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CONTROL AND COORDINATION

Class 10 - Science

Time Allowed: 1 hour and 30 minutes **Maximum Marks: 45**

1. Give some examples of involuntary actions. **[1]**
2. Name the disease caused by the deficiency of iodine. **[1]**
3. Name two components of central nervous system in humans. **[1]**
4. Name the two hormones secreted by posterior lobe of pituitary. **[1]**
5. All information about our environment is detected by specialised cells. Write the name given to such cells and also mention where are they located. **[1]**
6. i. State the function of the following plant hormones **[2]**
   a. Abscisic acid
   b. Cytokinin
   ii. Define chemotropism
7. How do you support the statement that pancreas are the overall controller of the blood glucose level? **[2]**
8. On touching a hot plate we suddenly withdraw our hand. Which category of neurons became active first and which one next? **[2]**
9. Answer the following: **[2]**
   a. Name the endocrine gland associated with brain.
   b. Which gland secretes digestive enzymes as well as hormones?
   c. Name the endocrine gland associated with kidneys.
   d. Which endocrine gland is present in males, but not in females?
10. Male cats which are castrated behave differently afterwards. What do these differences tell you about some of the effect of testosterone? **[3]**
11. Differentiate between exocrine gland and endocrine gland. **[3]**
12. Trace the sequence of events, which occur in our body when a bright light is focussed on eyes. **[3]**
13. Nervous and hormonal system together performs the functions of control and coordination in human beings. Justify the statement. **[3]**
14. Explain briefly movements in plants. **[5]**
15. The given diagram shows the human nervous system. **[5]**

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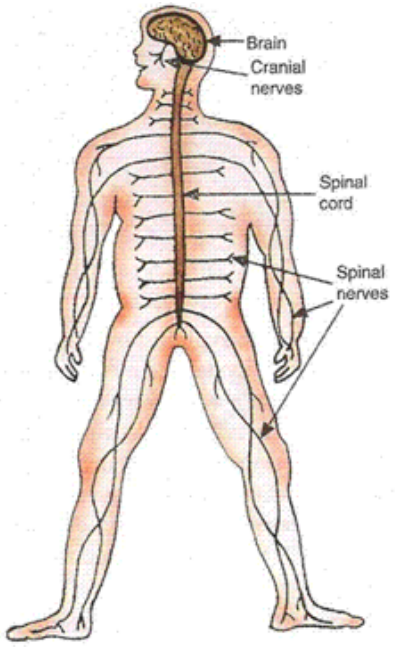

The human nervous system.

Using the given diagram, answer the following questions:

i. What constitutes the central nervous system?
ii. What is the function of the spinal cord?
iii. How is spinal cord protected?
iv. What forms the peripheral nervous system?
v. Which type of nervous system controls and regulates the functions of the internal organs of our body involuntarily?

16. i. What are animal hormones? List their two characteristics. **[5]**
ii. Name the hormone.
a. Which brings change in male humans during the beginning of adolescence.
b. Which coordinates the level of sugar in blood?

17. **Assertion (A):** A receptor is a specialized group of cells in the same organ that perceive a particular type of stimulus. **[1]**
Reason (R): Different sense organs have different receptors for detecting stimuli.

a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.

18. **Assertion (A):** Plant hormones are growth regulators. **[1]**
Reason (R): Growth regulators promote or inhibit growth.

a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.

19. **Assertion (A):** Nerve impulse is one-way conduction. **[1]**
Reason (R): Nerve impulse is transmitted from dendrite to axon terminals.

a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.

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c) A is true but R is false.

d) A is false but R is true.

20. **Assertion (A):** Abscisic acid is responsible for wilting of leaves. **[1]**

Reason (R): It is a growth inhibitor.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

21. **Assertion (A):** Senescence is delayed by the application of cytokinin in plants. **[1]**

Reason (R): Cytokinin prevents the breakdown of chlorophyll, proteins and nucleic acid.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

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