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Control and Coordination

Q1) Name the basic components of a reflex arc.

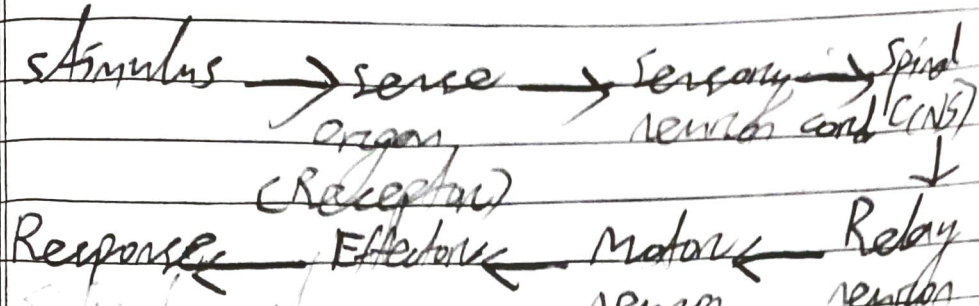
Ans) The basic components of a reflex arc are:

- Receptor
- Sensory neurons
- Association neurons
- Motor neurons
- Effector

Q2) Define Reflex arc. Draw the flow chart.

Ans) Reflex arc is the pathway of along which nerve impulse travels during the reflex action.

Here is the flow chart:



Q3) What is the importance of reflex action?

Ans) It plays vital role for the survival of the animals.

- It relieves the brain from maximum strain.
- It protects the animals from harmful situation by immediate.

Q4) What is the role of the brain in reflex action?

Ans) Reflex actions generally involve spinal cord for quick response to specific stimulus. However the information input also goes on to reach the brain where thinking process occurs.

Q5) What do you mean by reflex action? Give examples of reflex actions.

Ans) • Reflex action is a rapid automatic response to a stimulus which is not under the voluntary control of the brain.

• For ex, when your hand touches a very hot electric iron, you move away your hand

in a jerk. All of this happens in flash and your hand is saved from the imminent injury. This is an example of reflex action.

Q6) What is the difference between a ~~reflex~~ reflex action and walking?

Ans) Reflex action is a spontaneous, automatic and mechanical response to a stimulus acting on a specific ~~response~~ receptor without the will of an animal. On the other hand walking is a voluntary action that occurs with the animal's will.

Q7) What happens at the synapse between two neurons?

Ans) The neurons lie - end to - end in chains to transmit impulses in the animal body. The synapse between two neurons acts as a one-way valve to conduct impulse in one direction only. This is so because, a chemical substance (neurotransmitter) is secreted at the terminal end of axon of one neuron. It carries the message (impulse) across the synapse and passes it to the dendron of the other neuron.

In this way message is passed in the form of nerve impulse from one neuron to other across the synapse.

Q8) Which part of the brain maintains posture and equilibrium of the body?

Ans) Cerebellum part of the hind brain maintains posture and equilibrium of the body.

Q9) How dose detect the smell of an agarbatti (incense stick)?

Ans) We have olfactory receptors in our nose. These receptors (sensory neurons)

detect the smell of agarbatti and transmit this information in the form of nerve impulse to olfactory lobes of fore-brain. The message is then sent to temporal lobes of cerebrum where it is interpreted.