



SUBJECT: BIOLOGY

CHAPTER: 7

CHAPTER NAME: CONTROL AND COORDINATION.

PERIOD-1

CHANGING YOUR TOMORROW

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Control and coordination.

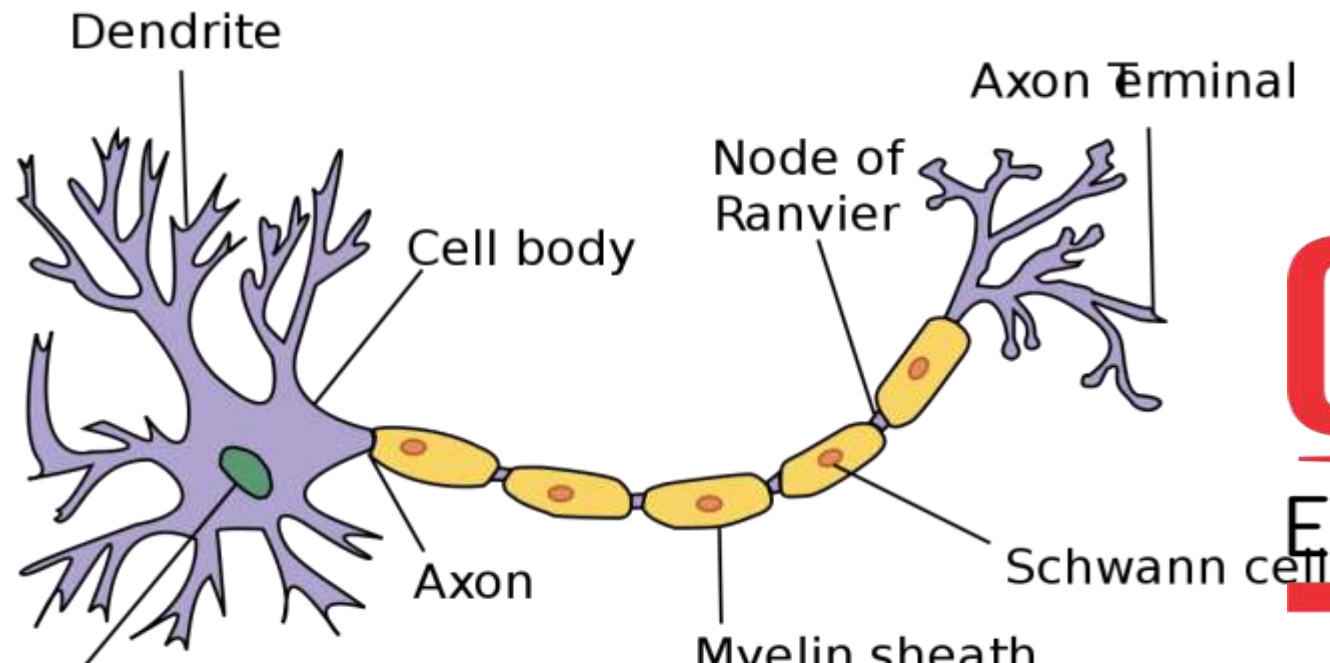
- **Control** is defined as the power of restraining and regulating by which a process can be started, regulated in pace to speed up or slow down or stop completely.
- **Coordination** can be defined as the working together of the different systems of an organism in order to produce an appropriate reaction to stimuli.

NERVOUS SYSTEM

- The nervous system of an animal is composed of Specialized cells called neurons or nerve cells which can detect, receive and transmit different kinds of stimuli
- ii) The nerve fibres which are certain bundles of extended processes of nerve cells.

NERVE CELLS

- Nerve cells or neurons are the structural and functional units of the nervous system. Billions of nerve cells make up our brain. A nerve cell is a microscopic structure consisting of three major parts namely cell body, dendrites and axon.



CELL BODY

- It is the cell structure irregular in shape or polyhedral structure, it is also called as cyton. Cell body contains cytoplasm with typical cell organelles and certain granular bodies are called Nissl granules .



- https://youtu.be/avluc_XPDak

Dendrites and axon

- Dendrites or Dendrons are shorter fibres which branch repeatedly and project out of the cell body. Dendrites transmit electrical impulses towards the cyton.
- AXON One of the fibres arising from the cell body is very long with a branched distal end and it is called as Axon.

How is information from our environment is detected

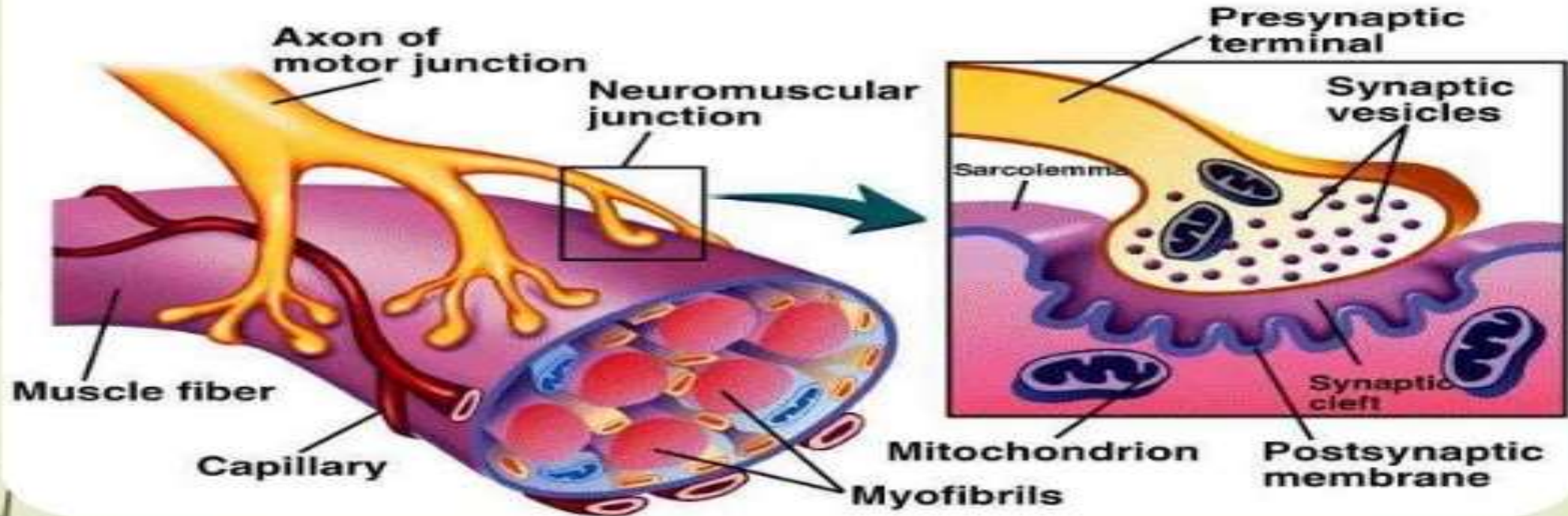
- The information from our environment is detected by receptors
- Thermoreceptor-skin-heat,cold
- Photoreceptor –eyes-light
- Phonoreceptor-ears-sound
- Olfactoreceptor—nose-smell
- Gustatoreceptor-tongue-taste.



What happens at the synapse between two neurons?

- A very small gap that occurs between the last portion of axon of one neuron and the dendron of the other neuron is known as a synapse. It acts as a one way valve to transmit impulses in one direction only. This uni-direction transfer of impulses occurs as the chemicals are produced in only one side of the neuron i.e., the axon's side. From axon, the impulses travel across the synapse to the dendron of the other neuron.

Neuromuscular Junction



HOME ASSIGNMENTS

1. which part of a neuron receives stimuli from other neurons? what is the direction of the nerve impulses?
2. Why is the response of a plant to a stimulus not observed immediately?
3. Explain the function of electrical impulses

THANKING YOU
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