Time Taken = 3 Minutes Score = 15/20

Udaan 2025 Biology

DHA: 1

Control and Coordination

- **Q 1** Electrical impulse travels in a neuron from
 - (A) Dendrite \rightarrow Axon \rightarrow Axonal end \rightarrow Cell body
 - (B) Cell boby \rightarrow Dendrite \rightarrow Axon \rightarrow Axonal end
 - (C) Dendrite \rightarrow Cell body \rightarrow Axon \rightarrow Axonal end
 - (D) Axonal end \rightarrow Axon \rightarrow Cell body \rightarrow Dendrite
- **Q 2** Match the following columns:
 - Column I
- Column II
- 1. Olfactory receptors
- A. Taste B. Vision
- 2. Thermoreceptors3. Gustatoryreceptors
- C. Smell
- 4. Photoreceptors
- D. Temperature
- (A) 1-D, 2-C, 3-A, 4-B
- (B) 1-C, 2-D, 3-B, 4-A
- (C) 1-C, 2-A, 3-D, 4-B
- (D) 1-C, 2-D, 3-A, 4-B

- **Q** 3 In a synapse, a chemical signal is transmitted from–
 - (A) dendritic end of one neuron to axonal end of another neuron
 - (B) axon to the cell body of the same neuron
 - (C) cell body to axonal end of the same neuron
 - (D) axonal end of one neuron to dendritic end of another neuron
- Q 4 A part of the body which responds to the instructions sent from nervous system is called—
 - (A) receptor
- (B) effector
- (C) nerves
- (D) interneuron
- Q 5 The longest fibre on the cell body of a neuron is called—
 - (A) Sheath
- (B) Cytoplasm
- (C) Axon
- (D) Dendrites

Answer Key

Q1 C

Q2 D

Q3 D

Q4 B

Q5 **C**



Hints & Solutions

Q 1 Text Solution:

This sequence describes the path of an electrical impulse (action potential) through a neuron: starting from the dendrites, moving through the cell body, then along the axon, and finally reaching the axonal end (axon terminal).

The correct answer is: **(C) Dendrite** \rightarrow **Cell body** \rightarrow Axon → Axonal end.

Video Solution:



Q 2 Text Solution:

The correct matching of Column I with Column II is as follows:

- 1. Olfactory receptors C. Smell
- 2. Thermoreceptors D. Temperature
- 3. Gustatory receptors A. Taste
- 4. Photoreceptors B. Vision

Hence, the correct option is (D) i.e, 1-C, 2-D, 3-A, 4- \mathbf{B}

Video Solution:



Q 3 Text Solution:

In a synapse, the transmission of a chemical signal (neurotransmitters) occurs from the axonal end (axon terminal) of one neuron to the dendritic end

(dendrites) of another neuron. This is how neurons communicate with each other in the nervous system. The correct answer is: **(D) Axonal end of one neuron** to dendritic end of another neuron.

Video Solution:



Text Solution:

Effector is the term used to describe a part of the body that responds to instructions sent from the nervous system. When a signal from the nervous system (such as a motor neuron) reaches an effector (such as a muscle or gland), it triggers a response or action. The correct answer is: (B) Effector

Video Solution:



Text Solution: \mathbf{Q} 5

The axon is a long fiber that extends from the cell body of a neuron and is responsible for transmitting electrical impulses (action potentials) away from the cell body to other neurons, muscles, or glands. The longest fiber on the cell body of a neuron is called: (C) Axon

Video Solution:



