

1. Phrenology highlighted the presumed functions of
  - A) specific brain regions.
  - B) synaptic gaps.
  - C) endorphins.
  - D) the myelin sheath.
  
2. The person most likely to suggest that the shape of a person's skull indicates the extent to which that individual is argumentative and aggressive would be a
  - A) neurologist.
  - B) behavior geneticist.
  - C) psychoanalyst.
  - D) phrenologist.
  
3. Although phrenology incorrectly suggested that bumps on the skull revealed a person's character traits, phrenology did succeed in focusing attention on
  - A) synaptic gaps.
  - B) action potentials.
  - C) the localization of function.
  - D) reward deficiency syndrome.
  
4. A focus on the links between brain activity and behavior is most characteristic of psychologists who work from a \_\_\_\_\_ perspective.
  - A) psychodynamic
  - B) cognitive
  - C) behavioral
  - D) biological
  
5. Dr. Wolski conducts research on the potential relationship between neurotransmitter deficiencies and mood states. Dr. Wolski's research focus is most characteristic of
  - A) phrenology.
  - B) the biological perspective.
  - C) psychoanalysis.
  - D) social psychology.
  
6. A psychologist working from the biological perspective would be most interested in conducting research on the relationship between
  - A) neurotransmitters and depression.
  - B) skull shape and bone density.
  - C) self-esteem and popularity.
  - D) genetics and eye color.

7. To fully appreciate the interaction of neural activity, mental processes, and the functioning of human communities, it is most necessary to recognize that people are
- A) consciously aware.
  - B) morally accountable.
  - C) biopsychosocial systems.
  - D) products of multiple neural networks.
8. Dendrites are branching extensions of
- A) neurotransmitters.
  - B) endorphins.
  - C) neurons.
  - D) glial cells.
9. The function of dendrites is to
- A) receive incoming signals from other neurons.
  - B) release neurotransmitters into the spatial junctions between neurons.
  - C) coordinate the activation of the parasympathetic and sympathetic nervous systems.
  - D) control pain through the release of opiatelike chemicals into the brain.
10. An axon is
- A) a cell that serves as the basic building block of the nervous system.
  - B) a layer of fatty tissue that encases the fibers of many neurons.
  - C) an antagonist molecule that blocks neurotransmitter receptor sites.
  - D) the extension of a neuron that carries messages away from the cell body.
11. The longest part of a motor neuron is likely to be the
- A) dendrite.
  - B) axon.
  - C) cell body.
  - D) synapse.
12. In transmitting sensory information to the brain, an electrical signal travels from the \_\_\_\_\_ of a single neuron.
- A) dendrites to the axon to the cell body
  - B) axon to the cell body to the dendrites
  - C) dendrites to the cell body to the axon
  - D) axon to the dendrites to the cell body

13. 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) glial cell.
  - D) synaptic vesicle.
14. Degeneration of the myelin sheath results in
- A) neurogenesis.
  - B) multiple sclerosis.
  - C) the fight-or-flight response.
  - D) a reward deficiency syndrome.
15. A brief electrical charge that travels down the axon of a neuron is called the
- A) synapse.
  - B) agonist.
  - C) action potential.
  - D) refractory period.
16. An action potential is generated by the movement of
- A) glial cells.
  - B) hormones.
  - C) ventricles.
  - D) ions.
17. The resting potential of an axon results from the fact that an axon membrane is
- A) encased by a myelin sheath.
  - B) selectively permeable.
  - C) sensitive to neurotransmitter molecules.
  - D) part of a larger neural network.
18. The depolarization of a neural membrane can create a(n)
- A) action potential.
  - B) myelin sheath.
  - C) neural network.
  - D) interneuron.

19. With regard to the process of neural transmission, a refractory period refers to a time interval in which
- A) a neuron fires more rapidly than usual.
  - B) an electrical charge travels from a sensory neuron to a motor neuron.
  - C) positively charged ions are pumped back outside a neural membrane.
  - D) an individual reflexively withdraws from a pain stimulus.
20. The minimum level of stimulation required to trigger a neural impulse is called the
- A) reflex.
  - B) threshold.
  - C) synapse.
  - D) action potential.
21. Neural stimulation that exceeds a threshold triggers
- A) a fight-or-flight response.
  - B) a refractory period.
  - C) an action potential.
  - D) neurogenesis.
22. Increasing excitatory signals above the threshold for neural activation will not affect the intensity of an action potential. This indicates that a neuron's reaction is
- A) inhibited by the myelin sheath.
  - B) delayed by the refractory period.
  - C) an all-or-none response.
  - D) dependent on neurotransmitter molecules.
23. A slap on the back is more painful than a pat on the back because a slap triggers
- A) the release of endorphins.
  - B) more intense neural impulses.
  - C) the release of GABA.
  - D) more neurons to fire, and to fire more often.
24. Sir Charles Sherrington observed that impulses took an unexpectedly long time to travel a neural pathway. His observation provided evidence for the existence of
- A) association areas.
  - B) synaptic gaps.
  - C) interneurons.
  - D) neural networks.

25. A synapse is a(n)
- A) chemical messenger that triggers muscle contractions.
  - B) automatic response to sensory input.
  - C) junction between a sending neuron and a receiving neuron.
  - D) neural cable containing many axons.
26. The chemical messengers released into the spatial junctions between neurons are called
- A) hormones.
  - B) neurotransmitters.
  - C) synapses.
  - D) genes.
27. Neurotransmitters are released from vesicles located on knoblike terminals at the end of the
- A) dendrites.
  - B) cell body.
  - C) axon.
  - D) myelin sheath.
28. Reuptake refers to the
- A) movement of neurotransmitter molecules across a synaptic gap.
  - B) release of hormones into the bloodstream.
  - C) inflow of positively charged ions through an axon membrane.
  - D) reabsorption of excess neurotransmitter molecules by a sending neuron.
29. Acetylcholine is a neurotransmitter that
- A) causes sleepiness.
  - B) lessens physical pain.
  - C) reduces depressed moods.
  - D) triggers muscle contractions.
30. Endorphins are
- A) neurotransmitters.
  - B) sex hormones.
  - C) endocrine glands.
  - D) glial cells.

31. Opiate drugs occupy the same receptor sites as
- A) serotonin.
  - B) endorphins.
  - C) dopamine.
  - D) epinephrine.
32. José has just played a long, bruising football game but feels little fatigue or discomfort. His lack of pain is most likely caused by the release of
- A) glutamate.
  - B) dopamine.
  - C) acetylcholine.
  - D) endorphins.
33. Alzheimer's disease is most closely linked to the deterioration of neurons that produce
- A) dopamine.
  - B) acetylcholine.
  - C) epinephrine.
  - D) endorphins.
34. Schizophrenia is most closely linked with excess receptor activity for the neurotransmitter
- A) dopamine.
  - B) epinephrine.
  - C) acetylcholine.
  - D) serotonin.
35. An undersupply of serotonin is most closely linked to
- A) Alzheimer's disease.
  - B) schizophrenia.
  - C) Parkinson's disease.
  - D) depression.
36. An undersupply of the major inhibitory neurotransmitter known as \_\_\_\_\_ is linked to seizures.
- A) glutamate
  - B) GABA
  - C) serotonin
  - D) ACh

37. Migraines are most closely linked with an
- A) oversupply of GABA.
  - B) undersupply of serotonin.
  - C) oversupply of glutamate.
  - D) undersupply of acetylcholine.
38. The body's natural production of endorphins is likely to be
- A) increased by heroin use and increased by vigorous exercise.
  - B) decreased by heroin use and decreased by vigorous exercise.
  - C) increased by heroin use and decreased by vigorous exercise.
  - D) decreased by heroin use and increased by vigorous exercise.
39. Jason's intensely uncomfortable withdrawal symptoms following heroin use were probably due in part to a reduction in his body's normal production of
- A) dopamine.
  - B) epinephrine.
  - C) acetylcholine.
  - D) endorphins.
40. A drug that mimics the effects of a particular neurotransmitter is called a(n)
- A) glutamate.
  - B) steroid.
  - C) agonist.
  - D) opiate.
41. Endorphin agonists are likely to \_\_\_\_\_ one's immediate pain, and endorphin antagonists are likely to \_\_\_\_\_ one's immediate pain.
- A) decrease; increase
  - B) increase; decrease
  - C) increase; increase
  - D) decrease; decrease
42. Botulin poisoning from improperly canned food causes paralysis by blocking the release of
- A) endorphins.
  - B) epinephrine.
  - C) acetylcholine.
  - D) dopamine.

43. Curare is a paralyzing poison that functions as a(n)
- A) ACh agonist.
  - B) GABA agonist.
  - C) ACh antagonist.
  - D) GABA antagonist.
44. The two major divisions of the nervous system are the central and the \_\_\_\_\_ nervous systems.
- A) autonomic
  - B) sympathetic
  - C) somatic
  - D) peripheral
45. The central nervous system consists of
- A) sensory and motor neurons.
  - B) somatic and autonomic systems.
  - C) the brain and the spinal cord.
  - D) sympathetic and parasympathetic branches.
46. Messages are transmitted from your spinal cord to muscles in your hands by the \_\_\_\_\_ nervous system.
- A) peripheral
  - B) parasympathetic
  - C) sympathetic
  - D) autonomic
47. Information travels through axons that are bundled into the cables that we call
- A) interneurons.
  - B) action potentials.
  - C) nerves.
  - D) association areas.
48. You feel the pain of a sprained ankle when \_\_\_\_\_ relay(s) messages from your ankle to your central nervous system.
- A) the limbic system
  - B) interneurons
  - C) motor neurons
  - D) sensory neurons



49. Sensory neurons are located in the
- A) thalamus.
  - B) reticular formation.
  - C) peripheral nervous system.
  - D) sensory cortex.
50. Neurons that function within the brain and spinal cord are called
- A) sensory neurons.
  - B) interneurons.
  - C) glial cells.
  - D) motor neurons.
51. Central nervous system neurons that process information between sensory inputs and motor outputs are called
- A) neurotransmitters.
  - B) interneurons.
  - C) synapses.
  - D) dendrites.
52. The vast majority of neurons in the body's nervous system are
- A) glands.
  - B) interneurons.
  - C) motor neurons.
  - D) sensory neurons.
53. Information is carried from the central nervous system to the body's tissues by
- A) interneurons.
  - B) sensory neurons.
  - C) motor neurons.
  - D) the limbic system.
54. Some neurons enable you to grasp objects by relaying outgoing messages to the muscles in your arms and hands. These neurons are called
- A) glial cells.
  - B) sensory neurons.
  - C) neural prosthetics.
  - D) motor neurons.

55. Motor neurons transmit signals to
- A) glands.
  - B) interneurons.
  - C) sensory neurons.
  - D) all of these parts.
56. The two divisions of the peripheral nervous system are the
- A) brain and spinal cord.
  - B) cerebrum and cerebellum.
  - C) limbic system and endocrine system.
  - D) somatic nervous system and the autonomic nervous system.
57. The somatic nervous system is a component of the \_\_\_\_\_ nervous system.
- A) peripheral
  - B) central
  - C) sympathetic
  - D) parasympathetic
58. The part of the peripheral nervous system that controls the glands and the muscles of the internal organs is called the
- A) somatic nervous system.
  - B) reticular formation.
  - C) limbic system.
  - D) autonomic nervous system.
59. Messages are transmitted from your spinal cord to your heart muscles by the
- A) limbic system.
  - B) somatic nervous system.
  - C) central nervous system.
  - D) autonomic nervous system.
60. Which division of the autonomic nervous system arouses the body and mobilizes its energy in stressful situations?
- A) the limbic system
  - B) the sympathetic nervous system
  - C) the somatic nervous system
  - D) the central nervous system

61. You come home one night to find a burglar in your house. Your heart starts racing and you begin to perspire. These physical reactions are triggered by the
- A) somatic nervous system.
  - B) sympathetic nervous system.
  - C) parasympathetic nervous system.
  - D) sensory cortex.
62. The parasympathetic nervous system
- A) stimulates digestion and slows heartbeat.
  - B) inhibits digestion and accelerates heartbeat.
  - C) stimulates digestion and accelerates heartbeat.
  - D) inhibits digestion and slows heartbeat.
63. After discovering that the shadows outside his window were only the trees in the yard, Ralph's blood pressure decreased and his heartbeat slowed. These physical reactions were most directly regulated by his
- A) parasympathetic nervous system.
  - B) sympathetic nervous system.
  - C) somatic nervous system.
  - D) hippocampus.
64. An accelerated heartbeat is to a slowed heartbeat as the \_\_\_\_\_ nervous system is to the \_\_\_\_\_ nervous system.
- A) somatic; autonomic
  - B) autonomic; somatic
  - C) sympathetic; parasympathetic
  - D) parasympathetic; sympathetic
65. Neural networks refer to
- A) the branching extensions of a neuron.
  - B) interrelated clusters of neurons in the central nervous system.
  - C) neural cables containing many axons.
  - D) junctions between sending and receiving neurons.
66. The strengthening of synaptic connections facilitates the formation of
- A) interneurons.
  - B) endorphins.
  - C) neural networks.
  - D) glial cells.

67. A football quarterback can simultaneously make calculations of receiver distances, player movements, and gravitational forces. This best illustrates the activity of multiple
- A) endocrine glands.
  - B) endorphin agonists.
  - C) neural networks.
  - D) reticular formations.
68. The part of the central nervous system that carries information from your senses to your brain and motor-control information to your body parts is the
- A) pituitary gland.
  - B) pancreas.
  - C) spinal cord.
  - D) reticular formation.
69. A simple, automatic, inborn response to a sensory stimulus is called a(n)
- A) neural network.
  - B) action potential.
  - C) neurotransmitter.
  - D) reflex.
70. The knee-jerk reflex is controlled by interneurons in the
- A) limbic system.
  - B) spinal cord.
  - C) brainstem.
  - D) cerebellum.
71. In a tragic diving accident, Andrew damaged his spinal cord. As a result, his legs were paralyzed. Andrew's injury was located in his
- A) somatic nervous system.
  - B) limbic system.
  - C) sympathetic nervous system.
  - D) central nervous system.
72. Aaron consistently exhibits a knee-jerk response without having any sensations of the taps on his knees. Aaron's experience is most indicative of a
- A) split brain.
  - B) severed spinal cord.
  - C) hemispherectomy.
  - D) reward deficiency syndrome.

73. Hormones, the chemical messengers of the endocrine system, travel through the bloodstream to affect other
- A) axons.
  - B) tissues.
  - C) synapses.
  - D) neurons.
74. Endocrine glands secrete hormones directly into
- A) synaptic gaps.
  - B) the bloodstream.
  - C) the limbic system.
  - D) sensory neurons.
75. The ovaries in females and the testes in males are part of the
- A) limbic system.
  - B) endocrine system.
  - C) sympathetic nervous system.
  - D) central nervous system.
76. If a professor accused you of cheating on a test, your adrenal glands would probably release \_\_\_\_\_ into your bloodstream.
- A) endorphins
  - B) acetylcholine
  - C) epinephrine
  - D) insulin
77. The release of hormones by the adrenal glands is most likely to trigger
- A) a reduction of blood pressure.
  - B) the fight-or-flight response.
  - C) a reward deficiency syndrome.
  - D) neurogenesis.
78. The master gland of the endocrine system is the
- A) thyroid gland.
  - B) adrenal gland.
  - C) pituitary gland.
  - D) pancreas.

79. At the age of 22, Mrs. LaBlanc was less than 4 feet tall. Her short stature was probably influenced by the lack of a growth hormone produced by the
- A) pancreas.
  - B) thyroid.
  - C) adrenal gland.
  - D) pituitary gland.
80. During a laboratory game, those given a nasal squirt of \_\_\_\_\_ rather than a placebo were more likely to trust strangers with their money.
- A) epinephrine
  - B) oxytocin
  - C) dopamine
  - D) serotonin
81. Oxytocin is secreted by the
- A) pancreas.
  - B) thyroid gland.
  - C) pituitary gland.
  - D) adrenal gland.
82. The hypothalamus influences the \_\_\_\_\_ to send messages to the \_\_\_\_\_.
- A) cerebellum; amygdala
  - B) pituitary; endocrine glands
  - C) motor neurons; sensory neurons
  - D) thalamus; angular gyrus
83. The release of cortisol into the bloodstream is most likely to
- A) increase blood sugar.
  - B) lower blood pressure.
  - C) stimulate digestion.
  - D) decrease perspiration.
84. Surgical destruction of brain tissue is called a(n)
- A) EEG.
  - B) synapse.
  - C) lesion.
  - D) MRI.

85. An amplified recording of the waves of electrical activity that sweep across the surface of the brain is called a(n)
- A) fMRI.
  - B) EEG.
  - C) PET scan.
  - D) MRI.
86. To identify which of Lucy's brain areas was most active when she talked, neuroscientists gave her a temporarily radioactive form of glucose and a(n)
- A) hemispherectomy.
  - B) PET scan.
  - C) EEG.
  - D) MRI scan.
87. The best way to detect enlarged fluid-filled brain regions in some patients who have schizophrenia is to use a(n)
- A) EEG.
  - B) MRI.
  - C) PET scan.
  - D) brain lesion.
88. MRI scans have revealed that some patients with schizophrenia have unusually enlarged
- A) glial cells.
  - B) ventricles.
  - C) sensory neurons.
  - D) association areas.
89. To identify which specific brain areas are most active during a particular mental task, researchers would be most likely to make use of a(n)
- A) fMRI.
  - B) hemispherectomy.
  - C) ACh agonist.
  - D) brain lesion.
90. The sequence of brain regions from the evolutionarily oldest to newest is
- A) limbic system, brainstem, cerebral cortex.
  - B) brainstem, cerebral cortex, limbic system.
  - C) limbic system, cerebral cortex, brainstem.
  - D) brainstem, limbic system, cerebral cortex.

91. The part of the brainstem that controls heartbeat and breathing is called the
- A) cerebellum.
  - B) medulla.
  - C) amygdala.
  - D) thalamus.
92. If your \_\_\_\_\_ is destroyed, the left side of your brain could not control the movements of your right hand.
- A) brainstem
  - B) hippocampus
  - C) amygdala
  - D) corpus callosum
93. The part of the brainstem that helps to coordinate movements is called the
- A) nucleus accumbens.
  - B) corpus callosum.
  - C) amygdala.
  - D) pons.
94. Which brain structure receives information from all the senses except smell?
- A) hippocampus
  - B) amygdala
  - C) pons
  - D) thalamus
95. Which brain structure relays information from the eyes to the visual cortex?
- A) thalamus
  - B) amygdala
  - C) medulla
  - D) cerebellum
96. Information from higher brain regions is transmitted to the medulla through the
- A) corpus callosum.
  - B) hippocampus.
  - C) amygdala.
  - D) thalamus.



97. The reticular formation is located in the
- A) brainstem.
  - B) limbic system.
  - C) sensory cortex.
  - D) cerebellum.
98. Which region of your brainstem plays a role in arousing you to a state of alertness when someone nearby mentions your name?
- A) reticular formation
  - B) cerebellum
  - C) amygdala
  - D) medulla
99. Severing a cat's reticular formation from higher brain regions causes the cat to
- A) become violently aggressive.
  - B) cower in fear.
  - C) experience convulsive seizures.
  - D) lapse into a coma.
100. The “little brain” attached to the rear of the brainstem is called the
- A) limbic system.
  - B) corpus callosum.
  - C) cerebellum.
  - D) reticular formation.
101. In addition to coordinating voluntary movement, the \_\_\_\_\_ enables nonverbal learning and memory.
- A) amygdala
  - B) cerebellum
  - C) pituitary gland
  - D) nucleus accumbens
102. After Kato's serious motorcycle accident, doctors detected damage to his cerebellum. Kato is most likely to have difficulty
- A) reading printed words.
  - B) understanding what others are saying.
  - C) tasting the flavors of foods.
  - D) playing his guitar.

103. Conscious information processing is LEAST likely to be required for the automatic physical survival functions regulated by the
- A) hippocampus.
  - B) sensory cortex.
  - C) brainstem.
  - D) frontal lobes.
104. A neural system at the border of the brainstem and the cerebral hemispheres is known as the
- A) sensory cortex.
  - B) limbic system.
  - C) reticular formation.
  - D) peripheral nervous system.
105. Which part of the limbic system plays an essential role in the processing of new memories?
- A) hypothalamus
  - B) thalamus
  - C) hippocampus
  - D) medulla
106. The amygdala consists of emotion-linked neural clusters in the
- A) frontal lobes.
  - B) reticular formation.
  - C) limbic system.
  - D) association areas.
107. To demonstrate that brain stimulation can make a rat violently aggressive, a neuroscientist should electrically stimulate the rat's
- A) reticular formation.
  - B) cerebellum.
  - C) medulla.
  - D) amygdala.
108. Which limbic system structure regulates thirst and body temperature?
- A) medulla
  - B) amygdala
  - C) hippocampus
  - D) hypothalamus

109. A brain tumor caused extensive damage to Mr. Thorndike's hypothalamus. It is most likely that he may suffer a loss of
- A) visual perception.
  - B) muscular coordination.
  - C) sexual motivation.
  - D) language comprehension.
110. The brain structure that provides a major link between the nervous system and the endocrine system is the
- A) cerebellum.
  - B) amygdala.
  - C) reticular formation.
  - D) hypothalamus.
111. James Olds and Peter Milner located reward centers in the brain structure known as the
- A) hypothalamus.
  - B) cerebellum.
  - C) medulla.
  - D) amygdala.
112. A limbic system reward center located in front of the hypothalamus is called the
- A) cerebellum.
  - B) reticular formation.
  - C) corpus callosum.
  - D) nucleus accumbens.
113. Research participants preferred specific vacation destinations they had simply imagined themselves experiencing if the imagination process followed consumption of a drug that increased levels of
- A) cortisol.
  - B) dopamine.
  - C) ACh.
  - D) GABA.
114. Addictive disorders may stem from malfunctioning reward centers in the
- A) thalamus.
  - B) cerebellum.
  - C) reticular formation.
  - D) limbic system.

115. About 85 percent of human brain weight comes from the
- A) medulla.
  - B) cerebrum.
  - C) thalamus.
  - D) reticular formation.
116. The cerebral cortex is the covering layer of the
- A) brainstem.
  - B) corpus callosum.
  - C) amygdala.
  - D) cerebrum.
117. Your conscious awareness of your own name and self-identity depends primarily on the normal functioning of your
- A) cerebellum.
  - B) amygdala.
  - C) hypothalamus.
  - D) cerebral cortex.
118. One function of glial cells is to
- A) control heartbeat and breathing.
  - B) mimic the effects of neurotransmitters.
  - C) provide nutrients to interneurons.
  - D) stimulate the production of hormones.
119. Which lobes of the brain receive the input that enables you to feel someone scratching your back?
- A) parietal
  - B) temporal
  - C) occipital
  - D) frontal
120. The surgical removal of a large tumor from Dane's occipital lobe resulted in extensive loss of brain tissue. Dane is most likely to suffer some loss of
- A) muscular coordination.
  - B) visual perception.
  - C) speaking ability.
  - D) pain sensations.

121. Auditory stimulation is first processed in the \_\_\_\_\_ lobes.
- A) occipital
  - B) temporal
  - C) frontal
  - D) parietal
122. The occipital lobes are to \_\_\_\_\_ as the temporal lobes are to \_\_\_\_\_.
- A) hearing; sensing movement
  - B) seeing; sensing touch
  - C) seeing; hearing
  - D) speaking; hearing
123. The motor cortex is located in the \_\_\_\_\_ lobes.
- A) occipital
  - B) temporal
  - C) frontal
  - D) parietal
124. A laboratory cat could be made to twitch its whiskers by direct stimulation of the \_\_\_\_\_ lobes of its cerebral cortex.
- A) temporal
  - B) occipital
  - C) frontal
  - D) parietal
125. Which of the following body parts is associated with the greatest amount of brain tissue in the motor cortex?
- A) arms
  - B) face
  - C) trunk
  - D) knees
126. In a clinical trial of a brain-computer interface with paralyzed humans, a 25-year-old man constructed shapes on a computer screen by activating neurons in his
- A) hypothalamus.
  - B) cerebellum.
  - C) motor cortex.
  - D) amygdala.

127. Using a brain-computer interface, some paralyzed people may be able to move a robotic limb simply by thinking about moving it. This best illustrates
- A) neurogenesis.
  - B) constraint-induced therapy.
  - C) cognitive neural prosthetics.
  - D) magnetic resonance imaging.
128. The sensory cortex is most critical for our sense of
- A) sight.
  - B) hearing.
  - C) touch.
  - D) smell.
129. Which part of your brain receives information that you are moving your legs?
- A) amygdala
  - B) motor cortex
  - C) sensory cortex
  - D) hypothalamus
130. Which of the following body parts is associated with the greatest amount of brain tissue in the sensory cortex?
- A) toes
  - B) knees
  - C) neck
  - D) lips
131. The auditory hallucinations experienced by people with schizophrenia are most closely linked with the activation of areas in their
- A) motor cortex.
  - B) amygdala.
  - C) temporal lobes.
  - D) hypothalamus.
132. The association areas are located in the
- A) brainstem.
  - B) thalamus.
  - C) limbic system.
  - D) cerebral cortex.

133. The most extensive regions of the brain are involved in higher mental functions such as memory and reasoning. These regions are called the
- A) reticular formation.
  - B) medulla.
  - C) cerebellum.
  - D) association areas.
134. The process of anticipating that you will be punished for misbehaving takes place in the
- A) sensory cortex.
  - B) reticular formation.
  - C) association areas.
  - D) sympathetic nervous system.
135. After he suffered a stroke, Mr. Santore's physical coordination skills and responsiveness to sensory stimulation quickly returned to normal. Unfortunately, however, he could no longer figure out how to find his way around his neighborhood. It is most likely that Mr. Santore suffered damage to his
- A) cerebellum.
  - B) thalamus.
  - C) hypothalamus.
  - D) association areas.
136. The classic case of railroad worker Phineas Gage best illustrated that frontal lobe damage can
- A) prevent reward deficiency syndrome.
  - B) enhance moral reasoning skills.
  - C) alter one's personality.
  - D) facilitate neurogenesis.
137. People's moral judgments are most likely to seem unrestrained by normal emotions if they have suffered damage to their
- A) cerebellum.
  - B) sensory cortex.
  - C) corpus callosum.
  - D) frontal cortex.

138. Mathematical and reasoning capacities are especially likely to be linked with association areas in the
- A) parietal lobes.
  - B) temporal lobes.
  - C) occipital lobes.
  - D) frontal lobes.
139. The inability to recognize familiar faces even though one can clearly see and describe features of the faces is associated with damage to the \_\_\_\_\_ lobes.
- A) frontal
  - B) parietal
  - C) occipital
  - D) temporal
140. The capacity of a brain area to reorganize in response to damage is known as brain
- A) tomography.
  - B) phrenology.
  - C) resonance.
  - D) plasticity.
141. By restraining the use of his left hand, doctors helped Bruce to use and improve the coordination skills of his right hand. The doctors employed a technique known as
- A) cognitive neural prosthetics.
  - B) hemispherectomy.
  - C) positron emission tomography.
  - D) constraint-induced therapy.
142. Brain plasticity may contribute to the effectiveness of
- A) phrenology.
  - B) electroencephalograms.
  - C) constraint-induced therapy.
  - D) magnetic resonance imaging.
143. The visual cortex is activated when blind people read Braille. This best illustrates
- A) plasticity.
  - B) cognitive neural prosthetics.
  - C) hemispherectomy.
  - D) phrenology.



144. The benefits of brain plasticity are most clearly demonstrated in
- A) children who have had a cerebral hemisphere surgically removed.
  - B) people paralyzed by a severed spinal cord.
  - C) individuals with Alzheimer's disease.
  - D) split-brain patients.
145. A person whose hand had been amputated actually felt sensations on his nonexistent fingers when his arm was stroked. This best illustrates the consequences of
- A) tomography.
  - B) brain plasticity.
  - C) lateralization.
  - D) cognitive neural prosthetics.
146. The process of forming new neurons within the brain is called
- A) reticular formation.
  - B) hemispherectomy.
  - C) neurogenesis.
  - D) tomography.
147. The localization of a function such as speech production to either the right or the left hemisphere of the brain is called
- A) neurogenesis.
  - B) lateralization.
  - C) hemispherectomy.
  - D) plasticity.
148. Damage to the left cerebral hemisphere is most likely to reduce people's ability to
- A) solve arithmetic problems.
  - B) copy drawings.
  - C) recognize faces.
  - D) recognize familiar melodies.
149. The corpus callosum is a wide band of axon fibers that
- A) enables the left hemisphere to control the right side of the body.
  - B) transmits information between the cerebral hemispheres.
  - C) controls the glands and muscles of the internal organs.
  - D) transfers neural impulses from the CNS to the PNS.

150. Those whose corpus callosum is surgically severed are said to be patients with
- A) brain plasticity.
  - B) phrenology.
  - C) neurogenesis.
  - D) split brains.
151. Neurosurgeons have severed the corpus callosum in human patients in order to reduce
- A) Alzheimer's disease.
  - B) epileptic seizures.
  - C) neural plasticity.
  - D) reward deficiency syndrome.
152. Optic nerves transmit information from the \_\_\_\_\_ visual field of \_\_\_\_\_ to the left cerebral hemisphere.
- A) left; only the left eye
  - B) right; only the right eye
  - C) left; only the right eye
  - D) right; both the right and left eyes
153. A picture of a dog is briefly flashed in the left visual field of a split-brain patient. At the same time a picture of a boy is flashed in the right visual field. In identifying what she saw, the patient would be most likely to
- A) use her left hand to point to a picture of a dog.
  - B) verbally report that she saw a dog.
  - C) use her left hand to point to a picture of a boy.
  - D) verbally report that she saw a boy.
154. The ability to simultaneously copy different figures with the right and left hand is most characteristic of those whose \_\_\_\_\_ has been cut.
- A) angular gyrus
  - B) reticular formation
  - C) corpus callosum
  - D) motor cortex
155. When a person speaks, brain waves and bloodflow are especially likely to reveal increased activity in the
- A) hypothalamus.
  - B) left hemisphere.
  - C) amygdala.
  - D) right hemisphere.

156. Deaf people who use sign language typically
- A) demonstrate greater mathematical competence than hearing persons.
  - B) process language in their left cerebral hemisphere.
  - C) have better communication skills than hearing persons.
  - D) have a smaller corpus callosum than hearing persons.
157. People who suffer partial paralysis will sometimes obstinately claim they can move a paralyzed limb if they have suffered damage to the
- A) right cerebral hemisphere.
  - B) parasympathetic nervous system.
  - C) left cerebral hemisphere.
  - D) sympathetic nervous system.
158. Left handedness is \_\_\_\_\_ common among males than females, and in both right- and left-handers the left hemisphere tends to be slightly \_\_\_\_\_ than the right hemisphere.
- A) less; smaller
  - B) less; larger
  - C) more; smaller
  - D) more; larger
159. Compared with right-handers, left-handers are
- A) more likely to experience migraine headaches and less likely to suffer from allergies.
  - B) less likely to experience migraine headaches and more likely to suffer from allergies.
  - C) more likely to experience migraine headaches and more likely to suffer from allergies.
  - D) less likely to experience migraine headaches and less likely to suffer from allergies.
160. Left-handedness is \_\_\_\_\_ common than usual among mathematicians and \_\_\_\_\_ common than usual among artists.
- A) less; more
  - B) less; less
  - C) more; less
  - D) more; more

161. In Roger Sperry's view, the brain creates and controls the mind, which in turn influences the brain. Sperry understands the mind and brain as a
- A) cognitive neural prosthetic.
  - B) holistic system.
  - C) reward center.
  - D) complex machine.

## Answer Key

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

45. C
46. A
47. C
48. D
49. C
50. B
51. B
52. B
53. C
54. D
55. A
56. D
57. A
58. D
59. D
60. B
61. B
62. A
63. A
64. C
65. B
66. C
67. C
68. C
69. D
70. B
71. D
72. B
73. B
74. B
75. B
76. C
77. B
78. C
79. D
80. B
81. C
82. B
83. A
84. C
85. B
86. B
87. B
88. B
89. A
90. D

- 91. B
- 92. A
- 93. D
- 94. D
- 95. A
- 96. D
- 97. A
- 98. A
- 99. D
- 100. C
- 101. B
- 102. D
- 103. C
- 104. B
- 105. C
- 106. C
- 107. D
- 108. D
- 109. C
- 110. D
- 111. A
- 112. D
- 113. B
- 114. D
- 115. B
- 116. D
- 117. D
- 118. C
- 119. A
- 120. B
- 121. B
- 122. C
- 123. C
- 124. C
- 125. B
- 126. C
- 127. C
- 128. C
- 129. C
- 130. D
- 131. C
- 132. D
- 133. D
- 134. C
- 135. D
- 136. C

- 137. D
- 138. A
- 139. D
- 140. D
- 141. D
- 142. C
- 143. A
- 144. A
- 145. B
- 146. C
- 147. B
- 148. A
- 149. B
- 150. D
- 151. B
- 152. D
- 153. D
- 154. C
- 155. B
- 156. B
- 157. A
- 158. D
- 159. C
- 160. D
- 161. B