

1. The axons of certain neurons are covered by a layer of fatty tissue that helps speed neural transmission. This tissue is
 - A) dopamine.
 - B) the myelin sheath.
 - C) acetylcholine.
 - D) an endorphin.

2. Heartbeat, digestion, and other self-regulating bodily functions are governed by the
 - A) voluntary nervous system.
 - B) autonomic nervous system.
 - C) sympathetic division of the autonomic nervous system.
 - D) somatic nervous system.

3. A strong stimulus can increase the
 - A) speed of the impulse the neuron fires.
 - B) intensity of the impulse the neuron fires.
 - C) number of times the neuron fires.
 - D) threshold that must be reached before the neuron fires.

4. The pain of heroin withdrawal may be attributable to the fact that
 - A) under the influence of heroin the brain ceases production of endorphins.
 - B) under the influence of heroin the brain ceases production of all neurotransmitters.
 - C) during heroin withdrawal the brain's production of all neurotransmitters is greatly increased.
 - D) heroin destroys endorphin receptors in the brain.

5. The brain research technique that involves monitoring the brain's usage of glucose is called (in abbreviated form) the
 - A) PET scan.
 - B) fMRI.
 - C) EEG.
 - D) MRI.

6. The effect of a drug that is an antagonist is to
 - A) cause the brain to stop producing certain neurotransmitters.
 - B) mimic a particular neurotransmitter.
 - C) block a particular neurotransmitter.
 - D) disrupt a neuron's all-or-none firing pattern.

7. Though there is no single “control center” for emotions, their regulation is primarily attributed to the brain region known as the
- A) limbic system.
 - B) reticular formation.
 - C) brainstem.
 - D) cerebellum.
8. Which is the correct sequence in the transmission of a simple reflex?
- A) sensory neuron, interneuron, sensory neuron
 - B) interneuron, motor neuron, sensory neuron
 - C) sensory neuron, interneuron, motor neuron
 - D) interneuron, sensory neuron, motor neuron
9. In a resting state, the axon is
- A) depolarized, with mostly negatively charged ions outside and positively charged ions inside.
 - B) depolarized, with mostly positively charged ions outside and negatively charged ions inside.
 - C) polarized, with mostly negatively charged ions outside and positively charged ions inside.
 - D) polarized, with mostly positively charged ions outside and negatively charged ions inside.
10. Which of the following is typically controlled by the right hemisphere?
- A) language
 - B) learned voluntary movements
 - C) arithmetic reasoning
 - D) perceptual tasks
11. Dr. Hernandez is studying neurotransmitter abnormalities in depressed patients. She would most likely be working from a _____ perspective.
- A) personality
 - B) phrenologist
 - C) psychoanalyst
 - D) biological

12. The increasing complexity of animals' behavior is accompanied by an
- A) increase in the size of the brainstem.
 - B) increase in the depth of the corpus callosum.
 - C) increase in the size of the frontal lobes.
 - D) increase in the amount of association area.
13. Voluntary movements, such as writing with a pencil, are directed by the
- A) sympathetic nervous system.
 - B) somatic nervous system.
 - C) parasympathetic nervous system.
 - D) autonomic nervous system.
14. A neuron will generate action potentials when it
- A) remains below its threshold.
 - B) receives an excitatory input.
 - C) receives more excitatory than inhibitory inputs.
 - D) is stimulated by a neurotransmitter.
15. Which is the correct sequence in the transmission of a neural impulse?
- A) axon, dendrite, cell body, synapse
 - B) dendrite, axon, cell body, synapse
 - C) synapse, axon, dendrite, cell body
 - D) dendrite, cell body, axon, synapse
16. Chemical messengers produced by endocrine glands are called
- A) agonists.
 - B) neurotransmitters.
 - C) hormones.
 - D) enzymes.
17. Following a head injury, a person has ongoing difficulties staying awake. Most likely, the damage occurred to the
- A) thalamus.
 - B) corpus callosum.
 - C) reticular formation.
 - D) cerebellum.

18. An experimenter flashes the word FLYTRAP onto a screen facing a split-brain patient so that FLY projects to her right hemisphere and TRAP to her left hemisphere. When asked what she saw, the patient will
- A) say she saw FLY.
 - B) say she saw TRAP.
 - C) point to FLY using her right hand.
 - D) point to TRAP using her left hand.
19. Cortical areas that are NOT primarily concerned with sensory, motor, or language functions are
- A) called projection areas.
 - B) called association areas.
 - C) located mostly in the parietal lobe.
 - D) located mostly in the temporal lobe.
20. In the brain, learning occurs as experience strengthens certain connections in cell work groups called
- A) action potentials.
 - B) neural networks.
 - C) endocrine systems.
 - D) dendrites.

Answer Key

1. B
2. B
3. C
4. A
5. A
6. C
7. A
8. C
9. D
10. D
11. D
12. D
13. B
14. C
15. D
16. C
17. C
18. B
19. B
20. B