7. SKELETAL SYSTEM AND NERVOUS SYSTEM

1. Name the bones that make up our arms and legs.

Ans The upper arm has one long bone called humerus and the upper leg has one long bone called femur.

The lower arm and the lower leg have two bones each. Many small bones make up the wrist, hand, ankle, foot and toes.

2. Name the types of joints in our body and give one example of each.

Ans. The different types of joints in our body are as follows:

* Hinge joint – Joint in elbow
* Gliding joint – Joint in wrist
* Pivot joint – Joint between skull and backbone
* Ball-and-socket joint – Shoulder joint

3. What is a cartilage?

Ans. Cartilage is a stiff but flexible substance present on the surface of bones where they join with other bones.

4. What is the main function of the medulla?

Ans. The medulla controls our involuntary muscles responsible for actions such as breathing, digestion, blood circulation, coughing and sneezing.

5. What are the functions of the skeleton?

Ans. **i.** The skeleton gives shape, support and strength to the body.

**ii.** The skeleton protects the delicate organs inside our body such as the brain, heart and lungs.

**iii.** The long bones such as the bones in the arms and legs are hollow and are filled with a soft jelly like substance called bone marrow. The blood cells of our body are made in the bone marrow.

6. Explain the working of muscles.

Ans. 1.Muscles usually work in pairs by contracting (becoming shorter) and relaxing (returning to normal size).

2.When we lift an object and bring it towards our shoulder, the muscles at the front of the arm (biceps) contract while the muscles at the back of the arm (triceps) relax.

3.When we bring the object back to its original position, the biceps relax and the triceps contract.

7. What is the difference between a sensory nerve and a motor nerve?

Ans. Sensory nerves carry messages from the eyes, ears, nose, tongue and the skin (sense organs) to brain or the spinal cord.

Motor nerves carry orders from the brain or the spinal cord to the rest of the body.

8. What is reflex action? How does it work?

Ans. Sometimes, our body needs to act quickly for its safety.

For example, when we accidentally touch a sharp object, we pull back our hand immediately to avoid getting hurt. In such cases, there is not

enough time for a message to reach the brain. So, as soon as the spinal cord receives the message, it sends the order directly to the hand. Instantly, we pull back our hand even before realising what happened. This is called reflex action. Reflex actions are directly controlled by the spinal cord.