

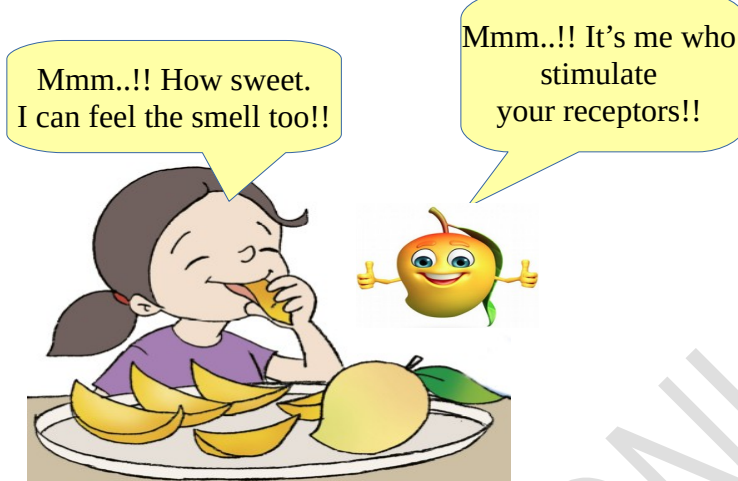
# THIRUVANANTHAPURAM EDUCATIONAL DISTRICT

WS2BY10 1(E)

STANDARD X

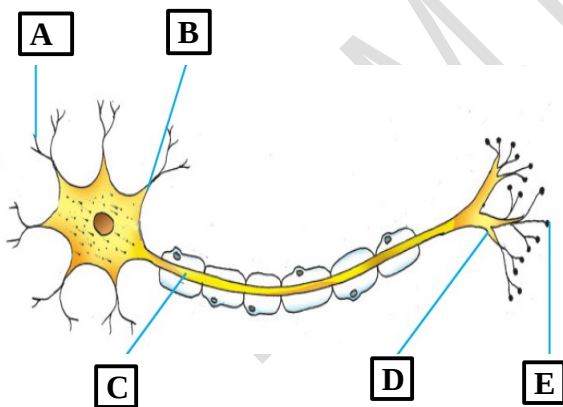
## BIOLOGY UNIT-1

### 1. Analyse the conversation and answer the questions.



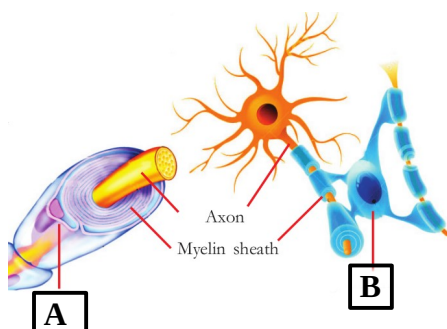
1. What are stimuli?
2. Name the two types of stimuli. Give examples.
3. What are receptors?

### 2. Identify the diagram, redraw it, label the parts and write them in the table to match with the functions.



PARTS	FUNCTIONS
	Carries impulses to the cell body.
	Receives impulses from adjacent neuron.
	Secretes neurotransmitter.
	Carries impulses to the synaptic knob.
	Carries impulses from the cell body to outside.

### 3. Analyse the diagram and answer the questions.



- a. Identify A and B.
- b. Write one difference between them.
- c. Write the functions of myelin sheath.
- d. Differentiate between grey matter and white matter.

4. Given below are two statements from Gitu's science diary. Help her complete the activity given in the Biology class.

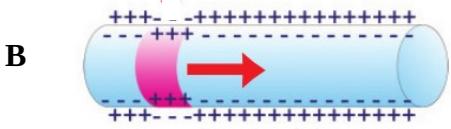
- . The outer surface of the plasma membrane of the neuron is positively charged and inner surface negatively charged.
- . Nerve impulses are messages transmitted through the neuron.

a. Complete the steps showing how impulses are generated and transmitted through neurons.



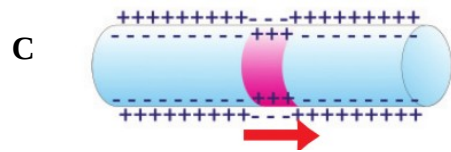
A

**Write the reason for the charges on either side of plasma membrane .**



B

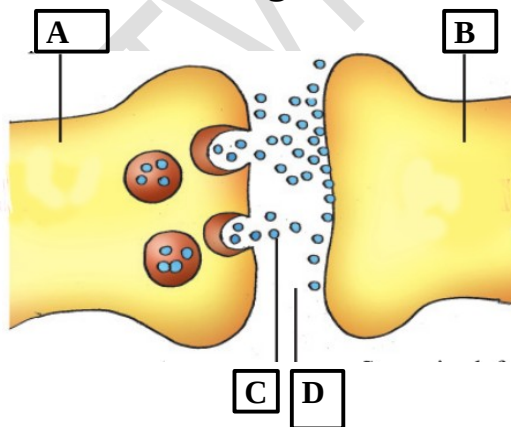
**How is an impulse generated?**



C

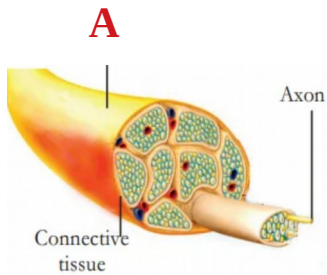
**How is an impulse transmitted?**

5. Observe the diagram and answer the questions.



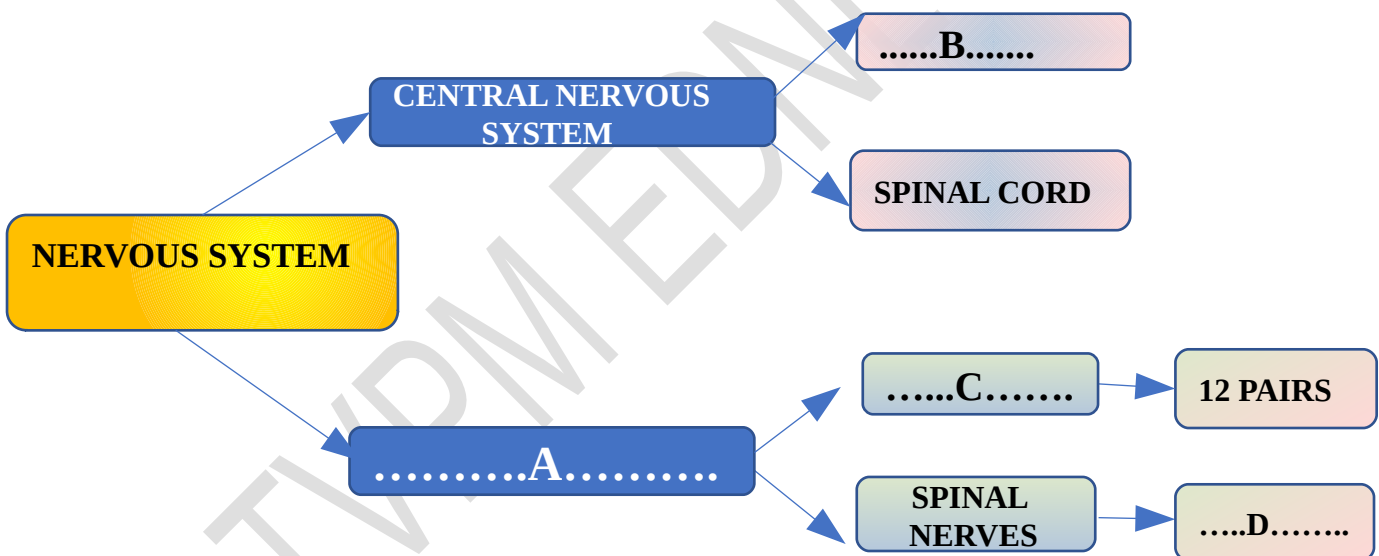
- i. Identify the diagram.
- ii. Identify A, B, C and D
- iii. Give two examples for C.
- iv. Impulses can be transmitted only from A to B. Why?

6 . Identify the diagram and complete the table showing different types of it.



A	Peculiarities	Functions
B	C	Carries impulses from various parts of the body to the brain and the spinal cord.
D	Formed of motor nerve fibres	E
F	G	Carries impulses to and from the brain and spinal cord.

7. Complete the illustration showing different parts of the nervous system.



8. Analyse Manu's thought and answer the questions.

**WEAR HELMET  
SAVE LIFE**

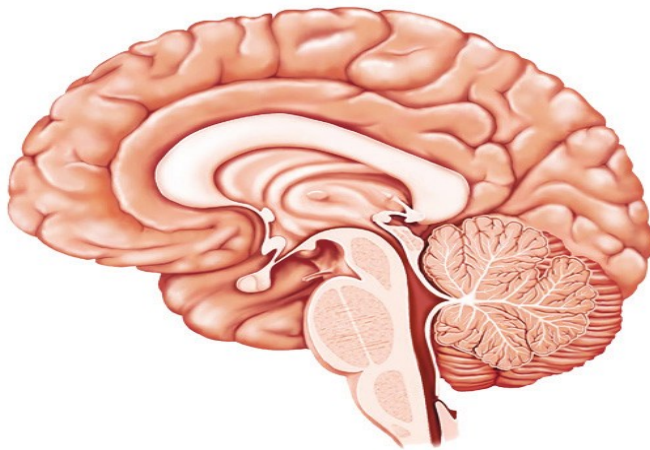


In the Biology class ,we have studied that a fluid formed from the blood protects the brain.

a. Write the protective measures of the brain.

b. Write the other functions of the fluid mentioned by Manu.

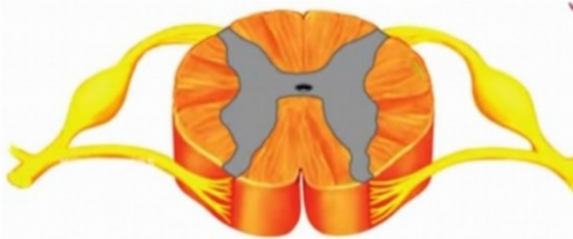
9. Copy the diagram and label the parts using the hints given below.



### Hints

- i. Controls involuntary actions.
- ii. Maintains equilibrium of the body.
- iii. Evokes sensation.
- iv. Acts as relay station.
- v. Maintains homeostasis.

10. A. Identify the diagram and name the parts using the hints given in the box.



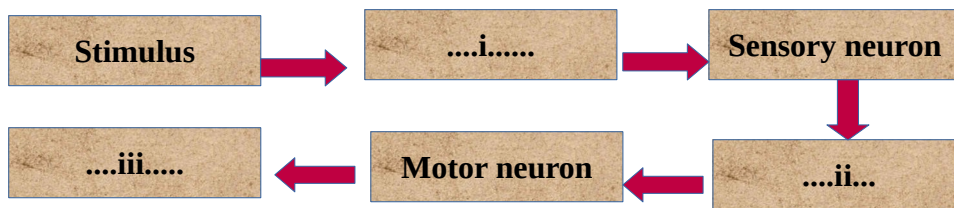
- a. Carries sensory impulses from different parts of the body to the spinal cord.
- b. Sends motor impulses from the spinal cord to the different parts of the body.
- c. Filled with cerebrospinal fluid.
- d. Non-myelinated axons are seen here abundantly.

B. Write down the protective measures and functions of spinal cord.

11. 'when a thorn pricked her foot Latha suddenly withdrew it'.

a. Identify the action mentioned here.

b. Name the pathway of impulses in such actions and complete the flowchart.



c. Identify the word pair relationship and fill in the blanks.

We withdraw our hand when we touch a hot object: spinal reflex.

i. We blink our eyes when light suddenly falls in it: .....

12. Analyse the following situation and answer the following.



Certain activities that take place in our body help us overcome such situations.

i. Name the part of the peripheral nervous system that control such activities.

ii. Some activities that took place in Raju's body are given below. Tabulate them under appropriate headings.

- i. The pupil in the eye dilates.
- ii Production of saliva increases.
- iii. Heart beat increases.
- iv. Gastric activities become normal.
- v. Peristalsis in the intestine slows down.
- vi. Glucose is converted to glycogen.

**13. Complete the table showing the disorders affecting the nervous system.**

<b>Diseasorder</b>	<b>Cause</b>	<b>Symptom</b>
<b>Alzheimer's</b>	<b>A</b>	<b>Loss of memory, inability to do routine works.</b>
<b>B</b>	<b>Production of dopamine, a neurotransmitter in the brain gets reduced.</b>	<b>C</b>
<b>Epilepsy</b>	<b>D</b>	<b>E</b>

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