

BIOLOGY- CLASS 10th

CHAPTER: CONTROL AND CO-ORDINATION

Very Short Answer Type Question [1 Mark]

1. Name different parts of hind brain.
2. Define “reflex”.
3. Name any two environmental triggers which change the direction of plant parts.
4. How plant cells change their shape?
5. Define phototropism.
6. Define geotropism.
7. Which mechanism regulates the action of hormones?
8. Define puberty.
9.is the main thinking part of the brain.
10. Bumpy structure that protects the spinal cord is.....
11. Directional movement of seedling is caused by.....
12. Growth of pollen tubes towards ovule is an example of.....
13. Wilting of leaves is due to.....
14. is due to the deficiency of growth hormone in childhood.
15. Adrenaline is secreted by gland.
16. Iodine is necessary for: (Choose the correct option)
 - (i) Pineal gland

- (ii) Thyroid gland
- (iii) Parathyroid gland
- (iv) Adrenal gland

17. Which of the following hormones is responsible for cell division: (Choose the correct option)

- (i) Auxin
- (ii) Cytokinin
- (iii) Ethylene
- (iv) Abscisic acid

18. Pea plants climb up other plants by means of: (Choose the correct option)

- (i) Axillary buds
- (ii) Tendrils
- (iii) Stipules
- (iv) Thorns

19. The gap between neurons is called: (Choose the correct option)

- (i) Dendrite
- (ii) Synapse
- (iii) Axon
- (iv) Myelin sheath

20. Which of the following is the male sex hormone: (Choose the correct option)

- (i) Oestrogen

- (ii) Testosterone
- (iii) Testes
- (iv) Insulin

- 21. Taste is detected by gustatory receptors. (True/False)
- 22. Smell is detected by olfactory receptors. (True/False)
- 23. Goitre is caused due to the deficiency of thyroxine. (True/False)
- 24. Growth of our arms and fingers occurs in a haphazard manner. (True/False)
- 25. Movement of sunflower in response to day or night comes under the category of slow movements. (True/False)
- 26. Assertion: Abscisic acid is responsible for wilting of leaves.
Reason: It is a growth inhibitor.
- 27. Assertion: In 'Touch me Not' plant, drooping of leaves occur on touching it.
Reason: Plant cells change their shape by changing the amount of water (turgor changes) in them.
- 28. Assertion: Positive phototropism means movement towards light.
Reason: When sunlight falls on one side of plant, the auxin diffuses towards the sunny side of shoot. Auxin concentration stimulates cells to grow longer and stem appears bending towards sunlight.
- 29. Assertion: A neurons transmits message in both directions.
Reason: The response is slow and produced by all cells of target tissues.
- 30. Assertion: Brain plays a secondary role in reflex action, when our hand touches a hot plate. Reason: In reflex action, the stimulus received by the spinal cord that sends the response. The action is registered in cerebral brain just for memory.

Short Answer Type Questions [2 Marks]

- 1. How do the tendrils help plants to cling to other objects?
- 2. How many types of movements are shown by plants? Explain with examples.
- 3. What are phototropic movements. Give examples.
- 4. What are phytohormones. Name any two phytohormones.
- 5. What do the squirrels experience when they are in scary situation?
- 6. Name the disease caused by the deficiency of iodine in our body. Write one of its symptoms.
- 7. Write the functions of hypothalamus.
- 8. State two functions of auxins and gibberellins.
- 9. Write the role of nervous system in the body.
- 10. List the components of nervous system.
- 11. Name five major senses of man.
- 12. Write two differences between exocrine and endocrine glands.
- 13. How does chemical co-ordination take place in animals?
- 14. What is the difference between reflex action and walking?

15. What are the parts of the fore brain?

Short Answer Type Questions [3 Marks]

1. Draw a well labelled diagram of the structure of neuron.
2. Name the hormones secreted by thyroid, parathyroid and pancreas.
3. List the functions of testosterone and oestrogen.
4. What are involuntary actions? Write three examples.
5. Write name of three hormones secreted by the pituitary gland.
6. Give an account of any three diseases caused by the excess and deficit secretions of various endocrine glands.
7. How does chemical coordination occur in plants?
8. Which signals will get disrupted in case of a spinal cord injury?
9. Write one example each of the following tropic movements:
 - (i) Positive phototropism
 - (ii) Negative phototropism
 - (iii) Positive geotropism
 - (iv) Negative geotropism
 - (v) Hydrotropism
 - (vi) Chemotropism
10. Name the growth promoters and growth inhibitors present in plants. Write the function of any two.
11. Which animal or plant hormone is associated with the following:
 - (i) Increased sugar level in blood.
 - (ii) Changes at puberty in boys
 - (iii) Inhibits growth of plants.
 - (iv) Rapid development of fruits
 - (v) Dwarfism
 - (vi) Goitre
12. How is the movement of 'Touch me not plant' different from the movement of roots towards gravity?
12. Why is it advisable to use iodised salt in our diet?
13. (i) Is there a difference in how sugar and food taste if your nose is blocked?
 - (ii) Name the receptors which help in detecting taste.
14. How does the conduction of messages take place in?
 - (i) Nervous system
 - (ii) Endocrine system
15. Explain geotropism with the help of labelled diagram.

Long Answer Type Question [5 Marks]

1. Describe the scheme of how nervous impulses travel in the body.
2. How does the nervous tissue cause action?

3. What is the difference between the manner in which movement takes place in a sensitive plant and movement in our legs?
4. State how concentration of auxin stimulates the cells to grow longer on the side of the shoot which is away from light?
5. Nervous and hormonal system together perform the function of control and coordination in human beings. Justify the statement.
6. Write the names of five animal hormones, endocrine glands that secrete them and their specific functions.
7. (i) Do you know anyone in your family or friends who has been advised to take less sugar by the doctor and why?
(ii) Name the hormone which regulates blood sugar levels.
(iii) Name the gland from where it is secreted.

(iv) Name the disease associated with imbalance in the blood sugar levels.
8. Draw a well labelled diagram of the human brain.
9. What are the main parts of brain? Write their functions.
10. State the functions of major plant hormones.
11. How are involuntary action and reflex action different from each other?
12. How does phototropism occur in plants? Write an experiment to show the growth of plant towards light.
13. What is the function of receptors in our body? Think of situations where receptors do not work properly, what problems are likely to arise?
14. What is meant by reflex-action? With the help of a labelled diagram trace the sequence of events which occur when we touch a hot object.
15. What are the functions carried out by the nervous system in human beings?