

# A+ BLOG UNIT EXAMINATION-2021

## BIOLOGY

STD:10

Time : 45 Min

### SENSATIONS AND RESPONSES

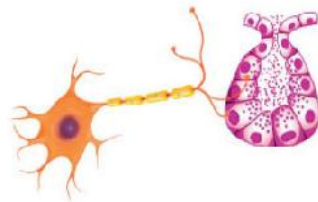
Total score: 20

Answer any two questions from 1 to 3. One scores each. (2x1)

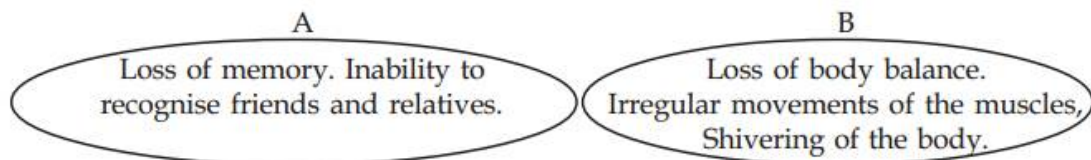
1. Which neurotransmitter is associated with Parkinson's disease?  
a. Acetylcholine b. dopamine c. GABA d. Glicine
2. Rewrite the underlined word only if the statement is wrong?  
Myelin sheath in the peripheral nervous system is formed of specialized cell called oligodendrocytes.
3. Find the odd one and write the common feature of others.  
a. Inter neuron b. Central canal c. Receptor d. Motor neuron e. Related muscle

Questions 4 - 8. Answer any four questions four scores each. (4x2)

4. 'Both brain and the spinal cord are protected in the same manner. Analyse the statement.
5. a. Identify the image



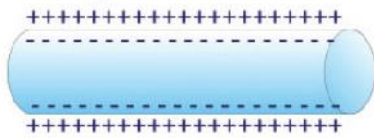
- b. Synapse is found only between two neurons. How do you respond to this statement?
6. The dorsal root and the ventral root play a significant role in the transmission of impulses between spinal cord and different parts of the body. Do you agree with this statement? Justify.
7. Sameer: In the spinal cord and the cerebrum, white matter is seen outside and greymatter is seen inside.  
Reega: In the cerebrum, the grey matter is seen outside and the white matter is seen inside, But in the spinal cord, the white matter is seen outside and the grey matter is seen inside.  
In the group discussion related to the nervous system, Sameer and Reega said so.
  - a) Whose opinion do you agree with?
  - b) Explain white matter and grey matter?
8. The disease symptoms of two individuals are given below.



- (a) Identify the diseases of individuals A and B.
- (b) Explain the causes of diseases in individual A.

Questions 9 - 11. Answer any two questions three scores each. (2x3)

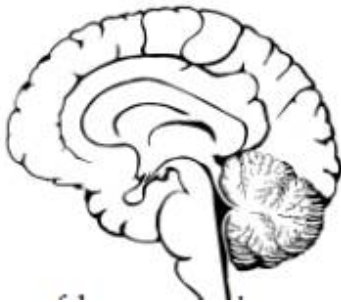
9. Observe the figure that shows the distribution of charge on either side of the plasma membrane of axon.



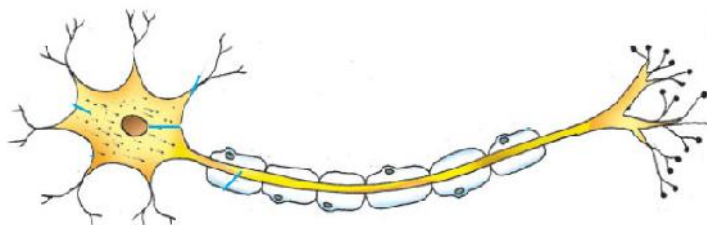
- a) What is the reason for the formation of different charges on either side of the plasma membrane?
  - b) What change does the stimulus bring in the charge on either side of the plasma membrane? How does this change get transmitted as impulses through the axon?
10. Choose the suitable ones from the details given below and include them in the table.
- a. Production of saliva increases.
  - b. Hormone production increases.
  - c. Slows down the process of peristalsis.
  - d. Peristalsis becomes normal.
  - e. Heartbeat increases.
  - f. Activity of the stomach becomes normal.
11. Make a flow chart in connection with transfer of impulses.
- A. Dendrite
  - B. Axonite
  - C. Synaptic knob
  - D. Dendron
  - E. Neurotransmitter
  - F. Synaptic cleft
  - G. Axon
  - H. Cell body
  - I. Adjacent Dendrite

**Questions 12- 13. Answer any one question four score (1x4)**

12. Draw the figure and answer the questions given below.



- a) Label the following parts in the figure.
    - i. Cerebrum
    - ii. Thalamus
    - iii. Cerebellum
  - b) Write one function of each part.
13. Draw the figure, identify the parts mentioned and label them.



- a) The part that secretes dopamine.
  - b) The part which receives messages from the adjacent neuron.
  - c) The part that carries impulses from the cell body to outside.
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