



## BIOLOGY

### COMPLETE CLASS 11TH + 12TH

### NEUTRAL AND COORDINATION

#### Check Your Concepts 1

1. Which statement is correct about nerve fibres?

- A. All nerve fibres of CNS are enclosed by Schwann cells.
- B. Only myelinated nerve fibres of PNS are enclosed by Schwann cells.
- C. All nerve fibres of PNS are inclosed by Schwann cells.
- D. Only myelinated fibres of CNS are enclosed by schwann cells.

**Answer: C**



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2. Which neuroglial cell helps in formation of blood brain barrier?

- A. Capillary endothelial cells
- B. Astrocyte
- C. Both A and B
- D. Oligodendrocyte

**Answer: B**



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3. Which statement is true?

- A. In PNS, only non-myelinated neuron are found.
- B. In CNS, myelinated and non-myelinated neurons are found.
- C. In PNS, myelinated and non-myelinated neurons are found.

D. Both B and C

**Answer: D**



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**4. Which structure is not found in white matter?**

A. Telodendria

B. Cell body

C. Dendrons and non-myelinated axons

D. All of the above

**Answer: D**



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**5. Nissl granules are made up of**

A. Endoplasmic reticulum and mitochondria

B. Ribosome and Mitochondria

C. Ribosome and Endoplasmic Reticulum

D. Golgi body and Ribosome

**Answer: C**



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**6. Which of the following is true of Neurilemma?**

A. Discontinuous at nodes of Ranvie

B. Continuous at nodes of Ranvier and made by schwann cells

C. Discontinuous at nodes of Ranvier and made by schwann cells

D. Continuous at nodes of Ranvier and made by oligodendrocytes

**Answer: B**



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7. Fibers which transmits impulses towards the cell body called as:

- A. Axon terminal
- B. Axon
- C. Dendrites
- D. Axon hillock

**Answer: C**



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8. The axonal membrane is \_\_ to negatively charged proteins present in the axoplasm:

- A. Selectivity permeable
- B. Permeable
- C. Semipermeable

D. Impermeable

Answer: D



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Check Your Concepts 2

1. Which statement is false regarding nerve impulse?

- A. After applying a stimulus on polarised membrane, that site become freely permeable to  $Na^+$  and leads to rapid efflux of  $Na^+$
- B. The rise in the stimulus induced permeability to  $Na^+$  is extremely short lived.
- C. After depolarization  $K^+$  diffuses outside the membrane and restores the resting potential

D. Ionic gradients across the resting membrane are maintained by the  $Na^+ - K^+$  ATPase pump.

**Answer: A**



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2. Resting membrane potential is maintained by

- A. Passive diffusion by ion channels/Leaky channels
- B.  $Na^+ - K^+$  ATPase pump.
- C. Negatively charged proteins in axoplasm
- D. All of the above

**Answer: D**



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3. Which statement is correct regarding nerve impulse conduction?

- A. The membrane potential change from positive to negative and then back again
- B. Sodium ions flow out through ion channels and potassium ions flow in,
- C. Potassium channels close as the membrane potential becomes positive.
- D. The membrane potential becomes less negative due to opening of  $Na^+$  VGC.

**Answer: D**



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4. A nerve impulse is transmitted from one neuron to another neuron through junction called as:



A. Neuro muscular junction

B. Synapse

C. A & B both

D. Node of Ranvier

**Answer: B**



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5. The axoplasm inside the axon contains high concentration of .....and .....:-

A.  $K^{+}$  and  $Na^{+}$

B.  $K^{+}$  and Negatively charged proteins

C.  $Na^{+}$  and  $Cl^{-}$

D. Both A and C

**Answer: B**



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6. The ion channel are .....to different ions:

- A. Completely permeable
- B. Impermeable
- C. Selectively permeable
- D. Both A and C

**Answer: C**



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7. The electrical potential difference across the plasma membrane at the site of depolarisation is called

- A. Graded potential
- B. Resting potential

C. Action potential

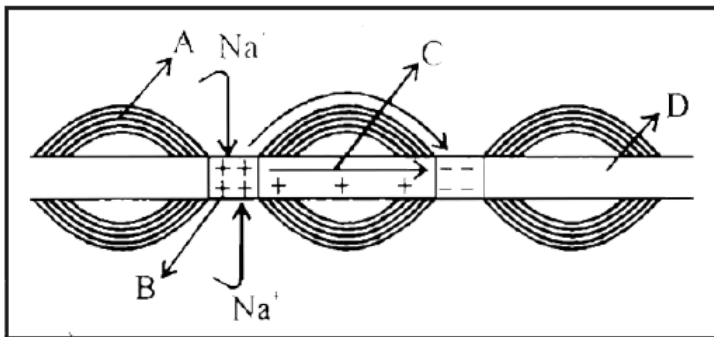
D. None of these

**Answer: C**



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8. Given below in the diagram representing conduction with correct



option:

A. A-Axolemma, B-Site of polarisation C-Wave, D-Axolemma

B. A-Myelin sheath, B-Site of Depolarisation C-Action potential jumps from node to node D-Axoplasm

C. A-Axoplasm, B-Repolarisation, C-Ionic movement, D-Axon

D. A-Mylein sheath, B-Hyperpolarisation, C-Action potential, D-Axoplasm

**Answer: B**



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**Check Your Concepts 3**

1. Which lobe of cerebral hemisphere perform voluntary motor function the body?

- A. Parietal lobe
- B. Frontal lobe
- C. Occipital lobe
- D. Temporal lobe

**Answer: B**



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2. Which part of brain contains such area which are neither clearly sensory nor motor in function?

- A. medulla
- B. Cerebral cortex
- C. Grey matter of cerebrum
- D. Both A and C

**Answer: B**



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3. Arbor vitae are found in which part of brain?

- A. Fore brain
- B. Mid brain

C. Hind brain

D. All of the above

**Answer: C**



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4. Which part of nervous system is the central information processing part of act as command & control system?

A. S.N.S.

B. P.N.S.

C. A.N.S.

D. C.N.S.

**Answer: D**



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**5. Grey matter includes:**

- A. Concentrated axon
- B. Unmyelinated axon
- C. Myelinated axon
- D. A & B both

**Answer: D**



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**6. The layer of cells which covers the cerebral hemisphere is called:**

- A. Piamater
- B. Duramater
- C. Cerebral cortex
- D. Both A and B

**Answer: C**



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**7. Excitement, Pleasure, Rage fear & Motivation are combined function of:**

- A. Amygdala
- B. Hippocampus
- C. Limbic lobe
- D. All of the above

**Answer: C**



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**8. Which of the following contains a number of centres which control body temperature urge for eating and drinking?**



- A. Thalamus
- B. Medulla oblongata
- C. Hypothalamus
- D. Cerebrum

**Answer: C**



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### Check Your Concepts 4

**1. Which spinal nerve is not part of cauda equina?**

- A. Sacral spinal nerves
- B. Lumbar spinal nerves
- C. Thoracic spinal nerves
- D. Lumbar spinal nerves

**Answer: C**



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**2. Which structure is pure sensory?**

- A. Ramus dorsalis
- B. Dorsal root
- C. Spinal nerve
- D. Ventral root

**Answer: B**



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**3. The lowest most part of the spinal cord upto which, the nervous part extend:**

- A. Epidural space
- B. Conus medularis
- C. Cauds equina
- D. Central canal

**Answer: B**



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**4. Sensory nerurons found in the dorsal root Ganglia are:**

- A. Motor
- B. Apolar
- C. Pseudounipolar
- D. Multipolar

**Answer: C**



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5. The group of cranial nerves which are associated with the movement of eye ball are:

- A. I,II,VIII
- B. III,IV,VI
- C. VII,IX,XII
- D. III,IV,VII

**Answer: B**



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6. Somatic nervous system is formed by

- A. Ramus dorsalis
- B. Ramus communicans
- C. Ramus ventrals

D. Both A & C

**Answer: D**



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7. Which of the following is not a function of parasympathetic nervous system ?

- A. Inhibition of peristalsis of alimentary canal
- B. Relaxation of arrector pili muscles
- C. Erection of penis
- D. Contraction of urinary bladder

**Answer: A**



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8. Which of the following nerves is purely a motor nerve ?

A. Oculomotor

B. Trochlear

C. Facial

D. Optic

**Answer: D**



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## Exercise 1

1. GABA (gama amino butyric acid) is a :

A. Inhibitory neurohormone

B. Transmitter neuro hormone

C. Anti co-agulant

D. None

**Answer: A**



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**2. Nissl's bodies found in neurons are :**

A. Made of DNA

B. Masses of ribosome and RER

C. Help in formation of neurofibrils

D. Masses of mitochondria

**Answer: B**



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**3. Nodes of Ranvier are found in**

A. Brain

B. Heart

C. Axon

D. Eye

**Answer: C**



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**4. Afferent nerve fibre carries impulses from**

A. CNS to effector

B. Receptor to C. N .S.

C. Receptor to effector

D. Effector to receptor

**Answer: B**



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5. Nissl granules occur in which part and what is their function?

- A. Neurons and help in nutrition & increase metabolic activity of neuron
- B. Blood and help in nutrition and excretion
- C. Sarcoplasm and help in contraction
- D. Mucous cell and secrete mucous

**Answer: A**



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6. The parts of the neurons that perform basic cellular functions such as protein synthesis etc. :

- A. Axons
- B. Dendrites

C. Synaptic knobs

D. Soma

**Answer: D**



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7. The nerves leading to the central nervous system are called

A. Afferent

B. Efferent

C. Motor

D. None

**Answer: A**



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8. Units of nervous system are

- A. Neuron
- B. Neuroglia
- C. Axon
- D. Cyton

**Answer: A**



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9. Intergration system in the body is

- A. Endocrine system
- B. Nervous system
- C. Blood vascular system
- D. Both A & B

**Answer: D**



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**10. The Schwann sheath is :**

- A. A non myelinated nerve fibres
- B. Associated with myelin sheath
- C. A connective tissue cell
- D. Associated with myelinated & non myelinated nerve fibre

**Answer: D**



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**11. Rapid integration of the functional activities in human is achieved by :**

- A. Nervous system

B. Endocrine system

C. Blood

D. Muscular system

**Answer: A**



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**12.** Which one of the following types of neurons are most numerous in the body.

A. Unipolar

B. Multipolar

C. Bipolar

D. Pseudounipolar

**Answer: B**



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**13.** Sheath of schwann occurs on

- A. Neurons
- B. Axons
- C. Dendrons
- D. Neuroglia

**Answer: B**



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**14.** Which cell-organellae absent in neurons?

- A. Mitochondria
- B. Ribosome
- C. Centriole
- D. Nucleus

**Answer: C**



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**15.** Nerve fibres are surrounded by an insulating fatty layer called :

- A. Adipose sheath
- B. Myelin sheath
- C. Hyaline sheath
- D. Peritoneum

**Answer: B**



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**16.** Myelinogenesis (Myelin formation) process occur in C.N.S. (central nervous system)

- A. By schwann cells
- B. By oligodendrocytes
- C. By Axolemma
- D. By neurolemma

**Answer: B**



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**17. Which of the following statements is correct for node of Ranvier of nerve ?**

- A. Neurilemma is discontinuous
- B. Myelin sheath is discontinuous
- C. Both neurilemma & Myelin sheath are discontinuous
- D. Covered by myelin sheath

**Answer: B**





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**18.** The Nissl's granules of nerve cell are made up of

- A. Ribosome
- B. Protein
- C. DNA
- D. Mitochondria

**Answer: A**



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**19.** Non Myelinated axons differ from myelinated that they

- A. Are more excitable
- B. Lack nodes of Ranvier
- C. Are not capable of regeneration

D. Are not associated with Schwann cells

**Answer: B**



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**20.** If myelin sheath is continuous in myelinated nerve fibre than what will happens in neuronal conduction?

A. Velocity is increased

B. Conduction is slow

C. Conduction is stopped

D. No effect

**Answer: C**



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**21.** The nerve cells do not possess

- A. Neurilemma
- B. Sarcolemma
- C. Dendrites
- D. Axon

**Answer: B**



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**22.** Myelin sheath covers

- A. Muscle fibre
- B. Nerve fibre
- C. Collagen fiber
- D. Tendons

**Answer: B**



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**23. Dendrites are associated with which system?**

- A. Nervous system
- B. Digestive system
- C. Muscular system
- D. Blood vascular system

**Answer: A**



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**24. The gray matter differs from white matter in the :**

- A. Absence of axons

B. Absence of myelin sheath

C. Presence of myelin sheath

D. Absence of neurilemma

**Answer: B**



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**25. Nerve cells possess**

(a) Dendrites (b) Axon

(c) Sarcolemma (d) Neurilemma

A. a,b

B. a,b,c

C. a,b,d

D. a,b,c,d

**Answer: C**



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**26.** The nervous system is derived from :

- A. Ectoderm
- B. Endoderm
- C. Mesoderm
- D. Ecto and Mesoderm

**Answer: A**



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**27.** The nerve cell can be distinguished from other cells of the body by the presence of :

- A. Neuroplasm
- B. Neurolemma

C. Mitochondria

D. Neurites

**Answer: D**



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**28. What are the main functions of nervous tissue ?**

A. Irritability or Excitability

B. Sensitivity

C. Elasticity

D. Contraction

**Answer: A**



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**29.** Which of the following processes occur only in animals?

- A. Hormonal control
- B. Respiration
- C. Nervous control
- D. Nutrition

**Answer: C**



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**30.** Which cell in our body is more than a feet long?

- A. Nerve cell
- B. Muscle cell
- C. Bone cell
- D. Gland cell



**Answer: A**



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**31. Which cell stops dividing after birth**

or

Largest cell in body is

A. Epithelium

B. Neuron

C. Glial cells

D. Liver

**Answer: B**



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**32. In which animal, nerve cell is present but brain is absent ?**

- A. Sponge
- B. Earthworm
- C. Cockroach
- D. Hydra

**Answer: D**



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**33.** Intercellular communication in multicellular organism occurs through

- A. Nervous system only
- B. Digestive system only
- C. Respiratory system only
- D. Both nervous and endocrine system

**Answer: D**



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**34.** Which of the following substances leads to the inhibition of central nervous system

- A. Glycine
- B. GABA
- C. Norepinephrine
- D. Both A and B

**Answer: D**



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**35.** Myelin sheath is derived from

- A. Astrocytes cells
- B. Schwann cells
- C. Nerve cells

D. All of these

**Answer: B**



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**36.** Synaptic vesicle is found in

- A. presynaptic neuron
- B. post synaptic neuron
- C. synaptic cleft
- D. none of these

**Answer: A**



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**37.** Nissl's granules are absent in

- A. Axon
- B. Cyton
- C. Dendron
- D. Schwimm cells

**Answer: A**



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**38.** Which one of the following is an inhibitory neurotransmitter ?

- A. GABA
- B. Adrenaline
- C. Epinephrine
- D. Acetylcholine

**Answer: A**



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**39.** In a myelinated neuro, two adjacent myelin sheath separated by gaps called

- A. nodes of Ranvier
- B. synaptic cleft
- C. synaptic knob
- D. neural plate

**Answer: A**



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**40.** Nissl's granule are found in \_\_\_\_.

- A. liver cells
- B. nerve cells
- C. kidney

D. heart

**Answer: B**



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**41.** Chemical transmission of nerve impulses from one neuron to another, or from a neuron to a muscle is carried out by

A. Cholesterol

B. Acetylcholine

C. Cholecystokinin

D. ATP

**Answer: B**



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**42.** Saltatory conduction occurs in :

- A. Non-myelinated fibers
- B. Myelinated fibers
- C. Both of them
- D. None of them

**Answer: B**



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**43.** When a nerve fibres is stimulated the inside of the membrane becomes :

- A. Filled with acetyl choline
- B. Negatively charged
- C. Positively charged
- D. Neutral



**Answer: C**



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**44.** "Jumping of the action potential" at the nodes of ranvier is known as :

- A. Saltatory conduction
- B. Neuro transmission
- C. Recovery phase
- D. Active phase

**Answer: A**



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**45.** A nerve impulse will travel through a nerve fibre only if its membrane suddenly becomes more permeable to ions of

- A. Adrenaline
- B. Phosphorus
- C. Sodium ions
- D. Potassium ions

**Answer: C**



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**46.** Speed of impulse on nerves in mammals is :

- A. 1 meter/sec.
- B. 100 meter/sec.
- C. 1000 meter/sec.
- D. None of these

**Answer: B**



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**47.** The functional connection between two neurons is called :

- A. Synapse
- B. Synapsis
- C. Chiasma
- D. Chiasmata

**Answer: A**



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**48.** Conduction of nerve impulse is a

- A. Faster in non-myelinated fibres
- B. Faster in myelinated fibres

- C. No difference in the rate of conduction in myelinated & non myelinated fibres
- D. None of the above

**Answer: B**



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**49. During refractory period :**

- A. Nerve transmits impulse very slowly
- B. Nerve can not transmit impulse
- C. Nerve transmits impulses very rapidly
- D. None of the above

**Answer: B**



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50. A short period during which a nerve is unable to conduct nerve impulse is called : \

- A. Synaptic delay
- B. Refractory period
- C. Resting potential
- D. Critical period

**Answer: B**



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51. When the axons membrane is positively charged outside and negatively charged inside, then the condition is known as :

- A. Action potential
- B. Resting potential
- C. Active potential

D. Differential potential

**Answer: B**



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**52.** The main function of acetylcholine is to :

- A. Increase heart beat
- B. Help in synaptic transmission of nerve impulse
- C. Help in conduction of nerve impulse through axon
- D. Control reflex action

**Answer: B**



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53. Depolarisation of axolemma during nerve conduction takes place because

- A. Equal amount of  $Na^+$  &  $K^+$  move out across axolemma
- B.  $Na^+$  move inside
- C. More  $Na^+$  outside
- D. None

**Answer: B**



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54. In the resting state of the neural membrane, diffusion due to concentration gradients, if allowed, would drive

- A.  $K^+$  and  $Na^+$  out of the cell
- B.  $Na^+$  into the cell
- C.  $Na^+$  out of the cell

D.  $K^+$  into the cell

**Answer: B**



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**55.** Unidirectional transmission of a nerve impulse through nerve fibre is due to the fact that

- A. Nerve fibre is insulated by a medullary sheath.
- B. Sodium pump starts operating only at the cyton and then continues into the nerve fibre.
- C. Neurotransmitters are released by dendrites and not by axon endings.
- D. Neurotransmitters are released by the axon endings and not by dendrites.

**Answer: D**





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56. Repolarisation of Neuron is occurred due to :

- A. Influx of  $Na^+$
- B. Influx of  $K^+$
- C. Efflux of  $Na^+$
- D. Efflux of  $K^+$

**Answer: D**



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57. If GABA is released at synapse area then what will happens :

- A. Depolarization of neuron
- B. Repolarization of neuron
- C. Hyperpolarization of neuron

D. No effect

**Answer: C**



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**58.** Nerve impulse travel through synapse with the help of

- A. Acetylcholine and sympathetin
- B. Choline and acetylcholine
- C. Adrenaline and noradrenaline
- D. None of the above

**Answer: A**



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**59.** A typical value of resting membrane potential is

A.  $-40mv$

B.  $-60mv$

C.  $-70mv$

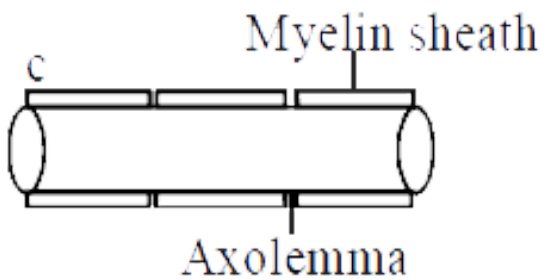
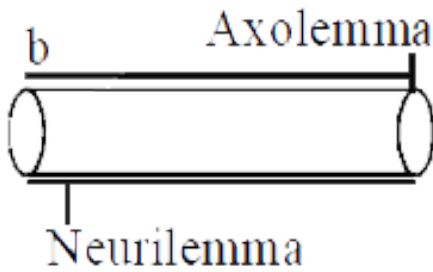
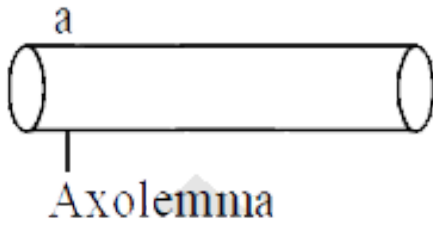
D.  $-80mv$

**Answer: C**



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60. In which of the following , speed of conduction is the fastest?



A. a

B. b

C. c

D. a,b

**Answer: C**



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**61. Pre synaptic membrane is part of :**

- A. Dendron
- B. Axon hillock
- C. Telodendria
- D. Soma

**Answer: C**



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62. Match the column-I with column-II and select the correct answer :-

**Column-I**

(A) Nissl's granules

(B) Tract

(C) Over shoot

(D) Blood brain barrier

(E) Cranial venous sinus

**Column-II**

(i) Astrocytes

(ii) Hyperpolarisation

(iii) Arachnoid

(iv) Duramater

(v) Mitochondria

(vi) Collection of nerve fibres

(vii) Depolarisation

(viii) Oligodendrocytes

(ix) Collection of cytons

(x) Ribosome

A. A-x, B-ix, C-ii, D-i, E-iv

B. A-v, B-vi, C-vii, D-viii, E-iii

C. A-x, B-vi, C-vii, D-i, E-iv

D. A-v, B-vi, C-ii, D-i, E-iv

**Answer: C**



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**63.** Which one of the following is dominant intracellular cation

- A. Potassium
- B. Chloride
- C. Phosphate
- D. Calcium

**Answer: C**



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**64.** Acetylcholinesterase enzymes splits acetylcholine into

- A. Acetone and choline
- B. Acetic acid and choline
- C. Amino acid and choline

D. Aspartic acid and acetylcholine

**Answer: B**



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**65.** During impulse transmission, nerve permeability increases for

A.  $Na^{+}$

B.  $K^{+}$

C. Equal for both (A) and (B)

D.  $Ca^{+2}$

**Answer: A**



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**66.** Acetylcholinesterase helps in breaking



A. synapse

B. acetylcholine

C. dendrites

D. Axon

**Answer: B**



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**67. Action potential of a nerve cells is created by**

A.  $Na^{+}$

B.  $K^{+}$

C.  $Ca^{++}$

D.  $Cl^{-}$

**Answer: A**



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68. Joint between axon of a neuron and dendrite of next is called

- A. Synapse
- B. Synapsis
- C. Desmosome
- D. Tight junction

**Answer: A**



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69. During repolarization of nerve

- A.  $K^+$  gates closes and  $Na^+$  gates opens
- B.  $Na^+$  channels are closed and  $K^+$  channels are open
- C. both gates remain open

D. both  $K^+$  and  $Na^+$  gates are closed

**Answer: B**



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**70.** The junction between the axon of one neuron and the dendrite of the next is called

- A. a joint
- B. synapse
- C. constant bridge
- D. junction point

**Answer: B**



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**71.** Unidirectional transmission of nerve impulse is maintained by

- A. synapses
- B. myelin sheath
- C. membrane polarity
- D. interneurons

**Answer: A**



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**72.** Resting potential of a nerve is

- A. + 70
- B. + 30
- C. - 30
- D. - 70

**Answer: D**



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**73.** Nerve impulse initiates with the movements of

or

Neuron becomes an electrically charged cell by the diffusion of

A.  $K^+$

B.  $Na^+$

C.  $Ca^{++}$

D.  $Mg^{++}$

**Answer: B**



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**74.**  $Na^+/K^+$  pump in a cell is an example of

- A. Osmosis
- B. Diffusion
- C. Passive transport
- D. Active transport

**Answer: D**



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**75. Corpus callosum connects :**

- A. Two cerebral hemisphere
- B. Two optic lobes
- C. Two olfactory lobes
- D. Optic chiasma

**Answer: A**



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**76.** Outer most covering of brain is called :

- A. Choroid
- B. Duramater
- C. Piamater
- D. Arachnoid

**Answer: B**



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**77.** The membrane which cover the brain and the spinal cord is :

- A. White matter
- B. Grey matter
- C. Peritonium

D. Meninx

**Answer: D**



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**78.** Cerebellum is concerned with :

A. Co-ordination of muscular movement

B. Memory

C. Vision

D. Reflex action

**Answer: A**



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**79.** Crura cerebri are found in



A. Fore brain

B. Hind brain

C. Mid brain

D. None

**Answer: C**



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**80. Piamater is :**

A. Inner most meninge

B. Middle meninge

C. Outer meninge

D. None

**Answer: A**



**Watch Video Solution**

**81.** The box like bony structure which encloses the brain is called :

- A. Cranium
- B. Pericardium
- C. Peritoneum
- D. Periosteum

**Answer: A**



**Watch Video Solution**

**82.** In brain crura cerebri is a structure made of :

- A. Six bands of nerve fibres
- B. Eight bands of nerve fibres
- C. Two large bands of nerve fibres

D. Four bands of nerve fibres

**Answer: C**



**Watch Video Solution**

**83.** Which one of the following meninges is present only in mammalian brain

A. Duramater

B. Arachnoid

C. Piamater

D. None of them

**Answer: B**



**Watch Video Solution**

**84.** The function of cerebrospinal fluid surrounding CNS is to :

- A. Protect the brain from external jerks
- B. Provide nourishment and  $O_2$  to the brain
- C. Take away unwanted substance from the brain
- D. All of these

**Answer: D**



**Watch Video Solution**

**85.** Small, solid and four optic lobes or colliculus called corpora quadrigemina are found in :

- A. Mammals
- B. Amphibians
- C. Aves
- D. Reptiles

**Answer: A**



**Watch Video Solution**

**86.** Hypothalamus is situated on the :

- A. Upper lateral surface of diencephalon
- B. Lower lateral surface of diencephalon
- C. Ventral side of optic lobes
- D. Dorsal side of optic lobes

**Answer: B**



**Watch Video Solution**

**87.** Epithalamus is situated on the :

- A. Roof of diencephalon

B. Lateral wall of diencephalon

C. Dorsal side of optic lobes

D. Floor of diencephalon

**Answer: A**



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**88.** Which of the following is a richly vascular layer with lots of blood capillaries

A. Duramater

B. Piamater

C. Epidermis of skin

D. Both (A) & (B)

**Answer: B**



**Watch Video Solution**

**89.** Which of the following is not a part of hind brain :-

- A. Medulla oblongata
- B. Thalamus
- C. Cerebellum
- D. Pons

**Answer: B**



**Watch Video Solution**

**90.** Which is correct about pons varolii ?

- A. Situated between midbrain & M.O.
- B. Pons contains pneumotaxic centre
- C. Inner gray, outer white matter
- D. All of the above

**Answer: D**



**Watch Video Solution**

**91.** If the corpus callosum is removed in mammalian brain then what will be affected :

- A. Coordination of Cerebrum
- B. Involuntary activity of brain
- C. Coordination of Cerebellum
- D. Behaviour and emotional disturbances

**Answer: A**



**Watch Video Solution**

**92.** The name of nervous band connecting both the cerebral hemispheres in your brain



- A. Corpus albicans
- B. Corpus callosum
- C. Corpus striatum
- D. Corpus spongiosum

**Answer: B**



**Watch Video Solution**

**93.** Arbor vitae is a part of

- A. Cerebrum
- B. Cerebellum
- C. Midbrain
- D. Forebrain

**Answer: B**



**Watch Video Solution**

**94.** Human brain is covered by a hard layer called

- A. White matter
- B. Duramater
- C. Piamater
- D. Gray matter

**Answer: B**



**Watch Video Solution**

**95.** Which of the following is the part of mid brain?

- A. Cerebrum
- B. Diencephalon
- C. Corpora quadrigemina

D. None of these

**Answer: C**



**Watch Video Solution**

**96.** The function of cerebrospinal fluid does not include:

- A. Protection of brain and spinal cord by containing antibody
- B. Protection of delicate brain and spinal cord from shock
- C. As a medium for excretion of waste product
- D. Buoyancy to brain

**Answer: A**



**Watch Video Solution**

**97.** Cerebral hemispheres of mammals consist of

- A. Outer gray matter and central white matter
- B. Outer white matter and central gray matter
- C. Gray matter and white matter inter mingled
- D. Gray matter only

**Answer: A**



**Watch Video Solution**

**98.** Which of the following forms the cerebro-spinal fluid:

- A. Choroid plexus
- B. Duramater
- C. Arachnoid mater
- D. Cerebrum and spinal cord

**Answer: A**



**Watch Video Solution**

**99.** If Broca's area is completely injured then what happen firstly:

- A. Concerning speech muscle are paralysed
- B. Speech stattered & not clear
- C. Unable to speak
- D. Only able to speak written word

**Answer: C**



**Watch Video Solution**

**100.** Which brain structure converts short term memory to long term memory ?

- A. Limbic lobe
- B. Temporal lobe
- C. Prefrontal cortex

D. Hippocampal lobe'

**Answer: B**



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**101.** In man the osmotic centres are stimulated in

A. Cerebrum

B. Hypothalamus

C. Pituitary gland

D. Medulla oblongata

**Answer: B**



**Watch Video Solution**

**102.** Hypothalamus does not control

- A. Libido
- B. Osmoregulation
- C. Creative thinking and consciousness
- D. Thermoregulation

**Answer: C**



**Watch Video Solution**

**103.** Choroid plexus is a network of

- A. Nerves
- B. Muscle fibres
- C. Capillaries
- D. Lymph vessels

**Answer: C**



**Watch Video Solution**

**104.** All the voluntary actions of our body are controlled by:

- A. Diencephalon
- B. Cerebrum
- C. Crura cerebri
- D. Cerebellum

**Answer: B**



**Watch Video Solution**

**105.** Thermo regulatory center in human brain is :

- A. Pituitary
- B. Diencephalon
- C. Hypothalamus



D. None

**Answer: C**



**Watch Video Solution**

**106.** Respiratory control in brain occurs in :

A. Medulla oblongata

B. Cerebellum

C. Hypothalamus

D. Pericardium

**Answer: A**



**Watch Video Solution**

**107.** Drinking of alcohol affects mostly:

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Dien cephalon

**Answer: B**



**Watch Video Solution**

**108.** Which part of the brain regulates the body temperature, hunger and water balance :

A. Hypothalamus

B. Infundibulum

C. Medulla oblongata

D. Pons veroli

**Answer: A**



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**109.** Involuntary actions in the the body are controlled by

- A. Medulla oblongata
- B. Cerebrum
- C. Cerebellum
- D. Diencephalon

**Answer: A**



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**110.** When the medulla oblongata (M.O.) is damaged, then what happen ?

- A. Immediately die
- B. Die after few hrs.
- C. Live at 1 hrs & after it may die

D. No affect

**Answer: A**



**Watch Video Solution**

**111.** Cerebral hemisphere is the centre of

A. taste

B. smell

C. balance

D. thinking

**Answer: D**



**Watch Video Solution**

**112.** Which part of brain is supposed to be damaged if in an accident , a person lost control of water balance, hunger and body temp. :

- A. Cerebellum
- B. Hypothalamus
- C. Medula oblongata
- D. Corpora quadrigemina

**Answer: B**



**Watch Video Solution**

**113.** Which part of brain controls emotions like love, anger and pleasure

- A. M.O.
- B. Hypothalamus
- C. Cerebrum
- D. Cerebellum

**Answer: C**



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**114.** Column 'I' list the parts of human brain and column 'II' lists the functions. Match the two columns and identify the correct choice from those given

**Column I**

(A) Cerebrum

(B) Cerebellum

(C) Hypothalamus

beat

(D) Midbrain

**Column II**

(i) Controls the pituitary

(ii) Controls vision and hearing

(iii) Controls the rate of heart  
beat

(iv) Seat of intelligence

(v) Maintains body posture

A. A=v, B=iv, C=ii, D=i

B. A=iv, B=v, C=ii, D=i

C. A=v, B=iv, C=i, D=ii

D. A=iv, B=v, C=i, D=ii

**Answer: D**



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**115.** Brain of human differs from that of frog in having:

- A. Large olfactory lobe
- B. Small hypothalamus
- C. Small cerebellum
- D. Corpus callosum

**Answer: D**



**Watch Video Solution**

**116.** Difference found between brain of frog and Human is :

- A. Presence of corpus callosum

B. Corpus albicans

C. Four optic lobes

D. All of these

**Answer: A**



**Watch Video Solution**

**117.** Hippocampal lobes are the parts of :

A. Olfactory lobes

B. Cerebrum

C. Cerebellum

D. Medulla oblongata

**Answer: B**



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**118.** Which part of the brain is more developed in human?

- A. Medulla
- B. Cerebellum
- C. Cerebrum
- D. Optic lobes

**Answer: C**



**Watch Video Solution**

**119.** A neopallium or cerebral cortex is not found in the brain of :

- A. Mammals
- B. Birds
- C. Reptiles
- D. Frogs

**Answer: D**



**Watch Video Solution**

**120.** Which of the following is not correctly matched :

- A. Rhinencephalon -Olfaction
- B. Hypothalamus -Pituitary
- C. Cerebellum -Balance
- D. Medulla oblongata-Temperature regulation

**Answer: D**



**Watch Video Solution**

**121.** The correct sequence of meninges from outer to the inner side is

- A. duramater -arachnoid -piamater

- B. arachnoid -duramater -piamater
- C. piamater - duramater - arachnoid
- D. duramater - piamater - arachnoid

**Answer: A**



**Watch Video Solution**

**122.** The thermoregulatory centre in the body of man is found in:

- A. Diencephalon
- B. Hypothalamus
- C. Pituitary
- D. Skin

**Answer: B**



**Watch Video Solution**

**123.** Part of the brain concerned with the muscular movement is

- A. cerebellum
- B. thalamus
- C. hippocampus
- D. temporal lobe of cerebrum

**Answer: A**



**Watch Video Solution**

**124.** In human corpus callosum connects:

- A. the two optic lobes
- B. bone and muscle
- C. the two cerebral hemispheres
- D. two lobes of pituitary gland

**Answer: C**



**Watch Video Solution**

**125.** Broca's area of speech is present in :

- A. parietal lobe
- B. temporal lobes
- C. temporal and occipital lobe
- D. frontal lobe

**Answer: D**



**Watch Video Solution**

**126.** In human body muscular co-ordination is controlled by:

- A. Spinal cord

B. Cortex

C. Cerebellum

D. Cerebral hemisphere

**Answer: C**



**Watch Video Solution**

**127.** The centre for sense of smell in brain is

A. cerebrum

B. cerebellum

C. olfactory lobe

D. hypothalamus

**Answer: A**



**Watch Video Solution**

**128.** The optic lobes in humans are represented by the corpora

- A. Bigemina
- B. Arenacea
- C. Striata
- D. Quadrigemina

**Answer: D**



**Watch Video Solution**

**129.** Which of the following is not an organ of the central nervous system

:

- A. Brain
- B. Spinal cord
- C. Medulla oblongata
- D. Vagus

**Answer: D**



**Watch Video Solution**

**130.** Ventral root of spinal nerve has :

- A. Sensory fibers
- B. Motor fibers
- C. Sensory and motor fibers both
- D. None of these

**Answer: B**



**Watch Video Solution**

**131.** Cavity in spinal cord is called :

- A. Enterocoel



- B. Blastocoe
- C. Schizocoel
- D. Neurocoel

**Answer: D**



**Watch Video Solution**

**132.** Cell bodies of neurons bringing afferent information into the spinal cord are located in

- A. Grey matter of spinal cord
- B. White matter of spinal cord
- C. Dorsal root ganglia
- D. Ventral root ganglia

**Answer: C**



**Watch Video Solution**

**133.** Last end of spinal cord is called :-

- A. Cauda equina
- B. Filum terminale
- C. Funiculus
- D. Conus medullaris

**Answer: D**



**Watch Video Solution**

**134.** Through which aperture, the spinal cord passes out of the skull?

- A. Foramen of momo
- B. Foramen of paninze
- C. Foramen of magnum
- D. None of these

**Answer: C**



**Watch Video Solution**

**135.** The butterfly-like structure surrounding the centre of a human spinal cord is called

- A. Funiculus
- B. Horn
- C. White matter
- D. Gray matter

**Answer: D**



**Watch Video Solution**

**136.** Which of the following has H-shaped grey matter ?

- A. Cerebrum
- B. Spinal cord
- C. Cerebellum
- D. Medulla oblongata

**Answer: B**



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**137. Which cranial nerves are sensory :**

- A. 1,2,8
- B. 3,4,6,11,12
- C. 5,7,9,10
- D. None of them

**Answer: A**



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**138.** The smallest cranial nerve is

- A. X-cranial nerve
- B. VI-cranial nerve
- C. VII-cranial nerve
- D. II-cranial nerve

**Answer: B**



**Watch Video Solution**

**139.** Which cranial nerve is the longest and supplies all parts of body other than head :

- A. Trochlear nerve
- B. Vagus nerve
- C. Oculomotor nerve

D. Auditory nerve

**Answer: B**



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**140.** Purely motor cranial nerve includes :

A. I, V, VII

B. I, II, N

C. III, IV, VI, XI

D. None of these

**Answer: C**



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**141.** Parasympathetic nervous system increases the activity of

- A. Lacrimal gland, sweat gland, arrector pili
- B. Heart, lacrimal gland, pancreas
- C. Heart, adrenal gland and sweat gland
- D. Gut, iris and urinary bladder

**Answer: D**



**Watch Video Solution**

**142.** Which of the following nerves is purely a motor nerve ?

- A. Abducens
- B. Trigeminal
- C. Olfactory
- D. Vagus

**Answer: A**



**Watch Video Solution**

**143.** The third, sixth and eleventh cranial nerves in mammals are respectively

- A. Oculomotor, abducens and hypoglossal
- B. Oculomotor, abducens and spinal accessory
- C. Trochlear, facial and spinal accessory
- D. Trigeminal, abducens and vagus

**Answer: B**



**Watch Video Solution**

**144.** Heart is innervated by :

- A. Vagus
- B. Trigeminal
- C. Facial



D. Glossopharyngeal

**Answer: A**



**Watch Video Solution**

**145.** मानव में मेरु तन्त्रकाओं की संख्या होती है

A. 31 pairs

B. 32 pairs

C. 12 pairs

D. 37 pairs

**Answer: A**



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**146.** Which nerve originates from medulla :

- A. Optic
- B. Occulomotor
- C. Vagus
- D. Trigeminal

**Answer: C**



**Watch Video Solution**

**147.** In human, autonomic nervous system is composed of

- A. Sympathetic and parasympathetic nerves
- B. Cranial and spinal nerves
- C. Brain and spinal nerves
- D. Medullated and non-medullated nerves

**Answer: A**



**Watch Video Solution**

**148.** How many pairs of cranial nerves are purely sensory :

- A. Two
- B. Three
- C. Four
- D. Five

**Answer: B**



**Watch Video Solution**

**149.** Optic nerve is the

- A. Fifth cranial nerve
- B. Second cranial nerve
- C. Seventh cranial nerve

D. Ninth cranial nerve

**Answer: B**



**Watch Video Solution**

**150.** All spinal nerves are

A. Motor

B. Sensory

C. Mixed

D. None of the above

**Answer: C**



**Watch Video Solution**

**151.** Which of the following nerve helps in maintaining the equilibrium of body :

- A. Trochlear
- B. Abducens
- C. Auditory
- D. Facial

**Answer: C**



**Watch Video Solution**

**152.** Autonomic nervous system controls :

- A. Conditioned reflexes
- B. Functioning of spinal cord
- C. Functioning of visceral organs
- D. Reflex actions

**Answer: C**



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**153.** Stimulation of sympathetic nervous system causes :-

- A. Constriction of blood vessels and high blood pressure
- B. Dilation of bronchi & pupil
- C. Erection of hair
- D. All of these

**Answer: D**



**Watch Video Solution**

**154.** The two additional cranial nerves present in mammals are :

- A. Pharyngeal & vagus

B. Spinal accessory and hypoglossal

C. Trigeminal and glossopharyngeal

D. Hypoglossal and sciatic

**Answer: B**



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**155.** Which of the following spinal nerves does not found in human:

A. Caudal nerves

B. Sacral nerves

C. Cervical nerves

D. Lumbar nerves

**Answer: A**



**Watch Video Solution**

**156.** Which one of the following cranial nerves is not a mixed nerves?

- A. Vagus & trigeminal
- B. Optic & vagus
- C. Auditory & olfactory
- D. Trochlear and vagus

**Answer: A**



**Watch Video Solution**

**157.** Cranial and spinal nerve can be included in

- A. Autonomic nervous system
- B. Peripheral nervous system
- C. Central nervous system
- D. Cutaneous nervous system



**Answer: B**



**Watch Video Solution**

**158.** Conservation of energy take place by :

- A. Sympathetic nervous system
- B. Parasympathetic nervous system
- C. Reflex action
- D. None

**Answer: B**



**Watch Video Solution**

**159.** If parasympathetic nerve is cut, then heart beat :

- A. Unaffected

B. Decreases

C. Increases

D. Stop

**Answer: C**



**Watch Video Solution**

**160.** Norepinephrine leads to increase in :

A. Blood pressure

B. Urine production

C. Cellular respiration

D. Release of epinephrine

**Answer: A**



**Watch Video Solution**

**161.** In a man, abducens nerve is injured. Which one of the following functions will be affected ?

- A. Movement of the neck
- B. Movement of the tongue
- C. Movement of the eye ball
- D. Swallowing

**Answer: C**



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**162.** Which cranial nerve provides taste sensation in anterior 2/3rd part of tongue

- A. Trigeminal
- B. Facial
- C. Glossopharyngeal

D. Hypoglossal

**Answer: B**



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**163.** In emergency condition, all changes occur in our body except

- A. Heart beat increases
- B. Dilates blood vessels of brain, lungs, heart and striated muscle
- C. Brochodilation
- D. Micturition is done

**Answer: D**



**Watch Video Solution**

**164.** Which of the following cranial nerves is not a motor nerve

A. II

B. III

C. IV

D. XII

**Answer: A**



**Watch Video Solution**

**165.** Match the following human spinal nerves in column I with II and choose the correct options

**Column I**

- (a) Cervical nerves
- (b) Thoracic nerves
- (c) Lumbar nerves
- (d) Coccygeal nerves

**Column II**

- (i) 5 pairs
- (ii) 1 pair
- (iii) 12 pairs
- (iv) 8 pairs

A. a=ii, b=iv, c=i, d=iii

B. a=iv, b=iii, c=i, d=ii

C. a=iv, b=ii, c=i, d=iv

D. a=l, b=iv, c=ii, d=iii

**Answer: B**



**Watch Video Solution**

**166.** 9th Pair of cranial nerve in human is

A. Vagus

B. Trigeminal

C. Hypoglossal

D. Glossopharyngeal

**Answer: D**



**Watch Video Solution**

**167.** Which of the following is not under the control of vagus nerve ?

- A. Gastrointestinal movement
- B. Respiratory movement
- C. Salivation
- D. None of these

**Answer: C**



**Watch Video Solution**

**168.** Which of the following is released by parasympathetic nervous system?

- A. Serotonin
- B. Acetylcholine
- C. Epinephrine
- D. Norepinephrine

**Answer: B**



**Watch Video Solution**

**169.** Facial nerve is

- A. Motor
- B. Sensory
- C. Motor and sensory
- D. None of these

**Answer: C**



**Watch Video Solution**

**170.** Number of cranial nerve in human is -

- A. Ten only



- B. Ten pairs
- C. Twenty pairs
- D. Twelve pairs

**Answer: D**



**Watch Video Solution**

**171.** Which of the following pair is mismatched

- A. Cerebrum -voluntary activities
- B. Cerebellum -body balance
- C. Medulla oblongata controls activity of internal organs
- D. Pons conciousness

**Answer: D**



**Watch Video Solution**

**172.** After sympathetic stimulation, which type of activities are not present in human being

- A. Tachycardia
- B. Bronchodilation
- C. Micturition
- D. Semen Ejaculation

**Answer: C**



**Watch Video Solution**

**173.** Which of the following two systems are opposite in action to each other?

- A. Nervous -Sensory
- B. Nervous -Endocrine
- C. Sensory -Endocrine

D. Parasympathetic -Sympathetic

**Answer: D**



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**174.** You are watching a horror movie and you notice that your heart is beating fast and mouth is dry. It is because of

- A. Fight and flight response
- B. Autonomic nervous system
- C. Sympathetic nervous system
- D. Both A and C

**Answer: D**



**Watch Video Solution**

**175.** Movement of tongue is under the control of

- A. Trigeminal
- B. Facial
- C. Autonomic system
- D. Hypoglossal

**Answer: D**



**Watch Video Solution**

**176.** If dorsal nerve of spinal cord is broken down then its effect is

- A. No effect on impulse
- B. Impulse is transmitted fast
- C. Impulse is transmitted but slowly
- D. No impulse is transmitted from receptor

**Answer: D**



**Watch Video Solution**

**177.** ANS effects on:

- A. reflex actions
- B. sensory organs
- C. internal organs
- D. none of these

**Answer: C**



**Watch Video Solution**

**178.** The 3rd, 6th and 11th cranial nerves are

- A. optic, facial, spinal accessory

B. oculomotor, trigeminal, spinal accessory

C. trigeminal, abducens, vagus

D. oculomotor, abduces, spinal accessory

**Answer: D**



**Watch Video Solution**

**179.** Which of the following is a motor nerve?

A. auditory

B. abducens

C. optic

D. trigeminal nerve

**Answer: B**



**Watch Video Solution**

**180.** How many laminae are present in the grey matter of spinal cord.

- A. Four
- B. Six
- C. Eight
- D. Ten

**Answer: D**



**Watch Video Solution**

**181.** Which of the following is not an effect of the sympathetic nervous system

- A. Dilation of pupil
- B. Inhibition of peristalsis
- C. Elevation of blood pressure
- D. Stimulation for saliva secretion

**Answer: D**



**Watch Video Solution**

**182.** Which one of the following is responsible for the control of reflex action

- A. Motor nerves
- B. Sensory nerves
- C. Central nervous system
- D. Sympathetic nervous system

**Answer: C**



**Watch Video Solution**

**183.** Reflex action is controlled by :



- A. Muscles
- B. limbs
- C. Central nervous system
- D. Autonomic nervous system

**Answer: C**



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**184.** Find out the correct sequence of a simple reflex are:

- A. Brain-spinal cord -nerves -effector
- B. Effector -CNS -sensory nerves -receptor
- C. Muscles -spinal cord -brain -receptor
- D. Receptor -sensory nerves -CNS -effector

**Answer: D**



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**185.** The delicious food generally makes mouth watery. It is due to

- A. Hormonal response
- B. Neural response
- C. Optic response
- D. Olfactory response

**Answer: B**



**Watch Video Solution**

**186.** Reflex arc consists of

- A. motor nerve
- B. sensory nerve
- C. both sensory and motor nerves

D. none of these

**Answer: C**



**Watch Video Solution**

## Exercise 2

1. Which system provides an organised network of point to point connection :

- A. Integrated system
- B. Neuro-endocrine system
- C. Endocrin system
- D. Nervous system

**Answer: D**



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2. Which role of neuron regarding different kinds of stimuli is absent :

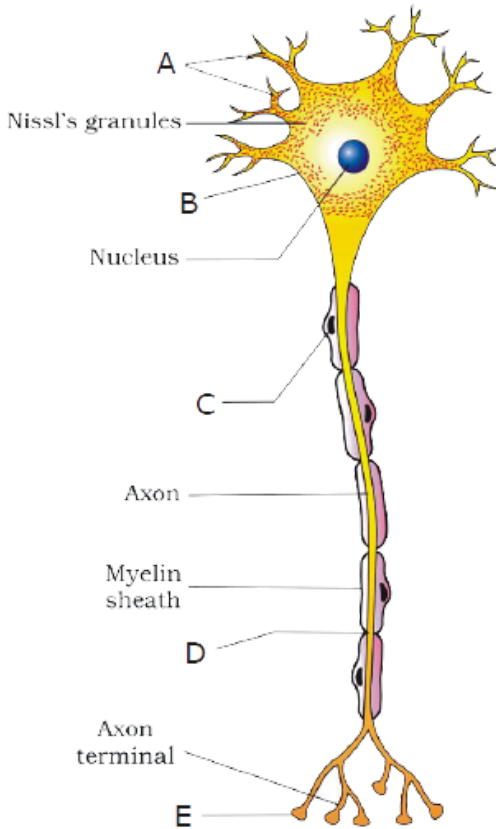
- A. detect
- B. receive
- C. transmit
- D. protect

**Answer: D**



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3. The accompanied diagram shows the structure of neuron. Identify A to



E.

A. A- Nerve fibre, B-Cyton or cell body, C-Schwann cell, D-Nodes of ranvier, E-Synaptic knob

B. A- Dendrites, B- Cyton or cell body, C- Schwann cell, D- Node of ranvier, E-Synaptic knob

C. A- Dendrites, B- Nerve cell, C- Schwann cell, D- Node of ranvier, E-

Synaptic knob

D. A- Dendrites, B- Cyton or cell body, C- Nerve cell, D- Node of ranvier,

E- Synaptic knob

**Answer: B**



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**4. Pick out the incorrect statement?**

A. Myelinated nerve fibres are found in spinal and cranial nerve.

B. Unmyelinated nerve fibre is enclosed by a schwann cell.

C. In resting stage the axonal membrane is comparatively more permeable to potassium ion and nearly impermeable to sodium ions.

D. Axolemma is more permeable to negatively charged protein present in the axoplasm

**Answer: D**



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5. When a neuron is not conducting any impulse i.e. resting , the axonal membrane is

- A. Comparatively more permeable to  $K^+$  and impermeable (nearly impermeable) to  $Na^+$
- B. Impermeable to negatively charged proteins present in the axoplasm
- C. (A) & (B) Both
- D. More permeable to  $Na^+$  ions than  $K^+$  ion

**Answer: C**



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6. During depolarisation of an axonal membrane

- A.  $Na^+$  ions rapidly move inside the cell
- B.  $Na^+$  ions rapidly move outside the cell
- C.  $K^+$  ions rapidly move outside the cell
- D.  $K^+$  ions rapidly move inside the cell

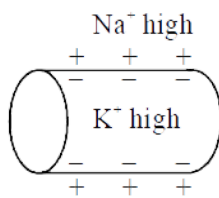
**Answer: A**



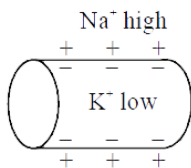
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7. Which of the following options illustrates the distribution of  $Na^+$  and  $K^+$  ions in a section of non-myelinated axon which is at resting potential ?

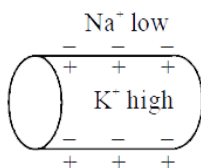




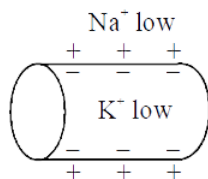
A.



B.



C.



D.

**Answer: A**



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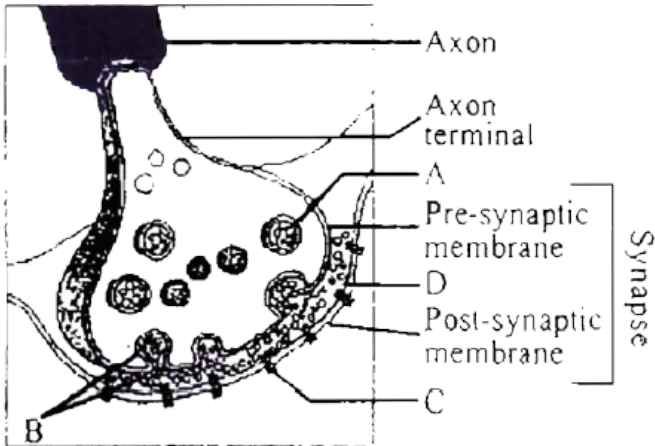
**8. Study the diagram of synapses-**

**I. Which alphabet indicate the location of the receptor molecules ?**

II. Which alphabet points to a synaptic vesicles

III. Which alphabet points to neurotransmitter

IV. Which alphabet points to synaptic cleft



A. I-C, II-A, III-B, IV-D

B. I-B, II-A, III-C, IV-D

C. I-C, II-A, III-D, IV-B

D. I-C, II-D, III-A, IV-B

**Answer: A**



**Watch Video Solution**

9. Which of the following statements is/are incorrect about the electrical synapse ?

(i) At electrical synapses, the membranes of pre and post synaptic neurons are in very close proximity.

(ii) Electricity current can flow directly from one neuron into the other across the synapses.

(iii) Transmission of an impulse across electrical synapses is very similar to impulse conduction along single axon.

(iv) Electrical synapses pass electrical signal between cells with the use of Ach.

(v) Electrical synapses are fast.

(vi) Electrical synapses are rare in our system.

A. I and II

B. Only II

C. Only IV

D. Only V

**Answer: C**



**10.** A list of events occurring in the transmission of nerve impulse across the synapse is given below in a random order

(i) Opening of specific ion channels allows the entry of ions, a new action potential is generated in the post-synaptic neuron.

(ii) Neurotransmitter binds to the receptor on post synaptic membrane.

(iii) Synaptic vesicle fuses with pre-synaptic membrane, neurotransmitter release into synaptic cleft.

(iv) Depolarisation of pre-synaptic membrane.

(v) Arrival of action potential at axon terminal.

Which of the following options represents these events in a correct order ?

A.  $E \rightarrow D \rightarrow C \rightarrow B \rightarrow A$

B.  $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E$

C.  $A \rightarrow B \rightarrow D \rightarrow C \rightarrow E$

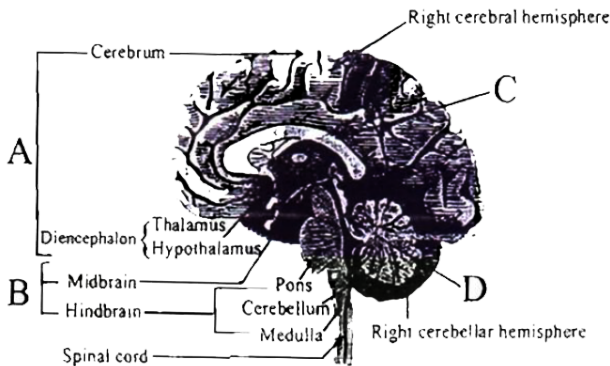
D.  $E \rightarrow D \rightarrow C \rightarrow A \rightarrow B$

**Answer: A**



**Watch Video Solution**

11. Identify A,B,C and D in given diagram -



- A. A -Forebrain, B -Brainstem, C -Corpus callosum, D-Cerebral aqueduct
- B. A -Forebrain, B -Brainstem, C -Cerebral aqueduct, D -Corpus callosum
- C. A -Brainstem, B -Forebrain, C -Corpus callosum, D -Cerebral aqueduct
- I
- D. A -Brainstem, B -Forebrain, C -Cerebral aqueduct, D -Corpus luteum

**Answer: A**



[Watch Video Solution](#)

**12.** The forebrain develops into

- A. Diencephalon and Cerebrum
- B. Diencephalon and Cerebellum
- C. Diencephalon and Medulla
- D. Diencephalon and Pons

**Answer: A**



[Watch Video Solution](#)

**13.** The name of nervous band connecting both the cerebral hemispheres in your brain

- A. Corpus albicans
- B. Corpus callosum

C. Corpus striatum

D. Corpus spongiosum

**Answer: B**



**Watch Video Solution**

**14.** Which of the following statements is incorrect about cortex of cerebrum ?

A. It consists of grey matter

B. It consists of white matter

C. It shows prominent folds

D. It contains motor areas, sensory areas and association areas

**Answer: B**



**Watch Video Solution**

**15.** Association areas in cerebral cortex are

A. Sensory areas

B. Motor areas

C. Responsible for intersensory associations, memory and communication

D. None of the above is correct

**Answer: C**



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**16.** The cerebrum wraps around a structure called thalamus, which is

A. A major coordinating centre for sensory signal only

B. A major centre for motor signaling

C. A major coordinating centre for sensory and motor signaling

D. Not a nervous part of a brain



**Answer: C**



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**17. Hypothalamus does not control**

A. Thermoregulation

B. Urge for eating and drinking

C. Produces hormones that regulate the synthesis and secretion of  
pituitary hormone

D. Creative thinking and consciousness

**Answer: D**



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**18. Inner part of cerebral hemisphere, which is involved in sexual behaviour, motivation expression of emotional reactions etc. and a group**

of associated deep structure like amygdala, hippocampus etc. is

- A. Reticular system
- B. Corpora quadrigemina
- C. Limbic lobe/limbic system
- D. Arbor vitae

**Answer: C**



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**19.** Which of the following statements or structures is not correct about the midbrain?

- A. Located between the thalamus/hypothalamus and pons
- B. Has arbor vitae
- C. Has a canal (Cerebral aqueduct)
- D. Its dorsal part consists of 4 lobes (corpora quadrigeminal)

**Answer: B**



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**20.** Read the following statements and choosed the correct option-

I. Cerebellum has very convoluted surface in order to provide the additional space for more neurons.

II. The medulla is connected to the spinal cord

III. Medulla contains controlling centres for respiration, cardiovascular reflexes and gastric secretion.

A. All are correct

B. Only I is correct

C. Only I and III are correct

D. Only II is correct

**Answer: A**



**Watch Video Solution**

21. Different components of reflex arc are given below:

- I. Effector organ
- II. Interneuron ,
- III. Motor neuron
- IV. Sensory neuron
- V. Sensory receptor

Choose the correct order an action potential follows after a sensory receptor is stimulated

- A. V, IV, III, II, I
- B. V, IV, II, III, I
- C. V, III, IV, I, II
- D. V, II, IV, III, I

**Answer: B**



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**22.** Where A stands for axon, D for dendrite, S for synapse, and CB for cell body, a typical sequence of structures between a receptor and an efferent is?

- A. D -CB -A -S -D -CB -A
- B. A -D -CB -S -A -D -CB
- C. D -CB -A -S -A -CB -D
- D. D -A -S -CB -D-A -CB

**Answer: A**



**Watch Video Solution**

**23.** What is meant by a reflex arc in the nervous system?

- A. An inherited behaviour pattern, that functions through a certain neural pathway

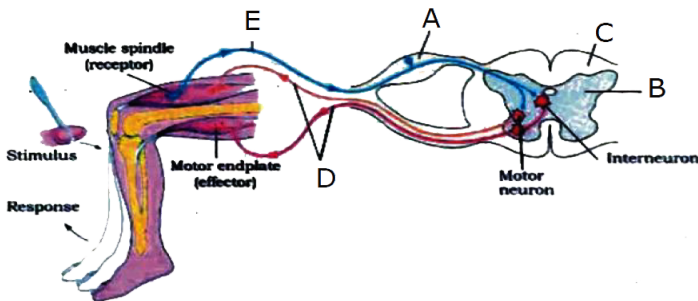
- B. A functional unit consisting of a receptor, neural pathway, and an effector
- C. Peripheral nerves, spinal cords and brain
- D. A homeostatic system of sensory nerves, synapses and motor nerves

**Answer: B**



**Watch Video Solution**

24. The given diagram represent reflex action shows knee jerk reflex



In which of the following option correct words for all the 5 blanks (A to E) are illustrate

A. A-Ventral root ganglion, B- White matter, C- Gray matter, D- Efferent pathway, E-Afferent pathway

B. A- Dorsal root ganglion, B- Gray matter, C- White matter, D- Efferent pathway, E-Afferent pathway

C. A- Dorsal root ganglion, B- White matter, C- Gray matter, D- Efferent pathway, E-Afferent pathway

D. A- Dorsal root ganglion, B- White matter, C- Gray matter, D- Afferent pathway, E- Efferent pathway

**Answer: B**



**Watch Video Solution**

**25.** Read the following statements :-

(a) Nervous system provides an organised network of point to point connection.

(b) The endocrine system provides chemical integration through

hormone.

(c) The neural organisation is very complex in lower invertebrates.

(d) Neuron can detect & receive stimuli but can't transmit. How many of above statements are false.

A. 4

B. 3

C. 2

D. 1

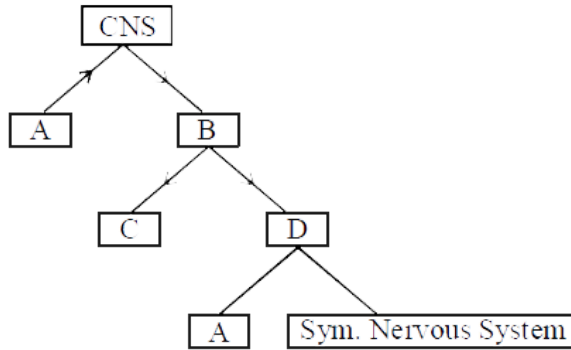
**Answer: C**



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26. Which of the following answer shows the correct arrangement of



nerve fibre

- A. (A) Centrifugal (B) Efferent (C) PNS. (D)ANS (E) Parasympathetic
- B. (A) Centripetal Afferent (C) PNS. (D) ANS (E) Parasympathetic
- C. (A) Centrifugal (B) Afferent (C) SNS (D) ANS (E) Parasympathetic
- D. (A) Centripetal (B) Efferent (C) SNS. (D) ANS (E) Parasympathetic

**Answer: D**



**Watch Video Solution**

27. Which statement is correct regarding neuron.

- A. Neuron is composed of 4 parts containing cell body dendrite, axon & telodendria
- B. Nissel's granules are found in both cell body & axon.
- C. Impulse are divided into apolar, bipolar & multipolar
- D. Dendrites transmit impulse toward the body while axon transmit impulse away from the body.

**Answer: D**



**Watch Video Solution**

**28.** Which of the nervous system transmit impulse from CNS to involuntary organs & smooth muscle?

- A. Sympathetic nervous system
- B. Parasympathetic nervous system
- C. Autonomic nervous system

D. Somatic nervous system

**Answer: C**



**Watch Video Solution**

**29.** Read the following statement :

(A) Peripheral nervous system divide's in somatic nervous system & autonomic nervous system.

(B) Central nervous system includes brain & vertebral column,

(C) Afferent nerve fibre transmit impulse from CNS and vise versa is also correct.

How many of above statements is/are false

A. A & B

B. B & C

C. C & A

D. All

**Answer: B**



**Watch Video Solution**

**30.** Which of the statement is false regarding synapse.

- A. Synapse is formed by 2 membrane first presynaptic membrane of synaptic knob & second post synaptic membrane of dendrite.
- B. Synaptic membrane always be seprated by a gap , called synaptic cleft.
- C. Electricle synapse in very similar to impulse conduction along a single axon.
- D. In chemical synapse, neurotransmitter is released and either excitatory or inhibitory potential is genereted on post synaptic membrane

**Answer: B**



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31. Which of the following statement is correct.

(A) The electrical potential difference across the polarised plasma membrane is called as action potential in resting stage.

(B)  $Na^+$  ion is responsible for generating an action potential.

(C) The impulse is action potential

A. A & B

B. B & C

C. C & A

D. All

**Answer: B**



Watch Video Solution

32.  $Na^+ - K^+$  pump

(A) Transports  $3Na^+$  inwards &  $2K^+$  outwards. (B) Maintain ionic gradients by active transport. (C) Works against a concentration gradient.

How many of above statements are false ?

A. 4

B. 3

C. 2

D. 1

**Answer: D**



**Watch Video Solution**

33. Which of the following are controlled by limbic system : (A) Emotional reaction (B) Sexual behaviour (C) Respiration (D) Olfaction (E) Body balance Choose the correct option

A. A,B,C,D,E

B. A,B,D

C. A,B,C,D

D. A,B,D,E

**Answer: B**



**Watch Video Solution**

**34.** The prime area of brain where different type of information are integrated ~

A. CNS

B. ANS

C. PNS

D. SNS

**Answer: A**

35. In an epileptic patient, doctor administer a GABA facilitatory drug. After considerable time fits are absent in the patient. What would be the probable mechanism of that drug.

- A. It cause blocking of neurotransmitter at synaps and forms a complex.
- B. It desensitize post synaptic membrane for neurotransmitter.
- C. It inhibits  $Na^{+} - K^{+} AT$  pase pump.
- D. It cause hyperpolarisation of post synaptic membrane and generate IPSP

**Answer: D**



36. If a person is suffering from depression. In such situation antidepressant drugs are required. These drugs

- A. Stimulate  $Na^{+}$  influx at post synaptic membrane
- B. Stimulate hyper polarisation of post synaptic membrane.
- C. Stimulate more bursting of synaptic vesicles in pre-synaptic membrane.
- D. Inhibit the enzyme which catalyse degradation of nor-adrenalin

**Answer: D**



**Watch Video Solution**

37. Which statement is wrong about the function of brain?

- A. Hypothalamus mainly controls ANS.
- B. Voluntary muscle activity is started by cerebellum
- C. Medulla oblongata regulates involuntary activity of our body

D. Thalamus acts as major co-ordinating centre for sensory and motor signalling.

**Answer: B**



**Watch Video Solution**

**38. Botulism affects :**

- A. Digestive system
- B. Blood vascular system
- C. Nervous system
- D. Respiratory system

**Answer: C**



**Watch Video Solution**

**39.** Injury to vagus nerve in humans is not likely to affect

- A. Gastrointestinal movements
- B. Pancreatic secretion
- C. Cardiac movements
- D. Tongue movements

**Answer: D**



**Watch Video Solution**

**40.** Excessive stimulation of vagus nerve in humans may lead to

- A. Hoarse voice
- B. Peptic ulcers
- C. Efficient digestion of proteins
- D. Irregular contractions of diaphragm

**Answer: B**



**Watch Video Solution**

**41. Effect of anaesthetics on body :**

- A. Inhibits  $Na^{+} - K^{+}$  pump
- B. Kills nerves
- C. Stops brain functions
- D. Inactivates skin cells

**Answer: A**



**Watch Video Solution**

**42. Deficiency of oxygen affects most the**

- A. Brain

B. Skin

C. Kidney

D. Intestine

**Answer: A**



**Watch Video Solution**

**43. Adrenaline directly affects**

A. SA Node

B. cells of Langerhans

C. Dorsal root of spinal cord

D. Epithelial cells of stomach

**Answer: A**



**Watch Video Solution**

**44.** Which one of the following characters is not typical of the class Mammalia

- A. Seven cervical vertebrae
- B. Thecodont dentition
- C. Alveolar lungs
- D. Ten pairs of cranial nerve

**Answer: D**



**Watch Video Solution**

**45.** Parkinson's disease (Characterized by tremors and progressive rigidity of limbs) is caused by degeneration of brain neurons that are involved in movement control and make use of neurotransmitter

- A. acetylcholine
- B. norepinephrine

C. dopamine

D. GABA

**Answer: C**



**Watch Video Solution**

**46.** Synaptic delay last for:

A. 0.1 ms

B. 0.3 ms

C. 0.4 ms

D. 0.5 ms

**Answer: D**



**View Text Solution**

**47.** Lateral rectus muscle of the eye is served by which cranial nerve?

- A. Oculomotor
- B. Pathetic
- C. Abducens
- D. Spinal accessory

**Answer: C**



**Watch Video Solution**

**48.** Which part of brain controls intellectual ability ?

- A. frontal lobe
- B. parietal lobe
- C. temporal lobe
- D. occipital lobe



**Answer: A**



**Watch Video Solution**

**49. Somaesthetic area is responsible for:**

- A. initiation of motor impulses for voluntary muscles
- B. initiation of motor impulses for involuntary muscles
- C. perception of pain, touch and temperature
- D. co-ordination of speech

**Answer: C**



**Watch Video Solution**

**50. Which part of the brain is affected first in a drunk person:**

- A. Cerebrum

B. Olfactory lobe

C. Cerebellum

D. Medulla oblongata

**Answer: C**



**Watch Video Solution**

**51. Which of the following part of your brain generates sensation of cold when you comes out from your home in winters ?**

A. Cerebrum

B. Olfactory lobe

C. Cerebellum

D. Medulla oblongata

**Answer: A**



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**52.** In a frog, the connection between brain and spinal cord is severed. The leg of such a frog is picked by a sharp needle. Then it is most likely that the animal will

- A. Not show any reaction.
- B. Move the leg that is pricked.
- C. Move the leg and feel the pain.
- D. Do not move the leg but feel the pain.

**Answer: B**



**Watch Video Solution**

**53.** Which statement is incorrect regarding spinal reflex?

- A. These are polysynaptic or monosynaptic reflex.
- B. Urgency is required.

C. Response is only given by spinal cord.

D. There is no involvement of brain in sensory perception.

**Answer: D**



**Watch Video Solution**

**54.** If facial nerve is cut what will be the consequence?

A. Smell sensation is lost

B. Dry mouth occur

C. Person can not express facial expressions

D. Mastication will not occur

**Answer: C**



**Watch Video Solution**

1. Which one of the following statements is correct?

- A. Neither hormones control neural activity nor the neuron control endocrine activity
- B. Endocrine glands regulate neural activity, but not vice versa
- C. Neurons regulate endocrine activity, but not vice versa
- D. Endocrine glands regulate neural activity, and nervous system regulates endocrine glands

**Answer: D**



**Watch Video Solution**

2. Which one of the following does not act as a neurotransmitter ?

- A. Norepinephrine
- B. Cortisone

C. Acetylcholine

D. Epinephrine

**Answer: B**



**Watch Video Solution**

3. During the transmission of nerve impulse through a nerve fibre, the potential on the inner side of the plasma membrane has which type of electric charge ?

- A. First positive, then negative and continue to be negative
- B. First negative, then positive and continue to be positive
- C. First positive, then negative and again back to positive
- D. First negative, then positive and again back to negative

**Answer: D**



**Watch Video Solution**

4. Which one of the following pairs of structures distinguishes a nerve cell from other types of cell

- A. Vacuoles and fibres
- B. Flagellum and medullary sheath
- C. Nucleus and mitochondria
- D. Perikaryon and dendrites

**Answer: D**



**Watch Video Solution**

5. During the propagation of a nerve impulse, the action potential results from the movement of

- A.  $K^+$  from intracellular fluid to extracellular fluid
- B.  $Na^+$  from extracellular fluid to intracellular fluid

C.  $K^{+}$  from extracellular fluid to intracellular fluid

D.  $Na^{+}$  from intracellular fluid to extracellular

**Answer: B**



**Watch Video Solution**

6. The nerve centres which control the body temperature and the urge for eating are contained in

A. Cerebellum

B. Thalamus

C. Hypothalamus

D. Pons

**Answer: C**



**Watch Video Solution**



7. A person entering an empty room suddenly finds a snake right in front on opening the door. Which one of the following is likely to happen in his neuro-hormonal control system

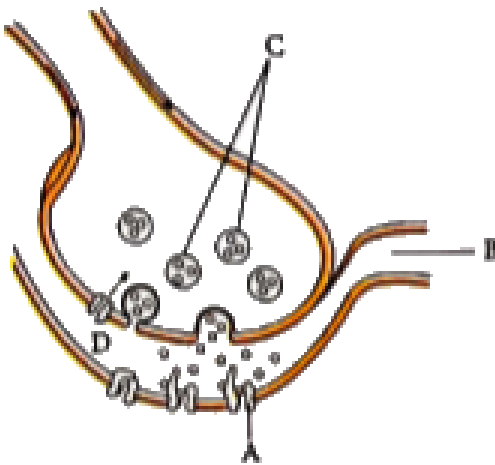
- A. Hypothalamus activates the parasympathetic division of brain
- B. Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal cortex
- C. Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal medulla
- D. Neurotransmitters diffuse rapidly across the cleft and transmit a nerve impulse

**Answer: C**



**Watch Video Solution**

8. A diagram showing axon terminal and synapse is given. Identify correctly at least two of A-D



A. C-Neurotransmitter  $D - Ca^{++}$

B. A-Receptor C-Synaptic vesicles

C. B-Synaptic connection  $D - K^{+}$

D. A-Neurotransmitter B-Synaptic

**Answer: B**



**Watch Video Solution**

**9. How do parasympathetic neural signals affect the working the heart**

- A. Reduce both heart rate and cardiac output.
- B. Heart rate is increased without affecting the cardiac output.
- C. Both heart rate and cardiac output increase.
- D. Heart rate decreases but cardiac output increases.

**Answer: A**



**Watch Video Solution**

**10.** Injury localized to the hypothalamus would most likely disrupt

- A. short -term memory.
- B. co-ordination during locomotion.
- C. executive functions, such as decision making.
- D. regulation of body temperature.

**Answer: D**



**Watch Video Solution**

11. Which of the following regions of the brain is incorrectly paired with its function

- A. Cerebellum-language comprehension
- B. Corpus callosum-communication between the left and right cerebral cortices
- C. Cerebrum-calculation and contemplation
- D. Medulla oblongata -homeostatic control

**Answer: A**



**Watch Video Solution**

12. Choose the correct statement.

- A. Receptors do not produce graded potentials.
- B. Nociceptors respond to changes in pressure.

C. Meissner's corpuscles are thermoreceptors.

D. Photoreceptors in the human eye are depolarized during darkness and become hyperpolarized in response to the light stimulus.

**Answer: D**



**Watch Video Solution**

**13.** Which of the following structures or region is incorrectly paired with its function ?

A. Hypothalamus : -Production of releasing hormones and regulation of temperature, hunger and thirst

B. Limbic system : -consists of fibre tracts that interconnect different regions of brain, controls movement.

C. Medulla oblongata : -controls respiration and cardiovascular reflexes

D. Corpus callosum : -band of fibres connecting left and right cerebral  
hemi- spheres

**Answer: B**



**Watch Video Solution**

**14.** Nissl bodies are mainly composed of

- A. Nucleic acids and SER
- B. DNA and RNA
- C. Proteins and lipids
- D. Free ribosomes and PER

**Answer: D**



**Watch Video Solution**

**15.** Which part of the brain is responsible for thermoregulation?

- A. Corpus callosum
- B. Medulla oblongata
- C. Cerebrum
- D. Hypothalamus

**Answer: D**



**Watch Video Solution**

**16.** Which of the following statements is correct ?

- A. Cornea is convex, transparent layer which is highly vascularised
- B. Cornea consists of dense matrix of collagen and is the most sensitive portion of the eye.

C. Cornea is an external, transparent and protective proteinaceous covering of the eye- ball

D. Cornea consists of dense connective tissue of elastin and can repair itself.

**Answer: C**



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#### Exercise 4

1. Given below is a table comparing the effect of sympathetic and parasympathetic nervous system for four features (a-d). Which one



feature is correctly described

	Feature	Sympathetic Nervous system	Parasympathetic Nervous System
(a)	Salivary gland	Stimulates secretion	Inhibits secretion
(b)	Pupil of the eye	Dilate	Constricts
(c)	Heart rate	Decreases	Increases
(d)	Intestinal peristalsis	Stimulates	Inhibits

A.

Feature	Sympathetic nervous system	Parasympathetic
Salivary glands	Stimulates secretion	Inhibits secretion

B.

Feature	Sympathetic nervous system	Parasympathetic
Pupil of the eye	Dilates	Constricts

C.

Feature	Sympathetic nervous system	Parasympathetic
Heart rate	Decreases	Increases

D.

Feature	Sympathetic nervous system	Parasympathetic
Intestinal peristalsis	Stimulates	Inhibits

Answer: B

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2. An action potential in the nerve fibre is produced when positive and negative charges on the outside and the inside of the axon membrane are reversed, because

- A. more  $Na^+$  enter the axon as compared to  $Na^+$  sodium ions leaving it
- B. more  $Na^+$  enter the axon as compared to  $K^+$  leaving it
- C. all  $K^+$  leaving the axon
- D. all  $Na^+$  enter the axon

**Answer: C**



**Watch Video Solution**

3.  $Na^+ / K^+$  pump is an example of:

- A. Passive transport
- B. Active transport

C. Transportatioll of ions along a concentration gradient

D. Osmosis

**Answer: B**



**Watch Video Solution**

**4. Mid brain has centre for reflex action of :**

A. Visual and tactile

B. Visual, tactile, and auditory

C. Auditory and tactile

D. Visual and auditory

**Answer: B**



**Watch Video Solution**

5. Parkinson disease is a neurodegenerative disease, caused by deterioration of neurons. It is due to deficiency of which neurotransmitter?

- A. Acetyl choline
- B. Dopamine
- C. GABA
- D. Nor-epinephrine

**Answer: B**



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6. Assertion :- Associative area are neither sensory nor motor.

Reason:- Associative area is a type of memory bank where informations get stored.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

7. Assertion :-  $Na^+ - K^+$  pump always remains open/ active except depolarization.

Reason:-  $Na^+ - K^+$  pump always try to maintain resting stage or normal polarised state.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**8. Assertion :-** Human's brain having highly folded structure in gray matter as gyri & sulci.

**Reason:-** Gyri & sulci are also present in cerebellum.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**9. Assertion :-** Schwann cells are present in myelinated & unmyelinated axon.

**Reason:-** Schwann cell has functions of myelinogenes in PNS & function as packaging cell in autonomous neural system and somatic neural system.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**10.** Assertion. Cerebellum is large, lobed and convulated in active animals.

Reason. Cerebellum coordinates voluntary movements and helps maintain posture and equilibrium

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**



**11. Assertion.** Conditional reflex is not lost with time.

**Reason.** Conditional reflex is inborn (hereditary).

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: D**



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**12. Assertion :-** A neurotransmitter crosses the synapse and attaches to receptors on the post synaptic cell.

Reason:- Depending on the neurotransmitter, it may excite or inhibit the post synaptic cell.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: B**



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**13.** Read the assertion and reason carefully to mark the correct option out of the options given below:

Assertion : Medulla oblongata causes reflex actions like vomiting,

coughing and sneezing

Reason : It has many nerve cells which control autonomic reflexes.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**14.** Assertion. Transmission of a nerve impulse across a synapse is brought about by a neurotransmitter.

Reason. A neurotransmitter is necessary to transmit a nerve impulse

across a synapse because there is a small gap, the synaptic cleft, between the two neurons at the synapse.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**15. A :** Sense organs, do not interpret the stimulus, it is done by brain.

**R :** Sense organs are transducers. They transform the energy of a stimulus to the energy of nerve impulses.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**16. Assertion :-** In human being, cerebrum is most developed part of brain.

**Reason:-** Cerebrum is having large surface area & analysing centre for maintaining body activity

- A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



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**17. Assertion :-** Spinal cord act as a bridge between brain & organs of the body

**Reason:-** It starts from foramen of magnum and it is extended part of medulla oblongata

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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**18. Assertion :** A cerebellum is related with skillful voluntary movement and involuntary activity like body balance, equilibrium etc.

**Reason :** It is part of hind brain and it is situated behind the pons.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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**19. Assertion :-** Threshold stimulus is required for propagation of impulse

**Reason:-** Threshold stimulus produce action potential therefore conduction of impulse occur.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**20. Assertion :-** Conditioned reflex is not present at birth.

**Reason:-** Initially these action require learning and after perfection these become involuntary action.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**21. Assertion :-** ANS is controlled by hypothalamus.

**Reason:-** Parasympathetic increases the protection of body in adverse

atmospheric conditions along with calorie consumption.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: C**



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**22. Assertion :-** Speed of nerve impulse is faster on medullated nerve fibres, than non medulated nerve fibres.

**Reason:-** In medullated nerve fibres nerve impulses are conducted in a saltatory manner.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**23. Assertion :-** Neuron is the longest cell of human body.

**Reason:-** It contain dendrites and axon.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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**24.** Assertion :- Nerve impulse conduction is one way conduction.

Reason:- Neurotransmitters are only present at axon terminals.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



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**25. Assertion :-** In a myelinated nerve fibre the impulse jumps from one node of Ranvier to the other.

**Reason:-** Exchange of ions takes place only at node of Ranvier.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**26.** Assertion :- Minimum stimulus required to open  $\text{Na}^+$  VGC as the result of which depolarisation occurs, is called action potential.

Reason:- Average value of RMP is  $+70 \text{ mV}$ .

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: D**



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**27. Assertion :-** Midbrain, pons and medulla constitute to form brain stem.

**Reason:-** Medulla controls involuntary activities of our body.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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**28. Assertion :-** All branches of spinal nerves except Ramus communicans are mixed in nature.

Reason:- All spinal nerves possess motor and sensory fibres, while Ramus communicans is only motor in nature.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: A**



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**29. Assertion :-** Sensory neuron from toes to CNS is one of the longest nerve in the body

**Reason:-** Sensory nerve form the synapse at both dendrites and axon terminals.



- A. If both assertion and reason are true and reason is the correct explanation of assertion.
- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: C**



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**30. Assertion :-** Corpus callosum connect the two cerebral hemispheres.

**Reason:-** Association area are responsible for complex functions like intersensory association memory and communication.

- A. If both assertion and reason are true and reason is the correct explanation of assertion.

- B. If both assertion and reason are true but reason is not the correct explanation of assertion.
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

**Answer: B**



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