

Note for B.A. (H) Psychology, Paper-I, Part-I
by Dr. Mohd. Ahamar Khan

Central Nervous System : Spinal Cord

The spinal cord is a collection of nerve fibers, which run along the full length inside the spine. Or it lies inside the backbone. Its upper end is associated with the medulla and lower end is free at the tail end. It is consisted of the grey and white matter. The grey matter composed of nerve cells lying inside while the white matter composed of nerve fibers lying outside and completely covering the grey matter.

Spinal cord has two main functions: (1)

- (1) It carries ^{information} sensory impulses coming from the lower parts of the body to the brain and vice versa.

(2) Spinal cord works as effective reflex action which doesn't involve the brain. Reflex actions involve, a motor nerve, sensory nerve, and association neurons of the grey matter of the spinal cord.

Reflex Action: The reflex action is a sudden involuntary response to the stimulus which occurs very quickly or within the fraction of seconds. Reflex action occurs without the conscious decision of brain. It inherited us from evolutionary processes, for example, the knee-jerk reflex. Reflexes work as to protection equipment of the organism from potential threats and preserve life. There are several reflex actions are performed by our nervous system, the commonly known reflexes are the eye-blinking, salivation, withdrawal from very hot and cold stimulus, sneezing, etc. and smell of food etc. Most of the reflex action are carried out by the spinal cord rather than brain.