

CLASS VIII

BIOLOGY

TOPIC - NERVOUS SYSTEM

SYNOPSIS

- Nervous system is a system of nerves and nervous organs which control, link and coordinate activities of the different parts of the body of an animal to make it an integrated whole which can also show adjustment according to its environment.
- The change of reaction brought about in an organism by a stimulus is termed as response.
- An organ functioning in receiving an external stimulus is termed as a sense organ or receptor.
- An organ, tissue or cell which provides response to a stimulus through work or substance is called as effector.
- Conduction is usually carried out by the nerves in the form of a wave of electric discharge called impulse.
- The nervous system consists of nervous tissue which are made up of neurons or nerve cells.
- Neuron is the basic unit of nervous system.
- Neuron has three parts: cell body, axon and dendrites.
- Cell body - The main part of a neuron consisting of cytoplasm and nucleus.
- Dendrites are protoplasmic outgrowth of the cell body of the neuron.
- Axon is a fibre like process of the neuron which carries impulses away from the cell body.
- The sheathed axons are known as nerve fibres.
- The interconnection or junction between two neurons is known as synapse.
- Depending upon the type of impulse, neurons are of three types - sensory, motor and association neurons.

WORK SHEET

Qs 1. Name the followings:

- Long thread like part of the nerve cell.
- Junction between two neurons.
- One neurotransmitter
- Neurons which are capable of perceiving stimuli
- Any change in the environment that can cause change or reaction in the body.
- Bundle of neurons
- The gap between the myelin sheath in axon.
- Packing cells present in nervous tissue.

Qs 2. Draw a neat labelled diagram of the unit of nervous system.

Qs 3. Answer the following questions:

- What is nervous system?
- Name the different types of neuron
- Define effector, conduction and impulse
- What is a nerve fibre?
- State the function of a neuron.

Qs 4. State one main function of the following :

- Myelin sheath
- Efferent neuron
- Acetylcholine
- Dendrites
- Association neurons