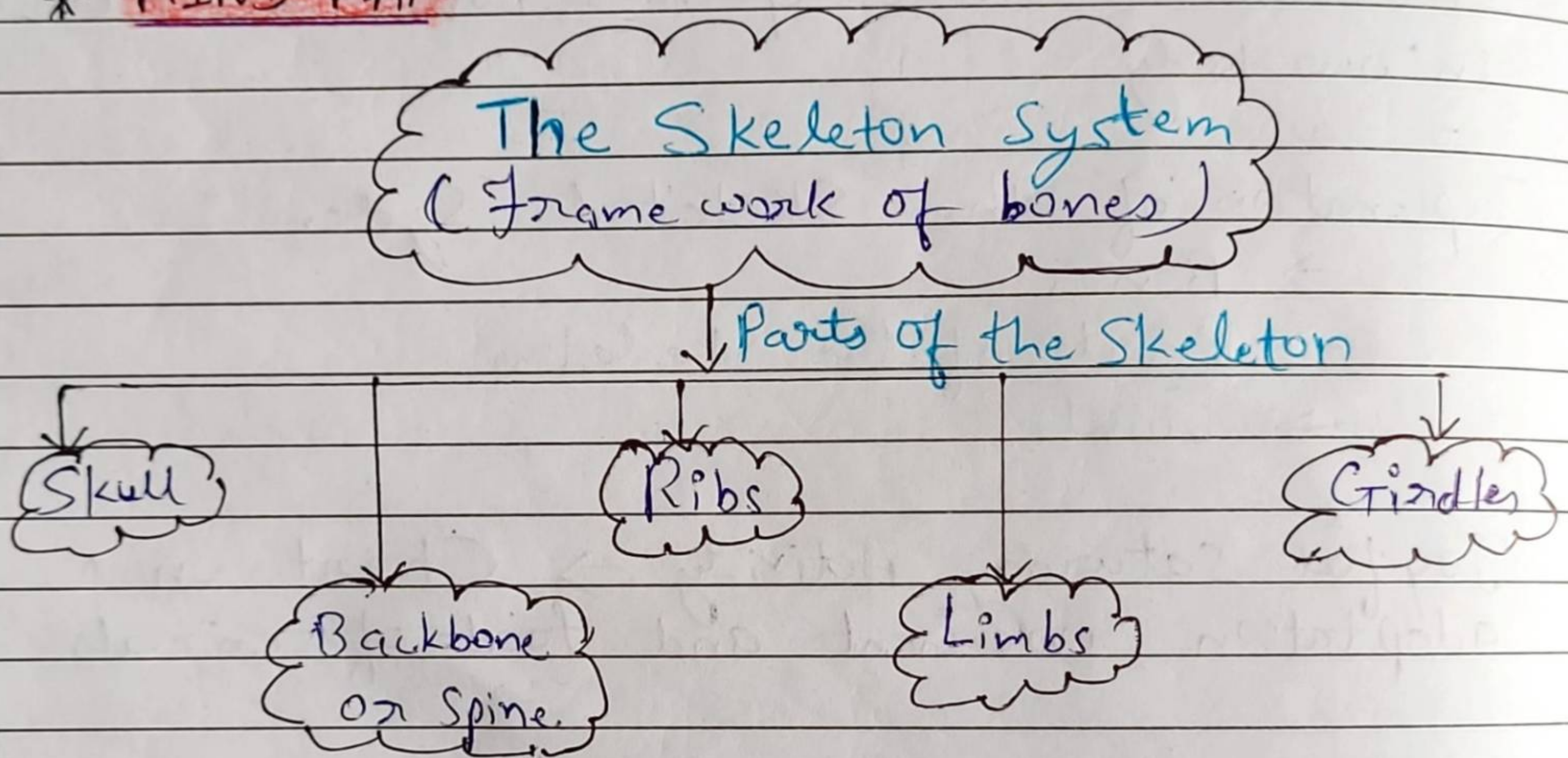


Chapter 3: Bones and Muscles in Our Body

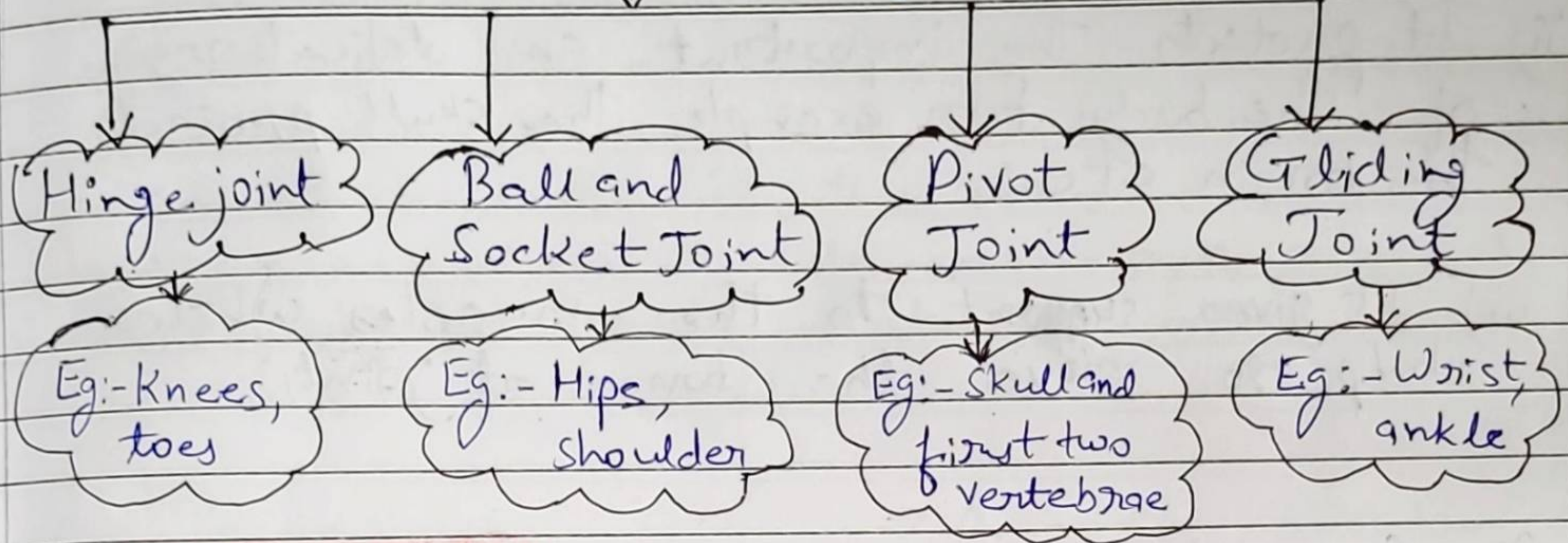
* MIND MAP



Joints

(meeting point of two bones)

Types of Joints



* HARD WORDS :-

1) Bone marrow

6) Tendons

2) Phosphorous

7) Involuntary

3) Vertebra

8) Cardiac

4) Femur

9) Biceps

5) Ligaments

10) Triceps

* ANSWER THE FOLLOWING QUESTIONS :-

Q1. What are the functions of the Skeletal system?

Ans :- The skeleton system performs the following

functions :-

- i) It supports the body and also gives the body its shape.
- ii) It protects the important and delicate organs of the body. For example, the skull protects the brain, etc.
- iii) It gives support to the muscles which help to move the bones at joints.

Q2. Give differences between the muscles of the heart and the muscles of the legs.

Ans:- $\Rightarrow$ The muscle of the heart is an involuntary muscle and is also called cardiac muscle. It works throughout our life.

$\Rightarrow$ The muscles of the legs are voluntary muscles and we move it at our will. They are under our control.

Q3. What would happen if the long bones of our body did not have bone marrow?

Ans:- If the long bones of our body did not have bone marrow then they

would
 lose their ability to produce blood cells,
 impacting oxygen transport and it weakens
 our immunity.

Q4. What is a joint? Name the types of joints in our body with examples.

Ans :- $\Rightarrow$ A joint is the place where two bones meet. We can move our body parts at the joints. But the joints in our skull are immovable.

$\Rightarrow$ There are four types of movable joints in our body.

i) Hinge joints :- Hinge joints are found in our elbows, knees, toes and fingers.

ii) Ball and socket joints :- These joints are found in our hips and shoulders.

iii) Pivot joint :- Our skull is connected to the first two vertebrae of the spine with a pivot joint.

iv) Gliding joints :- Gliding joints are found in wrists, ankles and between the two vertebrae of the spine.

Q5. What is the role of muscles in our body?

Ans:- Muscles help us to smile, blink our eyes, bend our arms and knees, breathe and digest our food. They even make our heart beat.

Q6. Differentiate between the two kinds of muscles.

Ans:- Voluntary muscles

Involuntary muscles

1) The muscles which are under our control are called voluntary muscles.

1) The muscles which we cannot control are called involuntary muscles.

2) The muscles of the eyes, tongue, arms, legs, etc are some such muscles.

2) The muscles of the stomach, arteries and veins, intestines, kidneys and several internal organs are some such muscles.

Q7. What would happen if there were only one long bone instead of 33 vertebrae in the spine?

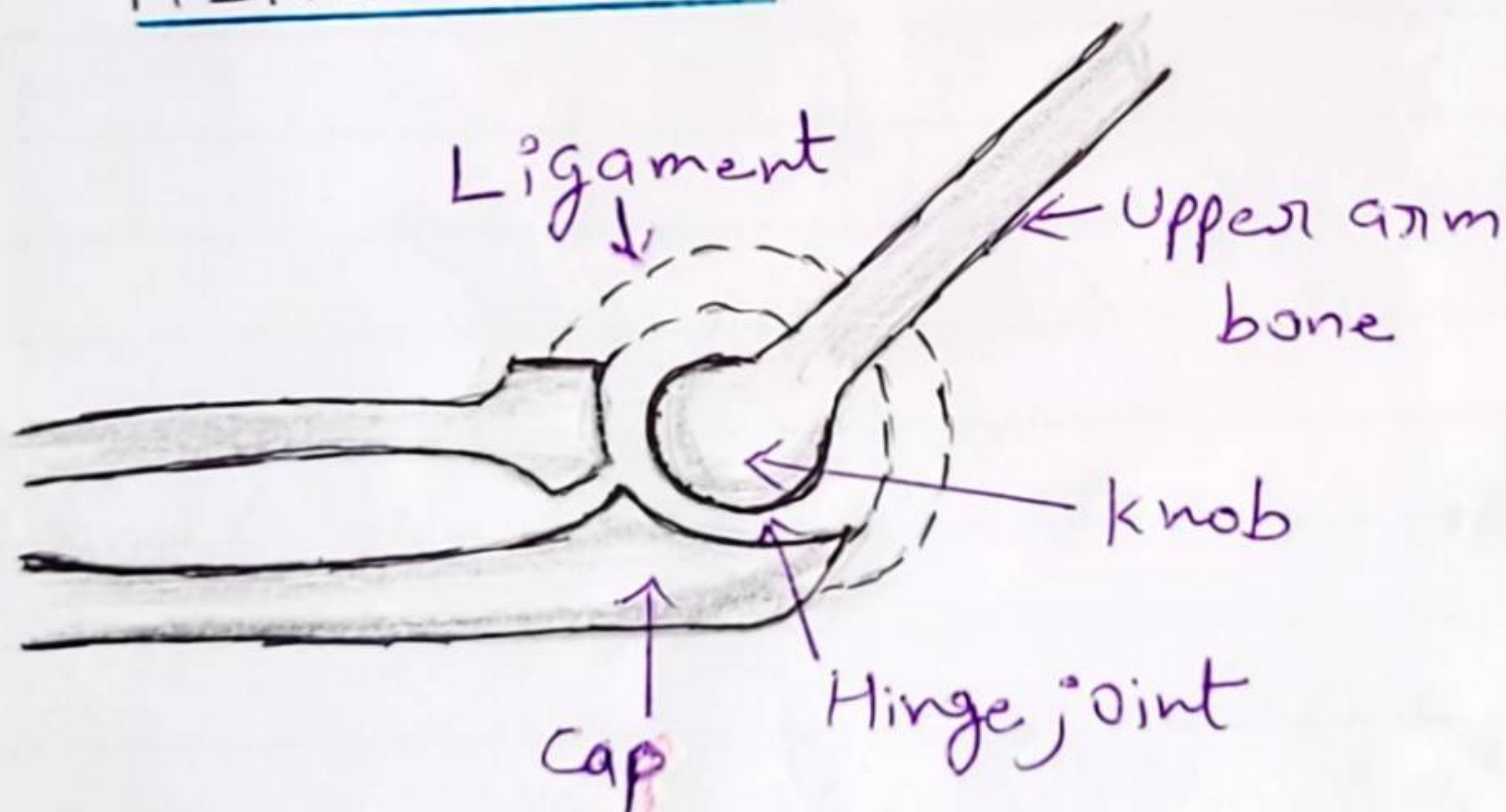
Ans:- If there were only one long bone instead of 33 vertebrae in the spine, then it would not be possible for us to move, bend or twist our back.

* DEFINE THE FOLLOWING :-

- 1) Vertebra :- Each small bone of the backbone is called vertebra.
- 2) Bone marrow :- Bone marrow is defined as the soft, spongy, fatty material found in the hollow of the long bones.
- 3) Ligaments :- Strong tissues that binds the bones at a joint are called ligaments.
- 4) Tendons :- Strong fibres with which muscles are attached to bones are called tendons.

* DIAGRAMS :-

HINGE JOINT



BALL AND SOCKET JOINT

