

Vidya Bhawan Balika Vidyapeeth Lakhisarai

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Sub. BIOLOGY

CLASS 10TH

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Questions and answers :

1. What is the difference between a reflex action and walking?

Reflex actions are the involuntary actions that occur in response to stimuli. They occur without involvement of conscious areas of brain. All the reflex actions are unconscious actions. Reflex action occurs in brain and spinal cord of central nervous systems.

On the other hand voluntary actions are those which occur under the control of cerebrum of the brain. Walking is learnt as we grow. Walking is controlled by brain as it is used when required.

2. What happens at the synapse between two neurons?

Between the synapse between two neurons electric signals are converted into chemicals that can easily cross over the gap and pass on the chemical messenger to next neuron where it is converted back to electrical signal.

3. Which part of the brain maintains posture and equilibrium of the body?

Cerebellum which is a part of Hind brain is responsible for Controls the motor functioning hence it is the part reengaged in the maintenance of posture and equilibrium of the body.

4. How do we detect the smell of an agarbatti (incense stick)?

Smell of an agarbatti is detected by Nose, olfactory receptors present in the nose send electrical signal to the fore brain. Fore brain interprets this signal as the incense stick to be detected as smell.

5. What is the role of the brain in reflex action?

Reflex actions are formed instantaneously in response to the stimulus that has no time to think. For instance the sensory nerves that detect the heat are connected to the nerves that move the muscles of the hand. Such a connection of detecting the signal from the nerves (input) and responding to it quickly (output) is known as reflex arc.

Reflex actions are generated in spinal cord and the information also reaches brain. This helps the brain to record this event and remember it for future use. Brain helps the person to get awareness of the stimulus and prevent himself from that situation again.