

Nervous System WS 3

Read pages 234-234 and answer the following questions.

1. In the CNS cell bodies collect in clusters called _____?
2. Why is it so important that the CNS is protected by the brain and spinal cord?
3. A collection of cell bodies in the PNS is called _____?
4. A bundle of nerve processes running through the CNS are called _____.
5. A bundle of nerve processes running through the PNS are called _____.
6. What is the difference between white and gray matter?
7. Neurons carrying impulses from sensory receptors to the CNS are called _____ neurons.
8. Name and list the function of the different cutaneous receptors.
9. What are proprioceptors and what do they do?
10. Neurons carrying impulses to the viscera and/or muscles and glands are _____ neurons.
11. What are interneurons?
12. Name and describe the two major functional properties of neurons.

13. At rest a neuron's cell membrane is said to be polarized which means what?
14. A neuron will stay inactive as long as?
15. How are most neurons in the body stimulated?
16. No matter what the stimulus is what ultimately happens to the neuron's cell membrane?
17. After a stimulus what flows into the neuron?
18. What is depolarization?
19. What is an action potential?
20. Describe how repolarization happens.
21. After repolarization how are the initial sodium and potassium ion concentrations restored?
22. Name 3 things that can impair nerve impulse conduction?
23. What happens when an action potential reaches an axon terminal?
24. What does it mean when the author of the book says that a nerve impulse is an electrochemical event.

25. What is a reflex?

26. Give an example of a somatic reflex.

27. Give an example of an autonomic reflex?

28. What are the 5 elements of a reflex arc?