

HUMAN ANATOMY AND PHYSIOLOGY- 1(BP101T)

UNIT: 1 TISSUE LEVEL OF ORGANIZATION

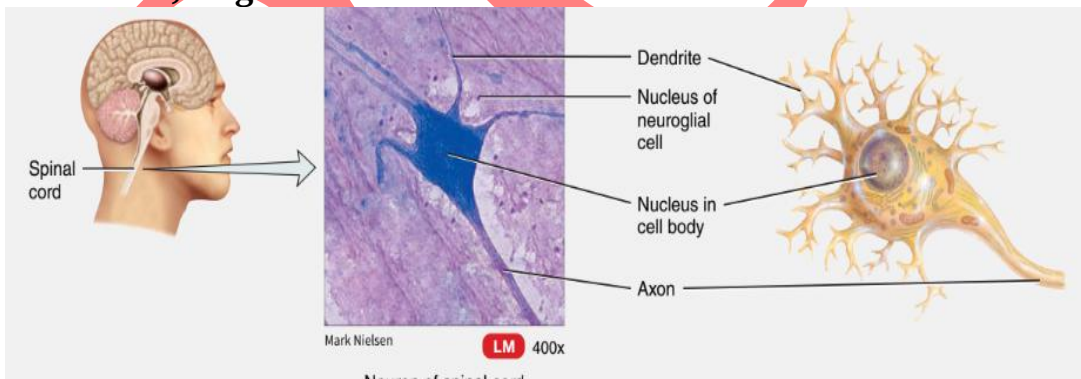
CLASS: 10

TOPIC: CLASSIFICATION OF TISSUES, STRUCTURE, LOCATION AND FUNCTIONS OF NERVOUS TISSUES

Nervous tissue consists of (1) **neurons (nerve cells)**, which consist of cell body and processes extending from cell body (one to multiple dendrites and a single axon); and (2) **neuroglia**, which do not generate or conduct nerve impulses but have other important supporting functions.

LOCATION: Nervous system (Brain, Spinal cord, Nerves)

FUNCTION: Exhibits sensitivity to **various types of stimuli**; converts **stimuli into nerve impulses (action potentials)**; conducts **nerve impulses to other neurons, muscle fibers, or glands.**



nervous tissue consists of only two principal types of cells: **neurons** and **neuroglia**. Neurons or nerve cells, are sensitive to various stimuli. They convert stimuli into electrical signals called **nerve action potentials (nerve impulses)** and **conduct these action potentials to other neurons, to muscle tissue, or to glands.**

Most neurons consist of three basic parts: **a cell body, dendrites and axons.**

The cell body contains the nucleus and other organelles.

Dendrites are tapering, highly branched, and usually short cell processes (extensions). They are the major receiving or input portion of a neuron.

Axon of a neuron is a single, thin, cylindrical process that may be very long. It is the output portion of a neuron, conducting nerve impulses toward another neuron or to some other tissue.

Neuroglia do not generate or conduct nerve impulses; these cells do have many important supportive functions.