

## Nervous Coordination And Integration In Animals

Choose the correct answers :

1. White matter is composed of  
(1) Nerve cells      (2) Nerve fibres  
(3) Ependymal cells      (4) None of the above
2. Grey matter is composed of  
(1) Ependymal cells      (2) Nerve cells  
(3) Nerve fibres      (4) Nissl granules
3. Aqueduct of Sylvius connects the  
(1) Paracoels with 3<sup>rd</sup> ventricle  
(2) Paracoels with 4<sup>th</sup> ventricle  
(3) Paracoels with mesocoel  
(4) Diacoel with myelocoel
4. Foramen of Magendie is  
(1) Another name of foramen of Monro  
(2) An aperture of myelocoel  
(3) An aperture of metacoel  
(4) An aperture of mesocoel
5. The location of filum terminale is  
(1) In the skull  
(2) In the thorax  
(3) In the lumbar vertebrae  
(4) In the pelvic girdle
6. Pneumogastric is  
(1) Mixed nerve      (2) Sensory nerve  
(3) Motor nerve      (4) None of the above
7. Third ventricle occurs in  
(1) Cerebrum  
(2) Cerebellum  
(3) Medulla oblongata  
(4) Diencephalon
8. Somaesthetic area lies in  
(1) Frontal lobe      (2) Temporal lobe  
(3) Parietal lobe      (4) Occipital lobe
9. In man purely sensory nerves are  
(1) I and II      (2) II and III  
(3) I and III      (4) III and IV
10. In cerebrum, auditory area occurs in  
(1) Frontal lobe      (2) Parietal lobe  
(3) Temporal lobe      (4) Occipital lobe
11. The part of brain without its ventricle is  
(1) Cerebrum      (2) Cerebellum  
(3) Medulla      (4) Diencephalon
12. Aqueduct of Sylvius is another name for  
(1) Aqueous chamber      (2) Central canal  
(3) Foramen of Monro      (4) Iter
13. Vermis is  
(1) A tiny worm  
(2) Cavity of medulla  
(3) The large median lobe of cerebellum in mammals  
(4) A portion of mid brain
14. Vagus nerve is composed mainly of parasympathetic fibres. The preganglionic fibres form a net-work in the walls of the organs. This net-work is known as  
(1) Choroid plexus      (2) Nervous plexus  
(3) Auerbach plexus      (4) Brachial plexus
15. Nerve impulse through synapse is  
(1) Unidirectional      (2) Bidirectional  
(3) Multidirectional      (4) None of the above
16. The junction between nerve and the muscle is called  
(1) Synapse      (2) Synapsis  
(3) End plate      (4) Fasciculus
17. The sensation of sight in human brain is perceived by  
(1) Optic lobes      (2) Occipital lobes  
(3) Association area of frontal lobes  
(4) Somaesthetic area of parietal lobes
18. Sensations from skin are perceived in the cerebrum in  
(1) Occipital lobe      (2) Temporal lobe  
(3) Parietal lobe      (4) Frontal lobe
19. Floor of third ventricle is known as  
(1) Optic thalami      (2) Pallium  
(3) Hypothalamus      (4) Epithalamus
20. Pineal stalk is a fine tubular outgrowth from  
(1) Roof of fourth ventricle  
(2) Roof of third ventricle

- (3) Roof of lateral ventricle  
(4) Floor of third ventricle
21. Thin vascular and folded roof of medulla oblongata is termed as  
(1) Pallium  
(2) Anterior choroid plexus  
(3) Posterior choroid plexus  
(4) Optic thalami
22. Cavity present in the spinal cord is termed as  
(1) Central canal (2) Fourth ventricle  
(3) Volkmann's canal (4) Iter
23. Parasympathetic nervous system accelerates the activity of  
(1) Heart, adrenal and sweat glands  
(2) Lachrymal and sweat glands  
(3) Heart, pancreas and lachrymal glands  
(4) Gut, iris and urinary bladder
24. Synaptic fatigue is due to  
(1) Repeated release of acetylcholine  
(2) Repeated release of adrenaline  
(3) Exhaustion of neurotransmitter  
(4) Exhaustion of acetyl cholinesterase
25. Midbrain contains  
(1) Corpora quadrigemina  
(2) Diencephalon  
(3) Cerebrum  
(4) None of the above
26. The spinal cord is originated from  
(1) Notochord (2) Neural tube  
(3) Both (1) and (2) (4) Axon hillock
27. CSF is synthesized from  
(1) Anterior choroid plexus  
(2) Posterior choroid plexus  
(3) Both (1) and (2)  
(4) Arachnoid layer
28. The posterior extension of hypothalamus constitutes  
(1) Anterior lobe of pituitary gland  
(2) Posterior lobe of pituitary gland  
(3) Pars intermedia of pituitary gland  
(4) Ventricles of brain
29. Interventricular foramen is constituted by  
(1) Foramen of Magnum  
(2) Foramen of Magendie  
(3) Foramen of Luschka  
(4) Foramen of Monro
30. The brain stem is constituted by  
(1) Medulla oblongata and pons varoli  
(2) Midbrain and diencephalon  
(3) Medulla oblongata and diecephalon  
(4) Both (1) and (2)
31. Pontine center is  
(1) Pons varoli  
(2) Dorsal side of cerebellum  
(3) Optic chiasma  
(4) Crura cerebri
32. Lateral side of corpus callosum are called as  
(1) Fornix (2) Genu  
(3) Splenium (4) Hippocampi
33. Broca's motor area of cerebral hemisphere is present in  
(1) Frontal lobe (2) Parietal lose  
(3) Temporal lobe (4) Occipital lobe
34. Prefrontal area is also called as  
(1) Somaesthetic area (2) Motor area  
(3) Premotor area (4) Association area
35. Maximum number of cranial nerves originate from  
(1) Medulla oblongata (2) Diencephalon  
(3) Premotor area (4) Association area
36. Olfactory tracts are separated by  
(1) Hippocampal fissure  
(2) Rhinal fissure  
(3) Sylvian fisure  
(4) Rolandic sulcus
37. Rhinencephalon is for sensation of  
(1) Taste  
(2) Involuntary muscle movement  
(3) Smell  
(4) Voluntary muscle movement

38. The sensation of pleasant and unpleasant feelings are perceived by  
(1) Brain stem           (2) Limbic system  
(3) Parietal lobe       (4) Arbor vitae
39. Big brain of the CNS is  
(1) Cerebellum           (2) Cerebrum  
(3) Medulla oblongata (4) Arbor vitae
40. Select the incorrect statement  
(1) Corpora quadrigemina are hollow structures  
(2) Corpora bigemina are solid structures  
(3) Both (1) and (2)  
(4) The epidural space in frog's brain is not filled with fatty tissue
41. Posterior rectus muscles of eyes are innervated by \_\_\_\_\_ cranial nerve  
(1) Oculomotor       (2) Trochlear  
(3) Abducens         (4) None of these
42. Which set of mammalian cranial nerves pass through vagus ganglion?  
(1) IX and X           (2) X and XI  
(3) XI and XII       (4) X and XII
43. The cranial out-flow includes  
(1) II, III, VII and X cranial nerves  
(2) III, VII, IX and X cranial nerves  
(3) IV, VI, VIII and IX cranial nerves  
(4) III, VI, VII and IX cranial nerves
44. Which of the following area of fore brain is for learning and reasoning?  
(1) Somaesthetic area (2) Motor area  
(3) Permotor area   (4) Association area
45. The ventral root of spinal cord is made up of  
(1) Somatic motor and visceral sensory fibres  
(2) Somatic sensory and visceral motor fibres  
(3) Somatic motor and visceral motor fibres  
(4) Somatic sensory and visceral sensory fibres
46. Which of the following openings is paired?  
(1) Foramen of Monro  
(2) Foramen of Magendie  
(3) Foramen of Luschka  
(4) Metacoel
47. When a nerve fibre is stimulated then the inner side of the membrane becomes  
(1) Positively charged  
(2) Negatively charged  
(3) Neutral  
(4) Deactivated
48. The deficiency of dopamine cause  
(1) Hurler's syndrome  
(2) Alzheimer's disease  
(3) Parkinson's disease  
(4) Schizophrenia
49. The loss of function of \_\_\_\_\_ cranial nerve causes paralysis of jaw muscles.  
(1) Facial               (2) Glossopharyngeal  
(3) Trigeminal       (4) Hypoglossal
50. Which of the following constitute the part of mid brain in vertebrates ?  
(1) Crura cerebri       (2) Optic chiasma  
(3) Pons varoli         (4) Epiphysis
51. What is correct about spinal nerves ?  
(1) These are all mixed nerves  
(2) Some are sensory some are motor nerves  
(3) All vertebrates have only 12 pairs of spinal nerves  
(4) Both (1) and (3)
52. The one which is the component of sympathetic nervous system?  
(1) Ramus dorsalis   (2) Ramus communicans  
(3) Ramus ventralis   (4) None of the above
53. What is true for corpus callosum?  
(1) It connects the two thalami in brain of mammals and birds  
(2) It is a strip of nerves from midbrain to medulla oblongata in frog and mammals  
(3) It is a strip of nerves which connects two cerebral hemispheres of mammal only  
(4) It connects two cerebellar hemispheres of mammals only

54. Gap between myelin-forming cells where the axon's plasma membrane is exposed to extracellular fluid is called  
(1) Gap-junctions (2) Neuron acuties  
(3) Synapse (4) Nodes of Ranvier
55. Which of the following are true neurons?  
(1) Afferent neurons (2) Efferent neurons  
(3) Interneurons (4) All of the above
56. Which of the following neurons lie entirely in CNS?  
(1) Afferent neurons (2) Efferent neurons  
(3) Interneurons (4) All of the above
57. The anatomically specialized junction between two neurons where one neuron alters the activity of other neuron is  
(1) Synostose (2) Nodes of Ranvier  
(3) Synapse (4) Parasynaptic junction
58. What percent of the cells in CNS are neurons?  
(1) 10% (2) 50%  
(3) 75% (4) 99%
59. At the Nodes of Ranvier there is a jump of the action potential, it is known as  
(1) Active conduction  
(2) Recovery potential  
(3) Saltatory conduction  
(4) None of these
60. During the conduction of nerve impulse the repolarisation begins with the  
(1) Influx of  $K^+$  (2) Efflux of  $K^+$   
(3) Efflux of  $Na^+$  (4) Efflux of  $Na^+$  and  $K^+$
61. Rapid rise of depolarisation wave followed by rapid repolarisation is known as  
(1) Negative after potential  
(2) Positive after potential  
(3) Spike potential  
(4) Resting potential
62. Magnitude of current just sufficient to excite a nerve or muscle is called  
(1) Chronoxie (2) Action Potential  
(3) Subliminal (4) Spike potential
63. Fore brain of vertebrates is formed by  
(1) Cerebellum and diencephalon  
(2) Cerebrum and diencephalon  
(3) Cerebellum and cerebrum  
(4) Cerebrum only.
64. Peripheral nervous system in man consists of  
(1) 42 pairs of nerves (2) 43 pairs of nerves  
(3) 44 pairs of nerves (4) 31 pairs of nerves
65. Which of the following is a neuropeptide?  
(1) Substance P (2) Neurotensin  
(3) Galanin (4) All of the above
66. Man's superiority over other animals is primarily owing to its  
(1) Brain stem (2) Free fore limbs  
(3) Large cerebrum (4) Frontal eyes
67. A ventral nerve cord is found in  
(1) Frog (2) Cockroach  
(3) Hydra (4) Rabbit
68. If a frog is pithed and an electric shock is given to its legs  
(1) It shows reflex by contraction of leg muscles  
(2) It blinks its eyes but no movement in limbs  
(3) It activates the muscles of entire body  
(4) It does not show any response
69. Heart, lungs, intestine are supplied by which cranial nerve  
(1) Trigeminal (2) Vagus  
(3) Abducens (4) Occulomotor
70. Paralysis of jaw muscles is due to loss of function of which cranial nerve  
(1) III (2) V  
(3) VII (4) X
71. Brain of a frog differs from that of a mammal by the presence of  
(1) Cerebellum (2) Corpus callosum  
(3) Optocoel (4) Arbor vitae
72. Twelve pairs of ribs and twelve pairs of cranial nerves are found in  
(1) Fish (2) Frog  
(3) Lizard (4) Man

73. In brain of vertebrate the “aqueduct of Sylvius” is a narrow passage between  
(1) Lateral ventricles  
(2) Optocoels and Diocoel  
(3) II and III-Ventricles  
(4) III and IV ventricles
74. White matter of brain is composed of  
(1) Nerve cells with blood vessels  
(2) Myelinated nerve fibres  
(3) Ependymal cells and astrocytes  
(4) Non-myelinated nerve fibres
75. Which part of human brain is most developed as compared to other vertebrates?  
(1) Medulla (2) Cerebellum  
(3) Cerebrum (4) Optic lobes
76. In a nerve if sodium pump is blocked, which of the following is most likely to happen  
(1)  $\text{Na}^+$  and  $\text{K}^+$  will increase outside the neuron  
(2)  $\text{Na}^+$  outside the neuron will increase  
(3)  $\text{Na}^+$  inside the neuron will increase  
(4)  $\text{K}^+$  inside the neuron will increase
77. Autonomic nervous system regulates all except  
(1) Respiration (2) Blood circulation  
(3) Excretion (4) Learning & memory
78. Which of the following represents the reflex arc?  
(1) Brain → Spinal cord → Muscles  
(2) Receptor → Spinal cord → Effector  
(3) Muscles → Receptor → Brain  
(4) Effector → Spinal cord → Receptor
79. By origin brain is  
(1) Endodermal (2) Peridermal  
(3) Mesodermal (4) Ectodermal
80. Appetite and satiety centres are present in which part of brain  
(1) Cerebrum (2) Hypothalamus  
(3) Cerebellum (4) Medulla oblongata
81. In human brain Broca’s area (mother centre for speech) is present in lobe of cerebrum  
(1) Temporal (2) Occipital  
(3) Frontal (4) Parietal
82. Sympathetic nervous system is also called as \_\_\_\_\_ outflow  
(1) Visceral (2) Thoraco-lumber  
(3) Mesenteric (4) Cranio-sacral
83. Eye muscles are innervated by nerves  
(1) Occulomotor, abducens and vagus  
(2) Occulomotor, trochlear and abducens  
(3) Occulomotor, abducens and facial  
(4) Occulomotor, facial and vagus
84. *Acetylcholinesterase* is related with  
(1) Synthesis of proteins  
(2) Digestion of proteins  
(3) Synthesis of neurotransmitter  
(4) Removing neurotransmitter from the site
85. During recovery, a nerve fibre becomes  
(1) Positively charged on outside and negatively charged on inside  
(2) Positively charged on both outside and inside  
(3) Negatively charged on outside and positively charged on inside  
(4) Negatively charged on both outside and inside
86. In homeotherms the centre for regulating body temperature lies in which part of brain  
(1) Cerebellum (2) Hypothalamus  
(3) Cerebral lobe (4) Medulla oblongata
87. Lateral ventricles are connected to third ventricle through  
(1) Iter (2) Foramen of Monro  
(3) Lyra (4) Aqueduct of Sylvius.
88. Common neurotransmitter released between two neurons at a synapse is  
(1) Acetylcholine (2) Cephalin  
(3) ATP (4) Insulin
89. Father of conditioned reflex is  
(1) Pavlov (2) Kalvin  
(3) Oparin (4) Smith and Neel
90. Nerve related to only sensory function is

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| <p>(1) Vagus                      (2) Glossopharyngeal<br/>(3) Trigeminal                (4) None of the above</p> <p>91. Which of the following is the longest nerve?<br/>(1) Vagus                      (2) Auditory<br/>(3) Hypoglossal              (4) Glossopharyngeal</p> <p>92. Fifth cranial nerve is<br/>(1) Optic                      (2) Trigeminal<br/>(3) Abducens                 (4) Facial</p> <p>93. Brain ventricles are lined with<br/>(1) Neurons                  (2) Schwann cells<br/>(3) Microglia                 (4) Ependymal cells</p> <p>94. 'Arbor vitae' as the characteristic part of mammalian brain is associated with<br/>(1) Thalamus                 (2) Cerebellum<br/>(3) Cerebral cortex         (4) Medulla oblongata</p> <p>95. An example of conditioned reflex is<br/>(1) Withdrawal of hand on touching a hot surface<br/>(2) Sneezing during cold</p> | <p>(3) Running indoor on arrival of rain<br/>(4) Salivation in dog on listening the bell sound.</p> <p>96. Nerve impulse travels as _____ impulse<br/>(1) Chemical                 (2) Electrical<br/>(3) Electrochemical         (4) Physical.</p> <p>97. Which of the following is absent in the brain of frog?<br/>(1) Piamater                  (2) Arachnoid layer<br/>(3) Duramater                 (4) None of the above.</p> <p>98. The one also called as pathetic nerve is<br/>(1) Trigeminal                (2) Abducens<br/>(3) Trochlear                 (4) Facial.</p> |
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## Sense Organs

### Choose the correct answers :

- Between the osseous and membranous labyrinths is present a fluid called
  - (1) Perilymph
  - (2) Endolymph
  - (3) Mucous
  - (4) Tears
- Rheoreceptors are receptors for
  - (1) Electric current
  - (2) Water current
  - (3) Vision
  - (4) None of these
- Lens and retina of vertebrate eyes are developed from
  - (1) Ectoderm
  - (2) Endoderm
  - (3) Mesoderm
  - (4) Both (1) and (2)
- The focal length of eye lens is controlled by
  - (1) Iris muscles
  - (2) Ciliary body
  - (3) Pupil
  - (4) Cornea
- Main hearing part is
  - (1) Cochlea
  - (2) Canals
  - (3) Utriculus
  - (4) Eustachian tube
- Anterior irregular wavy part of retina is
  - (1) Ora serrata
  - (2) Pars optica
  - (3) Ocular conjunctiva
  - (4) Fovea centralis
- When an aeroplane takes off, some occupants, often feel pain in the region of ears. This is because of
  - (1) Blockage of Eustachian tubes
  - (2) Rapid movement of fluid in semicircular canals
  - (3) Rapid movements of otoliths in macula region of utricle and saccule
  - (4) Increased amplitude of the vibrating tympanum due to very loud sound produced by the jet engines
- 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
  - (1) On the blind spot
  - (2) In front of the retina
  - (3) Behind the retina
  - (4) On the yellow spot
- Eyes of cats glitter at night due to presence of
  - (1) Tapetum cellulosum
  - (2) Luciferin
  - (3) Porphyropsin
  - (4) Tapetum fibrosum
- Pain can be detected by
  - (1) Thigmoreceptors
  - (2) Thermoreceptors
  - (3) Algesi receptors
  - (4) Proprioceptors
- Zonular fibres are found in
  - (1) Brain
  - (2) Kidney
  - (3) Eye
  - (4) Ear
- Cells of Deiter occur in
  - (1) Organ of Corti
  - (2) Utriculus
  - (3) Retina of eyes
  - (4) Sebaceous glands
- Superposition image in cockroach is formed during
  - (1) Dim light
  - (2) Dark light
  - (3) Bright light
  - (4) None of these
- Chemoreceptors are the organs of
  - (1) Smell and taste
  - (2) Smell
  - (3) Hearing
  - (4) Touch
- Osphradium of *Pila globosa* is
  - (1) Chemoreceptor
  - (2) Photoreceptor
  - (3) Thermoreceptor
  - (4) Tangoreceptor
- The chief function of semicircular canals is to
  - (1) Perceive changes in orientation of animal in relation to gravity
  - (2) Maintain body balance only
  - (3) Perceive sound vibrations
  - (4) Transmit sound vibrations
- Part of the eye that is devoid of blood vessels is
  - (1) Retina
  - (2) Choroid
  - (3) Cornea
  - (4) Sclea
- Squint eyes is due to
  - (1) Excessive enlargement of eye muscles
  - (2) Unequal length of eye muscles
  - (3) Very short length of eye muscles
  - (4) Both (2) and (3)
- Select the correct statement
  - (1) About 1/6 of human eye balls project outside the eye orbit
  - (2) About 1/10 of human eye balls project outside the eye orbit
  - (3) About 1/5 of frog eye balls project outside the eye orbit
  - (4) About 1/3 of rabbit eye balls project outside the eye orbit
- Presence of eye cup is a feature of
  - (1) *Dugesia*
  - (2) *Planaria*
  - (3) Both (1) and (2)
  - (4) All platyhelminthes
- Ear ossicles of mammals derived from articular and quadrate bones respectively are
  - (1) Incus and Malleus
  - (2) Malleus and stapes
  - (3) Stapes and incus
  - (4) Malleus and incus
- Which of the following part of our photoreceptors is totally devoid of blood capillaries?
  - (1) Iris
  - (2) Choroid
  - (3) Ciliary muscles
  - (4) Lens
- Caloreceptors present in the skin are
  - (1) Pacinian corpuscles
  - (2) Corpuscles of Ruffini
  - (3) Merckel's disc
  - (4) Krause's end bulbs
- The accommodation power of eyes is made effective by

## Sense Organs

- (1) Changing the focal length of eye balls by ciliary muscles
  - (2) Changing the position of eye ball back and forth
  - (3) Focussing by changing the curvature of cornea
  - (4) Regulating the amount of light entering through the pupil.
25. Which action takes place when the eye is used for viewing distant object?
- (1) The radial ciliary muscles are contracted and the circular ciliary muscles are relaxed
  - (2) The tension of suspensory ligaments are reduced and the pupil is contracted
  - (3) The radial ciliary muscles are relaxed and the circular ciliary muscles are contracted
  - (4) Both sets of ciliary muscles are contracted
26. Far sightedness is due to
- (1) Very long eye ball
  - (2) Very flat lens
  - (3) Very short eye ball
  - (4) Both (2) and (3)
27. Ceruminous glands are modified \_\_\_\_\_ glands
- (1) Sebaceous
  - (2) Mucous
  - (3) Serous
  - (4) Epicrine
28. Uvea is
- (1) Fibrous coat of eye wall
  - (2) Vascular coat of eye wall
  - (3) Photo sensitive coat of eye wall
  - (4) None of these
29. Blue colour blindness is
- (1) Protanopia
  - (2) Deuteranopia
  - (3) Tritanopia
  - (4) Erythrolabe
30. Cataract is corrected by
- (1) Replacement of opaque lens with artificial intraocular lens
  - (2) Surgical removal of opaque lens and wearing special spectacles
  - (3) Laser treatment of opacity
  - (4) All of these
31. Dynamic equilibrium of the body is maintained by
- (1) Organ of Corti
  - (2) Utriculus and sacculus
  - (3) Cristae
  - (4) Both (2) and (3)
32. Olfactory cells are \_\_\_\_\_ neurous
- (1) Non polar
  - (2) Bipolar
  - (3) Multipolar
  - (4) Monopolar
33. Taste buds are innervated by \_\_\_\_\_ cranial nerves
- (1) VII and IX
  - (2) VII and X
  - (3) VII and XI
  - (4) VII, IX and X
34. Concave lens are used for correction of
- (1) Cataract
  - (2) Astigmatism
  - (3) Myopia
  - (4) Hypermetropia
35. Pacinian corpuscles are
- (1) Encapsulated pressure receptor
  - (2) Thermoreceptors
  - (3) Excapsulated tactile receptors
  - (4) Caloreceptors
36. Krause's corpuscles are for
- (1) Cold
  - (2) Warmth
  - (3) Pressure
  - (4) Touch
37. The eye lens of vertebrate is of origin
- (1) Ectodermal
  - (2) Mesodermal
  - (3) Endodermal
  - (4) Two of the above
38. Hypermetropia, a defect of eye sight occurs due to
- (1) Deficiency of vitamin A in the diet
  - (2) Shorter antero-posterior diameter of the eye ball
  - (3) Longer antero-posterior diameter of the eye ball
  - (4) Reduced capacity of lens to stretch
39. The fore-runners of cochlea of mammal is of the lower tetrapods
- (1) Sacculus
  - (2) Lagena
  - (3) Utriculus
  - (4) Pars neglecta
40. The dynamic equilibrium for angular movement in human body is maintained by
- (1) Cristae
  - (2) Reissner's membrane
  - (3) Maculae
  - (4) Basilar membrane
41. The statoreceptors present in the internal ear of vertebrates is
- (1) Maculae of utriculus and sacculus
  - (2) Cristae of ductus endolymphaticus
  - (3) Organ of Corti in pars lagena
  - (4) Statement is incorrect
42. The red, green and blue pigments in the cone cells of retina are located respectively in cell types
- (1) Chlorolabe, erythrolabe and cyanolabe
  - (2) Erythrophobe, chlorophobe and cyanophobe
  - (3) Erythrolabe, chlorolabe and cyanolabe
  - (4) Cyanophobe, erythrophobe and chlorophobe
43. Glaucoma, a serious defect of eye which may lead to total blindness is caused due to
- (1) Blockage of canal of Schlemm increasing the pressure of aqueous humor
  - (2) Increased capillary perfusion raising the pressure of vitreous humour
  - (3) Bacterial infection of retina
  - (4) Blockage of intraocular arteries due to high B.P.
44. In retina of mammalian eye, yellow spot contains
- (1) Rod cells only
  - (2) Cone cells only
  - (3) Both rod and cone cells

## Sense Organs

- (4) More rod cell and less cone cells.
45. Rod and cone cells of retina are actually modified  
(1) Epidermal cells (2) Epithelial cells  
(3) Ependymal cells (4) None of the above
46. In some fishes eyes shine due to presence of  
(1) Corneal pigment  
(2) Tapetum granulosum  
(3) Tapetum fibrosum  
(4) Tapetum lucidum
47. Pecten, a serrated fan shaped structure extending into vitreal cavity is found in  
(1) Amphibians (2) Reptiles  
(3) Birds (4) Mammals
48. Lateral line receptors as speciality of fishes  
(1) Rheoreceptors  
(2) Furnish information regarding the position of body in relation to environment  
(3) Galvanoreceptors  
(4) Thigmoreceptors
49. Which of the following is true?  
(1) In retina opsin protein combines with 11- cisretinol to form rhodopsin  
(2) Rods are primarily responsible for vision in dim light  
(3) Cones are responsible for vision in bright light and for colour detection  
(4) All of the above
50. Which of the following is true?  
(1) Grandy's corpuscle is present in beak of birds  
(2) Herbst corpuscle is present in mouth of birds  
(3) Both (1) and (2)  
(4) Corpuscles of Ruffini are present in the sole region
51. True eye is absent in  
(1) *Amphioxus* (2) Adult Lampreys  
(3) *Scoliodon* (4) All of the above
52. Which of the following is absent from eye of *Scoliodon*?  
(1) Rod cells (2) Cone cells  
(3) Retina (4) All of the above
53. Visual pigments in case of tadpole are  
(1) Porphyropsin and cyanopsin  
(2) Rhodopsin and iodopsin  
(3) Rhodopsin and cyanopsin  
(4) Porphyropsin and iodopsin
54. Which of the following substance makes the tapetum lucidum a shiny layer?  
(1) Eleidin (2) Guanin  
(3) Keratin (4) Luciferin
55. Which of the following structure is a phonoreceptor  
(1) Organ of Corti (2) Jacobson's organ  
(3) Lateral line organ (4) None of these
56. Meissner's corpuscles are located in  
(1) Pancreas to secrete trypsinogen  
(2) Adrenal gland to sense salt concentration  
(3) Spleen to detect number of erythrocytes  
(4) Skin to perceive gentle pressure
57. Ampulla of Lorenzini are sense organs present in skin of snout of  
(1) Elasmobranchs as thermoreceptor and rheoreceptor  
(2) Cyclostomes as statoreceptor  
(3) Osteichthyes as rheoreceptor and galvanoreceptors  
(4) None of the above
58. In mammals the accomodation power of eye is made effective by  
(1) Regulating the amount of light entering through the pupil  
(2) Focussing by changing the curvature of cornea  
(3) Changing the focal length of eye lens by ciliary muscles  
(4) Changing the position of eye ball back and forth.
59. The friction between eyelids and cornea is prevented by the secretion of  
(1) Lacrimal glands (2) Harderian glands  
(3) Conjunctiva (4) Meibomian glands
60. Falling of light causes rhodopsin to be  
(1) Oxidised (2) Bleached  
(3) Charged (4) Absorbed
61. Human ear is most sensitive to sound waves of around  
(1) 1000 cycles/sec (2) 10000 cycles/sec  
(3) 4000 cycles/sec (4) 20 cycles/sec
62. Proprioceptors are found in  
(1) Cartilages (2) Carotid artery  
(3) Hypothalamus (4) Tendons and joints.
63. The blind spot is devoid of  
(1) Rod cells (2) Cone cells  
(3) Optical nerves (4) Both (1) and (2)
64. Light ray entering the eye is controlled by  
(1) Pupil (2) Iris  
(3) Cornea (4) Lens
65. Cochlea in mammal has sensory structure as  
(1) Cristae (2) Helicotrema  
(3) Organ of Corti (4) Fenestra rotundus
66. In membranous labyrinth *scala tympani* is connected to *scala vestibuli* through  
(1) *Scala media* (2) *Fenestra rotundus*  
(3) Helicotrema (4) *Crus communa*e
67. The defect of eye in which near objects are not seen distinct due to advancing age is called

## Sense Organs

- (1) Myopia                      (2) Astigmatism  
(3) Presbyopia                (4) Hypermetropia
68. Endolymph resembles  
(1) Blood                      (2) CSF  
(3) Lymph                      (4) None of these
69. Part of internal ear concerned with hearing function is  
(1) Reissner's membrane and tectorial membrane  
(2) Basilar membrane and tectorial membrane  
(3) Reissner's membrane and basilar membrane  
(4) All of above
70. Cornea transplantation is comparatively easier as it is  
(1) Easily available  
(2) Without blood supply  
(3) Easily preserved  
(4) Easily stitched
71. Eustachian tube is  
(1) Air filled cavity of middle ear  
(2) External opening of tympanic cavity  
(3) A passage of auditory capsule to cranial cavity  
(4) A passage between pharynx and tympanic cavity
72. Correct sequence of ear ossicles in terms of passing on sound vibrations is  
(1) Stapes → incus → malleus  
(2) Stapes → malleus → incus  
(3) Incus → malleus → stapes  
(4) Malleus → incus → stapes
73. Cataract is caused due to  
(1) Blocking of canal of Schlemm  
(2) Drying up of vitreous humor  
(3) Increased size of eye ball and thickness of lens  
(4) Opacity of lens
74. Colour blindness occurs due to defect in  
(1) Cone cells                (2) Rod and cone cells  
(3) Rod cells                 (4) None of the above
75. Organ of Corti is the part of  
(1) Utriculus                 (2) Cochlea  
(3) Sacculus                 (4) Crus commune
76. Pacinian corpuscles in mammalian skin are  
(1) Pigment secreting glands  
(2) Pain receptors  
(3) Naked tactile receptors  
(4) Encapsulated pressure receptors
77. The pigmented layer of eye which reduces internal reflection is located in  
(1) Ciliary body              (2) Sclerotic coat  
(3) Iris                         (4) Choroid layer
78. Too short eye ball and too flat lens produce  
(1) Astigmatism              (2) Presbyopia  
(3) Near sightedness        (4) Far sightedness