



BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

NERVOUS SYSTEM

I Text Book Evaluation Choose The Correct Answer

1. Bipolar neurons are found in _____

- A. retina of eye
- B. cerebral cortex
- C. embryo
- D. respiratory epithelium

Answer: A



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2. Site for processing of vision, hearing memory, speech, intelligence and thought is ___

A. kidney

B. ear

C. brain

D. lungs

Answer: C



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3. In reflex action, the reflex arc is formed by_

- A. brain, spinal cord, muscle
- B. receptor, muscle, spinal cord
- C. muscle, receptor, brain
- D. receptor, spinal cord, muscle

Answer: B



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4. Dendrites transmit impulse _____ cell body and axon transmit impulse _____ cell body.

- A. away from, away from
- B. towards, away from

C. towards, towards

D. away from, towards

Answer: B



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5. The outer most of the three cranial meninges is _____

A. arachnoid membrane

B. piamater

C. duramater

D. myelin sheath

Answer: C



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6. There are ____ pairs of cranial nerves and _____ pairs of spinal nerves.

A. 12, 31

B. 31, 12

C. 12, 13

D. 12, 21

Answer: A



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7. The neurons which carries impulse from the central nervous system to the muscle fibre.

- A. afferent neurons
- B. association neuron
- C. efferent neuron
- D. unipolar neuron

Answer: C



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8. Which nervous band connects the two cerebral hemispheres of brain?

- A. thalamus
- B. hypothalamus
- C. corpus callosum

D. pons

Answer: C



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9. Node of ranvier is found in ____

A. muscles

B. axons

C. dendrites

D. cyton

Answer: B



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10. Vomiting centre is located in _____

A. medulla oblongata

B. stomach

C. cerebrum

D. hypothalamus

Answer: A



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11. Nerve cells do not possess __

A. neurilemma

B. sarcolemma

C. axon

D. dendrites

Answer: B



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12. A person who met with an accident lost control of body temperature ,water balance and hunger.Which of the following part of brain is supposed to be damaged?

A. medulla oblongata

B. cerebrum

C. pons

D. hypothalamus

Answer: D

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ii Text Book Evaluation Fill In The Blanks

1. ___ is the longest cell in our body .

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2. Impulses travels rapidly in _____ neurons

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3. A change in the environment that causes an animal to react is called _____

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4. ____ carries the impulse towards the cell body.



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5. The two antagonistic component of autonomic nervous system are ____ and ____



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6. A neuron contains all cell organelles except ____



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7. ____ maintains the constant pressure inside the cranium.

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8. ___ and ___ increases the surfaces area of cerebrum.

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9. The part of human brain which acts as relay centre is_____.

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iii Text Book Evaluation State Whether True Or False If False Write The Correct Statement

1. Dendrons are the longest fibres that conducts impulse away from the cell body.





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2. Sympathetic nervous system is a part of central nervous system.



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3. Hypothalamus is the thermoregulatory centre of human body.



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4. Cerebrum controls the voluntary actions of our body.



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5. In the central nervous system myelinated fibres from the white matter.



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6. All the nerves in the body are covered and protected by meninges.



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7. Cerebrospinal fluid provides nutrition to brain



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8. Reflex arc allows the rapid response of the body to a stimulus.



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9. Pons helps in regulating respiration.



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Iv Text Book Evaluation Match The Following

1.

Column I

Column II

- | | | |
|----------------------|---|-------------------------------|
| 1. Nissil's granules | – | (a) Forebrain |
| 2. Hypothalamus | – | (b) Peripheral Nervous system |
| 3. Cerebellum | – | (c) Cyton |
| 4. Schwann cell | – | (d) Hindbrain |

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V Text Book Evaluation Understand The Assertion Statement

1. Assertion : cerebrospinal fluid is present throughout the central nervous system . Reason : cerebrospinal fluid has no such functions.

- A. Assertion is correct and reason is wrong
- B. Reason is correct and the assertion is wrong
- C. Both assertion and reason are correct
- D. Both assertion and reason are wrong

Answer: A

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2. Assertion: Corpus callosum is present in space between the duramater and piamater.

Reason: It serves to maintain the constant intracranial pressure.

- A. Assertion is correct and reason is wrong
- B. Reason is correct and the assertion is wrong
- C. Both assertion and reason are correct
- D. Both assertion and reason are wrong

Answer: D



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Vi Text Book Evaluation Short Answer Questions

1. Define stimulus.



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2. Name the parts of the mind hind brain.



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3. What are the structures involved in the protection of brain?



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4. Give an example for conditioned reflexes.



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5. Which acts as a link between the nervous system and endocrine system?



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6. Define reflex arc.



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Vii Text Book Evaluation Differentiate Between

1. Voluntary and involuntary actions.



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2. Medullated and non-medullated nerve fibre.



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Viii Text Book Evaluation Long Answer Questions

1. Explain the structure of a neuron.



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2. Illustrate the structure and functions of brain.



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3. What will you do if someone pricks your hand with a needle?

Elucidate the pathway of response with a neat labelled diagram.



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4. Explain in the structure of spinal cord.



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5. How nerve impulses are transferred from one neuron to next neuron?



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6. Classify neurons based on its structure.



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ix Text Book Evaluation Hots

1. A' is a cylindrical that begins from the lower end of medulla and extend downwards.It is enclosed in bony cage'B'and covered by membranes 'C'.As many as 'D' pairs of nerves arise from the structure'A'(i)What is A?

(ii)Name (a)bony cage 'B'and (b)membranes 'C'

(iii)How much is D?



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2. Our body contains a large number of cells 'L' which are the longest cells in the body. L has long and short branch called as 'M' and 'N' respectively. There is a gap 'O' between two 'L' cells, through which nerve impulse transfer by release of chemical substance 'P'.

- (i) Name the cells L
- (ii) What are M and N?
- (iii) What is the gap O?
- (iv) Name the chemical substance P



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Textbook Activities Solved Activity

1. Activity-1

Create a model of a neuron using clay or beads.



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2. Activity-2

You must say the colour of the word but not the name of the word.



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3. Activity-3

Use the letter and number code to decode the given information:



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I Additional Questions Fill In The Blanks

1. The condition needed for the co-ordination between the various cells and organ for the diverse activities is called.....



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2. A number of nerve fibres bundled up together to form.....



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3. The other name for cyton is cell body or.....

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4.is the important neurotransmitter released by neurons.

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5.membranes protect the brain from mechanical injury.

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6. Four rounded bodies found in mid brain

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7. The Posterior most region of spinal cord tapers into a fibrous thread like structures called.....



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ii Additional Questions Choose The Incorrect Statement

1. _____ refers to the changes in the environmental condition, that are detected by receptors present in the body.



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2. The brain is the controlling centre of all the body activities.



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3. Axon carries impulses towards the cyton.



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4. CNS consists of all nerves, which connect brain and spinal cord to all parts of the body.



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5. A receptor is a cell or group of cells that receives the stimuli.



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iii Additional Questions Match The Following

1.

1. Neuroglia – (a) Conduct nerve impulses
2. Electrical impulse – (b) Connects the lobe of cerebellum
3. Pons – (c) Cerebrospinal fluid
4. Brain – (d) Do not conduct nerve impulses
5. Dendrites – (e) Information from the receptor



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Iv Additional Questions Answer The Following In A Word Or With A Sentence

1. What is Spinal Reflexes?



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2. What are Motor or efferent neuron?



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3. What is the function of Meningeal membranes in the brain?

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4. Name the outermost fibrous membrane of brain.

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5. Name the granules in the cytoplasm of cyton.

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6. Which is the controlling centre of all body activities?



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7. In which fluid, is the brain suspended?



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8. Four rounded bodies found in mid brain



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9. Longest cell in the human body



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10. Name the tapered spinal cord into a thin thread like structure present in the posterior most region.



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V Additional Questions

1. Draw a neat labelled diagram of the following

(a) Brain (b) Structure of Spinal Cord (c) Nerve impulse transmission



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Vi Additional Questions Answer The Following Briefly

1. Explain the Synaptic transmission.



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2. What is simple or basic reflexes? Give a few action, as examples.



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3. What is neurotransmitters?



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4. Name the second largest part of the brain. What are its function?



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5. What are the types of nerve fibres?



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6. Why Autonomic Nervous System called Visceral nervous system?



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7. What are cerebral lobes?



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8. (a) What is myelin sheath?

(b) How are neurons classified based on function?



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9. What are cerebrospinal fluid? What are its functions?



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10. What is peripheral nervous system?



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[VII Additional Questions Hots](#)

1. Give two examples for conditional reflexion.



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2. What is EEG?



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3. Name a few brain diseases.



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4. What are brain injuries? Give examples.



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5. What are the symptoms of stroke



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