# 9. CONTROL AND COORDINATION

## MULTIPLE CHOICE QUESTIONS (1 MARK EACH)

1	Diffused type of nervous system is seen in
	A <u>Hydra</u>
	B Planaria
	C Cockroach
	D Earthworm
2	Planaria shows type of nervous system.
	A nerve net.
	B <u>ladder</u>
	C ganglionated
	D brain
3	In order for a stimulus to be effective, the stimulus must have a minimum intensity
	called stimulus.
	A subliminal
	B depolarised
	C threshhold
	D polarised
4	The resting potential of a neuron is
	A 30 millivolts
	B -30 millivolts
	C 70 millivolts
	D <u>-70 millivolts</u>
5	The third ventricle of brain is connected to the fourth ventricle of brain through
	A Foramen of Monro
	B <u>Duct of Sylvius</u>
	C Metacoel
	D Eustachian tube
6	Degeneration of dopamine producing neurons in the CNS causes
	disease.
	A ADHD
	B Alzheimer's
	C <u>Parkinson's</u>
	D Fever
7	is a mineralocorticoid secreted by Adrenal gland.
	A <u>Aldosterone</u>
	B Cortisol
	C Corticoid
	D Androgen
8	has an important role in the development of immune system by
	maturation of T lymphocytes.
	A Thyroxine
	B Thymosin
	C Aldosterone
	D Parathormone
9	Hyper secretion of growth hormone in childhood causes
	A Acromegaly
	B Dwarfism
	C <u>Gigantism</u>
	D Goitre
10	shows gastric contractions and inhibits the secretion of gastric juice.
	A Gastrin

- B Secretin
- C Entero-gastrone
- D Inhibin

### **VERY SHORT ANSWER TYPE QUESTIONS(1 MARK)**

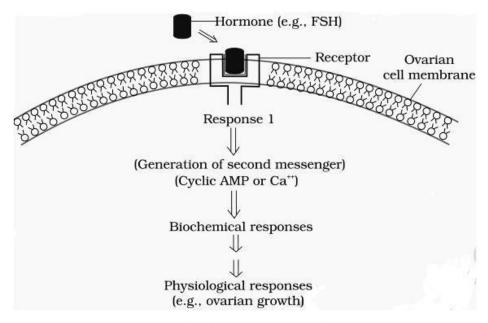
- 1 Which cells of PNS secrete myelin sheath around the nerves?
- 2 Give function of astrocytes in nervous system.
- 3 What is the covering of nerve fascicule called?
- 4 How electrical synapse differs from chemical synapse?
- 5 What is the function of red nucleus?
- **6** Define Saltatory conduction.
- 7 Name the hormone secreted by Pars intermedia in lower vertebrates.
- **8** Which disease is caused by hyper secretion of Glucocorticoids?
- **9** Which organ acts a temporary endocrine gland in females?
- 10 Give one role of hormone therapy.
- **11.** Define reflex arc.
- What is monosynaptic reflex?
- **13.** Which exteroreceptors is located in semi-circular canals?
- Which receptor denotes the change in B.P.?
- **15.** Which is the outermost layer of human eye?
- Which cells of retina are responsible for scotopic vision?
- Name the structure that connects the middle ear to pharynx.
- What is cochlea?
- Name the membrane that covers the cornea?

#### SHORT ANSWER TYPE QUESTIONS(SA-I) (2 MARKS)

- 1 'Injury to the medulla oblongata causes sudden death' Explain.
- Which two hormones are responsible for the regulation of calcium and phosphorus in the blood?
- 3 Describe any two hormones produced by the ovaries
- 4 Name the glucocorticoid used in treatment of allergy and why?
- 5 Which hormone is secreted by Pineal gland? What is its function?
- 6 Sketch and label T.S of Spinal cord.
- 7 Sketch and label V.S of Pituitary gland.
- **8** Explain any two exteroreceptors with location and function.
- 9 Explain baroreceptors with their location and function.
- Write a note on lens part of human eye.
- Draw a well labelled diagram of Semi-circular canal to show cochlea and membranous labyrinth.
- **12.** Write a note on rod cells and cone cells.

### **SHORT ANSWER TYPE QUESTIONS(SA-II) (3 MARKS)**

- 1 Write a note on meninges of Brain.
- 2 Describe any three functions of hypothalamus.
- 3 Name three Mixed cranial nerves along with their numbers.
- 4 Distinguish between Cerebrum and Cerebellum.
- 5 Answer the questions after observing the diagram given below.



MECHANISM OF HORMONAL ACTION

- 1) What acts as the first messenger?
- 2) Why can't hormones like catecholamines enter their target cells through plasma membrane?
- 3) Name the mode of hormone action shown in the diagram.

6 Complete the table based on disorders caused due to under secretion or over secretion of Thyroid gland.

Secretion	Adults	Children
Нуро		
secretion		
Hyper		
secretion		

- Give the names of the hormones released by neurohypophysis.

  A boy shows excessive thirst and micturition because of deficiency of a hormone secreted by neurohypophysis. Name the disease he is suffering from.
- 8 Differentiate between cranial reflex and spinal reflex.
- 9 Describe the structure of choroid / uvea.
- Draw diagram of human eye showing pupil, vitreous humor, optic nerve, sclera, retina and choroid.

#### LONG ANSWER TYPE QUESTIONS(LA) (4 MARKS)

- 1 Describe the functional areas of Cerebrum.
- 2 Distinguish between Sympathetic and parasympathetic nervous system.
- 3 Describe any four hormones secreted by Adenohypophysis.
- 4 Write a note on the four different kinds of cell in Pancreas.
- 5 Complete the flowchart of the process of conduction of nerve impulse.

Permeability of membrane changes

positive ions insideaxon increases

Polarity reverses and depolarisation takes place

Repolarisation - potassium gates open

Axoplasm becomes negatively charged and ECF becomes positive again

- **6** Describe the structure of human external ear.
- 7. Explain the structure of retina with the help of a labelled diagram.