skeleton of human being, dog , cat	Ex: Skeleton of snail, crab.

Note: Draw the figures of Forelimb and Hindlimb from Page Number :124