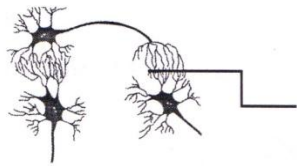


## 5. COORDINATION

### BITS

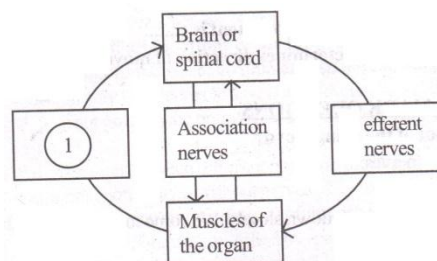
1.  .....is functional region of contact between two neurons, where information from one neuron is transmitted or relayed to another neuron. (Synapse)  
(or)  
(or) A point of contact between two neurons is .....

- a) Synapse b) Node of ranvier c) Cell Body d) Cytoplasmic bridge
2. Response on which our body may not have a control, such response are called  
(or)

Receptor → spinal cord → Muscle

This flow chart belongs to ..... (Reflex Actions)

3. A person had loss of control on emotions, which part of brain stops it's function.....  
(Diencephalon)  
a. Cerebrum b. Diencephalon c. Cerebellum d. Medulla oblongata
4. Reflex actions are controlled by.....  
(Spinalcord)  
a. Cerebrum b. Diencephalon c. Cerebellum d. spinal cord
5. A person have anger condition. which harmones are responsible.....(Adrenalin)  
a. Pitutary b. thyroxin c. Testosteron d. Adrenalin
6. Axon are covered by ..... (Neucolamma) or (Myelin Sheath)  
a. plasma lemma b. neucolamma c. white matter d. grey mater
7. Number of cranial nerves.....(31 pairs)
8. Number of spinal nerves..... (12 pairs)
9. Who conducted experiments on pancrease.....(Paul Langerhans)
10. Who named harmones.....(Starling)
11. Auxins are found by..... (F.W. Went)
12. Number of neurons consists in our body..... (10 Billion)
13. Maximum speed of nerve transmission about .....meters per second. (100)
14. ....Mechanism regulates hormonal actions. (Feedback)
15. Dilation of pupil (eye) is an example of .....(Involuntary action in autonomous nerves system)
16. Complete the Flow Chart.  
A. (1)Afferent nerves.



17. Response of a plant to light is called ..... (Phototropism)
18. Roots always grow down wards (or) roots of the plant respond positively for gravitational force.....(Geotropism)
19. Roots are growing towards water direction away from the rock or wall is.....(hydrotropism)
20. Tendrils show response to make contact or touch is called.....(Thigmotropism)
21. Plants response to chemicals is called.....(Chimotropism)
22. Involuntary activities take place by.....(medulla oblongata and autonomous nervous system)
23. ....special nervous system works without involvement of central and peripheral nervous system. (Second brain ) or( enteric nervous system)




### **1 MARK QUESTIONS**

1. What is the role of the Dorsal root of the spinal cord?  
A. Gets impulse from sensory or afferent nerves.
2. What are Sensory or afferent neurons?  
A. Sensory or afferent neurons which carry messages towards the CNS (spinal cord and brain) from nerve endings on the muscles of sense organs.
3. What are efferent neurons?  
A. Efferent or motor neurons which carry messages from the CNS to effectors or muscles.
4. What are association nerves?  
A. Association nerves which link together the afferent and efferent nerves.
5. What are nastic movements?  
A. Sometimes the direction of stimuli determines direction of movement, sometimes the direction of movement may not be determined by direction of stimuli. This type of response is called "nastic movements".
6. How anger occur? What is its effect?  
A. 1) Increased levels of adrenalin are responsible for anger.  
2) Anger persists for longer period of time, regular metabolic activities are disturbed.
7. Why does anger came down?  
A. When the levels of adrenalin in the blood came down slowly. We come to normal state. Feed back mechanism coordinates these actions.

### **2 MARKS QUESTIONS**

1. The axon of nerve cell in hand is shorter than the axon of nerve cell in leg. Do you support this statement? Why?
2. State whether the following actions are voluntary action, reflex action or conditioned reflex.  
1) Blinking 2) Cleaning the table 3) Playing on the key board  
4) Salivation when food is put in the mouth  
5. We close our ears when we hear unbearable sound
3. What happens if all functions of the human body are controlled only by brain?
4. If you visit a doctor what doubts you would like to clarify about pancrease?
5. Mention some of the voluntary actions and involuntary actions of the body.
6. Give some examples of reflexes?
7. What are observed in our body when you are afraid/scared?
8. What is the role of Adrenalin hormone? (or)  
Why adrenalin hormone is also called fight and flight hormone?
9. Write about autonomous system?
10. Draw a block diagram to explain reflex arc with suitable examples.
11. Draw a flow chart (or) write the steps are involved in response stimuli.

**4 MARKS QUESTIONS**

1. How does a neuron differ from an ordinary cell in structure? Write notes? (OR) Explain the structure of neuron? (OR) What features are observed from the slide of neuron under microscope in your lab?
2. How many types of nerves are there in our body what are they? Explain?
3.  Take a small potted plant cover base portion of the plant tightly and hand the part upside down. Observe the plant for a week. Based on your observation how can you support phototropism? (OR) What will happen to the potted plant kept near the window in the room? (or) What type of observation are find from the below diagram.
4. Describe the structure of brain? (or) What observations are noted in Lab record from the model of brain?
5. Write the functions of the various parts of the brain in the form a table.
6. “Animals were shown to have the ability to respond to stimuli even when the brain was removed” – Comment.
7. Write about the endocrine glands location, hormone secretions and their responses of body in the form of a table.
8. Write about the plant growth substances (Phytohormones and their action/use-in the form of a table.
9. Give some examples of coordination in your body where both hormonal and nervous controls functions together?
10. We cannot see or observe any chairs or things when enter into a Cinema Hall but we see objects after few minutes. What is the reason?
11. Consider that you are passing by a garbage disposal area and you immediately cover your nose. Arrange the events below in a logical order by marking them from (i) to (v) to trace the events that happen in the nervous system from detection of foul smell (stimulus generation) to covering your nose (response).
  - i) At the end of the axon, electrical impulse releases chemicals.
  - ii) Stimulus received on the dendritic cells of a neuron sets off chemical reaction that creates an electrical impulse.
  - iii) Electrical impulse transmitted through cell body and axon.
  - iv) The chemicals cross the synapse and reach the next neuron. Similarly, the electrical impulse crosses several neurons.
  - v) Finally, the impulse is delivered from neuron to the gland that helps in recognition of the foul smell and muscle cells that help in covering the nose.
12. Man is the most intelligent animal. What could be the fact that helped us to reach such a conclusion.
13. Read the following sentences and compare with endocrine glands.  
Pheromones are chemical substances secreted by organisms. These act as chemical signals secreted by exocrine glands. Pheromones are used as signals by the members of same species. Honey bee secretes pheromones that attract other bees to the location of food.
14. Hormones are released at a specific place, specific time for a specific function. Prepare some fine statements.
15. Gibberellins and auxins promote growth in plants with abscisic acid arrests the same. Some situations are discussed here, state which hormones would be needed and why?
  - A) A gardener wants large dahlias he should use along with nutrients and other things...hormone.

- B) In a dwarf plant the branches have to the thickened one would use .....hormone.
  - C) Seeds are to be stored for a long time.....hormone can help.
  - D) Cutting the apex or tip of plants so that there are several lateral buds.....hormone can be used.
16. What procedure you follow to understand the effect of plant growth hormones (in agar medium) in the terminal portion of the tip of stem (coleoptile)?