

# QB365 Question Bank Software Study Materials

## Bio - Zoology - Neural Control and Coordination 50 Important 1 Marks Questions With Answers (Book Back and Creative)

11th Standard

Biology

Total Marks : 50

### Multiple Choice Question

50 x 1 = 50

- Which structure in the ear converts pressure waves to action potentials?  
(a) Tympanic membrane (b) Organ of Corti **(c) Oval window** (d) Semicircular canal
- Which of the following pairings is correct?  
**(a) Sensory nerve - afferent** (b) Motor nerve - afferent (c) Sensory nerve - ventral (d) Motor nerve - dorsal
- During synaptic transmission of nerve impulse, neurotransmitter (P) is released from synaptic vesicles by the action 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 =  $Ca^{++}$
- Examine the diagram of the two cell types A and B given below and select the correct option.



- 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 bright light intensities
- Assertion(A):** The imbalance in concentration of  $Na^+$ ,  $K^+$  and proteins generates action potential.  
**Reason(R):** To maintain the unequal distribution of  $Na^+$  and  $K^+$ , the neurons use electrical energy.  
**(a) Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.**  
(b) Both Assertion and Reason are true but the Reason is not the correct explanations of Assertion.  
(c) Assertion is true, but Reason is false. (d) Both Assertion and Reason are false
- Which part of the human brain is concerned with the regulation of body temperature?  
(a) Cerebellum (b) Cerebrum (c) Medulla oblongata **(d) Hypothalamus**
- The respiratory centre is present in the \_\_\_\_\_.  
**(a) Medulla oblongata** (b) Hypothalamus (c) Cerebellum (d) Thalamus
- Match the following human spinal nerves in column I with their respective number in column II and choose the correct option.

Column I	Column II
P. Cervical Nerves	i. 5 pairs
Q. Thoracic nerves	ii. 1 pair
R. Lumbar nerves	iii. 12 pairs
S. Coccygeal nerves	iv. 8 pairs

- (a) 

P	Q	R	S
iv	iii	ii	i

 (b) 

P	Q	R	S
iii	i	ii	iv

 (c) 

P	Q	R	S
iv	i	ii	iii

 (d) 

P	Q	R	S
ii	iv	i	iii

- The abundant intracellular cation is \_\_\_\_\_.

- (a) H<sup>+</sup> (b) K<sup>+</sup> (c) Na<sup>+</sup> (d) Ca<sup>++</sup>
- 10) Which of the following statements is wrong regarding conduction of nerve impulse?
- (a) In a resting neuron, the axonal membrane is more permeable to K<sup>+</sup> ions and nearly impermeable to Na<sup>+</sup> ions.**
- (b) Fluid outside the axonal has a high concentration of Na<sup>+</sup> ions and low concentration of K<sup>+</sup>, in a resting neuron.
- (c) Ionic gradients are maintained by Na<sup>+</sup> K<sup>+</sup> pumps across the resting membrane, which transport 3Na ions outwards for 2K<sup>+</sup> into the cell
- (d) A neuron is polarized only when the outer surface of the axonal membrane possess a negative a charge and its inner surface is positively charged
- 11) All of the following are associated with the myeline sheath except.
- (a) Faster conduction of nerve impulses (b) Nodes of Ranvier forming gaps along the axon
- (c) Increased energy output for nerve impulse conduction** (d) Saltatory conduction of action potential
- 12) Several statements are given here in reference to cone cells Which of the following option indicates all correct statements for cone cells? Statements
- (i) Cone cells are less sensitive in bright light than Rod cells
- (ii) They are responsible for colour vision
- (iii) Erythropsin is a photo pigment which is sensitive to red colour light
- (iv) They are present in the fovea of retina
- (a) (iii), (ii) and (i) **(b) (ii), (iii) and (iv)** (c) (i), (iii) and (iv) (d) (i), (ii) and (iv)
- 13) Which of the following statement concerning the somatic division of the peripheral neural system is incorrect?
- (a) Its pathways innervate skeletal muscles (b) Its pathways are usually voluntary
- (c) Some of its pathways are referred to as reflex arcs **(d) Its pathways always involve four neurons**
- 14) When the potential across the axon membrane Is more negative than the normal resting potential, the neuron is said to be in a state of \_\_\_\_\_.
- (a) Depolarization (b) Hyperpolarization **(c) Repolarization** (d) Hypopolarization
- 15) Choose the wrong statement with regard to a dendron.
- (a) Dendrons are branched. (b) Dendron gives rise to Axon. **(c) Dendron is associated with myelin sheath**
- (d) Dendron arises from cell body.
- 16) 'Lazy gates' condition is seen in \_\_\_\_\_
- (a) Repolarization **(b) Hyperpolarization** (c) Depolarization (d) Synapse
- 17) \_\_\_\_\_ is the coloured portion of the eye.
- (a) Cornea **(b) Iris** (c) Pupil (d) Sclera
- 18) Facial nerve is a \_\_\_\_\_ nerve.
- (a) Sensory **(b) Mixed** (c) Motor (d) Efferent
- 19) \_\_\_\_\_ are involved in olfactory reflexes and emotional responses to odour.
- (a) Hypothalamus (b) Epithalamus (c) Infundibulum **(d) Mammillary bodies**
- 20) \_\_\_\_\_ is called the emotional brain.
- (a) Peripheral nervous system (b) Autonomic nervous system **(c) Limbic system** (d) Hypothalamus
- 21) There are \_\_\_\_\_ pairs of thoracic nerves.
- (a) 8 (b) 5 (c) 1 **(d) 12**
- 22) \_\_\_\_\_ are egg shaped receptors seen in the skin.

- (a) Meissner's corpuscles (b) Ruffini endings **(c) Pacinian corpuscles** (d) Hair follicle receptors
- 23) Taste buds are \_\_\_\_\_ shaped.  
(a) round (b) elongated (c) egg **(d) flask**
- 24) Which is called the emotional brain?  
(a) Peripheral nervous system (b) Autonomic nervous system **(c) Limbic system** (d) Hypothalamus
- 25) \_\_\_\_\_ is the coloured portion of the eye.  
(a) Cornea **(b) Iris** (c) Pupil (d) Sclera
- 26) \_\_\_\_\_ is a membrane associated with the eye.  
(a) Tectorial membrane (b) Basilar membrane **(c) Conjunctiva** (d) Reisner's membrane
- 27) Facial nerve is a \_\_\_\_\_ nerve.  
(a) Sensory **(b) Mixed** (c) Motor (d) Efferent
- 28) The \_\_\_\_\_ lobe of the cerebrum controls visual processing.  
(a) Parietal (b) Frontal **(c) Occipital** (d) Occipital
- 29) In a adult about \_\_\_\_\_ ml of CSF is formed daily  
(a) 250ml (b) 150ml **(c) 500ml** (d) 200ml
- 30) Mechanoreceptors are seen in \_\_\_\_\_  
(a) Tongue (b) Skin **(c) Cochlea** (d) Eye
- 31) \_\_\_\_\_ are egg shaped receptors seen in the skin.  
(a) Meissner's corpuscles (b) Ruffini endings **(c) Pacinian corpuscles** (d) Hair follicle receptors
- 32) Cerebral cortex appears grey due to presence of \_\_\_\_\_.  
(a) Myelinated neurons **(b) Unmyelinated neurons** (c) Multipolar neurons (d) Bipolar neurons
- 33) Repairing of neural tissues is performed by \_\_\_\_\_.  
**(a) Neuroglia** (b) Neurons (c) Basal nuclei (d) Interneurons
- 34) How many  $\text{Na}^+$  ions towards outside and  $\text{K}^+$  ions towards inside when the cells are exchanged in sodium-potassium pump respectively?  
(a) 2,3 **(b) 3,2** (c) 3,4 (d) 4,3
- 35) What would be the threshold potential when enough  $\text{Na}^+$  ions enter the cell during depolarization?  
(a) - 35 mV (b) - 45 mV **(c) -55 mV** (d) - 65 mV
- 36) Due to the rapid influx of  $\text{Na}^+$  ions the membrane potential shoots quickly upto how much mV?  
(a) +35 mV (b) - 45 mV **(c) +45 mV** (d) +55 mV
- 37) The largest cranial nerve is \_\_\_\_\_.  
**(a) Trigeminal nerve** (b) Glossopharyngeal nerve (c) Hypoglossal nerve (d) Vestibular nerve
- 38) Which is satiety center?  
**(a) Hypothalamus** (b) Diencephalon (c) Thalamus (d) Pineal body
- 39) The quantify of CSF secreted per day is \_\_\_\_\_.  
(a) 300 ml (b) 400 ml **(c) 500 ml** (d) 600 ml

- 40) what is considered as the flight or fight system?  
(a) Autonomic system (b) Limbic system **(c) Sympathetic neural system(SNS)**  
(d) parasympathetic neural system(PNS)
- 41) where does the Lacrymal and ceruminous gland lie?  
**(a) Eyes, ears** (b) Ears, eyes (c) Ears, nose (d) Tongue, skin
- 42) Which of the following are highly vascularised in eyes?  
(a) Retina (b) sclera (c) cornea **(d) choroid**
- 43) What is the disorder of eye found due to aging?  
(a) Cataract **(b) Presbyopia** (c) Astigmatism (d) Myopia
- 44) How are myopia and hypermetropia rectified?  
(a) By wearing of convex lens & concave lens **(b) By wearing of concave lens & convex lens**  
(c) By wearing of cylindrical lens & concave lens (d) By wearing of cylindrical lens & convex lens
- 45) The right path of light in our eye is \_\_\_\_\_.  
(a) Cornea -> Lens -> Conjunctiva -> Retina (b) Cornea -> Conjunctiva -> Aqueous humor -> Lens -> Retina  
(c) Cornea -> Lens -> Aqueous humor -> Retina **(d) Cornea -> Aqueous humor -> Lens -> Retina**
- 46) A cranial nerve with maximum branches in the body is  
(a) Auditory **(b) Trigeminal** (c) Vagus (d) Facial
- 47) The canal that passes through the mid brain is called  
**(a) cerebral aqueduct** (b) cerebrum (c) cerebellum (d) foramen of Monro
- 48) Vision in dimlight is called  
(a) sclerotic vision (b) photopic vision (c) blurred vision **(d) scotopic vision**
- 49) Eighth cranial nerve of man is called  
(a) facial nerve (b) glasso-pharyngeal nerve **(c) auditory nerve** (d) optic nerve
- 50) The respiratory rhythm centre is present in the  
(a) cerebrum **(b) medulla oblongata** (c) cerebellum (d) hypothalamus