Udaan 2025 Biology

DHA: 02

Control and Coordination

- **Q 1** The communication between CNS and other parts of the body is facilitated by:
 - (A) Peripheral nervous system
 - (B) Brain
 - (C) Spinal cord
 - (D) Reflex actions
- **Q 2** The number of pairs of nerves which arises from the spinal cord is:
 - (A) 21
- **(B)** 31
- (C) 41
- **(**D) 51
- **Q 3** Following are certain reflex actions occurring in our body.
 - (i) Moving to the side of road when a speeding car approaches.
 - (ii) Closing of eyes in response to a sudden bright light.
 - (iii) Shouting when we are suddenly disturbed or get scared
 - (iv) Withdrawing hands on touching a hot surface. The reflex arc given below, will be occurring for,

Receptors (sense organs) $\xrightarrow[neurons]{Sensory}$ Sensory Spinal cord

- \xrightarrow{Motorn} Target/effecttors
- (A) (i) and (ii)
- (B) (i), (ii) and (iii)

- (C) (i), (ii), (iii) and (iv) (D) (ii) and (iv)
- **Q 4** Consider the following statements.
 - I. Reflex action is the sudden action in response to something in the environment.
 - II. Sensory neurons transmit signals from spinal cord to muscles.
 - III. Motor neurons transmit signals from receptors to spinal cord.

IV. The path through which signals are transmitted from a receptor to a muscle or a gland is called reflex arc.

Which of the above statements are correct?

- (A) I and II
- (B) I and III
- (C) I and IV
- (D) I, II and III
- Q 5 Which among the following represents the correct sequence of reflex arc?
 - (A) Receptor → sensory nerve → motor nerve → spinal cord → muscle
 - (B) Receptor → motor nerve → spinal cord → sensory nerve → muscle
 - (C) Receptor → sensory nerve → spinal cord → muscle → motor nerve
 - (D) Receptor → sensory nerve → spinal cord → motor nerve → muscle

Answer Key

Q1 A

Q2 B

Q3 C

Q4 C

Q5 **D**



Hints & Solutions

Q 1 Text Solution:

The communication between CNS and other parts of the body is facilitated by Peripheral nervous system. Hence, the correct option is **(A) Peripheral nervous system.**

Video Solution:



Q 2 Text Solution:

The number of pairs of nerves that arises from the spinal cord is:

Correct answer is **(B) 31**

Video Solution:



Q 3 Video Solution:



Q 4 Text Solution:

Sensory neurons transmit signals from receptors to CNS.Motor neurons transmit signals from CNS to muscles/glands.

Video Solution:



Q 5 Text Solution:

Receptor \rightarrow sensory nerve \rightarrow spinal cord \rightarrow motor nerve \rightarrow muscle

Video Solution:





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