

Name: _____

Period: _____

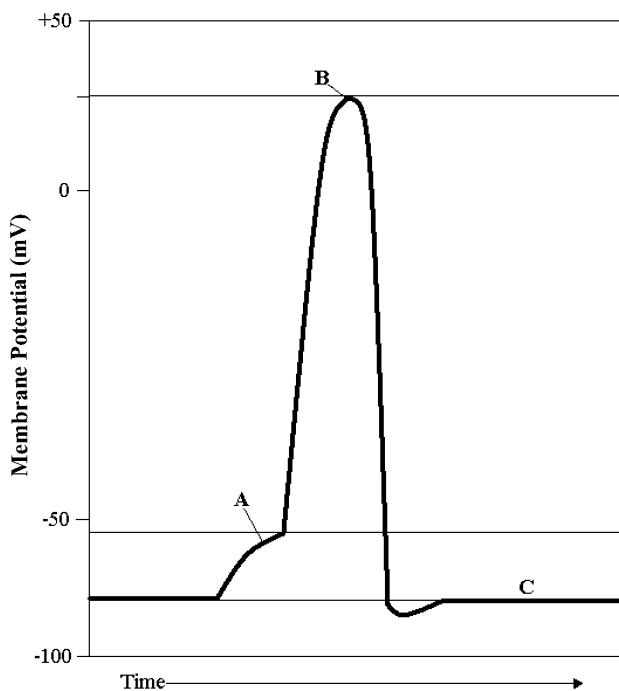
Date: _____

Do Now Unit 7 Nervous System

2018-2019

1. On the basis of functional differences, neurons are grouped as;
- A) astrocytes, oligodendrocytes, microglial cells
 - B) sensory neurons, interneurons, motor neurons**
 - C) multipolar neurons, bipolar neurons, unipolar neurons
 - D) axons, dendrites, somas
 - E) neuroglia, somatic neurons, motor neurons
2. Neurons differ in;
- A) structure B) size
 - C) shape D) length
 - E) all of the above**
3. Unmyelinated axons and neuron cell bodies from _____ in the CNS.
- A) white matter
 - B) myelinated matter
 - C) gray matter**
 - D) Schwann cell matter
 - E) Neurofibril matter
4. Neuroglia;
- A) fill spaces
 - B) provide structural frameworks
 - C) produce the components of myelin
 - D) carry on phagocytosis
 - E) all of the above**
5. Which of the following is NOT a function of neuroglia?
- A) Insulation
 - B) Transmit Information**
 - C) Physical Support
 - D) Provide Nutrients
 - E) all of the above are functions of neuroglia
6. The main functional units of the nervous system are;
- A) Dendrites B) Axons
 - C) Neurons** D) Neuroglia
 - E) Oligodendrocytes
7. Information from inside and outside the body is brought to the _____, which then stimulates responses from _____.
- A) Central nervous system, muscles and glands**
 - B) Central nervous system, bones
 - C) Peripheral nervous system, the central nervous system
 - D) glands of the body, muscles
 - E) peripheral nervous system, the sensory organs
8. Which of these contains the nucleus and other cellular organelles?
- A) Cell body**
 - B) Dendrite
 - C) Axon
 - D) Synaptic cleft
 - E) Myelin sheath
9. Which of these helps to speed the propagation of the impulse?
- A) Cell body
 - B) Dendrite
 - C) Axon
 - D) Synaptic cleft
 - E) Myelin sheath**
10. Neurons that conduct signals toward the central nervous system are classified as
- A) motor
 - B) afferent**
 - C) efferent
 - D) associative
 - E) internuncial
11. Neurons transmit information in the form of;
- A) electrical changes
 - B) muscular movements
 - C) glandular secretions
 - D) electrochemical changes**
 - E) chemical messages

Base your answers to questions 12 and 13 on the image below.



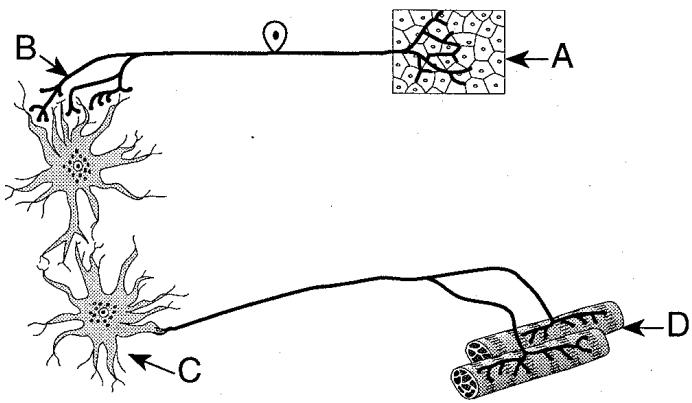
12. The event at letter B is

- A) an all or nothing depolarization dependent on the length of the axon
- B) an action potential dependent on whether the cell reached threshold**
- C) indicative of the strength of the depolarization stimulus
- D) an action potential dependent on the number of open K⁺ channels
- E) a graded potential dependent on the number of available ATP molecules

13. The threshold potential indicated by letter A requires which of the following?

- A) Diffusion of K⁺ out of the cell.
- B) Diffusion of Na⁺ up its chemical gradient.
- C) Closed Na⁺ channels.
- D) ATP to open K⁺ channels.
- E) Opening of gated Na⁺ channels.**

14. Base your answer to the following question on the image below.



Letter D represents which of the following?

- A) Effector cells
- B) Nerves
- C) Sensory receptors
- D) Axons
- E) Ganglion

15. Which of the following would decrease the propagation rate of an action potential in a neuron?

- A) Increase the diameter of the axon.
- B) Increase myelination.
- C) Remove the nodes of Ranvier.**
- D) Increase the Schwann cells.
- E) Increase saltatory conduction.

16. Which of the following sequences describes the passage of an action potential in the neuron?

- A) axon, cell body, dendrite, synaptic cleft
- B) synaptic cleft, axon, dendrite, cell body
- C) dendrite, synaptic cleft, cell body, axon
- D) dendrite, cell body, axon, synaptic cleft**
- E) synaptic cleft, axon, cell body, dendrite

17. The synapse is the

- A) unit of function of the nervous system
- B) support neuron
- C) receiver of signals
- D) junction between the axon of one neuron and the dendrite of the next neuron in a line**
- E) sender of signals

18. This neurotransmitter controls skeletal muscle actions.
- A) Acetylcholine B) Histamine
 C) Norepinephrine D) Serotonin
 E) Dopamine
19. This neurotransmitter is primarily inhibitory, leads to sleepiness and is enhanced by SSRI drugs.
- A) Acetylcholine B) Histamine
 C) Norepinephrine D) **Serotonin**
 E) Dopamine
20. The cerebellum is a _____ center.
- A) Cardiac
 B) Vasomotor
C) Reflex
 D) Respiratory
 E) Electrolyte Balance
21. The bundle of nervous tissue that connects the cerebrum to the spinal cord is known as the;
- A) brainstem** B) pons
 C) cerebellum D) ascending tract
 E) diencephalon
22. The surface of the cerebrum has many ridges or _____, and shallow grooves or a _____, and deep grooves or a _____.
- A) fissure, sulcus, gyri
 B) gyri, fissure, sulcus
C) gyri, sulcus, fissure
 D) sulcus, fissure, gyri
 E) sulcus, gyri, fissure
23. The four major portions of the brain are the;
- A) cerebrum, diencephalon, brainstem, cerebellum**
 B) cerebellum, brainstem, thalamus, hypothalamus
 C) hypothalamus, midbrain, cerebellum, brainstem
 D) pons, medulla oblongata, cerebrum, thalamus
 E) cerebellum, midbrain, pons, brainstem
24. The spinal cord functions in many reflexes including the;
- A) patellar and withdrawal reflexes**
 B) humerus and femur reflexes
 C) motor and muscle reflexes
 D) sensory and withdrawal reflexes
 E) humerus and patellar reflexes
25. A horizontal bar of gray matter surrounds the central canal of the spinal cord, which contains _____.
- A) cerebrospinal fluid**
 B) pia mater
 C) white matter
 D) blood vessels
 E) all of the above
26. Which of the following are examples of effector organs?
- A) bicep B) thyroid gland
 C) adrenal glands D) deltoid
E) all of the above
27. The nervous system uses its millions of _____ to monitor changes occurring both inside and outside the body.
- A) muscles B) glands
C) sensory receptors D) neuroglia
 E) axons
28. Which functions of the nervous system take place primarily in the PNS?
- A) sensory input, motor output**
 B) integration, sensory input
 C) motor output, integration
 D) all of the above
 E) none of the above
29. The motor division of the PNS is also known as the;
- A) afferent division
B) efferent division
 C) integration division
 D) sensory division
 E) involuntary division

30. The PNS consists mainly of;
- A) neuroglia
 - B) the nerves that extend from the brain to spinal cord**
 - C) the brain
 - D) the spinal cord
 - E) all of the above
31. The _____ division prepares the body for energy-expending, stressful situations, and the _____ division restores the body to a resting state following a stressful experience.
- A) sympathetic, parasympathetic**
 - B) somatic, parasympathetic
 - C) sympathetic, somatic
 - D) parasympathetic, somatic
32. Which of the following is true regarding spinal nerves?
- A) there are thirty-one pairs
 - B) they originate from the spinal cord
 - C) they are mixed nerves that provide two-way communication between the spinal cord and parts of the upper and lower limbs, neck, trunk
 - D) they are grouped and named according to the level from which they arise
 - E) all of the above are true**
33. Which of the following portions of the brain control the autonomic nervous system during emotional stress?
- A) limbic system, cerebral cortex**
 - B) brainstem, cerebellum
 - C) hypothalamus, thalamus
 - D) diencephalon, cerebellum
 - E) cerebral cortex, brainstem
34. The _____ helps to regulate body temperature, hunger, and thirst.
- A) forebrain B) cerebellum
 - C) hypothalamus** D) cerebrum
 - E) brainstem
35. Controls centers for cardiac, vasomotor, and respiratory activities are located in the;
- A) cerebral cortex
 - B) cerebellum
 - C) diencephalon
 - D) medulla oblongata**
 - E) forebrain
36. Which of the following best explains how the functions of the autonomic divisions are mixed?
- A) Some of its actions are voluntary while others are involuntary
 - B) It activates some organs and inhibits others**
 - C) It is controlled by the somatic and parasympathetic nervous systems
 - D) It sends messages to the brain and spinal cord
 - E) None of the above
37. Which of the following does the autonomic nervous system not control?
- A) Visceral functions
 - B) Glands
 - C) Cardiac muscle
 - D) Skeletal muscle**
 - E) Smooth muscle
38. The autonomic nervous system controls;
- A) Visceral functions
 - B) Smooth muscle
 - C) Cardiac muscle
 - D) Glands
 - E) All of the above**
39. Which part of the nervous system functions independently and continuously without conscious effort?
- A) The somatic nervous system
 - B) The autonomic nervous system**
 - C) All the branches of the nervous system
 - D) The brain
 - E) None of the above
40. Where are the impulses which are triggered by specific stimuli interpreted?
- A) Peripheral nerves
 - B) Spinal cord
 - C) Brain**
 - D) Peripheral Nervous System
 - E) Neurons

Answer Key
Do Now Unit 7 Nervous system

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|-----|----------|-----|----------|
| 1. | <u>B</u> | 37. | <u>D</u> |
| 2. | <u>E</u> | 38. | <u>E</u> |
| 3. | <u>C</u> | 39. | <u>B</u> |
| 4. | <u>E</u> | 40. | <u>C</u> |
| 5. | <u>B</u> | | |
| 6. | <u>C</u> | | |
| 7. | <u>A</u> | | |
| 8. | <u>A</u> | | |
| 9. | <u>E</u> | | |
| 10. | <u>B</u> | | |
| 11. | <u>D</u> | | |
| 12. | <u>B</u> | | |
| 13. | <u>E</u> | | |
| 14. | <u>A</u> | | |
| 15. | <u>C</u> | | |
| 16. | <u>D</u> | | |
| 17. | <u>D</u> | | |
| 18. | <u>A</u> | | |
| 19. | <u>D</u> | | |
| 20. | <u>C</u> | | |
| 21. | <u>A</u> | | |
| 22. | <u>C</u> | | |
| 23. | <u>A</u> | | |
| 24. | <u>A</u> | | |
| 25. | <u>A</u> | | |
| 26. | <u>E</u> | | |
| 27. | <u>C</u> | | |
| 28. | <u>A</u> | | |
| 29. | <u>B</u> | | |
| 30. | <u>B</u> | | |
| 31. | <u>A</u> | | |
| 32. | <u>E</u> | | |
| 33. | <u>A</u> | | |
| 34. | <u>C</u> | | |
| 35. | <u>D</u> | | |
| 36. | <u>B</u> | | |