SHORT ANSWER TYPE QUESTIONS

1. What are joints? Write the names of various types of joints.
Ans: The places where two parts of the body seem to be joined together are called joints. There are following types of joints:
(i) Ball and socket joints
(ii) Pivotal joints
(iii) Hinge joints
(iv) Fixed joints
(v) Gliding joints

2. What is skeleton? Draw a diagram to show the human skeleton.
Ans: The bones in our body form a framework to give a shape to the body. The framework is called skeleton.

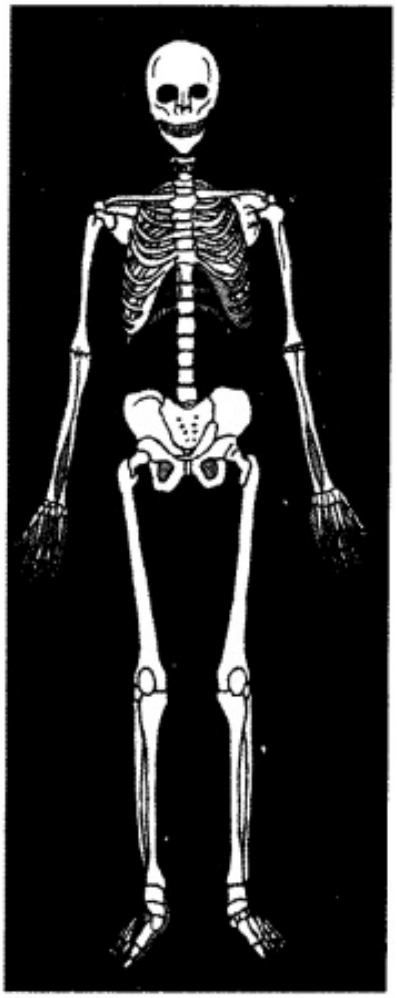

Fig. 8.10 Human skeleton (Front view)

3. Write two ways by which we may know the shape of human skeleton.
Ans:
(i) We can know the shape of skeleton by feeling.
(ii) We could know the shape by X-ray images of human body.

4. Write the differences between bones and cartilage.
Ans:

Bone	**Cartilage**
(i) They are hard.	(i) They are soft.
(ii) They cannot bend.	(ii) They can bend.
(iii) They are used to make the framework of whole body.	(iii) They help to make some parts of the body.

5. How do the muscles work?
Ans: The muscles work in pairs. When one of them contracts, the bone is pulled in that direction, the other muscle of the pair relaxes. To move the bone in the opposite direction, the relaxed muscle contracts to pull the bone towards its original position, while the first relaxes.A muscle can only pull. It cannot push.

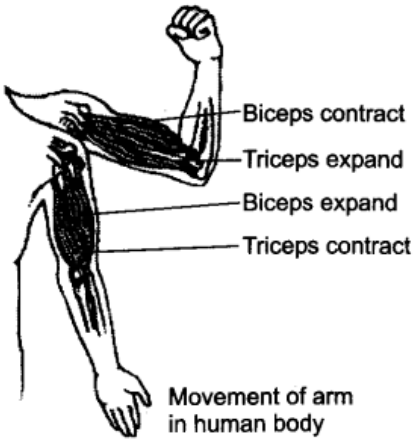

Fig. 8.11 Muscles work in pair

6. How does the earthworm move?
Ans: Earthworm does not have bones. It has muscles. During the movement, earthworm first extends front part of the body keeping the rear portion fixed to the ground. Then it fixes the front and releases the rear end. It then shortens the body and pulls the rear end forward. In this way by repeating such muscular expansions and contractions earthworm moves.

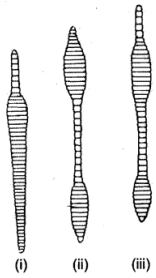

Fig. 8.12

Fig. 8.12 Locomotion in earthworm: (*i*) Front end elongates, rear end fixes to the ground, (*ii*) Front end fixes to the ground and rear end pulled forward, (*iii*) The cycle repeats.

7. How does the snail move?
Ans: The rounded structure on the back of the snail is called shell. It is the outer skeleton (exoskeleton) of snail. When it starts moving a thick structure and the head of the snail may come out of an opening in the shell. The thick structure is called foot, which is made

up of strong muscles. It helps snail in moving.

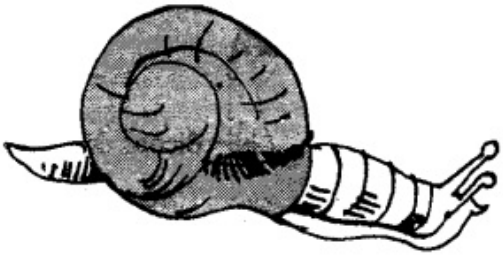

Fig. 8.13 A snail

8. How does fish move in water?
Ans: The body of fish is streamlined. The streamlined shape helps the fish to move in water. The skeleton of fish is covered with muscles which make the front part of the body to curve to one side and the tail part swings towards the opposite side. This makes a jerk and pushes the body forward. In this way it moves in water.

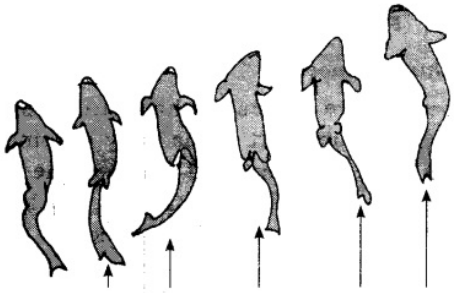

Fig. 8.14 Movement in fish

LONG ANSWER TYPE QUESTIONS
1. Explain various kinds of joints found in our body and give example of each.
Ans: There are five types of joints in our body:
(i) Fixed joints: Those joints which do not allow movement are called fixed joint.

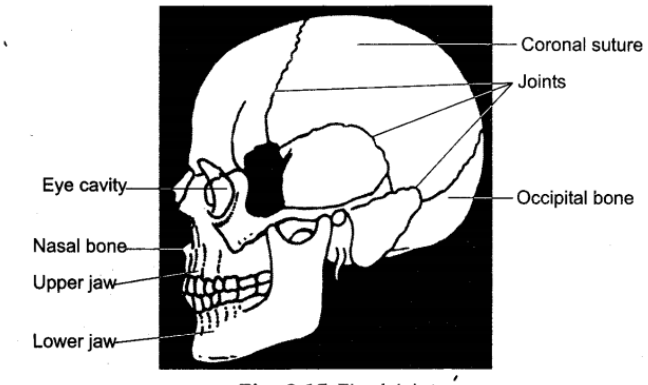

Fig. 8.15 Fixed joint

(ii) Ball and socket joint This joint allows movement in all directions. The rounded end of one bone fits into the hollow space of other bone. For example, joint between upper arm and shoulder.

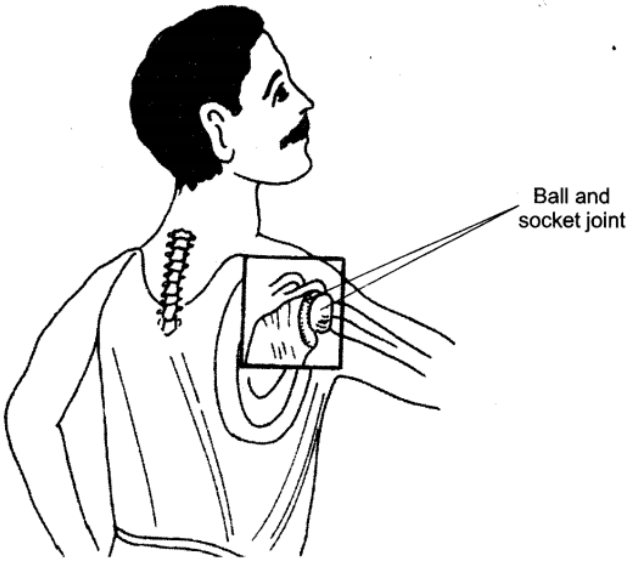

Fig. 8.16 Ball and socket joint

(iii) Pivotal joint: This type of joint allow movement in all planes, i.e. up and down, side and other planes. For example, head.
(iv) Hinge joint: The joint which allows movement only in one plane is called hinge joint. For example, fingers, knees.

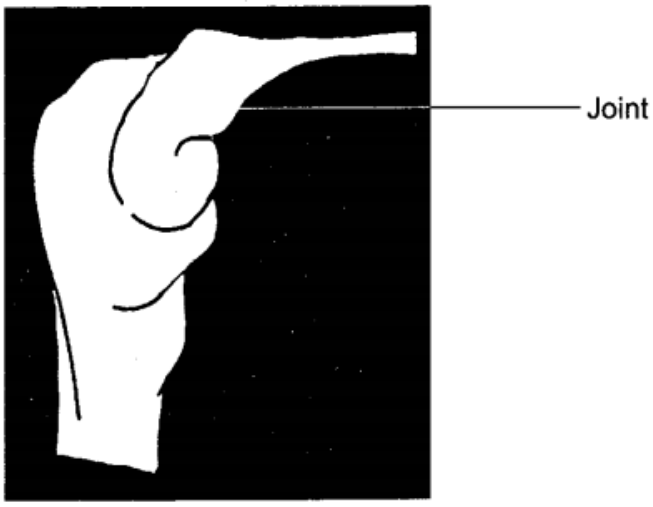

Fig. 8.17 Hinge joint of the knee

(v) Gliding joint: These joints allow only a limited amount of movement of sliding nature of cartilage. For example, the joints of backbone.

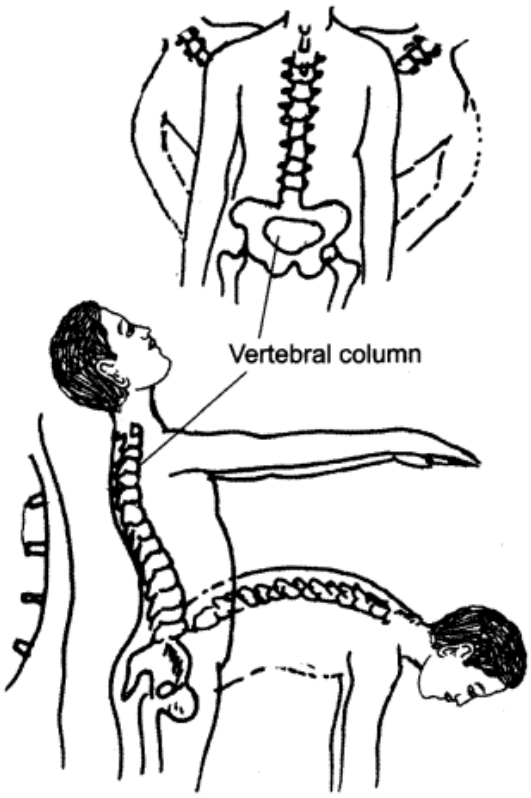

Fig. 8.18 Gliding joint

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