# **Short Answer Type Questions-I**

## Q. 1. Discuss briefly about any one neurotransmitter.

Ans. Acetylcholine:

(i) The neurotransmitter acetylcholine is released at all neuromuscular junctions between motor neurons and skeleton muscle cell.

(ii) It is also released in synapses between pre-ganglionic and post-ganglionic in the autonomic nervous system, and at certain synapses between neurons in the central nervous system.

## Q.2. How grey and white matter is distributed in brain?

Ans. (i) In the posterior part of the medulla oblongata, the grey matter is internal and white mater is external.

(ii) In the anterior part of medulla oblongata grey and white matters are irregularly intermingled.

(iii) In the remaining part of the brain grey matter is external and white mater is internal.

## Q.3. How we are able to sense the changes in our environment?

**Ans.** We sense the changes in our environment (both internal and external) with the help of special sensory receptors. These environmental changes, called stimuli, once detected by the special sensory cells, are conveyed to the brain in the form of nerve impulses. The meaning of each stimulus is interpreted in the brain and appropriate order is sent to the body parts for its appropriate response to ensure well being.

#### Q. 4. Which type of sensory receptor are eyes and ears made up of?

**Ans.** They are made up of the special sensory receptors called the photoreceptors and the auditory receptors respectively.

# Q. 5. What is the main function of the simple sensory receptors?

**Ans.** Simple sensory receptors associated with general senses keep the central nervous system well informed about what is happening, both deep within the body and on its surface.

# Q. 6. Explain what do mean by chemoreceptors?

**Ans.** The receptors for taste and smell are classified as chemoreceptors as these respond to special chemicals in aqueous solution. In each case, the chemicals must go into solution in the film of liquid coating the membranes of the receptor cells before these can be detected. The taste receptors are specialized cells that detect chemicals present in quantity in the mouth itself, while smell receptors are modified sensory neurons in the nasal passage which detect the volatile chemicals that get wafted up the nostrils from distant sources. These two types of receptors complement each other and often respond to the same stimulus.

# Q.7. Explain the structural and functional significance of fovea in human eye.

**Ans. (i)** At the posterior pole of the eye, lateral to the eye blind spot, there is a yellowish pigmented spot called macula ineta with a shallow depression called the fovea.

(ii) It is a thinned-out portion of the retina that is devoid of rods and blood vessels and has cones cells only. It is the place of most distinct vision.