

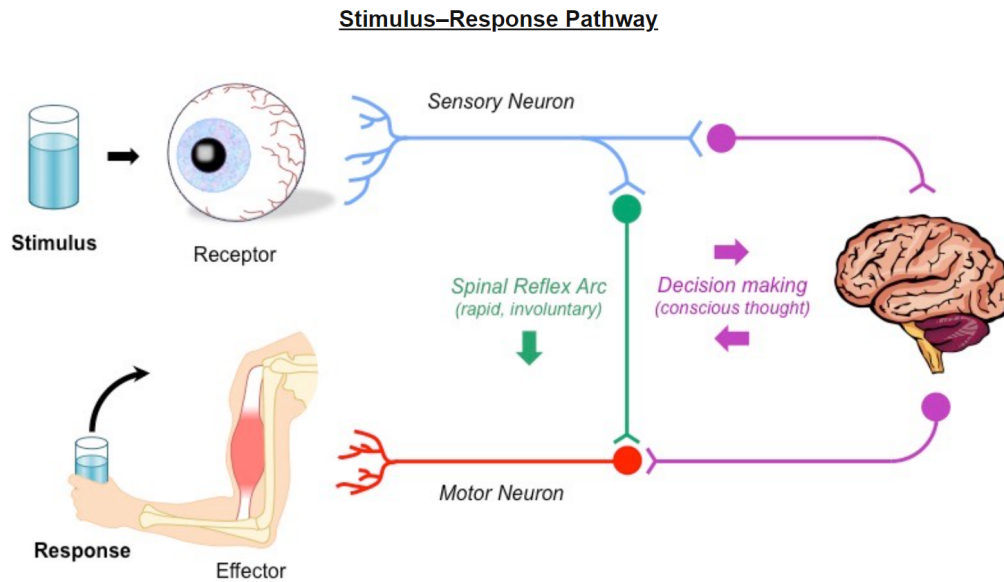
Nervous System Revision Questions

Name: _____

Date: _____

1. What is the main function of the nervous system?
 - A. Transport nutrients
 - B. Produce hormones
 - C. Regulate body temperature
 - D. Control and coordinate responses to stimuli
2. Which type of neuron carries messages from the central nervous system to the muscles?
 - A. Sensory Neuron
 - B. Motor Neuron
 - C. Interneuron
 - D. Dendrite
3. What is the function of the dendrites in a neuron?
 - A. To transmit messages to other cells
 - B. To receive messages from other cells
 - C. To insulate the neuron
 - D. To supply nutrients to the neuron
4. What is the fatty substance that insulates the axon and speeds up the nerve signals called?
 - A. Glucose
 - B. Cellulose
 - C. Myelin
 - D. Keratin
5. What is the role of the effector in the nervous system?
 - A. To receive signals from the receptor
 - B. To carry out the response to a stimulus
 - C. To transmit signals to the receptor
 - D. To coordinate the actions of other cells
6. What type of response is caused by a reflex action?
 - A. Voluntary
 - B. Involuntary
 - C. Controlled
 - D. Coordinated
7. In a neuron, what part contains the nucleus?
 - A. Dendrite
 - B. Axon
 - C. Cell body
 - D. Myelin Sheath
8. What body parts make up the central nervous system?
 - A. Brain and Nervous Cord
 - B. Brain and Spinal Cord
 - C. Peripheral System
 - D. Voluntary System
9. What are effectors most likely to be?
 - A. Glands and Muscles
 - B. Neurons and Glands
 - C. Receptors and Neurons

10. Pathway of a Reflex Action: Use the diagram below to explain the steps involved in the pathway of a **reflex** action.



11. When the body observes a stimulus through sensory receptors, a signal passes from the receptor to the central nervous system. Explain the role of the central nervous system in responding to a stimulus.

12. Homeostasis and the Nervous System: Define homeostasis. Use an example of the body temperature getting too hot to explain how the nervous system is involved in maintaining homeostasis.

Answer Key

Multiple-Choice Answers

1. d) Control and coordinate responses to stimuli
2. b) motor neuron
3. b) To receive messages from other cells
4. c) myelin
5. b) to carry out the response to a stimulus
6. b) involuntary
7. c) cell body
8. b) brain and spinal cord
9. a) glands and muscles

Short Response Answers

1. A reflex action involves a stimulus being detected by a receptor, which sends an impulse along a sensory neuron to the spinal cord. An interneuron in the spinal cord then sends an impulse to a motor neuron, which carries it to the effector (muscle or gland) to produce a response.
2. The central nervous system (CNS) serves as the main processing centre for the entire nervous system. It receives information from the sensory neurons, processes it, and then sends out commands via motor neurons to effectors (muscles or glands).
3. Homeostasis is the maintenance of a stable internal environment. The nervous system plays a role in homeostasis by monitoring internal and external stimuli and initiating responses to maintain equilibrium. Receptors will detect when the body's temperature is too high. The nervous system will control some responses such as starting to sweat via the sweat glands or deciding to turn on a fan.