



Fig. 21. 1. Diagram showing sensory and motor pathways.

Human Neural System

Human neural system is divisible into two main parts :

1. **Central Neural System (CNS)**. It is a hollow, dorsally placed structure lying along the mid-dorsal axis of the body. It comprises the brain and spinal cord. The brain is lodged in the skull while spinal cord is enclosed by the vertebral column.

2. **Peripheral Neural System (PNS)**. The nerves arising from the central neural system constitute the peripheral neural system. The nerves originate from the brain and spinal cord and are known as *cranial nerves* and *spinal nerves* respectively.

Based on their functions, the nerve fibres of PNS are divided into two groups, namely (a) **afferent nerve fibres** and (b) **efferent nerve fibres**. The afferent nerve fibres transmit sensory impulses from tissues/organs to the CNS and form the sensory or afferent pathway. The efferent nerve fibres transmit motor impulses from CNS to the concerned tissues/organs and form the motor or efferent pathways. The peripheral nervous system is again divided into two subdivisions :