

1. The reticular formation is located in the:
 - A) brainstem.
 - B) limbic system.
 - C) somatosensory cortex.
 - D) motor cortex.

2. The reuptake of a neurotransmitter such as serotonin would involve the reabsorption of serotonin into a(n):
 - A) axon terminal.
 - B) receiving neuron.
 - C) myelin sheath.
 - D) glial cell.

3. Resting potential is to action potential as _____ is to _____.
 - A) parasympathetic nervous system; sympathetic nervous system
 - B) sensory neuron; motor neuron
 - C) association area; neural network
 - D) polarization; depolarization
 - E) PET scan; MRI

4. Anton is applying for a technician's job with a neurosurgeon. In trying to impress his potential employer with his knowledge of the brain, he says, "After my father's stroke I knew immediately that the blood clot had affected his left cerebral hemisphere because he no longer recognized a picture of his friend." Should Anton be hired?
 - A) Yes. Anton obviously understands brain structure and function.
 - B) No. The right hemisphere, not the left, specializes in picture recognition.
 - C) Yes. Although blood clots never form in the left hemisphere, Anton should be rewarded for recognizing the left hemisphere's role in picture recognition.
 - D) No. Blood clots never form in the left hemisphere, and the right hemisphere is more involved than the left in recognizing pictures.

5. After Miguel's recent automobile accident, doctors detected damage to his frontal lobe in Broca's area. It is likely that Miguel will have difficulty:
 - A) remembering past events.
 - B) speaking fluently.
 - C) reading.
 - D) understanding other people when they speak.

6. Parkinson's disease involves:
 - A) the death of nerve cells that produce a vital neurotransmitter.
 - B) impaired function in the right hemisphere only.

- C) impaired function in the left hemisphere only.
 - D) excess production of the neurotransmitters dopamine and acetylcholine.
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) cerebral cortex.
8. The speed at which a neural impulse travels is increased when the axon is encased by a(n):
- A) association area.
 - B) myelin sheath.
 - C) endocrine gland.
 - D) neural network.
 - E) synaptic vesicle.
9. Neural networks refer to:
- A) the branching extensions of a neuron.
 - B) functionally interconnected clusters of neurons in the central nervous system.
 - C) neural cables containing many axons.
 - D) junctions between sending and receiving neurons.
 - E) neurons that connect the central nervous system to the rest of the body.
10. Which region of the brainstem arouses you to a state of alertness when someone nearby mentions your name?
- A) reticular formation
 - B) cerebellum
 - C) hypothalamus
 - D) amygdala
 - E) medulla
11. According to Roger Sperry, a recognition that the mind cannot be fully explained by the activity of nerve cells is important for appreciating our human capacity for:
- A) information processing.
 - B) neural plasticity.
 - C) moral responsibility.
 - D) computed tomography.

12. How have Coren and Halpern explained the progressive decline in the percentage of left-handers among increasingly older population samples?
- A) Left-handers die at younger ages than right-handers.
 - B) Left-handers gradually make increasing use of their right hands as they progress through adulthood.
 - C) Parents today are less likely to discourage left-handedness in children than were the parents of previous generations.
 - D) There has been a dramatic increase in the percentage of left-handed infants born in each successive decade of this century.
13. Neurosurgeons have severed the corpus callosum in human patients in order to reduce:
- A) aphasia.
 - B) epileptic seizures.
 - C) depression.
 - D) neural plasticity.
 - E) reward deficiency syndrome.
14. A scientist from another planet wishes to study the simplest brain mechanisms underlying emotion and memory. You recommend that the scientist study the:
- A) brainstem of a frog.
 - B) limbic system of a dog.
 - C) cortex of a monkey.
 - D) cortex of a human.
 - E) brainstem of a dog.
15. Neurotransmitters are released from vesicles located in knoblike terminals on the:
- A) dendrites.
 - B) cell body.
 - C) axon.
 - D) myelin sheath.
16. Acetylcholine is to epinephrine as _____ is to _____.
- A) sympathetic nervous system; parasympathetic nervous system
 - B) motor neuron; sensory neuron
 - C) neurotransmitter; hormone
 - D) agonist; antagonist
 - E) parasympathetic nervous system; sympathetic nervous system
17. After Paul's serious snow-skiing accident, doctors detected damage to his temporal lobe in Wernicke's area. Because of the damage, Paul is most likely to experience difficulty in:
- A) remembering past events.

- B) pronouncing words correctly.
 - C) understanding what others are saying.
 - D) recognizing familiar faces.
18. Endorphins are:
- A) neurotransmitters.
 - B) sex hormones.
 - C) endocrine glands.
 - D) morphine antagonists.
19. Information is carried from the central nervous system to the tissues by:
- A) interneurons.
 - B) sensory neurons.
 - C) motor neurons.
 - D) the limbic system.
20. Phrenology highlighted the potential importance of:
- A) specific brain regions.
 - B) neurotransmitters.
 - C) hormones.
 - D) the right brain.
21. An action potential is generated by the movement of:
- A) glial cells.
 - B) hormones.
 - C) neurotransmitters.
 - D) ions.
22. The knee-jerk reflex is controlled by interneurons in the:
- A) limbic system.
 - B) spinal cord.
 - C) brainstem.
 - D) cerebellum.
23. Surgical destruction of brain tissue is called a(n):
- A) split brain.
 - B) EEG.
 - C) synapse.
 - D) lesion.
 - E) MRI.

24. The part of the left frontal lobe that directs the muscle movements involved in speech is known as:
- A) Wernicke's area.
 - B) Broca's area.
 - C) the amygdala.
 - D) the angular gyrus.
 - E) the reticular formation.
25. 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.
26. Chemical messengers produced by endocrine glands are called:
- A) agonists.
 - B) neurotransmitters.
 - C) hormones.
 - D) enzymes.
27. The central nervous system consists of:
- A) sensory and motor neurons.
 - B) somatic and autonomic subsystems.
 - C) the brain and the spinal cord.
 - D) sympathetic and parasympathetic branches.
28. A drug that mimics the effect of dopamine is called a(n):
- A) hormone.
 - B) steroid.
 - C) agonist.
 - D) opiate.
29. The sensory cortex is most critical for our sense of:
- A) taste.
 - B) sight.

- C) hearing.
- D) touch.
- E) smell.

30. The motor cortex is located in the _____ lobes.
- A) occipital
 - B) temporal
 - C) frontal
 - D) parietal

Answer Key -- 2002quiz02

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