



Class 11 Biology | Neural Control And Coordination

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. At rest, the inside of an axonal membrane is usually

- A. Negative relative to outside
- B. Without ions
- C. Positive relative to outside
- D. Electrically identical to outside always

2. Depolarisation of an axon is mainly caused by rapid entry of

- A. Proteins
- B. Glucose
- C. Chloride ions
- D. Sodium ions

3. Repolarisation chiefly involves outward movement of

- A. Sodium ions
- B. Potassium ions
- C. DNA
- D. Calcium crystals

4. Myelin speeds conduction because impulses are regenerated mainly at

- A. Cell nuclei
- B. Nodes of Ranvier
- C. Every point equally
- D. Dendritic tips only

5. At a chemical synapse, neurotransmitter is released from the

- A. Synaptic cleft itself
- B. Postsynaptic nucleus
- C. Myelin sheath
- D. Presynaptic axon terminal

6. A chemical synapse usually conducts in one direction because

- A. Release machinery and receptors are on opposite specific sides
- B. Ions cannot cross any membrane
- C. Both sides lack receptors
- D. Both neurons share one nucleus

7. Which neuron carries impulses from a receptor to the CNS?

- A. Motor neuron
- B. Neurosecretory cell only
- C. Effector cell
- D. Sensory neuron

8. A simple reflex arc carries its final motor signal to a

- A. Muscle or gland
- B. Sensory receptor
- C. Dorsal-root ganglion only
- D. Brain ventricle

9. The cerebellum is chiefly associated with

- A. Urine formation
- B. Insulin secretion
- C. Balance and movement coordination
- D. Bile storage

10. The hypothalamus regulates

- A. Only voluntary finger movement
- B. Antibody structure
- C. Body temperature and hunger
- D. Blood cell production

11. The medulla contains centres controlling

- A. Only memory storage
- B. Breathing and cardiovascular activity
- C. Only language writing
- D. Only visual colour perception

12. The cerebrum is most closely associated with

- A. Urine filtration
- B. Automatic erythrocyte breakdown
- C. Bile synthesis
- D. Conscious thought and voluntary actions

13. The corpus callosum connects the

- A. Cerebellum to liver
- B. Two kidneys
- C. Two cerebral hemispheres
- D. Spinal nerves to skin only

14. The autonomic nervous system mainly controls

- A. Only conscious skeletal movement
- B. Only bone growth
- C. Involuntary visceral functions
- D. Only sensory naming

15. A withdrawal reflex can begin before conscious pain perception because

- A. The cerebrum directly touches muscles
- B. Spinal circuits initiate the response
- C. No neurons are involved
- D. Pain receptors are absent

ANSWER KEY — check after completing all 15 questions

1.A 2.D 3.B 4.B 5.D 6.A 7.D 8.A 9.C 10.C 11.B 12.D 13.C 14.C 15.B