

AP Psychology Ch. 2 Web Quiz

1. Messages from other neurons and sensory receptors are typically:
 - A) collected by the synaptic vesicles.
 - B) relayed by glial cells to the correct node of Ranvier.
 - C) received by the dendrites.
 - D) received by the axon terminals.
2. The resting potential is:
 - A) the length of time that a neuron is incapable of activating after an action potential.
 - B) the term used to describe how the sympathetic nervous system reduces arousal and conserves energy.
 - C) a state in which a neuron has a negative electrical charge of about -70 millivolts.
 - D) is a state in which a neuron has a positive electrical charge of $+70$ millivolts.
3. During the action potential:
 - A) the electrical charge of the neuron changes from positive to negative.
 - B) sodium ions rush into the interior of the axon.
 - C) sodium ions rush out of the interior of the axon.
 - D) potassium ions flow into the interior of the axon.
4. Reuptake occurs:
 - A) when the brain shifts functions from damaged areas to undamaged areas.
 - B) when sodium ion and potassium ion channels open.
 - C) at the small gaps in the axon called the nodes of Ranvier.
 - D) when neurotransmitter molecules are reabsorbed by the presynaptic neuron.
5. Reduced brain levels of the neurotransmitter called _____ are involved in the progressive memory loss that characterizes Alzheimer's disease.
 - A) GABA
 - B) serotonin
 - C) dopamine
 - D) acetylcholine
6. The terms *autonomic* and *somatic* refer to the two main subdivisions of the:
 - A) sympathetic nervous system.
 - B) central nervous system.
 - C) peripheral nervous system.
 - D) parasympathetic nervous system.
7. The _____ functions as the main link between the nervous system and the endocrine system.
 - A) adrenal medulla
 - B) adrenal cortex
 - C) amygdala
 - D) hypothalamus
8. Epinephrine and norepinephrine are manufactured by the _____ in the _____.
 - A) adrenal glands; endocrine system
 - B) pineal gland; endocrine system
 - C) thyroid gland; limbic system
 - D) pituitary gland; limbic system

9. Structural plasticity:
- A) refers to the brain's ability to shift functions from damaged to undamaged brain areas.
 - B) occurs when neurotransmitters in the synaptic gap are blocked from being reabsorbed by the presynaptic neuron.
 - C) refers to a phenomenon in which brain structures change in response to learning, active practice, or environmental influences.
 - D) refers to the brain's ability to develop new neurons.
10. The ____ lobe is involved in a person's ability to plan, initiate, and carry out voluntary movements and actions.
- A) frontal B) occipital C) parietal D) temporal
11. According to the Critical Thinking box "His' and 'Her' Brains?," which of the following is FALSE?
- A) Men's brains tend to be much smaller than women's brains.
 - B) Women and men have different proportions of gray to white matter in their brains.
 - C) In general, the male brain is more asymmetrical and functions are more lateralized than in the female brain.
 - D) Men's brains tend to be larger than women's brains.
12. Petro is unable to articulate ideas or understand spoken or written language because of brain damage. Petro suffers from:
- A) Parkinson's disease.
 - B) Alzheimer's' disease.
 - C) the aftereffects of the split-brain operation.
 - D) aphasia.
13. Psychologist and neuroscientist Roger Sperry is best known for:
- A) his efforts to debunk the pseudoscientific claims of phrenology.
 - B) the discovery of neurogenesis in the adult human brain.
 - C) his studies of split-brain patients.
 - D) identifying the specific brain areas involved in different forms of aphasia.
14. Tom is a split-brain patient seated in front of a screen. As he focuses on the middle of the screen, the image of an apple is briefly flashed on the LEFT side of the screen. Tom will:
- A) be able to verbally name the object.
 - B) be able to use his right hand to reach under the screen and pick up the correct object.
 - C) verbally deny that any image appeared on the screen.
 - D) probably have an epileptic seizure.
15. Karen is right-handed. A biopsychologist administers a PET scan of Karen's brain while Karen listens to one of her favorite pieces of music, Beethoven's *Third Symphony*. Which area of Karen's brain is likely to show the greatest activity on the PET scan?
- A) Broca's area B) Wernicke's area C) the cerebellum D) the right hemisphere
16. The three types of neurons are:
- A) excitatory, inhibitory, and myelinated.
 - B) sensory, motor, and interneurons.
 - C) interneurons, glial cells, and motor cells.
 - D) glial cells, myelinated cells, and unmyelinated cells.

17. In general, neural messages are received by the _____ and transmitted by the _____.
A) cell body; dendrites B) axons; nucleus C) dendrites; axon D) axon; dendrites
18. When neurotransmitters communicate an inhibitory message to the postsynaptic neuron:
A) reuptake is inhibited.
B) the presynaptic neuron is less likely to activate.
C) the action potential is canceled out.
D) the postsynaptic neuron is less likely to activate.
19. The venom of the black widow spider bite causes _____ to be released continuously by motor neurons, causing severe muscle spasms.
A) acetylcholine B) dopamine C) GABA D) serotonin
20. _____ represent bundles of axons that are _____ to see with the eye.
A) Nerves; large enough C) Neurons; large enough
B) Interneurons; too small D) Chemical messengers; too small
21. Janeen and Marty were strolling down a wooded path in a city park when a man holding a knife suddenly jumped out of the shrubbery. Rather than fight, Janeen and Marty decided to flee and took off running in the opposite direction. This quick reaction reflects the fight-or-flight response, which is triggered by the _____ nervous system, which stimulates the _____ to produce _____.
A) somatic; adrenal medulla; dopamine and serotonin
B) parasympathetic; adrenal cortex; melatonin and androgen
C) sympathetic; adrenal medulla; epinephrine and norepinephrine
D) central; hypothalamus; GABA and dopamine
22. Although _____ has been shown to be a pseudoscience, it helped introduce the idea that functions were _____ in the brain.
A) phrenology; lateralized C) the split-brain procedure; lateralized
B) neuroscience; plastic or flexible D) phrenology; localized
23. The development of new neurons in the brain is called:
A) neurogenesis. B) structural plasticity. C) neuroplasticity. D) functional plasticity.
24. The brainstem is made up of several structures, which include the:
A) thalamus, hypothalamus, hippocampus, and amygdala.
B) medulla, pons, cerebellum, reticular formation, and midbrain, including the substantia nigra.
C) temporal lobe, parietal lobe, the occipital lobe, and frontal lobe.
D) corpus callosum, cerebral cortex, and the structures that make up the limbic system.
25. Samuel suffered damage to his temporal lobes during an operation to remove tumors from his brain. He is likely to have problems with his:
A) vision.
B) ability to smell and taste.
C) hearing.
D) ability to process somatosensory information.

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Answer Key

1. C
2. C
3. B
4. D
5. D
6. C
7. D
8. A
9. C
10. A
11. A
12. D
13. C
14. C
15. D
16. B
17. C
18. D
19. A
20. A
21. C
22. D
23. A
24. B
25. C
26. D
27. A
28. A
29. B
30. D

