BIOLOGY

NEET & AIIMS

NEURAL CONTROL AND COORDINATION

Example

1. What does the coordination of body organs imply ?

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2. Whrite down the basic function of neurons.

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3. What is the role of CNS in the human body ?

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4. How many axons and dendrites are present in the multipolar and bipolar neurons ?

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5. Write down the role of myelin sheath in the myelinated axons.

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6. What is the role of $Na^+ - K^+$ pumps in the axonal membrane ?

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7. Through which of the following . Energy (ATP) is required to transport the ions and why ?

(a) Sodium - potassium pumps

(b) Na^+ channels

(c) K^+ channels

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8. What will happen if the post - synaptic receptors in a chemical synapse are removed ?

(a) Synaptic transmission will be faster

(b) Synaptic transmission will become slower

(c) Synaptic transmission will be not occur

(d) Synaptic transmission will be unaffected

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9. Name the various areas present in cerebral cortex.

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10. What is the location and function of corpora quadrigemina ?

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11. Whrite down three important charateristics of a reflex action.

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12. Why rods and conse are called the photoreceptor cells ?

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13. Which of the following membranes given us the ability to discriminate different pitches of sound ?

(a) Membrane covering the round window

(b) Tympanic membrane

(c) Tectorial membrane

(d) Basilar membrane

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Try Yourself

1. The coordination of body organs is required to

A. Disturb the body homeostasis

B. Maintain the body homeostasis

C. Stop body homeostastis

D. More than one option is correct

Answer: B

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2. The neural coordination is

A. Quick

B. Short - lived

C. Point - to - point

D. All of these

Answer: D

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3. Which of the following is not correct w.r.t. the neural system of the insects ?

A. The brain is present

B. The neural system of insects is simply composed of the network of neurons

C. The neural system fo insects is better organised than that of Hydra

D. A number of ganglia are present along with the neural tissues in insects

Answer: B

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4. Among the following, the most developed neural system is present in the

A. Hydra

B. Vertebrates

C. Planaria

D. Insects

Answer: B

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5. Which among the following is not the part of PNS ?

A. Cranial nerves

B. Brain

C. Spinal nerves

D. Both (1) & (2)

Answer: B

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6. The CNS comprises

A. All the nerves of the body

B. Brain and spinal cord

C. Somatic neural system and autonomic nerural system

D. Sympathetic neural system and parasympathetic neural system

Answer: B

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7. The bipolar neurons are found in the

A. Cerebral cortex

B. Embryonic stage

C. Retina of eye

D. Middle ear

Answer: C

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8. The bulb - like structures present at the terminals of an axon are called the

A. Synaptic knobs

B. Axon Hilock

C. Synaptic vesicles

D. Dendrites

Answer: A

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9. Myelin sheath of nerve fibres is produced by

A. Nissl's granules

B. Schwann cells

C. Nodes of Ranvier

D. Neurotransmitters

Answer: B

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10. In myelinated nerve fibres, the myelin sheath is present around the

A. Cell body

B. Dendrites

C. Axons

D. Synaptic knobs

Answer: C

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11. The action potential is determined largely by

A. Influx of Na^+

B. Effux of Na^+

C. Influx of K^+

D. Efflux of K^+

Answer: A

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12. During depolarisation of an axonal membrane

A. The K^+ channels are open

B. The Na^+ voltage gated channels are open

C. The K^+ voltage gated channels are closed

D. Both (2) & (3)

Answer: D

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13. Repolarisation of the axonal membrane results in development of

A. Negative charge on the outer side and positive charge on the inner side

B. Positive charge on the outer side and negative charge on the inner side

C. Negative charge on both the sides

D. Positive charge on both the sides

Answer: B

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14. The nerve impulse is another name of

A. Resting potential

B. Polarised potential

C. Action potential

D. Repolarisation

Answer: C

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15. Which of the following is true about the synaptic cleft ?

A. It is the space present inside the pre-synaptic neuron .

B. It is the space present inside the post-synaptic neuron

C. It is the space separating the pre-and post-synaptic neurons.

D. It is the space present inside the synaptic vesicles.

Answer: C

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16. The chemicals which regulate the synaptic transmission at chemical synapses are called

A. Neurohormones

B. Neurotransmitters

C. Iodothyronines

D. Second messengers

Answer: B

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17. The tract of nerve fibres connecting the two cerebral hemispheres is called

A. Thalamus

B. Cerebral aqueduct

C. Corpus albicans

D. Corpus callosum

Answer: D

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18. What among the following ones is function of neurosecretory cells of hypothalamus ?

A. Intersensory associations

B. To control memory and intelligence

C. Secretion of hypothalamic hormones

D. Maintain circadian rhythm of the body

Answer: C

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19. The incorrectly matched pair is

A. Cerpora quadrigemina - canal that passes through midbrain

B. Corpora quadrigemina - Four rounded swellings present on ventral portion of midbrain

C. Cerebrum - Very convoluted surface

D. Medulla oblongata - Controls gastric secretions.

Answer: B

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20. The part of the brain which is connected to spinal cord is

A. Pons

B. Cerebellum

C. Hippocampus

D. Medulla oblongata

Answer: D

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21. The interneurons are located in the

A. Sensory receptors

B. Spinal cord

C. Efferent pathway

D. Effectors

Answer: B

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22. Select the option which appropriately fills up the blanks. The afferent neuron receives signal from a/an _____ and transmits the impulse via a _____ into the spinal cord.

A. Effector, motor end plate

B. Motor endplate, effector

C. Dorsal root ganglion, sensory organ

D. Sensory organ, dorsal root ganglion

Answer: D

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23. The colour in vision results from

A. Absorption of different wavelengths of light by different classes of rods.

B. Ability of each cone to absorb all wavelengths of light equally.

C. Lens of eye acting like a prism and separating the different wavelengths of light.

D. Three different isomers of opsins in different classes of cone cells.

Answer: D

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24. During accomodation for near vision

A. Images from the distant objects are focused behing the retina.

B. The focusing power of the lens is increased.

C. The sympathetic nerves to the eye are activated.

D. The pupil does not constrict.

Answer: B

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25. What happens to the sound waves when they reach the round window through scala tympani ?

A. They die away

B. They increase in intensity

C. They are transmitted to the oval window

D. They remain unaffected

Answer: A

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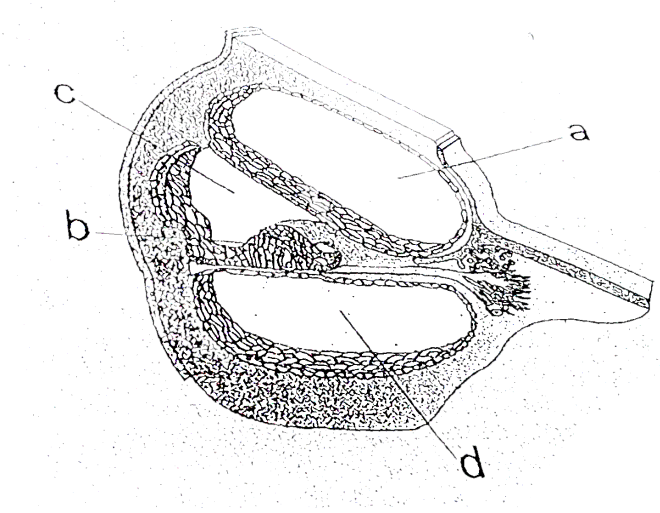
26. Identify the parts shown in the figure given below and select the option which says the correct statement.



A. b is the structure whose hair cells act as visual receptors.

B. a and c are filled with perilymph while d is filled, with the endolymph.

C. a ends at the oval window and d ends at the round window .

D. b contains a projecting ridge called the macula that acts as specific receptor for maintaining the body balance.

Answer: C

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Exercise

1. Cranial and spinal nerve can be included in

A. Central nervous system

B. Autonomic nervous system

C. Peripheral nervous system

D. Visceral nervous system

Answer: C

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2. Odd one out w.r.t. origin

A. Astrocyte

B. Microglial cells

C. Oligodendrocytes

D. Ependymal cells

Answer: B

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3. In human beings typical nerve cell is

A. Bipolar

B. Apolar

C. Multipolar

D. Pseudounipolar

Answer: C

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4. Rapid movement of Na^+ ions from extracellular fluid to inside the nerve cell leads to

A. Polarisation

B. Depolarisation

C. Repolarisation

D. All of these

Answer: B

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5. Depolarisation is the

A. Active process

B. Passive process

C. Both active and passive process

D. First it is passive and than it becomes a

Answer: B

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6. If the $Na^+ - K^+$ pump stops working then the

A. Na^+ and K^+ will be in excess in estracellular fluid

B. Na^+ will be in excess in intracellular fluid

C. K^+ will be excess in intracellular fluid

D. Na^+ will be in excess in intracellular fluid

Answer: D

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7. Inhibitory neurotransmitter is

A. Norepinephrine

B. Epinephrine

C. GABA

D. More than one option is correct

Answer: C

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8. For most excitable cells, the threshold stimulus is

A. $+40$ mV

B. -55 to -60 mV

C. $+60$ mV

D. -70 mV

Answer: B

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9. Which of the following factor is responsible for resting membrane potential ?

A. More permeability of membrane for Na^+

B. More permeability of membrane for K^+

C. Presence of negatively charged protein molecule outsede the neuron

D. Presence of positively charged protein molecule on inner side of the neuron

Answer: B

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10. In the presence of Ca^{2+} channel blockers, which of the following will be true ?

A. Neurotransmitter is released but Na^{+} channel of post -synaptic neuron will not open

B. Neurotransmitter is not released but Na^{+} channel of post - synaptic neuron will open up

C. Neurotransmitter is released but K^{+} channel of post - synaptic neuron open up

D. Neither neurotransmitter is released nor the Na^{+} channel of post - synaptic neuron open up

Answer: D

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11. Which of the following is not a part of telencephalon ?

A. Cerebral cortex

B. Corpus striatum

C. Hypothalamus

D. Amygdala

Answer: C

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12. CSF is not present in

A. Ventricles of brain

B. Spinal cord (central canal)

C. Subdural space

D. Sub-arachnoid space

Answer: C

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13. Mark the area of cerebral cortex responsible for complex functions like intersensory association, memory and communication.

A. Sensory area

B. Motor area

C. Associative area

D. Both (1)& (2)

Answer: C

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14. Which of the following is not a function of Hypothalamus ?

A. Correction of signals controlling respiration and heart beat

B. It sets the body temperature above the $37^{\circ} C$ during infection

C. It organises behaviour related to survival of species

D. It regulates planning and executing of stereotyped movements

Answer: D

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15. One of the following is not the lobe of cerebral hemisphere

A. Parietal lobe

B. Occipital lobe

C. Temporal lobe

D. Olfactory lobe

Answer: D

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16. Highly vascular and closely inverting protective coat around brain is known as

A. Arachnoid

B. Pia mater

C. Dura mater

D. Sub-arachnoid space

Answer: B

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17. Genu and splenium are located in

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Mid - brain

Answer: A

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18. Which of the following is not the main part of limbic system ?

A. Amygdala

B. Septum

C. Hippocampus

D. Corpus striatum

Answer: D

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19. Which part of the limbic system converts information from short term to long - term memory , essential in learning ?

A. Amygdala

B. Basal ganglia

C. Hippocampus

D. Hypothalamus

Answer: C

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20. Activities of cerebellum are

A. All involuntary but may involve learning in their early stage

B. All voluntry and may involve learning in their early stage

C. All voluntary and do not involve learning in their early stage

D. All involuntary and do not involve learning in their early stage

Answer: A

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21. Nerve cell body of pre-ganglionic fibre of sympathetic nervous system originates from

A. Brain

B. Spinal cord

C. Sympathetic chain

D. All of these

Answer: B

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22. In reflex action the reflex arc is formed by

A. Brain - spinal cord - muscles

B. Receptor - spinal cord - muscles

C. Muscles - receptor - muscles

D. Muscles - spinal cord - receptor

Answer: B

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23. Reflex action exhibited by

A. Sympathetic system

B. Sensory nerves

C. Automatic response

D. Motor nerves

Answer: C

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24. Which of the following statement is not correct regarding epinephrine and nor-epinephrine ?

A. Both act like as neurotransmitter

B. Their receptors are present on post - synaptic membrane

C. They are antagonistic neurotransmitter

D. Both are catecholamines

Answer: C

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25. Which of the following component is not common in all types of spinal reflexes ?

A. Receptor

B. Effector

C. Interneuron

D. Sensory neuron

Answer: C

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26. Mark the cranial nerves involved in communicating the sense of taste

A. Facial and glossopharyngeal

B. 7th

C. 9th

D. All of these

Answer: D

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27. Which is a function of parasympathetic nervous system ?

A. Acceleration of heart beat

B. Constriction of pupil

C. Stimulation of sweat gland

D. Contraction of erector pili

Answer: B

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28. Which of the following is not a function of parasympatheitc nervous system ?

A. If accelerate peristalsis

B. It constricts pupil

C. Contracts urinary bladder

D. Increase rate of heart beat

Answer: D

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29. Which one is not a reflex action ?

A. Closing the eye lids suddenly

B. Release of saliva

C. Obeying the order

D. Pupilary constriction

Answer: C

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30. Meissner's corpuscles are located in

A. Pancreas and secrete trypsinogen

B. Adrenal and secrete trypsinogen

C. Spleen and destroy erythrocytes

D. Skin and perceive gentle pressure

Answer: D

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31. Which of the following statement is not correct about choroid ?

A. It is the most vascular structure

B. It is black in colour

C. It prevent internal reflection of light

D. It is the visual portion

Answer: D

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32. In moonlight we cannot see the colours, because

A. Cones and rods are equally functional

B. Only cones are functional

C. Only rods are functional

D. Depolarisation at cone cells

Answer: C

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33. Mark the incorrect atatement

A. Sclera is composed of dense connective tissue

B. The choroid layer is thick in the anterior part in comparison to posterior 2/3 of eye ball.

C. Retina contains three layer of cells, and from outside to inside it is ganglionic cells, bipolar cells and photoreceptor cells

D. The diameter of pupil is regulated by the muscle fibres of iris

Answer: C

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34. Arrange the following based upon the mechanism of vision ?

(a) Absorption of visible wavelength of hight by rods and cones

(b) Change in the permeability - of photoreceptors cells

(c) Dissociation of retinal form opsin

(d) Generation of action potential in the ganglionic cell

A. a, b, c, d

B. a, c, b, d

C. a, d, b, c

D. a, c, d, b

Answer: B

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35. Horizontal cell synapses with

A. Rods and cones

B. Rods only

C. Ganglionic cells

D. Amacrine cells

Answer: A

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36. Suspensory ligament is highly tensed when ,

A. Object is very near

B. Object is at infinity

C. Tension of suspensory ligament is independent of the distance of an object

D. Ciliary muscles fully contract

Answer: B

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37. Mark the correct statement

A. Blind spot contains only rods

B. Blind spot contains only cones

C. Blind spot contains both rods and cones

D. Fovea contains only cones

Answer: D

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38. Blockage of canal of schlemn results in

A. Astigmatism

B. Cataract

C. Glaucoma

D. Presbyopia

Answer: C

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39. Krause's end bulbs are the skin receptors which are concerned with the sense of

A. Touch

B. Heat

C. Cold

D. Pressure

Answer: C

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40. Cornea transplant in humans is almost never rejected.This is because

A. Its technique is very simple

B. The preservation of cornea is very simple

C. Cornea has no relation with blood circulation and immunization

D. Cornea is available easily

Answer: C

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41. Sequence of the fluid present from upper to lower chamber of cochlea is (P= Perilympn, E= endolymph)

A. $P - E \rightarrow P$

B. $P \rightarrow P - P$

C. $E - P - E$

D. $P - E - E$

Answer: A

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42. Sensory hair cells are present in

A. Cristae

B. Maculae

C. Cochlea

D. All of these

Answer: D

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43. Which of the following statement is not correct regarding cochlea?

A. It consists of a bony spiral canal that makes about $2\frac{3}{4}$ turns around

B. If contains three chambers, the upper scala vestibuli, middle scala media, and the lower scala tympani

C. The middle and lower chamber communicate through helicotroma

D. Cochlea contains 16000 to 24000 hair cells arranged in four rows

Answer: C

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44. Which of the following function is not associated with middle ear ?

A. Amplification of sound wave

B. Equilibrium of air pressure

C. Transmission of sound wave from external ear to internal air

D. Static equilibrium

Answer: D

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45. Largest ear ossicle is

A. Malleus

B. Incus

C. Stapes

D. Columella auris

Answer: A

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46. Tectorial membrane is present is

A. Upper chamber of cochlea

B. Middle chamber of membranous labyrinth

C. Lower chamber of cochlea

D. Between external ear and middle ear

Answer: B

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47. In tympanic cavity there is an aperture in which stapes is fitted . It is

A. Foramen rotundus

B. Foramen of magendie

C. Foramen of Monro

D. Fenestra ovalis

Answer: D

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48. Which of the following structure is not filled with endolymph ?

A. Utriculus

B. Tympanic cavity

C. Sacculus

D. Semicircular canal

Answer: B

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49. One of the following is not a part of membranous labyrinth

A. Semicircular canal

B. Cochlear duct

C. Vestibule

D. Bony labyrinth

Answer: D

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50. The roof of scala media is called

A. Reissner's membrane

B. Basiliar membrane

C. Tectorial membrane

D. Organ of corti

Answer: A

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Assignment Section A Objective Type Questions

1. Which of the following organ systems jointly coordinate and integrate all the activities of the body organs ?

A. Neural system and sensory system

B. Digestive system and respiratory system

C. Neural system and endocrine system

D. Circulatory systme and respiratory system

Answer: C

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2. The somatic neural system and relays impulses

A. From CNS to involuntary organs

B. From CNS to involuntry muscles

C. From PNS to smooth muscles

D. From PNS to voluntary organs

Answer: B

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3. The autonomic neural system is a division of

A. Sympathetic neurla system

B. Central nerual system

C. Peripheral neural system

D. Somatic neural system

Answer: C

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4. Find out the correct statement .

A. The PNS is the site to information processing and control

B. All the nerves of the body associated with the PNS comprise CNS

C. The autonomic CNS to the involuntary organs of the body.

D. The CNS is divided into two divisions called sympathetic neural system and parasympatheitc neural system

Answer: C

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5. Cytoplasm with typical cell organelles and Nissl's granule is present in the

A. Axon Hillock

B. Cell body

C. Axon

D. Synaptic vesicles

Answer: B

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6. The Nissl's granules are present in

(a)Cell body

(b) Axon

(c) Dendrites

(d) Glial cells

A. a only

B. a, b and c

C. a and c

D. a , b, c and d

Answer: C

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7. Multipolar neurons are found in the

A. Retina of eye

B. Embryonic stage

C. Both (1) & (2)

D. Cerebral cortex

Answer: D

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

A. Nearly impermeable to potassium inos $\left(K^{+}\right)$

B. Impermeable to positively charged proteins present in the axoplasm.

C. Comparatively more permeable to K^+

D. Completely permeable to sodium ions $\left(Na^+\right)$

Answer: C

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9. The ionic gradients across the resting membrane are mainained by the

A. lon channels

B. Sodium - potassium pumps

C. Electrical synpases

D. Chemical synapses

Answer: B

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10. Action potential is also termed as

A. Nerve implse

B. Reflex action

C. Repolarisation

D. Polarisation

Answer: A

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11. On application of a stimulus on the axonal membrane,

A. There is a rapid influx of K^+ at that site

B. There is a rapid efflux of Na^+ at that site

C. There is a rapid influx of Na^+ at that site

D. There is a rapid efflux of K^+ at that site

Answer: C

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12. A synapse is formed by

A. Pre-synaptic membrane

B. Post -synaptic membrane

C. Synaptic cleft

D. All of these

Answer: D

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13. The receptors of neurotransmitters are present on/in the

A. Pre - synaptic membrane

B. Synaptic cleft

C. Post-synaptic membrane

D. lon channels

Answer: C

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14. Which of the following is/are controlled by the human brain ?

a. Balance of the body

b. Circadian rhythm of the body

c. Human behaviour

d. Functioning of heart and kidneys

A. Only d

B. a and d

C. a, b and c

D. a, b , c, d

Answer: D

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15. Which of the following meninges is in contact with the brain tissue ?

A. Duramater

B. Arachnoid

C. Piamater

D. No meninx is in contact with the brain tissue

Answer: C

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16. All of the following are parts of forebrain, except

A. Cerebellum

B. Corpus callosurm

C. Association areas

D. Hypothalamus

Answer: A

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17. The association areas are present in the

A. Cerebral cortex

B. Corpus callosum

C. Amygdala

D. Hypothalamus

Answer: A

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18. The association areas are not responsible for

A. Intersensory associations

B. Communication

C. Regulation of sexual behaviour

D. Memory

Answer: C

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19. The limbic system is formed by

A. The hypothalamus , epithalamus, amygdala and hippocampus

B. Hypothalamus, amygdala and hippocampus

C. Corpora quadrigemina and hippocampus

D. Midbrain and hindbrain

Answer: B

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20. The part of human brain located between thalamus / hypothalamus and pons is

A. Forebrain

B. Midbrain

C. Hindbrain

D. Vestibular apparatus

Answer: B

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21. The canal passing through the midbrain is called

A. Medulla oblongata

B. Cerebral aqueduct

C. Eustachian tube

D. Aqueous chamber

Answer: B

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22. Which layer of the wall of eyeball looks bluish in colour ?

A. Sclera

B. Cornea

C. Choroid

D. Retina

Answer: C

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23. Eye lens is held in the place by

A. Muscle fibres of iris

B. Ligaments attached to the ciliary body

C. A transparent gel called vitreous humor

D. Thin watery fluid called aqueous humor

Answer: B

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24. The order of the three layers of cells in the retina of human eye from inside to outside is

A. Bipolar cells $\rightarrow$ Ganglion cells $\rightarrow$ Photoreceptor cells

B. Photoreceptor cells $\rightarrow$ Ganglion cells $\rightarrow$ Bipolar cells

C. Ganglion cells $\rightarrow$ Bipolar cells $\rightarrow$ Photoreceptor cells

D. Photoreceptor cells $\rightarrow$ Bipolar cells $\rightarrow$ Ganglion cells

Answer: C

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25. The retinal blood vessels enter the eye at

A. Fovea

B. Blind spot

C. Macula lutea

D. Crista

Answer: B

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26. The visual acuity is the greatest at

A. Fovea

B. Blind spot

C. Pupil

D. Ciliary body

Answer: A

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27. Which of the following results in the generation of potential differences in the photoreceptor cells of eyes ?

A. Conversion of retinal into opsin

B. Conversion of opsin into retinal

C. Dissociation of the retianl from opsin

D. Dissociation of the opsin from retinol

Answer: C

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28. The eustachian tube connects _____ with the _____ .

A. External auditory canal, middle ear cavity

B. Middle ear cavity, pharynx

C. External auditory canal, labyrinth

D. Cochlea, larynx

Answer: B

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29. Which of the following is the function of ear ossicles ?

A. To collect the vibrations in the air

B. To equalise the pressures on either sides of the ear drum

C. To secrete ear wax

D. To increase the efficiency of transmission of sound waves to the inner ear

Answer: D

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30. Membranous labyrinth is surrounded by a fluid called

A. Perilymph

B. Endolymph

C. Cerebrospinal fluid

D. Viteous humor

Answer: A

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31. The lower membrane of the scala vestibuli is the

A. Tympanic membrane

B. Reissner's membrane

C. Basilar's membrane

D. Tectorial membrane

Answer: B

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32. The scale vestibuli ends at the _____ . While the scala tympani terminates at the _____ . Find the correct option .

A. Scala media, temporal bone

B. Oval window, round window

C. Pinna, tympanic membrane

D. Eustachian tube, external auditory meatus

Answer: B

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33. Which of the following act as auditory receptors in the ear ?

A. Semicircular canals

B. Cristae

C. Hair cells of oragn of corti

D. Saccule and utricle

Answer: C

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34. The stereo cilia are projected from which part of the hair cell ?

A. Basal part

B. Apical part

C. Lateral part

D. Front part

Answer: B

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35. The components of the vestibular apparatus are

A. Three semicircular canals and the otolithic organs

B. Organs of Corti and Eustachian tube

C. Malleus, incus and stapes

D. Saccule and cochlea

Answer: A

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36. The hair cells present on the crista ampullaris receive the stimuli of

A. Audition

B. Change in the body posture

C. Vision

D. Olfaction

Answer: B

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37. In which of the following part of brain, the nerve impulses of sound are analysed ?

A. Visual cortex area

B. Olfactory cortex area

C. Auditory cortex area

D. Tactile cortex area

Answer: C

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Assignment Section B Objective Type Questions

1. Pseudounipolar neurons occur in

A. Pyramidal cells of cerebral cortex

B. Retina of eye

C. Schneiderian membrane

D. Cells of dorsal root ganglion

Answer: D

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2. Which of the following act is responsible for the depolarisation of the neuron ?

A. Opening of voltage gated K^+ channel

B. Opening of voltage gated Na^+ channel

C. Closure of voltage gated K^+ channel

D. Closure of voltage gated Na^+ channel

Answer: B

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3. If the inside of membrane becomes more negative it leads to

A. Depolarisation

B. Repolarisation

C. Hyperpolarisation

D. Polarisation

Answer: C

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4. Suppose the terminal ends of axon are in contact with dendrites of four adjacent neurons , the nerve impulse of the axon will

A. Travel in all the four neurons

B. Get distributed in all the four neurons resulting in a weak impulse

C. Travel only in one neuron which is in closest contact and with the same intensity

D. Travel in none of the neurons because the impulse travels from dendrites of one neuron into the axon of another neuron

Answer: A

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5. Axon endings release from ints synaptic vesicles , a neuro-transmitter substance known as

A. Acetylcholine

B. Acetylcholinesterases

C. Inositol - 3 phosphate

D. Diacylglycerol

Answer: A

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6. Which part is involved in movement of head to locate and detect the source of a sound ?

A. Superior colliculi

B. Inferior colliculi

C. Pons

D. Medulla oblongata

Answer: B

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7. Which part of the brain is like a defense castle controlling moods and plays an important role in emotional behaviour, such as aggression and remembering fear ?

A. Hippocampus

B. Amygdala

C. Limbic system

D. Thalamus

Answer: B

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8. The link between paracoel and diocoel is through

A. Formina Luschka

B. Foramina Magendie

C. Foramen of Monro

D. Aqueduct of Sylvius

Answer: C

Watch Video Solution

9. The function of choroid plexus is

A. To produce lymph

B. To produce blood

C. To produce cerebrospinal fluid

D. To produce endolymph

Answer: C

Watch Video Solution

10. The branched trr like structure present in cerebellum is

or

The tree of life

A. Arborial

B. Areole

C. Arbor vitae

D. Archenteron

Answer: C

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11. The vomiting centre is situated in

A. Cerbrum

B. Cerebellum

C. Medulla

D. Hypothalamus

Answer: C

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12. End of spinal cord is

A. Cauda equina

B. Conus terminalis

C. Filum terminalis

D. Funiculus

Answer: B

Watch Video Solution

13. Paralysis of jaw muscles is due to loss of function of which cranial nerve ?

A. III

B. V

C. VII

D. X

Answer: B

Watch Video Solution

14. Which of the following cranial nerves in man is both sensory and motor ?

A. Optic

B. Olfactory

C. Trigeminal

D. Auditory

Answer: C

Watch Video Solution

15. Which of the following cranial nerves are linked with taste buds ?

A. VII & III

B. IX & II

C. IV & VIII

D. VII & IX

Answer: D

Watch Video Solution

16. The smallest cranial nerve in human being is

A. Trigemminal

B. Abducens

C. Opthalmic

D. Trochlear

Answer: D

Watch Video Solution

17. The fourth cranial nerve of man is

A. Abducens

B. Trochlear

C. Auditory

D. Oculomotor

Answer: B

Watch Video Solution

18. The number of spinal nerves in man is

A. 31

B. 62

C. 12

D. 24

Answer: B

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19. The corpuscles lying deep in dermis and responsible for deep pressure are knows as

A. Pacinian corpuscles

B. Meissner's corpuscles

C. Merkel's discs

D. Ruffini's endings

Answer: A

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20. When the object is at a distance of more than 6 metres, at that time

A. Ciliary muscles are fully contracted

B. Convexity of lens is maximum

C. Eyes are fully relaxed

D. All of these

Answer: C

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21. In old age, the vision of eye becomes dim. It is due to

A. Myopia

B. Hypermetropia

C. Cataract

D. Astigmatism

Answer: C

Watch Video Solution

22. In hypermetropia, the image is formed

A. Before retina and is corrected byt convex lens

B. Behind retina and is corrected by convex lens

C. Before retina and is corrected by concave lens

D. Behind retina and is corrected by convave lens

Answer: B

Watch Video Solution

23. In presbyopia

A. The eye ball becomes short

B. The lens become opaque

C. The retina gets damaged

D. Diminution of accommodation of lens due to loss of elasticity

Answer: D

Watch Video Solution

24. In myopia, light rays from far off objects converge

A. Behind the retina

B. In front of the retina

C. On the retina

D. In the retina

Answer: B

Watch Video Solution

25. Overproduction of aqueous humour results in

A. Astigmatism

B. Fovea centralis

C. Macula lutea or yellow spot

D. Glaucoma

Answer: D

Watch Video Solution

26. Short sightedness or myopic vision is corrected by wearing

A. Convex lenses

B. Concave lenses

C. Convex mirrors

D. Concave mirrors

Answer: B

Watch Video Solution

27. A molecule cannot be tasted or smelled until it has been

A. Converted into protein

B. Converted into transmitter

C. Grouped into multimolecular complex

D. Dissolved in a liquid

Answer: D

Watch Video Solution

28. The activity of which cranial nerve can protect us by warning about harmful chemicals in the air ?

A. V

B. IX & II

C. VI

D. X

Answer: A

Watch Video Solution

29. Total number of taste buds in the human tongue is approximately

A. 1000

B. 10, 000

C. 1, 00, 000

D. 50, 000

Answer: B

Watch Video Solution

Assignment Section C Previous Year Questions

1. Myelin sheath is produced by

or

Mylin of the nerve fibres of the central nervous system is produced and maintained by

A. Schwann Cells and Oligodendrocytes

B. Astrocytes and Schwann Cells

C. Oligodendrocytes and Osteoclasts

D. Osteoclasts and Astrocytes

Answer: A

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2. Receptor sites for neurotransmitters are present on

A. Membranes ofsynaptic vesicles

B. Pre-synaptic membrane

C. Tips of axons

D. Post -synaptic membrane

Answer: D

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3. Good vision depends on adequate intake of cacotene rich food

Select the best option from the following statements

(A) Vitamin A derivatives are formed from carotene

(B) The photopigments are embedded in the membrane discs of the ineer segment

(C) Retinal is a derivative of Vitamin A

(D) Retinal is a light absorbing part of all the visual photopigments

A. (a) & (b)

B. (a) , (c) & (d)

C. (a) & (c)

D. (b), (c) & (d)

Answer: B

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4. Choose the correct statements.

A. Nociceptors respond to changes in pressure

B. Meissner's corpuscles are thermoreceptors

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

D. Receptors do not produce graded potentials

Answer: C

Watch Video Solution

5. Photosensitive compound in human eye is made up of

A. Transducin and Retinene

B. Guanosine and Retinol

C. Opsin and Retinal

D. Opsin and Retinol

Answer: C

Watch Video Solution

6. In mammalian eye, the 'fovea' is the centre of the visual field, where

A. More rods than cones are found

B. High density of cones occur, but has no rods

C. The optic nerve leaves the eye

D. Only rods are present

Answer: B

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7. Destruction of the anterior horn cells of the spinal cord would result in loss of

A. Integrating impulses

B. Sensory impulses

C. Voluntary motor impulses

D. Commissural impulses

Answer: C

Watch Video Solution

8. A gymnast is able to balance his body upside down even in the total darkness because of

A. Organ of corti

B. Cochlea

C. Vestibular apparatus

D. Tectorial membrane

Answer: C

Watch Video Solution

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

A. Cerebrum - calculation and contemplation

B. Medulla oblongata - homeostatic control

C. Cerebellum - language comprehension

D. Corpus callosum-communication between the left and the right cerebral cortices

Answer: C

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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

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11. Which one of the following statements is not correct ?

A. Retinal is the light absorbing portion of visual photo pigments

B. In retina the rods have the photopigment rhodopsin while cones have three different photopigments

C. Retinal is a derivative of Vitamin C

D. Rhodopsin is the purplish red protein present in rods only

Answer: C

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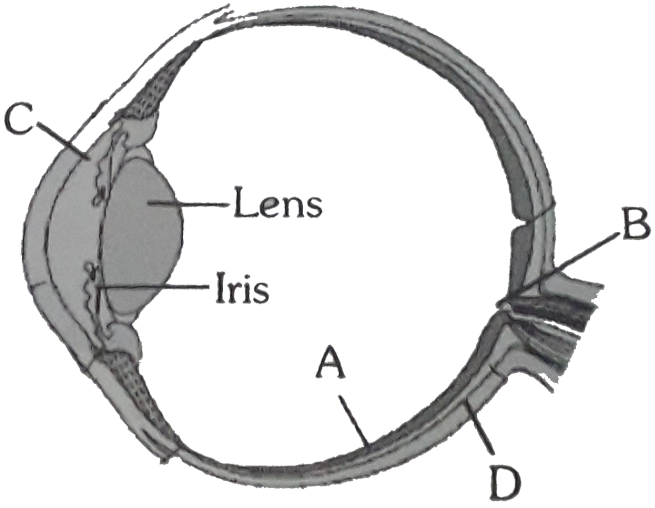
12. Parts A,B,C and D of the human eye are shown in the diagram. Select the option which gives correct identification along with its

fuctions/characteristics



A. B - Blind spot - has only a few rods and cones .

B. C - Aqueous chamber - reflects the light which does not pass through the lens.

C. D - Choroid - its anterior part forms ciliary body.

D. A - Retina - contains photo receptors - rods and cones .

Answer: D

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

A. B - Synaptic connection

D - K^+

B. A - Neurotransmitter

B - Synaptic cleft

C. C - Neurotransmitter

$D - Ca^{++}$

D. A - Receptor

C - Synaptic vesicles

Answer: D

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14. The human hind brain comparises three parts, one of which is

A. Cerebellum

B. Hypothalamus

C. Spinal cord

D. Corpus callosum

Answer: A

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15. Which part of the human ear plays no role in hearing as such but is otherwise very much required ?

A. Ear ossicles

B. Eustachian tube

C. Organ of Corti

D. Vestibular apparatus

Answer: D

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16. A person entering an empty room suddenly fins 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. Sympathetic nevous system is activated releasing epinephrin and norepinephrin from adrenal cortex

B. Sympathetic nervous system is activated releasing epinephrin and norepinehrin from adrenal medulla

C. Neurotransmitters diffuse repidly across the cleft and transmit a nerve impulse

D. Hypothalamus activates the parasympatheitc division of brain

Answer: B

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17. The purplish red pigment rhodopsin contained in the rods type of photoreceptor cells of the human eye, is a derivative of

A. Vitamin A

B. Vitamin B_1

C. Vitamin C

D. Vitamin D

Answer: A

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

A. Comparatively more permeable to K^+ ions and nearly impermeable to Na^+ ions.

B. Comparatively more permeable to Na^+ ions and nearly impermeable to K^+ ions

C. Equally permeable to both Na^+ and K^+ ions

D. Impermeable to both Na^+ and K^+ ions

Answer: A

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

A. Thalamus

B. Hypothalamus

C. Pons

D. Cerebellum

Answer: B

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20. Select the answer with correct matching of the stucture its location and function

A.

Structure	Location	Function
Eustachian tube	Anterior part internal ear	Equalizes air pressu

B.

Structure	Location	Function
Cerebellum	Mid brain	Controls respiration and gastric secretion

C.

Structure	Location	Function
Hypothalamus	Fore brain	Controls body temperature, urge for e

D.

Structure	Location	Functi
Blind spot	Near the place where optic nerve leaves the eye	Rods a

Answer: C

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21. Which part of human brain is concerned with the regulation of body temperature ?

A. Cerebellum

B. Cerebrum

C. Hypothalamus

D. Medulla Oblongata

Answer: C

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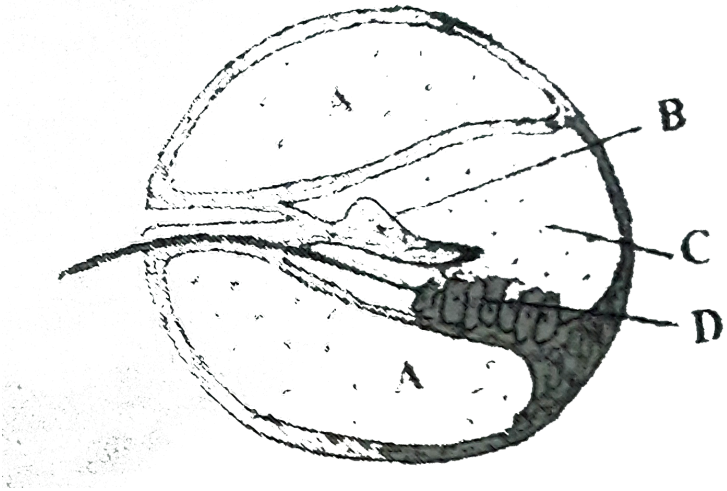
22. Given below is a diagrammatic cross section of a single loop of human cochlea



Which one of the following options correctly represents the names of three different parts

A. A - Perilmph,

B - Tectorial membrane,

C - Endolymph

B. B - Tectorial membrane,

C - Perilymph,

D - Secretory cells

C. C - Endolymph,

D - Sensory hair cells,

A - Serum

D. D - Sensory hair cells

A - Endolymph,

B - Tectorial membrane

Answer: A

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

A. Na^+ ions from extracellular fluid to intracellular fluid

B. K^+ ions from extracellular fluid to intracellular fluid

C. Na^+ ions from intracellular fluid to extracellular fluid

D. K^+ ions from intracellular fluid to extracellular fluid

Answer: A

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24. Which one of the follwing pairs of structures distinguishes a nerve cell from other types of cell

A. Nucleus and miochondira

B. Perikaryon and dendrites

C. Vacuoles and fibers

D. Flagellum and medullary sheath

Answer: B

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25. 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 again back to positive

B. First negative, then positive and again back to negative

C. First positive, then negative and continue to be negative

D. First negative, then positive and continue to be positive.

Answer: B

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26. Which of the following is an example of negative feedback loop in humans

A. Secretion of sweat glands and constriction of skin blood vessels when it is too hot.

B. Constriction of skin blood vessels and contraction of skeletal muscles when it is too cold.

C. Secretion of tears after falling of sand particles in to the eye

D. Salivation of mouth at the sight of delicious food.

Answer: B

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27. Bowman's glands are located in the

A. Olfactory epithelium of our nose

B. Proximal end of uriniferous tubules

C. Anterior pituitary

D. Female reproductive system of cockroach

Answer: A

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28. Which one of the following statements is correct?

A. Neurons regulate endocrine activity, but not vice versa

B. Endocrine glands regulate neural activity and nervous system regulates endocrine glands

C. Neither hormones control neural activity nor the neurons control endocrine activity

D. Endocrine glands regulate neural activity, but not vice versa

Answer: B

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

A. Acetylcholine

B. Epinephrine

C. Nor epinephrine

D. Cortisone

Answer: D

Watch Video Solution

30. Bowman's glands are found in

A. Olfactory epithelium

B. External auditory canal

C. Cortical nephrons only

D. Juxtamedullary nephrons

Answer: A

Watch Video Solution

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

A. Movement of the eye ball

B. Swallowing

C. Movement of the tongue

D. Movement of the neck

Answer: A

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32. One of the example of the action of the autonomous nervous system is

A. Knee-jerk response

B. Pupillary reflex

C. Swallowing of food

D. Peristalsis of the intestines

Answer: B

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33. Parkinson's disease (Characterized by tremors and progressive rigidity of limbs) is cause 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

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34. Poisons like cyanide inhibit Na^+ influx during cellular transport. This inhibitory effect is reversed by an injection of ATP. This demonstrates that

A. ATP is the carrier protein in the transport system

B. Energy for $Na^+ - K^+$ exchange pump comes from ATP

C. ATP is hydrolysed by ATPase to release energy

D. $Na^+ - K^+$ exchange pump operates in the cell

Answer: B

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

A. K^+ into the cell

B. $K^+ \text{ and } Na^+$ out of the cell

C. Na^+ into the cell

D. Na^+ out of the cell

Answer: C

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36. Alzhimer disease in humans is associated with the deficiency of

A. Gamma aminobutyric acid (GABA)

B. Dopamine

C. Glutamic acid

D. Acetylcholine

Answer: D

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37. Which of the following cranial nerves has the highest number of branches ?

A. Vagus nerve

B. Trigeminal

C. Facial nerve

D. None of these

Answer: A

Watch Video Solution

38. Injury to vagus nerve in humans is not likely to affect

A. Tongue movements

B. Gastrointestinal movements

C. Pancreatic secretion

D. Cardiac activity

Answer: A

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39. Sympathetic nerve fibres in mammals arise from

A. Sacral nerves

B. 3rd, 7th, 9th and 10th cranial nerves

C. Thoracico -lumbar segments of spinal cord

D. Cervical nerves

Answer: C

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40. Sympathetic neural system induces

A. Secretion of digestive juices

B. Increase in heart beat rate

C. Secretion of saliva

D. All of these

Answer: B

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41. Post ganglionic fibre of sympathetic nervous system connected with sweat gland secrete

A. Adrenaline

B. Epinephrine

C. Acetylcholine

D. GABA

Answer: C

Watch Video Solution

42. Which of following is not the action fo sympathetic nervous systme ?

A. Dilation of pupil

B. Storage of bile in the gall bladder

C. Constriction of peripheral arteries

D. Contraction in the wall of urinary bladder

Answer: D

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43. Which of the following is not the action of sympathetic nervous system ?

A. Slows down peristalsis

B. Erection of hair

C. Contraction in gall bladder

D. Constrict arteries and raises blood pressure

Answer: C

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44. Rate of conduction of impulse will be faster in case of

A. Myelinated nerve fibre

B. Thicker nerve fibre

C. Non-myelinated nerve fibre

D. Both (1) and (2)

Answer: D

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45. If the ligament directly below the kneecap is struck lightly by the edge of the hand or by a doctor's rubber hammer, knee jerk reflex occurs. This stretch reflex is

A. Polysnaptic

B. Withdrawl

C. Monosynaptic

D. Bisynaptic

Answer: C

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46. Which of the following is not a part of knee jerk reflex ?

A. Afferent pathway

B. Muscle spindle

C. Efferent pathway

D. Interneuron

Answer: D

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47. Pacinian corpuscles which occur in the skin are

A. Free sensory nerve endings

B. Specialised cells at the end of the sensory nerve fibre

C. A type of gland

D. Encapsulated pressure receptors deep in the dermis

Answer: D

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48. Which of the following is located in deeper parts of skin and is sensitive to pressure ?

A. Meissner's corpuscles

B. Merkel's disc

C. Pacinian corpuscies

D. Ruffini corpuscles

Answer: C

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49. Highly vascular and closely inverting protective coat around brain is known as

A. Arachnoid

B. Piamater

C. Duramater

D. Sub arachnoid space

Answer: B

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50. The ability to hear often decreases with age because

A. The cilia degenerate

B. The hair cell stiffen

C. The flexibility of the basilar membrane changes

D. The tympanic canal straightens

Answer: C

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51. Helicotrema connects

A. Scala vestibuli and scala tympani filled with endolymph

B. Scala vestibuli and acala media filled with perilymph

C. Scala vestibuli and acala tympani filled with perilymph

D. Scala media and scala tympanil filled with endolymph

Answer: C

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52. Which of the following part in ear is filled with endolymph ?

A. Scala vestibuli

B. Scala tympani

C. Median canal

D. Helicotrema

Answer: C

Watch Video Solution

53. At the time of flight, the pain in the ear is due to

A. Sound of the engine

B. Difference in pressure between the middle and inner ear

C. Difference in pressure between the middle and outer ear

D. Opening of sustachian tube

Answer: C

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54. The membrane that gives us the ability to discriminate different pitches of sound is the

A. Round window

B. Tympanic membrane

C. Tectorial membrane

D. Basilar membrane

Answer: D

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55. Cornea transplant in humans is almost never rejected.This is because

A. It is a non-living layer

B. Its cells are least penetrable by bacteria

C. It has no blood supply

D. It is composed of enucleated cells

Answer: C

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56. Which one of the following is the correct difference between rod cells and cone cells of our retina ?

A.

	Rod Cells	Cone Cells
Distribution	More concentrated in centre of retina	Evently distr

B.

	Rod Cells	Cone Cells
Visual acuity	High	Low

C.

	Rod Cells	Cone Cells
Visual pigment contained	lodopsin	Rhodopsin

D.

	Rod Cells	Cone Cells
Overall function	Vision in poor light	Colour vision and detailed v

Answer: D

Watch Video Solution

57. In the chemistry of vision in mammals, the photosensitive substance is called

A. Rhodopsin

B. Melanin

C. Sclerotin

D. Retinol

Answer: A

Watch Video Solution

58. Which food should be eaten in the deficiency of rhodop-sin in eyes ?

A. Carrot and ripe papayas

B. Guava, Banana

C. Mango, Potato

D. None of these

Answer: A

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59. When we move from dark to light, we fail to see for some time but soon the visibility become normal. It is

A. Accommodation

B. Adaptation

C. Mutation

D. Photoperiodism.

Answer: B

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60. Which of the following keeps our body temperature at roughly 37° C by means of a complex thermostat system ?

A. Somatoensory area

B. Hypothalamus

C. Basal ganglia

D. Cerebellum

Answer: B

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61. Match the column I with column II

	Column -I		Column-II
$a.$	Horizontal and amacrine cell	(i)	Pivot point
$b.$	Incus	(ii)	Olfactory epithelium
$c.$	Bowman's gland	(iii)	Retina
$d.$	Cupula	(iv)	Crista
		(v)	Macula

A. $a(iv), b(v), c(ii), d(iii)$

B. $a(i), b(ii), c(iii), d(iv)$

C. $a(iii), b(i), c(ii), d(iv)$

D. $a(iii), b(i), c(ii), d(v)$

Answer: C

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62. Human eye is adjusted for distant objects more than 6 m away. For seeing the near objects which of the following would not occur ?

A. Contraction in circular ciliary muscle

B. Slackening of suspensory ligaments

C. Radius of curvature of lens decreases

D. Decrease in curvature of the lens

Answer: D

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63. Ora serrata is

A. Centre point of macula lutea

B. Area devoid of receptor cells

C. Area between sensory and non-sensory part of retina

D. Part of choroid adjacent to retina possessing light reflecting guanine crystals

Answer: C

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64. The cornea is very important component of the human eye. The main function of it is to

A. Change the shape of the lens to enable the image to be focused on the retina

B. Provide structural support to the eye

C. Absorb the O_2 from atmosphere

D. Refract the light towards the retina, helps in maximum focussing

Answer: D

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Assignment Section D Assertion Reason Type Questions

1. A : In the nervous system generation of action potential depends upon influx of sodium ion into axoplasm.

R : Influx of sodium ion during nerve impulse generation is due to efflux of potassium ions .

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: C

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2. A : Presence of myein sheath increases the rate of conduction of nerve impulse.

R : Ionic channels are absent in the area covered by myelin sheath therefore, depolarization occurs only at the nodes of Ranvier , resulting in saltatory or jumping conduction.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: C

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3. A : Receptors in the tendon , joints give information regarding the posilion and movements of different parts of the body.

R : These are termed as nocl-receptors.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: C

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4. A : Sharpest vision is iin fovea centralis.

R : The relationship of receptor to bipolar cells to ganglion cells is $1:1:1$

within fovea centralis .

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: B

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5. A : Postganglionic nerve fibre of parasympathetic nervous system have acetylcholine while sympathetic nervous system have adrenaline as the neurotransmitter.

R : Sympathetic nervous system inhibit the intestinal peristalsis while parasympathetic stimulate peristalsis.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: B

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6. A : Transmission of the nerve impulse across a synapse is accomplished by neurotransmitters .

R : Transmission across a synapse usually requires neuro transmitters because there is space , i.e., synaptic cleft, that separates one neuron from another .

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: A

Watch Video Solution

7. 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 & Reason are true and the reason is the correct explanation of the assertion

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion

C. If Assertion is true statement but Reason is false

D. If both Assertion and Reason are false statements

Answer: A

Watch Video Solution

8. A : The imbalance in the concentration of Na^+, K^+ and proteins generates the resting potential.

R : To maintain the unequal distribution of Na^+ and K^+, the neurons use electrical energy .

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: C

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9. A : Retina is arranged anatomically in reverse order from what might be expected.

R : The receptor cells are , towards the outside and ganglionic cells towards the inside and light must pass through the nerve cells to reach them.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: A

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10. A : The brain reaches between 75 and 80 percent of adult size withln the first two years, and its full size at the age of 6 years.

R : From evolutionary point of view, human gestation period is belived to be shortening.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion, then mark (1).

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion, then mark (2).

C. If Assertion is true statement but Reason is false, then mark (3).

D. If both Assertion and Reason are false statements, then mark (4).

Answer: B

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