



BIOLOGY

BOOKS - TRUEMAN BIOLOGY

NEURAL CONTROL AND COORDINATION



1. Cluster of neuron cell bodies within peripheral nervous system are:

1. Nuclei

- 2. Ganglia
- 3. Laminae
- 4. Fascicles
 - A. Nuclei
 - B. Ganglia
 - C. Laminae
 - D. Fascicles

Answer: B



2. The correct sequence of meanings from inner to outer side is

A. Arachnoid membrane \rightarrow dura mater

ightarrow pia mater

B. Dura mater \rightarrow arachnoid membrane

 \rightarrow pia meter

C. Pia mater \rightarrow arachnoid membrane \rightarrow

dura mater

arachnoid membrane

Answer: C



3. Subdural space is found between

- A. Pia mater and arachnoid
- B. Dura mater and cranium
- C. Arachnoid and dura mater

D. Dura mater and vertebral column

Answer: C

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4. Cerebrospinal fluid is present

A. Between pia mater and arachnoid mater

B. Between the dura mater and cranium

C. Between arachnoid and dura mater

D. Beneath the pia mater





5. Cerebrospinal fluid is secreted by

A. Cerebrum

- B. Cerebellum
- C. olfactory lobe
- D. Choroid plexus

Answer: D



- 6. Choroid plexus is a network of
 - A. Nerves
 - **B.** Capillaries
 - C. Muscle fibres
 - D. Lymph vessels

Answer: B

7. The largest part of human brain is:

1.

- 2.
- 3.
- 4.

A. Cerebrum

- B. Cerebellum
- C. Diencephalon
- D. medulla oblongata





8. In the brain of mammals, the genu and splenium are associated with

A. Medulla

B. Vermis

C. Cerebrum

D. Cerebellum

Answer: C



9. Match the entries in column I with those in

column II and choose the correct combination

from the option given

Column I		Column II
Α	Diencephalon	1. Cerebellum
В	Telencephalon	2. Medulla
С	Myelencephalon	 Amygdala
D	Metencephalon	4. Thalamus

B. A=4, B=3, C=1, D=2

C. A=1, B=2, C=3, D=4

D. A=4, B=1, C=2, D=3

Answer: A



10. In human brain, central sulcus is found between

A. (a) Frontal and Parietal lobe

B. (b) Occipital and parietal lobe

C. (c) Temporal and parietal lobe

D. (d) Occipital and temporal lobe

Answer: A

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11. Which part of brain controls intellectual ability ?

A. Frontal lobe

B. Parietal lobe

C. Temporal lobe

D. Occipital lobe

Answer: A



12. Olfactory area is present in

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

D. Occipital lobe

Answer: C

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13. In brain, the region for perception of pain is located in

A. Frontal lobe

B. Parietal lobe

C. Occipital lobe

D. Temporal lobe

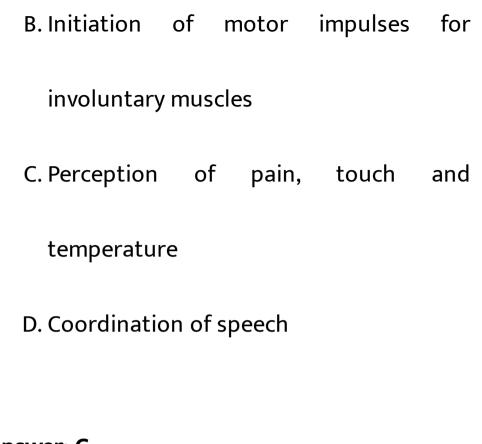
Answer: B

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14. Somesthetic or post central area is responsible for

A. Initiation of motor impulses for

voluntary muscles



Answer: C

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15. Broca's area is connected with

- A. Speech function
- B. Sensation of smell
- C. Learning and reasoning
- D. Receiving impulse from eyes

Answer: A

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16. The primary visual area is located in

A. Frontal lobe

B. Parietal lobe

C. Occipital lobe

D. Temporal lobe

Answer: C

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17. The hippocampus converts information

from

A. (a) Short term memory to long term

memory

B. (b) Long term memory to short term memory

C. (c) Aggression to remembering fear

D. Does not convert information

Answer: A

18. Feelings of anger, pain and rage are experienced through

A. (a) basal ganglia

B. (b) Occipital lobe

C. (c) Limbic system

D. (d) Reticular system

Answer: C

19. Anterior choroid plexus is found in the roof

of

A. Iter

B. Cerebrum

C. Cerebellum

D. Diencephalon

Answer: D

20. Crura cerebri are found in

A. (a) Forebrain

B. Midbrain

C. Hindbrain

D. None of these

Answer: B

21. Vermis is a part of

A. Optic lobe

B. Midbrain

C. Cerebellum

D. medulla oblongata

Answer: C

22. Purkinje cells are found in

A. Cerebral cortex

B. Cerebellar cortex

C. mammalian heart

D. Semicircular canal

Answer: B

23. Arbor vitae is a part of

A. Cerebrum

B. Midbrain

C. Forebrain

D. Cerebellum

Answer: D

24. Ventricles of brain are lined by the cells called

A. Neuroglia

B. Ependymal

C. Neuron cells

D. Schwann cells

Answer: B

25. The hollow interior of the cerebrum is called

- A. 3rd ventricle
- B. 4th ventricle
- C. Sub arachnoid space
- D. Lateral ventricles

Answer: D

26. Which of the following connect lateral ventricles or paracoel in brain with ventricle ?

A. Iter

B. Filum terminale

C. Foramen of monro

D. Aquenduct of sylvius

Answer: C

27. The cavity in the region of diencephalon in

the brain is called the

A. Iter

B. Third ventricle

C. lateral ventricle

D. Foramen of monro

Answer: B

28. Hypothalamus form the floor of

A. Optocoel

B. 3rd ventricle

C. lateral ventricle

D. 4th ventricle

Answer: B

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

	Column I		Column II
A	Cerebrum	р	Controls the pituitary
В	Cerebellum	q	Controls vision and hearing
С	Hypothalamus	r	Controls the rate of heartbeat
D	Midbrain	S	Seat of intelligence
		t	Maintains body posture

A. A=t, B=s, C=q, D=p

B. A=s, B=t, C=q, D=p

C. A=t, B=s, C=p, D=q

D. A=s, B=t, C=p, D=q

Answer: D



30. Voluntary muscular coordination is under

control of

A. Cerebellum

B. Hypothalamus

C. Medulla oblongata

D. Cerebral hemisphere

Answer: D

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31. Memory weakens if one of the following

parts is injured.

A. Medulla

B. Cerebrum

C. Cerebellum

D. Hypothalamus

Answer: B



32. A person feels no sensation when he puts his hand over flame, the part of the brain which has damaged is

A. Cerebellum

B. Cerebrum

C. Hypothalamus

D. medulla oblongata

Answer: B

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33. The major relay station for sensory input

that projects to the cerebral cortex is the

A. Pons

B. Thalamus

C. Cerebellum

D. Hypothalamus

Answer: B

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34. Hypothalamus does not control

A. Sexual behaviour

B. Osmoregulation

C. Hunger and satiety

D. Creative thinking and consciousness

Answer: D



35. Which part of the brain is involved in loss

of control when a person drinks alcohol ?

A. Thalamus

B. Hypothalamus

C. Pons varoli

D. Cerebellum

Answer: D



36. Which of the following is mismatched ?

A. Cerebrum - Memory

B. Olfactory lobes - Sense of smell

C. Cerebellum - Equilibrium of body

D. Medulla	oblongata	-	Temperature
regulat	on		
Answer: D Watch	Video Solution		

37. All the unconscious activities like heartbeat, involuntary breathing and gut peristalsis are controlled by

- 1. Medulla oblongata
- 2. Cerebrum and medulla

- 3. Cerebellum and medulla
- 4. Cerebrum and cerebellum
 - A. Medulla oblongata
 - B. Cerebrum and medulla
 - C. Cerebellum and medulla
 - D. Cerebrum and cerebellum

Answer: A

38. The spinal cord in man extends from the

- 1. Medulla oblongata to the coccyx
- 2. Level of third cervical vertebra to the coccyx
- 3. Level of the axis to the lowest lumbar vertebra
- 4. Medulla oblongata to the level of the second lumbar vertebra
 - A. Medulla oblongata to the coccyx
 - B. Level of third cervical vertebra to the

соссух

C. Level of the axis to the lowest lumbar

vertebra

D. Medulla oblongata to the level of the

second lumbar vertebra

Answer: D

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39. In the spinal cord, white matter is

- 1. Surrounded by gray matter
- 2. Mixed with gray matter

- 3. Around the gray matter
- 4. Absent

A. Surrounded by gray matter

- B. Mixed with gray matter
- C. Around the gray matter
- D. Absent

Answer: C

40. Which is a part of spinal cord ?

A. Ventricle

B. Vertebral canal

C. Ventral canal

D. Central canal

Answer: D

41. The central canal of spinal cord is lined by

A. Goblet cells

B. Epithelial tissue

C. Ependymal cells

D. Keratinized epithelium

Answer: C

42. which cranial nerves are purely sensory ?

A. I, II and VIII

B. I, II and IV

C. I, V and VII

D. None of these

Answer: A

43. A list of cranial nerves are given below 1. Optic 2. Oculomotor 3. Trochlear 4. **Trigeminal 5. Abducent** Select the nerves that are involved in moving the eyes a. 1, 2, 3 b. 2, 3, 5 c. 2, 3, 4 d. 2, 4, 5 A. 1, 2, 3 B. 2, 3, 5

C. 2, 3, 4

D. 2, 4, 5

Answer: B



44. The third, sixth and eleventh cranial nerves

in mammals are respectively

a.Trigeminal, abducens and vagus

b.Trochlear, facial and spinal accessory

c. Oculomotor, abducens and hypoglossal

d.Oculomotor, abdunces and spinal accessory

A. Trigeminal, abducens and vagus

B. Trochlear, facial and spinal accessory

C. Oculomotor, abducens and hypoglossal

D. Oculomotor, abdunces and spinal

accessory

Answer: D

45. In the serial wise arrangement of cranial nerves, after which nerve we got trochlear nerve ?

A. Optic

B. Olfactory

C. Oculomotor

D. Trigeminal

Answer: C

46. The cranial nerve responsible for focusing

the eye is

- 1. Optic
- 2. Trochlear
- 3. Oculomotor
- 4. Trigeminal
 - A. Optic
 - B. Trochlear
 - C. Oculomotor
 - D. Trigeminal

Answer: C



47. The fourth, fifth and ninth cranial nerves in mammals are respectively

- 1. Oculomotor, facial and vagus
- 2. Trigeminal, facial and spinal accessory
- 3. Trochlear , facial and glossopharyngeal
- 4. Trochlear, trigeminal and glossopharyngeal

A. Oculomotor, facial and vagus

B. Trigeminal, facial and spinal accessory

- C. Trochlear, facial and glossopharyngeal
- D. Pathetic, trigeminal and

glossopharyngeal

Answer: D

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48. Which of the following are pure motor

nerves ?

1. Trochlear and vagus

- 2. Abducens and auditory
- 3. Trochlear and abducens
- 4. Trochlear and trigeminal
 - A. Trochlear and vagus
 - B. Abducens and auditory
 - C. Trochlear and abducens
 - D. Trochlear and trigeminal

Answer: C

49. Trochlear nerve supplies

- A. Superior rectus
- B. Inferior oblique
- C. Superior oblique
- D. Nasal epithelium

Answer: C



50. The trigeminal nerve arises from the brain in the region of

1. Pons and divides into ophthalmic, maxillary and mandibular branches

 Medulla and divides into palatine, chorda tympani and hyomandibular branches
 Cerebellum and divides into palatine, chorda

tympani and hyomandibular branches

4. Cerebellum and divides into ophthalmic, maxillary and mandibular branches

A. Pons and divides into ophthalmic,			
maxillary and mandibular branches			
B. Medulla and divides into palatine,			
chorda tympani and hyomandibular			
branches			
C. Cerebellum and divides into palatine,			
chorda tympani and hyomandibular			
branches			
D. Cerebellum and divides into ophthalmic,			

maxillary and mandibular branches





51. The cranial nerve involved in chewing of food is the

A. Accessory spinal

B. Trochlear

C. Abducens

D. Trigeminal





52. The largest cranial nerve is

A. Optic

B. Facial

C. maxillary

D. Trigeminal

Answer: D



53. Which one of these transmits nerve impulse away from CNS ?

A. Optic

B. Olfactory

C. Abducens

D. Auditory

Answer: C





54. Indicate the correct match in the following

A. II cranial nerve - vagus

B. V cranial nerve - heart

C. VIII cranial nerve - lower jaw muscle

D. VI cranial nerve - external rectus muscle

of eye

Answer: D

55. A mixed cranial nerve is

A. Facial

B. Auditory

C. Abducens

D. Spinal accessory

Answer: A

56. Movement of tongue muscle is controlled

by

A. Hypoglossal nerve

B. Trigeminal nerve

C. Facial nerve

D. Vagus nerve

Answer: A

57. Which of the following cranial nerves are mixed ?

Vagus 2. Trigeminal 3. Glassopharyngeal 4.
 Auditory

A.1&2 are correct

B. 2 & 4 are correct

C.1&3 are correct

D. 1, 2 & 3 are correct

Answer: D





58. The only cranial nerve which does not join

with the brain stem

A. Vagus

B. Abducens

C. Trigeminal

D. olfactory

Answer: A

59. The lungs, heart and stomach are supplied by

A. Vagus

B. Trigeminal

C. Hypoglossal

D. Glossopharyngeal

Answer: A

60. The inhibitory effect of the vagus nerve on

the heart is due to the secretion of

A. Glycine

B. Dopamine

C. Acetylcholine

D. Nor epinephrine

Answer: C

61. Which of the following is not under the

control of vagus nerve ?

A. Gastrointestinal movement

B. Respiratory movement

C. Salivation

D. Heart beat

Answer: C

62. Which of the following cranial is found only

in amniotes ?

A. Vagus

B. Trigeminal

C. Hypoglossal

D. Glossopharyngeal

Answer: C

63. Select the correct statement regarding spinal nerves

A. Dorsal root is motor and sensory both

- B. Ventral root is sensory and motor both
- C. Dorsal root is sensory and ventral root is

motor

D. Dorsal root is motor and ventral root is

sensory

Answer: C

64. In after cutting through the dorsal root of a spinal nerve of a mammal, an associated receptor in the skin were simulated, the animal would

- A. Show no response
- B. Show a normal but slow response
- C. Still be able to feel the stimulation
- D. Respond but only at a different level of

spinal cord





65. Which of these statements is a correct ?

- A. All arteries carry purified blood
- B. Urine of all vertebrates is similar
- C. All motor fibres leave spinal cord via

ventral root

D. Red blood corpuscles of all vertebrates

are nucleated

Answer: C



66. Which of these is a correct count of the

spinal nerves in man?

A. 9 Cervical, 12 thoracic, 5 lumbar, 5 sacral,

1 coccygeal

B. 8 cervical, 12 thoracic, 5 lumbar, 5 sacral,

1 coccygeal

C. 7 cervical, 12 thoracic, 5 lumbar, 5 sacral,

1 coccygeal

D. 8 cervical, 11 thoracic, 4 lumbar, 6 sacral, 1

coccygeal

Answer: B

67. 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 picked

C. Move the leg and feel the pain

D. Do not move the leg but feel the pain

Answer: B





68. Pavlov is famous for his poineer work on

A. Double circulation

B. Treatment of rabies

C. Mutation in primrose

D. Conditioned reflex in dog

Answer: D

69. Post-ganglionic nerve fibres of

sysmpathetic system are

A. Adrenergic

B. Cholinergic

C. Voluntary

D. None of these

Answer: A

70. Which of these fibres release epinephrine ?

A. Preganglionic parasympathetic fibres

- B. Postganglionic parasympathetic fibres
- C. Postganglionic sympathetic fibres in the

heart

D. Postganglionic sympathetic fibres in

sweat glands

Answer: C

71. Release of catecholamines from adrenal medulla (human) is an action of

A. Preganglionic sympathetic nerves

B. Postganglionic sympathetic nerves

C. Preganglionic parasympathetic nerves

D. Postganglionic parasympathetic nerves

Answer: B

72. Craniosacral outflow refers to

A. Sympathetic

B. Parasympathetic

C. Both of these

D. None of these

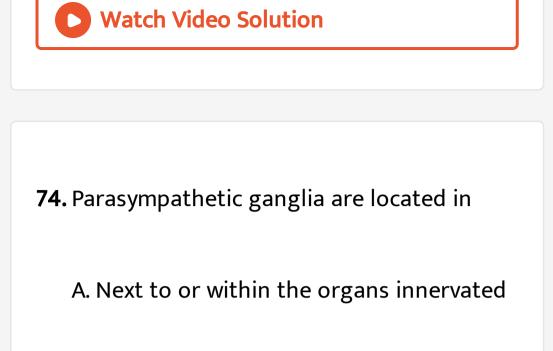
Answer: B

73. A list of cranial nerves are given below

1. Oculomotor 2.Trigeminal 3. Facial 4. Vestibulocochlear 5. Glossopharyngeal 6 Vagus Select the nerves that are part of the parasympathetic division of the ANS

- A. 1, 4, 5, 6
- B. 2, 3, 4, 5
- C. 1, 2, 4, 5
- D. 1, 3, 5, 6

Answer: D



- B. A chain parallel to the spinal cord
- C. The root of spinal nerves
- D. The brain

Answer: A



75. A polarized neuron is said to be in

A. Action potential

B. Resting potential

C. Conducting stimulus

D. None of these

Answer: B

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

A. Sodium

B. Calcium

C. Chloride

D. Potassium

Answer: A

77. Sodium pump stop operating during

A. Repolarization

B. Action potential

C. Resting potential

D. None of the above

Answer: B

78. During repolarization of nerve

A. Na^+ channels are closed and K^+ channel are open B. K^+ gate closes and Na^+ gate open C. Both K^+ and Na^+ gates are closed D. Both gates remain open

Answer: A

79. Absolute refractory period during nerve impulse conduction is the period of

A. Repolarization

B. Depolarization

C. Both repolarization and depolarization

D. Neither repolarization and

depolarization

Answer: A

80. At the time of conduction of nerve impulse,

the repolarization occurs with the

A. Efflux of K^+ ions

B. Influx of K^+ ions

C. Efflux of Na^+ ions

D. Efflux of both Na^+ and K^+ ions

Answer: A

81. Saltatory conduction of impulse occurs in

A. Myelinated nerve fibres

B. Nonmyelinated fibres

C. Both of these

D. None of these

Answer: A

82. Unidirectional transmission of nerve

impulse is maintained by

A. Synapses

B. Grey matter

C. Myelin sheath

D. Membrane polarity

Answer: A

83. which of the following helps in transmission of impulse across the synapse ? A. Na^+ B. K^+

C. Ca^{2+}

D.
$$Mg^{2+}$$

Answer: C



84. Once a synaptic junction between neurons has allowed transmission of a nerve impulse, it is made ready to transmit next impulse by the action of

A. Secretin

B. Acetylcholine

C. Cholecystokinin

D. Acetylcholinesterase

Answer: D





85. Among which one of the following groups of chemicals, all are neurotransmitters ?

A. Glycine, dopamine, melatonin

- B. Somatostatin, serotonin, acetylcholine
- C. Noradrenaline, somatostatin, threonine
- D. Acetylcholine, noradrenaline, dopamine

Answer: D

86. Broca's motor speech area occurs in

A. Frontal lobe

- B. Temporal lobes
- C. Temporal and occipital lobes
- D. parietal lobe and partially in temporal

lobe

Answer: A

87. Part of the brain concerned with the

muscular movement is

A. Thalamus

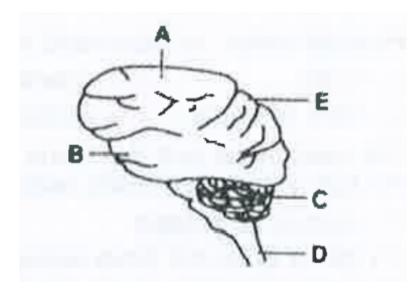
B. Cerebellum

C. Hippocampus

D. Temporal lobe of cerebrum

Answer: B

88. In the diagram of the lateral view of the human brain, parts are indicated by alphabets. Choose the answer in which these alphabets have been correctly matched with the parts which they indicate ?



A. A = Temporal lobe, B = Parietal lobe, C =

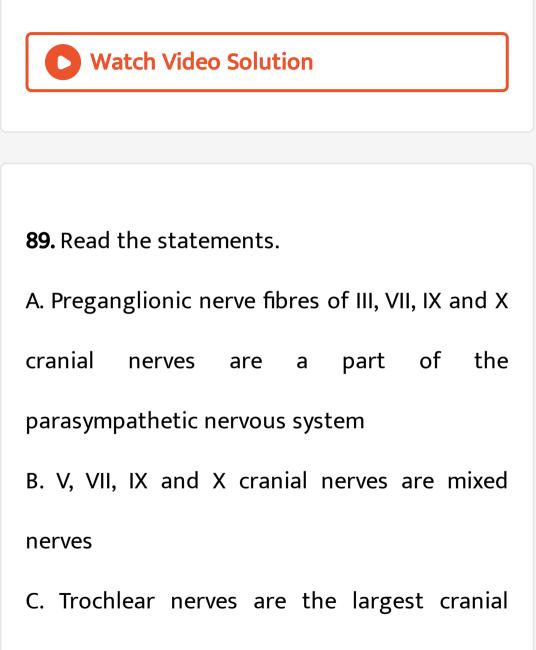
Cerebellum, D = Medulla oblongata, E =

Frontal lobe

B. A = Frontal lobe, B = Temporal lobe, C = cerebrum, D = medulla oblongata, E = **Occipital lobe** C. A = Temporal lobe, B = Parietal lobe, C = cerebrum, D = medulla oblongata, E = Frontal lobe D. A = Frontal lobe, B = temporal lobe, C = cerebellum, D = medulla oblongata, E =

Parietal lobe

Answer: D



nerves

D. Abducens nerves are sensory in nature

which of the above statements are correct ?

A. A and D

B. A and B

C. B and C

D. A and C

Answer: B

90. A man is admitted toa hospital. He is suffering from an abnormally low body temperature, loss of appetitie and extreme thirst. His brains scan would probably show a tumor in

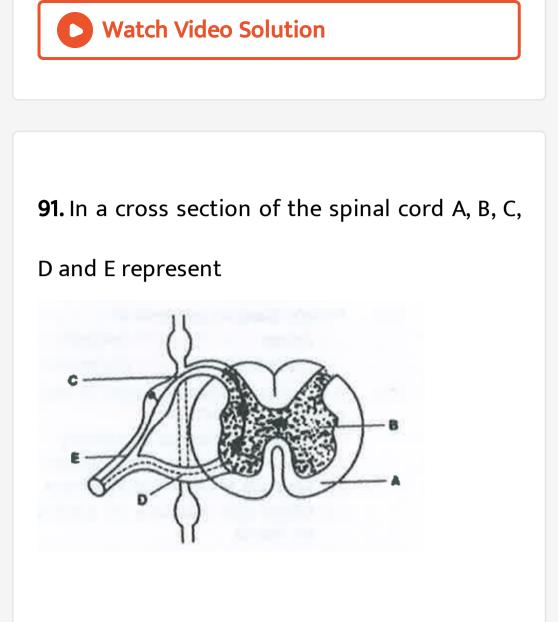
A. Pons

B. Cerebellum

C. Medulla oblongata

D. Hypothalamus

Answer: D



A. A = white matter, B = gray matter, C =

ventral root, D = dorsal root, E = spinal

nerve

B.A = gray matter, B = white matter, C =Ventral root, D = Dorsal root, E = spinal nerve C.A = gray matter, B = white matter, C =dorsal root, D = ventral root, E = spinal nerve D.A = white matter, B = gray matter, C =dorsal root, D = ventral root, E = spinal

nerve

Answer: D



92. Which function will be lost due to damaged of occipital lobe

A. Hearing

B. Speech

C. Vision

D. Memory





93. Pain is experienced by

A. Caloreceptor

- **B. Algesireceptor**
- C. Proprioceptor
- D. Hygroreceptor

Answer: B



94. The receptors found in the muscles, tendons and joints are

A. Visceroceptors

B. Teloreceptors

C. Proprioceptor

D. None of these

Answer: C





95. Cornea is a transparent part of

A. Retina

B. Choroid

C. Sclerotic

D. Conjunctiva

Answer: C

96. which layer of the wall of an eyeball contains abundant blood vessels ?

A. Lens

B. Retina

C. Choroid

D. Sclerotic

Answer: C

97. The black pigment in the eye, which reduces the internal reflection, is located in

A. Pupil

B. Cornea

C. Sclerotic

D. Choroid

Answer: D

98. Eye lens is

A. Convex

B. Concave

C. Biconcave

D. Biconvex

Answer: D

99. Protein found in eye lens is

A. Opsin

B. Callagene

C. Crystallin

D. Rhodopsin

Answer: C

100. If the circular ciliary muscles of the eye are unable to contract, the

A. Vision will be lost completely

B. Lens will become more convex

C. Lens will be thin and stretched

D. Bright light will have no adverse effect

on retina

Answer: C



101. Anterior chamber of the eye is the space between

A. Lens and iris

B. Cornea and iris

C. Lens and retina

D. Cornea and lens

Answer: B

102. Aqueous and vitreous humor are divided

by

A. Lens

B. Iris

C. Retina

D. Optic nerve

Answer: A

103. The space between cornea and the lens is

called

A. Anterior chamber

B. Aqueous chamber

C. Vitreous chamber

D. Canal of schlemm

Answer: B

104. The lens and cornea is not having blood supply. So the nutrients are supplied by

A. Retina

B. Eye lash

C. Blind spot

D. Aqueous humor

Answer: D

105. Ora serrata is

A. Anterior edge of sensory portion of the

retina

B. Gland present in oral cavity of frog

C. Oral cavity of protochordates

D. A part of sclera

Answer: A

106. Retina is most sensitive at

- 1. In front of ora serrata
- 2. Fovea centralis
- 3. Blind spot
 - A. In front of ora serrata
 - B. Fovea centralis
 - C. Blind spot
 - D.

Answer: C





107. The point in eye of mammals from which optic nerves and blood vessels leave the eye ball is called

A. Blind spot

B. Fovea centralis

C. Yellow spot

D. None of these

Answer: A





108. An area of the retina which does not have

rods or cones is

A. Red spot

B. Blue spot

C. Blind spot

D. Black spot

Answer: C

109. In nocturnal birds, the retina contains mostly

A. Rods

B. Cones

C. Both in equal numbers

D. None of these

Answer: A

110. If is present in rod cells and useful in night

vision,

A. Melanin

B. Rhodopsin

C. Vitamin C

D. Vitamin K

Answer: B

111. Pigment lodopsin in contained in

A. Rod cells

B. Cone cells

C. Amacrine cells

D. Horizontal cells

Answer: B



112. Photopic vision is associated with

A. Rods

B. Cones

C. Both of these

D. Vitreous humor

Answer: B

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113. The eye of cat and dog shine (reflect back

the light focused on them) because

A. Cornea is opaque

B. Retina does not have enough rods

C. Retina has only rods and no cones

D. Choroid is provided with tapetum

lucidum

Answer: D

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114. The image formed on the eye retina is

A. Erect and real

B. Erect and virtual

C. Inverted and real

D. Inverted and virtual

Answer: C

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115. Eyeball can be moved in the orbit by eyeball muscles. The number of eyeball muscles in each eye is

A. Six

B. Four

C. Five

D. Three

Answer: A

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116. Myopia (near-sightedness) is a defect in

human eye in which the image is formed

A. In front of retina and can be corrected

by using a concave lens

B. In front of retina and can be corrected

by using a convex lens

C. Behind the retina and can be corrected

by using a concave lens

D. Behind the retina and can be corrected

by using a convex lens

Answer: A

117. Hypermetropia (long sight) is a condition in human eye in which the image is formed

A. Behind retina and can be corrected by

using a concave lens

B. Behind retina and can be corrected by

using a convex lens

C. In front of retina and can be corrected

by using a concave lens

D. In front of retina and can be corrected

by using a convex lens

Answer: B

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118. If eyeball is shorter, then probable defect

would be

A. Presbyopia

B. Astigmatism

C. Near-sightedness

D. Far-sightedness

Answer: D



119. Lenses used by those who cannot see near

objects are

A. Plain

B. Concave

C. Convex

D. Any of the above

Answer: C



120. Reduction in elasticity of eye lens with age

causes

A. Myopia

B. Cataract

C. Presbyopia

D. Astigmatism

Answer: C

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121. Irregular cornea results in

A. Cataract

B. Glaucoma

C. Strabismus

D. Astigmatism

Answer: D

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122. Astigmatism can be corrected by using

A. Plain lens

B. Convex lens

C. Concave lens

D. Cylindrical lens





123. Opacity of the lens in the eye lead to

A. Cataract

- B. Hyperopia
- C. Presbyopia
- D. Astigmatism

Answer: A



124. In the following abnormalities of the eye which one is a serious condition that leads to blindness ?

A. Myopia

B. Glaucoma

C. Presbyopia

D. Astigmatism

Answer: B



125. Glaucoma is due to

- A. Increase in intraatrial pressure
- B. Increase in intraocular pressure
- C. Increase in intravesical pressure
- D. Increase in intraventricular pressure

Answer: B



126. Glaucoma can be caused by

A. Opacity of lens

B. Drying of vitreous humor

C. Increase in the size of eye ball

D. Blockage of canal of schlemm

Answer: D

127. Helicotrema is located at

A. Middle of cochlea

B. Tip of cochlea

C. Start of cochlea

D. Near fenestra ovalis

Answer: B

128. The waxy substance which coats the surface of auditory canal is produced by

A. Zeis glands

B. Parotid glands

C. Meibomian glands

D. Ceruminous glands

Answer: D

129. Identify the correct sequence of organs/ regions in the organization of human ear as an auditory mechanoreceptor organ

- 1. Pinna Auditory canal Tympanic membrane
- Malleus incus Stapes cochlea Auditory

nerve

2. Pinna- Malleus- incus- stapes- auditory canal-

tympanic membrane

3. Pinna - cochlea - Tympanic membrane -

Auditory canal - Malleus - Stapes - Incus -

Auditory nerve

4. Pinna - Tympanic membrane - Auditory canal

- Incus - malleus - Stapes - Cochlea - Auditory

nerve

A. Pinna - Auditory canal - Tympanic

membrane - Malleus - incus - Stapes -

cochlea - Auditory nerve

B. Pinna- Malleus- incus- stapes- auditory

canal- tympanic membrane

C. Pinna - cochlea - Tympanic membrane -

Auditory canal - Malleus - Stapes - Incus -

Auditory nerve

D. Pinna - Tympanic membrane - Auditory

canal - Incus - malleus - Stapes - Cochlea -

Auditory nerve

Answer: A

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130. Sound is amplified by the

1. Pinna

2. Ear ossicles

- 3. Round window
- 4. Tympanic membrane

A. Pinna

- B. Ear ossicles
- C. Round window
- D. Tympanic membrane

Answer: B

131. In the human ear, which bone is connected

with the tympanum ?

- 1. Anvil
- 2. Stirrup
- 3. Hammer
- 4. None of these
 - A. Anvil
 - B. Stirrup
 - C. Hammer
 - D. None of these

Answer: C



132. Anvil-shaped bone is

- 1. Incus
- 2. Stapes
- 3. Malleus
- 4. Columella auris

A. Incus

B. Stapes

C. Malleus

D. Columellaaris

Answer: A



133. Which of the following bones is in direct

contact with oval window ?

1. Incus

2. Stapes

3. Malleus

4. All of these

A. Incus

- **B. Stapes**
- C. Malleus
- D. All of these

Answer: B



134. Which of the following bones is in contact

with fenestra rotundus ?

- 1. Incus
- 2. Stapes
- 3. Malleus
- 4. None of these
 - A. Incus
 - **B.** Stapes
 - C. Malleus
 - D. None of these

Answer: D



135. Eustachian tube helps to

1. Equalize pressure on both sides of

tympanum

- 2. Keep tympanic chamber moist
- 3. Amplify sound vibrations
- 4. Maintain balance

A. Equalise pressure on both sides of

tympanum

B. Keep tympanic chamber moist

C. Amplify sound vibrations

D. Maintain balance

Answer: A

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136. In the ear of man, the perilymph passes

from middle to inner ear through

- 1. Foramen ovalis
- 2. Fenestra ovalis
- 3. Fenestra rotundus
- 4. Tympanic membrane
 - A. Foramen ovalis
 - B. Fenestra ovalis
 - C. Fenestra rotundus
 - D. Tympanic membrane

Answer: B



137. Bony labyrinth is filled with a fluid called

- 1. Lymph
- 2. Perilymph
- 3. Endolymph
- 4. Heamolymph
 - A. Lymph
 - B. Perilymph

C. Endolymph

D. Heamolymph

Answer: B



138. Nerve impulse for hearing originates in

A. Eardrum

B. Cochlea

C. Ear ossicles

D. Auditory nerve

Answer: B

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139. Which of the following is known as 'cochlear duct' ?

A. Scala media

B. Scala vestibuli

C. Scala tympani

D. None of these

Answer: A

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140. In the internal ear, the 'organ of corti' which bear hair cells is located in

A. Sacculus

B. Scala media

C. Scala tympani

D. Scala vestibuli

Answer: B

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141. Scala vestibuli and scala media contain respectively

A. Endolymph and perilymph

B. Perilymph and endolymph

C. Endolymph only

D. Perilymph only

Answer: B

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142. Which of the following arises from the sacculus

- A. Semicircular cannals
- B. Endolymphatic duct
- C. Eustachian tube

D. None of these

Answer: B

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143. Which of the following is balancing organ

?

A. Organ of corti

B. Cochlea

C. Vestibular apparatus

D. Oval window

Answer: C

Watch Video Solution

144. Statolith is an organ which helps in

A. Vision

- B. Equilibrium
- C. Tactile stimulation
- D. Chemical stimulation

Answer: B



145. Receptor cells for balance in human ear are located in

A. Utricle, Saccule and semicircular canals

B. malleus, incus and stapes

C. Eustachian tube

D. Organ of corti





146. Otolith is mainly composed of

A. Lipid

- B. Calcium carbonate
- C. Mucopolysaccharide
- D. Calcium phosphate

Answer: B



147. The glands which help in absorbing odoriferous substances to stimulate olfactory nerve are

- A. Bidder's glands
- B. Cowper's glands
- C. Meibomian glands
- D. Bowmans gland

Answer: B



148. A molecule cannot be tasted or smelled unit it has been

A. Dissolved in a liquid

B. Converted into a liquid

C. Converted into a neurotransmitter

D. Grouped into a multimolecular comlplex

Answer: A





149. Choose the incorrect option The ciliary body

A. Is the part of sclera

- B. is the part of the iris of the eye
- C. Secretes the vitreous humor
- D. Contains smooth musices that attach to

the lens by suspensory ligaments

Answer: D



- **150.** Given these structures
- 1. Lens 2. Aqueous humor 3. vitreous humor 4.

Cornea

Choose the correct sequence of the pathway

of light from outside to inside the eyeball

A. 4, 2, 1, 3

B. 1, 2, 3, 4

C. 4, 3, 2, 1

D. 1, 4, 2, 3

Answer: A

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151. Select the correct option Aqueous humor

A. Is the pigment responsible of the black

colour of the choroid

B. Exits the eye through the canal of

schlemm

C. Can cause cataracts if over produced

D. Is secreted by iris

Answer: B

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152. Given the area of the retina

1. Macula 2. Fovea centralis 3. Optic disc 4.

Periphery of the retina

Choose the arrangement that lists the areas according to the density of cones, starting

with the area that has highest density of

cones

- A. 2, 1, 4, 3
- B. 2, 4, 1, 3
- C. 1, 2, 3, 4
- D. 1, 3, 2, 4

Answer: A



153. Which of the following is correct for lens

focusing, while seeing distant object ?

A. Tight suspensory ligaments and

rounded lens

B. Contracted ciliary muscles and rounded

lens

C. Relaxed ciliary muscles and tight

suspensory ligament

D. Contracted ciliary muscles and relaxed

suspensory ligaments

Answer: C

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154. Fovea in the eye is a central part in the

yellowish pigmented spot called

A. Retina

B. Cornea

C. Choroid

D. Macula lutea

Answer: D



155. Match the following

- 1. Fovea
- 2. Iris
- Pupil
- 4. Lens
- 5. Optic nerve

- A Provides opening for entry of light
- B. Transduces RGB light
- C. Transmits information to CNS
- Controls amount of light entering
- E. Focuses light on the retina

A. 1-D, 2-A, 3-E, 4-B, 5-C

B. 1-A, 2-B, 3-C, 4-D, 5-E

C. 1-B, 2-D, 3-A, 4-E, 5-C

D. 1-E, 2-A, 3-D, 4-C, 5-B

Answer: C

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156. High frequency sound waves vibrate the

basilar membrane

- A. Near the helicoterma
- B. Near the oval window
- C. In the middle of cochlea
- D. Towards tip of cochlea

Answer: B

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157. The order of the three layers of cells in the

retina of human eye from inside to outside is

A. Ganglion cells, rods, cones				
B. Bipolar	cells,	photoreceptor		cells,
ganglion cells				
C. Ganglion	cel	lls,	bipolar	cells,
photoreceptor cells				
D. Photorecep	otor	cells,	ganglion	cells,
bipolar cells				
Answer: C				

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158. In the statement "three are several ventricles in the brain and some of these ventricles are connected by foramen of monro. This foramen connects \underline{X} which are located in the \underline{Y} of the brain", X and Y stand respectively for

A. Lateral ventricles and cerebral hemisphere

B. Third and fourth ventricles in cerebral

hemisphere and medulla oblongata

C. Lateral ventricles and third ventricles in

cerebral hemisphere and

mesencephalon

D. Lateral ventricles and third ventricle in

cerebral hemispheres and diencephalon

Answer: D

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159. Which of the following statement is / are correct ?

(i) Formation of rhodopsin takes place in dark adaptation

(ii) Destruction of rhodopsin takes place in light adaptation

(iii) Destruction of rhodopsin takes place in dark adaptation

(iv) Formation of rhodopsin takes place in light adaptation

A. (i) and (ii)

B. (ii) and (iv)

C. (i) and (iii)

D. (iv) alone

Answer: A

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160. Fight or flight activation of the autonomic

nervous system causes which of the following

to occur?

A. Pupli muscle constriction

B. Blood flow shifts from digestive to

skeletal muscle circulation

C. Constriction of bronchi results

D. Blood glucose drastically decreases

Answer: B

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161. The adrenal medulla is a mass of neurons with all of the following characteristics except

- A. Its products are tyrosine derived
- B. It releases epinephrine
- C. It is responsible for the production of

cortisol and aldosterone

D. It is located above the kidney

Answer: C



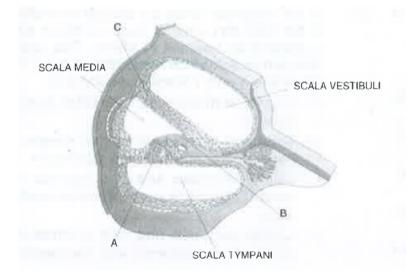
162. Action potential is

A. Decremental phenomenon

- B. Does not obey all or none
- C. K^+ goes from ECF to ICF
- D. Always same for any one neuron

Answer: D

163. In the figure related to human ear, what do A, B and C stand for respectively



A. Reissners, Basilar and Tectorial

membrane

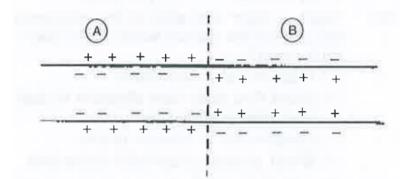
B. Tectorial, Basilar and Reissners

membrane

C. Basilar,	Tectorial	and	Reissners
membrar	ie		
D. Basilar,	Reissners	and	Tectorial
membrar	ie		
Answer: C			
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164. In the given figure two regions (1) and (2) of a neuron are shown. Which option tells us best the state of the neuron at the two sites

and the direction of flow of nerve impulse ?



A. A - depolarised , B - repolarised , A to B

- B. A resting , B depolarised , B to A
- C. A depolarised , B resting , A to B
- D. A resting , B -depolarised , A to B

Answer: B

165. Which of the following is wrongly matched ?

A. Fovea - Retina

B. Corpus callosum - Forebrain

C. Limbic system - Forebrain

D. Visual purple - Cones

Answer: D

166. Match list-I with list-II and select the correct answer using the codes given below

lists

	List-I		List-II
A.	Sodium gate	1.	Saltatory conduc- tion of nerve im- pulse
B.	Nodes of Ranvier	2.	Synaptic trans- mission
C.	Acetylcholine	3.	Action potential
D.	Photoreceptor	4.	Transduction
		5.	Dendrite



167. Match list-I with list-II and select the correct answer using the codes given below lists

List-I	List-II	
A Action potential	1. Myelinated nerve fibre	
B. Neurosecretion	2. Donnan equilibriun	n
C. Resting potential	3. Hypothala	mus
D. Saltatory	 Depolarisa propagatio 	
	& repolaris	



168. Which one of the following is the correct sequence of cranial nerves in chordates ? A. Facial, abducens, auditory, glossopharyngeal B. Auditory, facial, abdunces, glossopharyngeal C. Abducens, facial, auditory, glossopharyngeal

abducens

Answer: C



169. Cochlea is divided into three chambers or

spaces

1. Scala vestibuli 2. Scala media 3. Scala tympani

Basilar membrane and Reissner's membrane

are respectively found between

A. (i) and (iii) and (i) & (ii)

B. (i), (ii) and (iii)

C. (ii) & (iii) and (i) & (iii)

D. (ii) and (iii) and (i) & (ii)

Answer: D

170. Consider the following statements sympathetic nervous system is characterised by

- 1. Acetylcholine as neuro secretion
- 2. Fight of flight activities
- 3. Longer preganglionic fibres
- 4. Non-medullated postganglionic fibres
- 5. Arising from thoracic-lumbar portion
- a. 1, 2 and 3
- b. 2, 4, and 5
- c. 2 and 4
- d. 1, 3 and 5

A. 1, 2 and 3

- B. 2, 4, and 5
- C. 2 and 4
- D. 1, 3 and 5

Answer: B

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171. Consider the following statements

regarding Na-K Pump

1. It utilizes ATP.

2. It acts on a resting neuron.

3. It involves efflux of 3 Na^+ per ATP.

4. It involves influx of 2 K^+ per ATP.

- 5. Metabolic poisons stop the pump.
- a. 1 and 2
- b. 1, 2 and 5
- c. 3, 4 and 5
- d. 1, 2, 3, 4 and 5
 - A. 1 and 2
 - B. 1, 2 and 5
 - C. 3, 4 and 5

D. 1, 2, 3, 4 and 5

Answer: D

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172. which statement is false ?

A. The kidney produces a concerterted

urine by etablishing a high

concentration of salt and urea

surrounding the collecting ducts

B. The hypothalalmus is a region of the hind brain important in regulating cardiovascular function, such as heart rate and blood pressure C. In typical reflex arcs, impulses in sensory neurons activate motor neuron via interneurons D. A drop in body temperature is countered measures such as increasing by metabolic rate

Answer: B



173. A 35-year-old female patient presents with weakness and spasticity in the left lower extremity, visual impairment and throbbing in her left eye. MRI confirms areas of demyelination in the anterior corpus callosum. Which of the following cells are specifically targeted in her condition ?

- A. Microglia
- B. Oligodendrocytes
- C. Astrocytes
- D. Schwann cells

Answer: B



174. A teenage girl presents for evaluation of hearing loss in her right ear. She has a history of at least 12 episodes of otitis media as a

child, at least one time she perforated her eardrum. Her hearing loss is most likely due to

A. Conductive deafness

B. Sensorineural deafness

C. Central deafness

D.

Answer: A



175. What is not true about the sympathetic nervous system? a. It has functions antagonistic to those of parasympathetic system b. It has bilateral ganglionated cords c. It has longer post ganglionic fibres d. It has stimulatory influence on all involuntary organs, it supplies

A. It has functions antagonistic to those of

parasympathetic system

B. It has bilateral ganglionated cords

C. It has longer post ganglionic fibres

D. It has stimulatory influence on all

involuntary organs, it supplies

Answer: D

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176. Stimulation of target organs by the parasympathetic vagus nerve would exert which of the following effects ?

1. Acetylcholine inhibition of the GI tract

2. Norepinephrine-stimulated increase in the

heart rate

3. Norepinephrine inhibition of pancreatic secretion

4. Acetylcholine-stimulated increase in pancreatic secretion

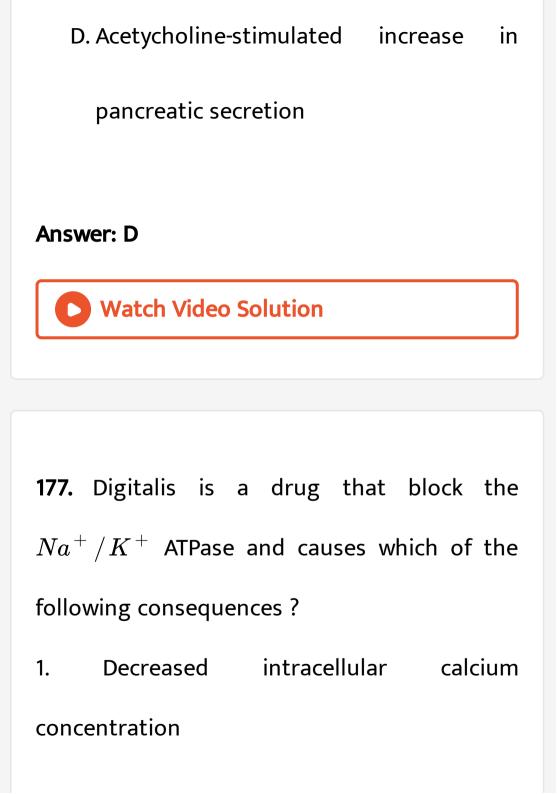
A. Acetylcholine inhibition of the GI tract

B. Norepinephrine-stimulated increase in

the heart rate

C. Norepinephrine inhibition of pancreatic

secretion



2.	Decreased	intracellular	sodium
conce	entration		
3.	Decreased	intracellular	potassium
conce	entration		
4.	increased	extracellular	sodium
conce	entration		
A	. Decreased	intracellular	calcium
	concentration	l	
В	. Decreased	intracellular	sodium
	concentration	I	

C. Decreased	intracellular	potassium
concentration	1	
D. increased	extracellular	sodium
concentration	1	
A		
Answer: C		
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178. Given below are a list of certain metabolic

effect

(i) Lipolysis (ii) Glycogenesis (iii) Increased

blood glucose (iv) Proteolysis

Which option shows the correct effect by the

hormone of fight or flight ?

A. (i), (ii), (iii)

B. (i), (iii), (iv)

C. (i) , (ii), (iv)

D. All of them

Answer: B

179. Which of the following is not involved in

kneejerk reflex ?

A. Muscle spindle

B. Motor neuron

C. Brain

D. Inter neurons

Answer: C

180. Excessive stimulation of vagus nerve in

humans may lead to

A. Hoarse voice

B. Peptic ulcer

C. Efficient digestion of proteins

D. Irregular contraction of diaphragm

Answer: B

181. A person is wearing spectacles with concave lenses for correcting vision. While not using the glasses, the image of a distant object in his case will be formed

A. On the blind spot

B. Behind the retina

C. In front of the retina

D. On the yellow spot

Answer: C

182. Unidirectional transmission of nerve impulse is maintained by

A. Nerve fibre is insulated by a medullary sheath

B. Sodium pump start 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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183. Assertion: Our body secretes adrenaline in

intense cold.

Reason: Adrenaline raises metabolic rate.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion, then mark a.

B. If both assertion and reason are true butthe reason is not the correct explanationof the assertion, then mark b.C. If assertion is true statement but reason

is false, then mark c.

D. If both assertion and reason are false

statements, then mark d.

Answer: A

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184. Given below is a table comparing the effects of sympathetic and parasympathetic nervous system for four feature (1-4). Which

one feature is correctly described ?

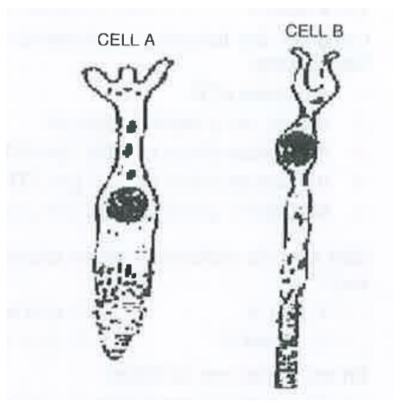
S. Feature No.	Sympathetic nervous system	Parasympa- thetic ner- vous system
(1) Salivary glands(2) Pupil of the eye	Stimulates secretion Dilates	Inhibits secretion Constricts
(3) Heart rate	Decreases	Increases
(4) Intestinal peristalsis	Stimulates	Inhibits



185. Examine the diagram of the two cell types

A and B given below and select the correct

option



A. Cell A is the rod cell found evenly all over

retina.

B. Cell A is the cone cell more concentrated

in the fovea centralis

C. Cell B is concerned with colour vision in

bright light

D. Cell A is sensitive to low light intensities

Answer: B

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186. Find out the wrong statement

A. Organ of corti is located on the tectorial membrane B. The membranous semi-circular canals of internal ear are suspended in the perilymph of the bony canals C. At the posterior pole of the lateral to the blind spot, there is a yellowish pigmented spot called marcula lutea with a central pit called the fovea

D. Along with the hypothalamus, the limbic

system is involved in the regulation of

sexual behaviour, expression of

emotional reactions and motivation.

Answer: A

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

A. Na^+ into the cell

B. Na^+ out of the cell

C. K^+ into the cell

D. K^+ and Na^+ out of the cell

Answer: A

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188. Injury to vagus nerve in human is not likely to affect

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

Answer: C

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189. Parkinson's diseases (characterised 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. Norepinephrine

B. Acetylcholine

C. GABA

D. Dopamine

Answer: D

190. In a man, abducens nerve is injured. Which

one of the following functions will be affacted

A. Swallowing

B. Movement of the eye ball

C. Movement of the neck

D. Movement of the tongue

Answer: B

191. Which one of the following does not act as

a neurotransmitter ?

A. Acetylcholine

B. Epinephrine

C. Norepinephrine

D. Cortisone

Answer: D

192. Which hormone causes dilation of blood vessels, increased oxygen consumption and glucongenesis

A. ACTH

B. Insulin

C. Adrenaline

D. Glucagon

Answer: C

193. Bowman's glands are located in the

- A. Anterior pituitary
- B. Female reproductive system of

cockroach

- C. Olafactory epithelium of our nose
- D. Proximal end of uriniferous tubules

Answer: C

194. 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



195. Which of the following is an example of

negative feedback loop in humans

A. Secretion of tears after falling of stand

particles in to the eye.

B. Salivation of mouth at the sight of

delicious food

C. Secretion of sweat glands and and

constriction of skin blood vessels when

it is too hot.

D. Constriction of skin blood vessels and

contraction of skeletal muscles when it

is too cold

Answer: D

196. Feeling of tremors of an earthquake, a scared resident of seventh floor of a multistoried building starts climbing down the stairs rapidly. Which hormone initiated this action ?

A. Adrenaline

B. Glucagon

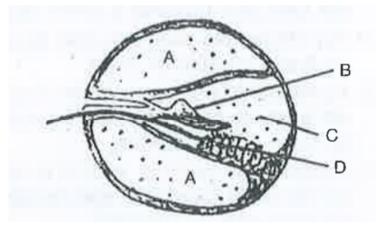
C. Gastrin

D. Thyroxin

Answer: A



197. 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 : Perilymph, 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





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

A. Thalamus

- B. Hypothalamus
- C. Pons
- D. Cerebellum





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

A. Comparatively more permeable to Na^+

ions and nearly impermeable to K^+

ions

B. Equally permeable to both Na^+ and K^+ ions C. Impermeable to both Na^+ and K^+ ions D. Comparatively more permeable to K^+ ions and nearly impermeable to Na^+

ions

Answer: D

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

A. Vitamin B_1

B. Vitamin C

C. Vitamin D

D. Vitamin A

Answer: D

201. 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. Neurotransmitters diffuse rapidly across

the cleft and transmit a nerve impulse

B. Hypothalamus activates the parasympa-

thetic division of brain

C. Sympathetic nervous system is activated

releasing epinephrin and norepinephrin

from adrenal cortex

D. Sympathetic nervous system is activated

releasing epinephrin and norepinephrin

from adrenal medulla

Answer: D

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

A. Organ of corti

B. Vestibular apparatus

C. Ear ossicles

D. Eustachian tube

Answer: B

203. The human hind brain comparises three

parts, one of which is

A. Corpus callosum

B. Cerebellum

C. Hypothalamus

D. Spinal cord

Answer: B

204. Select the answer with correct matching

of the structure, its location and function

Structure	Location	Function
(1) Eustachian	Anterior part	Equalizes
tube	of internal ear	air pres-
		sure on
	1.0.0	either
		sides of
	-	tympanic
		memb-
		rane
(2) Cerebellum	Mid brain	Controls
		respira-
		tion and
		gastric
		secretions
(3) Hypothala-	Fore brain	Controls
mus		body tem-
		perature
-	1000	urge for
		eating and
	and the second second	drinking
(4) Blind	Near the	Rods and
spot	place where	cones are
	optic nerve	present but
-	leaves the	inactive
	eye	here



205. A nerve impulse is generated when the nerve cell undergoes

- A. Hyperpolarisation
- **B.** Repolarisation
- C. Depolarisation
- D. Pseudopolarisation

Answer: C





- A. Ependymal epithelium
- B. Choroid plexus
- C. Pituitary body
- D. Pineal body

Answer: B

207. The capacity to differentiate colours lies

in

A. Cones

B. Rods

C. Pigment epithelium

D. Ganglion cell layer

Answer: A

208. In ear, the membranous labyrinth is filled

with fluid called

A. Endolymph

B. Perilymph

C. Plasma

D. Haemolymph

Answer: A

209. The region of the vertebrate eye, where the optics nerve passes out of the retina and photoreceptor cells are not present in that region is called

A. Fovea

B. Iris

C. Blind spot

D. Optic chiasma

Answer: C

210. The specific receptor responsible for the balance of the body and posture are

A. Organ of corti

B. Crista and macula

C. Tectorial membrane

D. Basilar membrane

Answer: B

211. Smallest bone in human system is

A. Incus

B. Stapes

C. Malleus

D. Maxilla

Answer: B

212. The charge on the oUter side of the neuron is

 $\mathsf{A.}+Ve$

 $\mathsf{B.}-Ve$

C. Zero

D. Alternate -Ve and +Ve

Answer: A

213. Colour perception in man is due to

A. Rhodospin pigment in rod cells

B. lodospin pigment in cone cells

C. Iodospin pigment in rod cells

D. Rhodopsin pigment in cone cells

Answer: B



214. Vomitting centre is located in the

A. Medulla oblongata

B. Stomach and sometimes in duodenum

C. GI tract

D. Hypothalamus

Answer: A

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215. In Na^+ _ - K^+ Pump of active

transport there is

A. Efflux of Na^+ and influx of K^+

B. Only efflux of Na^+

C. Influx of Na^+ and efflux of K^+

D. Influx and efflux of Na^+ only

Answer: A

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216. Which of the following does not act as a

neurotransmitter?

- A. Acetylcholine
- B. Glutamic acid
- C. Epinephrine
- D. Tyrosine

Answer: D



217. Which is thickened to form organ of corti

- A. Tectorial membrane
- B. Reissner's membrane
- C. Basilar membrane
- D. All of the above

Answer: C



218. Satiety centres of brain is present on

A. Cerebral hemisphere

B. Hypothalamus

C. Cerebellum

D. Medulla oblongata

Answer: B

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219. The part of hind brain that is responsible

for hand eye coordination is

A. Pons varoli

B. Thalamus

C. Cerebellum

D. Medulla oblongata

Answer: C

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220. Which of the following is not related to

the autonomic nervous system ?

A. Peristalsis

B. Digestion

C. Excretion

D. Memory and learning

Answer: D

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221. The bactericidal protein present in human

tears is

A. Transducin

B. Lysozyme

C. Opsin

D. Retinene

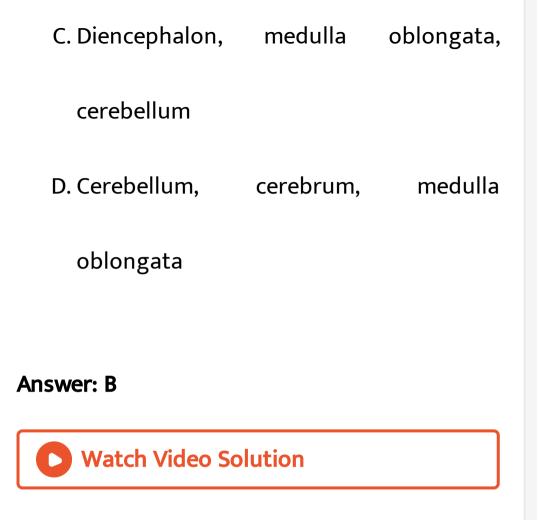
Answer: B

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222. The brain stem is made up of

A. Midbrain, pons, cerebellum

B. Midbrain, pons, medulla oblongata



223. Movement of tongue muscle is controlled

by

- A. Facial nerve
- B. Trigeminal nerve
- C. Hypoglossal nerve
- D. Vagus nerve

Answer: C

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224. Which center is stimulated during

increase in body temperature ?

1. Anterior hypothalamus

- 2. Posterior hypothalamus
- 3. Limbic system
- 4. Red nucleus
 - A. Anterior hypothalamus
 - B. Posterior hypothalamus
 - C. Limbic system
 - D. Red nucleus

Answer: A

225. Which function will be lost due to damage

of occipital lobe ?

A. Hearing

B. Speech

C. Vision

D. Memory

Answer: C

226. The optic lobes in humans are represented by the corpora

A. Bigemina

B. Arenacea

C. Allata

D. Quadrigemina

Answer: D

227. Identify the origin of sympathetic nerve fibres and the location of their ganglia A. They arise from thoraco-lumber region of spinal cord and form ganglia just beside the vertebral column B. They arise from thoraco-cervical region of spinal cord and form ganglia just beside the vertebral column C. They arise from thoraco-sacral region of spinal cord and form ganglia very close effector organ

D. They arise from thoraco-lumber region

of spinal cord and form ganglia very

close effector organ

Answer: A

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228. The number of spinal nerves in human is

A. 10 pairs

B. 12 pairs

C. 43 pairs

D. 31 pairs

Answer: D

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229. During synaptic transmission of nerve impulse, neurotransmitter (P) is released from synaptic vesicles by the section of ions (Q). Choose the correct P and Q.

a. P = acetylcholine, Q = Ca^{++}

b. P = acetylcholine, Q = Na^{++}

c. P = GABA, Q = Na^+

d. P = cholinesterase, Q = Ca^{++}

A. P = acetylcholine, Q = Ca^{++}

B. P = acetylcholine, Q = Na^{++}

C. P = GABA, Q =
$$Na^+$$

D. P = cholinesterase, Q = Ca^{++}

Answer: A

230. Third and fourth ventricles of the brain

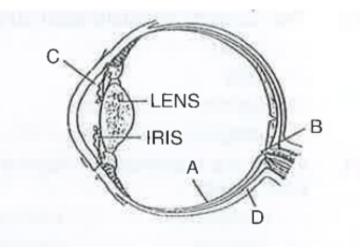
are connected by

- 1. Aqueduct of sylvius
- 2. Foramen of monroe
- 3. Foramen of magnum
- 4. Corpus callosum
 - A. Aqueduct of sylvius
 - B. Foramen of mono
 - C. Foramen of magnum
 - D. Corpus callosum

Answer: A



231. 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 functions/ characteristics



A. C - aqueous chamber - reflects the light

which does not pass through the lens

B.D - choroid - its anterior part forms

ciliary body

C. A - Retina - contains photo receptors -

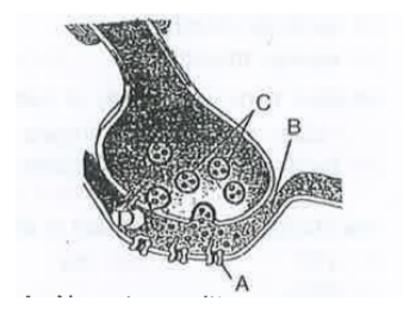
rods and cones

D. B - Blind spot - has only a few rods and

cones

Answer: C

232. A diagram showing axon terminal and synapes is given. Indentify correctly at least two of A-D.



A. A - Neurotransmitter B - Synaptic cleft

B. C - Neurotransmitter D - Ca^{++}

C. A - Receptor C - Synaptic vesicles

D. B - Synaptic connection D - K^+

Answer: C



233. A pregnant female delivey a baby who suffers from stunted growth, mental regardation, Low intelligence quotient and abnormal skin. This is the result of,

- A. Cancer of the thyroid gland
- B. Over secretion of pars distalis
- C. Deficiency of iodine in diet
- D. Low secretion of growth hormone

Answer: C

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234. Injury localized to the hypothalamus would most likely disrupt

1. Regulation of body temperature

- 2. Short term memory
- 3. Co-ordination during locomotion
- 4. Executive functions, such as decision making
 - A. Regulation of body temperature
 - B. Short term memory
 - C. Co-ordination during locomotion
 - D. Executive functions, such as decision

making

Answer: A

235. Fight or flight reaction cause activation of

A. The pancreas leading to a reduction in

the blood sugar levels

B. The parathyroid glands, leading to in

creased metabolic rate

C. The kidney, leading to suppression of

renin-angiotensis-aldosterone pathway

D. The adrenal medulla, leading to

increased secretion of epinephrine and

norepinephrine

Answer: D

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

A. Rhodospin is the purplish red protein

present in rods only

B. Retina is the light absorbing portion of

visual photo pigments

C. In retina the rods have the photo

pigment rhodopsin while cones have

three different photopigments.

D. Retinal is a derivative of vitamin C

Answer: D

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

A. Vestibular apparatus

B. Tectorial membrane

C. Organ of corti

D. Cochlea

Answer: A

238. Which of the following regions of the brain is incorrectly paired with its function? 1. Cerebellum - language comprehension 2. Corpus callosum - communication between the left and right cerebral cortices 3. Cerebrum - calculation and contemplation 4. Medulla oblongata - homeostatic control 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

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239. Destruction of the anterior horn cells of

the spinal cord would result in loss of

1. Sensory impulses

- 2. Voluntary motor impulses
- 3. Commissural impulses
- 4. Integrating impulses
 - A. Sensory impulses
 - B. Voluntary motor impulses
 - C. Commissural impulses
 - D. Integrating impulses

Answer: B

240. In mammalian eye, the 'fovea' is the centre

of the visual field, where

A. High density of cones occur, but has no

rods

- B. The optic nerve leave the eye
- C. Only rods are present.
- D. More rods than cones are found

Answer: A

241. Photosensitive compound in human eye is

made up of:

- A. Opsin and Retinal
- B. Opsin and retinol
- C. Transducin and retinene
- D. Guanosine and Retinol

Answer: A

242. Choose the correct statement.

A. Nociceptors respond to change in presure. B. Meissner's corpuscles are thermoreceptors. C. Photoreceptors in the human eye are depolarized during darkness and become hyperpolarized in response to the light stimulus

D. Receptors do not produces graded

potentials.

Answer: C



243. Receptor sites for neurotransmitters are

present on

A. Membranes of synaptic vesicles

B. Pre-synaptic membrane

C. Tips of axons

D. Post-synaptic membrane

Answer: D

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244. (i) and (ii)

A. (i), (iii) and (iv)

B. (i) and (iii)

C. (ii), (iii) and (iv)

D.

Answer: B

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245. Which of the following structures or regions is incorrectly paired with function ?
1. Corpus callosum : band of fibres connecting left and right cerebral hemispheres.
2. Hypothalamus : production of releasing hormones and regulation of temperature,

hunger and thirst.

3. Limbic system : Consists of fibres tracts that interconnect different regions of brain, control movement.

4. Medulla oblongata : Controls respiration and cardiovascular reflexes.

A. Corpus callosum : band of fibres connecting left and right cerebral hemispheres.

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hormones and regulation of

temperature, hunger and thirst.

C. Limbic system : Consists of fibres tracts

that interconnect different regions of

brain, control movement.

D. Medulla oblongata : Controls respiration

and cardiovascular reflexes.

Answer: C

246. The transparent lens in the human eye is held in its place by

A. Smooth muscles attached to the ciliary

body

B. Smooth muscles attached to the iris

C. Ligaments attached to the iris

D. Ligaments attached to the ciliary body

Answer: D

247. Nissl bodies are mainly composed of

A. Free ribosomes and RER

B. Nucleic acids and SER

C. DNA and RNA

D. Proteins and lipids

Answer: A