



BIOLOGY

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NERVOUS SYSTEM

Textbook 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. Oin 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: D



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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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Textbook Evaluation II 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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Textbook Evaluation iii State Whether True Of 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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Textbook Evaluation Iv Match The Following

1. Match the following columns

Column I		Column II	
A	Nissil's granules	(i)	Forebrain
B	Hypothalamus	(ii)	Peripheral Nervous system
C	Cerebellum	(iii)	Cyton
D	Schwann cell	(iv)	Hindbrain



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Textbook Evaluation V Understand The Assertion Statement Justify The Reason Given And Choose The Correct Choice

1. Assertion : cerebrospinal fluid is present throughout the central nervous system .

Reasons : 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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Textbook Evaluation Vi 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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Textbook Evaluation Vii Differentiate Between

1. Voluntary and involuntary actions.



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2. Medullated and non-medullated nerve fibre.



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Textbook Evaluation Viii Long Answer Questions

1. Illustrate the structure and functions of brain.



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2. 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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3. With a neat labelled diagram explain the structure of a neuron.



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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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Textbook Evaluation ix Higher Order Thinking Skills 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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Other Important Questions Answer I Choose The Correct Answer

1. Inner layer of axon is:

A. Myelin sheath

B. Neurilemma

C. Meninges

D. Sarcolemma

Answer: B



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2. Which one is thin and vascularised?

A. Piamater

B. Duramater

C. Arachnoid membrane

D. Pleural membrane

Answer: B



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3. Uni polar neurons are found in:

A. Adult nervous tissue

B. Stem cells

C. Embryonic stem cells

D. Embryonic nervous tissue

Answer: D



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4. Among the following which one controls our anger.

A. Hypothalamus

B. Cerebrum

C. Cerebellum

D. Thalamus

Answer: A



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5. form the cerebral cortex of our brain.

A. Grey neuron

B. Fibrous tissue

C. White neurons

D. Ganglions

Answer: C



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6. is fitted with neuro transmitter.

A. Synaptic knob

B. Synaptic plate

C. Synaptic cleft

D. Synaptic branch

Answer: A



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7. The functional connection between two neurons is called:

A. Synapse

B. Synapsis

C. Chiasma

D. Chiasmata

Answer: A



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8. Which of following pair is correct?

A. Sensory nerve – afferent

B. Motor nerve – afferent

C. Sensory nerve - ventral

D. Motor nerve - dorsal

Answer: A



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9. Four healthy people in their twenties got involved in injuries resulting in damage and death of a few cells of the following . Which of the cells are least likely to be replaced by new cells?

A. Liver cell

B. Neuron

C. Nephron

D. Osteocytes

Answer: B



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10. There are _____ pair of spinal nerves.

A. 12

B. 18

C. 31

D. 24

Answer: C



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Other Important Questions Answer li Fill In The Blanks

1. lies at the base of the thalamus.



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2. transmit electrical impulses towards the cyton.



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3. The sensory organs contain neuron.



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4. Mid brain with together form the brain stems.



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5. Chemical substances which take part in synaptic transmission is



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6. The membrane which cover the brain and the spinal cord is



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7. If the corpus collosum is removed in Mammalian brain then will be affected.



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8. Last end of spinal cord is called



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9. The is the continuation of medulla oblongata.





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10. is the part of the brain which helps to maintain balance.



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Other Important Questions Answer iii State Whether True Of False If False Write The Correct Statement

1. State True or False: The gaps on the cyton are called Nodes of Ranvier.



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2. Corpus callosum is a sheet of Nervous tissue that unites the right and left Cerebral Hemisphere.



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3. State True or False: Cerebral aqueduct is found in Mid brain.



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4. Dendrites transmit chemical impulse towards the cyton.



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5. The lower end of medulla oblongata is filum terminate.



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Other Important Questions Answer Iv Match The Following

1. Match the following columns

Column I		Column II	
A	Cerebrum	(i)	Controls the pituitary
B	Cerebellum	(ii)	Seat of intelligence
C	Hypothalamus	(iii)	Fore brain
D	Mid brain	(iv)	Maintains body posture
E	Thalamus	(v)	Controls vision and hearing



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Other Important Questions Answer V

Understand The Assertion Statement Justify The Reason Given And Choose The Correct Choice

1. Assertion: Medulla oblongata is very important for our body.

Reason: Medulla oblongata regulates all voluntary activities.

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. (d) Both assertion and reason are wrong.

Answer: C



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2. Assertion: With drawl reflex is controlled by spinal cord.

Reason: Initially cerebrum is involved and require alertness for perform this reflex.



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3. Assertion: In human being, cerebrum most developed part of brain.

Reason: Cerebrum is having large surface area and analyzing centre for maintaining body activity.



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Other Important Questions Answer Vi Answer Is One Or Two Sentences

1. Name the components of nervous system.



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2. Name the two enlargement found in spinal cord.



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3. What is a Synapse?



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4. Write a function of glial cells.



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5. Name the two components of autonomic nervous system.



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Other Important Questions Answer Vii Short Answer Question

1. What is Coordination?



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2. What is Homeostasis?



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3. Name the three connective tissue membrane of Meninges.



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4. Differentiate simple reflexes and conditional reflexes.



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**Other Important Questions Answer Viii Higher
Order Thinking Skills Hots**

1. Raju got an injury on the head during motorbike accident on the road. Later he faced a problem in maintaining balance of the body while walking or sitting. Which part of the brain do you think is affected?



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2. Injury to medulla oblongata can cause death. Why?



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Other Important Questions Answer |x Long Answer Question

1. Classify peripheral nervous based on the nerves arising from the brain and the spinal cord.



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2. Name the components of nervous system.



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3. Explain the Autonomic Neural system.



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