

Short Answer Type Questions – I

[2 marks]

Q.1. Define a synapse.

Ans. Synapse is a very fine gap between telodendria of axon of one neuron and dendrites of another neuron. These two structures do not unite with each other but remain separated by a fine gap.

Q.2. Mention the functions of forebrain.

Ans. The forebrain performs the following functions:

- (i) It is responsible for intelligence, memory, consciousness, willpower and voluntary actions.
- (ii) It has the centres for visual reception, hearing reception, touch, smell and temperature reception.

Q. 3. Answer the following:

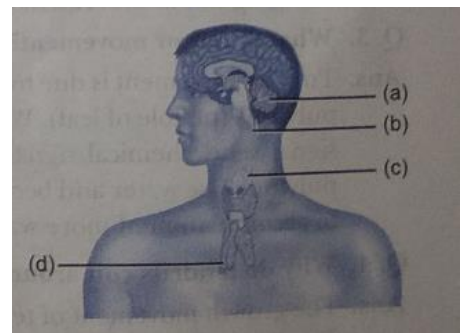
- (i) Which hormone is responsible for the changes noticed in females at puberty?
- (ii) Dwarfism results due to deficiency of which hormone?
- (iii) Blood sugar level rises due to deficiency of which hormone?
- (iv) Iodine is necessary for the synthesis of which hormone?

Ans. (i) Oestrogen (ii) Growth hormone
(iii) Insulin (iv) Thyroxine

Q. 4. Label the endocrine glands in figure.

Ans. The endocrine glands are as follow:

- (a) Pineal gland (b) Pituitary gland
- (c) Thyroid gland (d) Thymus



Q.5. Name the hormones responsible for regulation of

- (i) metabolism of carbohydrates, fats and proteins.
- (ii) balance of calcium and phosphate.
- (iii) blood pressure.
- (iv) water and electrolyte balance.

Ans. (i) Thyroxine
(ii) Parathormone

- (iii) Adrenaline
- (iv) Vasopressin

Q. 6. Why *Mimosa pudica* (touch-me-not) leaves droop down when touched?

Ans. It is due to turgor pressure difference between the upper and lower halves of the base of petiole (pulvinus). Lower half cells lose water and upper half cells of pulvinus become turgid due to transfer of water from lower cells. Thus, the entire leaf droops down when touched.

Q. 7. Why are the electrical-chemical signals not an efficient means of communication in plants?

Ans. Unlike animals, where there is a nervous system for conduction of nerve impulses and circulatory system for conduction of hormones, there are no specialised tissues in plants, so the electrical-chemical signals are not an effective means of communication in plants.

Q.8. If a ripened fruit is kept in a basket of raw fruits, then what will happen? What causes it?

Ans. The ripened fruit will release ethylene (hormone) which causes ripening of other raw fruits kept in a basket.

Q. 9. What is cerebrospinal fluid? What is its function?

Ans. Cerebrospinal fluid is the fluid found in the cavities of brain, central canal of spinal cord and in between arachnoid and pia mater.

Function: It prevents the brain from mechanical shocks.