

# Plant Movement



## Question

Compare and contrast nervous and hormonal mechanisms for control and coordination in animals.

## Answer

Nervous system mechanism	Hormonal system mechanism
1. The information is conveyed in the form of electric impulse.	1. The information is conveyed in the form of chemical messengers.
2. The axons and dendrites transmit the information through a coordinated effort.	2. The information is transmitted or transported through blood.
3. The flow of information is rapid and the response is quick.	3. The information travels slowly and the response is slow.
4. Its effects are short lived.	4. It has prolonged effects.

## Question 1

What is the difference between the manner in which movement takes place in a sensitive plant and the movement in our legs?

## Answer

Movement in sensitive plants	Movement in our legs
1. The movement that takes place in a sensitive plant such as <i>Mimosa pudica</i> occurs in response to touch (stimulus).	1. Movement in our legs is an example of voluntary actions.
2. For this movement, the information is transmitted from cell to cell by electrochemical signals as plants do not have any specialised tissue for conduction of impulses.	2. The signal or messages for these actions are passed to the brain and hence are consciously controlled.
3. For this movement to occur, the plant cells change shape by changing the amount of water in them.	3. In animal muscle cells, some proteins are found which allow the movement to occur.