Chapter 3: Biological Psychology

Nerve Cells: Communication Portals

1. A long structure leaving the cell body that action potential travel along is called the _____.
   a. cell membrane
   b. dendrite
   c. axon
   d. myelin sheath
   Answer c % correct 70 a = 3 b = 16 c = 70 d = 11 *r* = .38

2. Neurons in the brain that carry messages from one neuron to another and do most of the work of the nervous system are called _____.
   a. afferent neurons
   b. active neurons
   c. efferent neurons
   d. interneurons
   Answer d % correct 42 a = 25 b = 14 c = 19 d = 42 *r* = .42

3. Physiological psychologists study _____.
   a. human mental and physical growth from the prenatal period through childhood, adolescence, adulthood, and old age
   b. the biological basis for human behavior.
   c. the differences among individuals in such traits as anxiety, sociability, self-esteem, the need for achievement, and aggressiveness
   d. how people influence one another
   Answer b % correct 49 a = 26 b = 49 c = 20 d = 5 *r* = .42

4. The short fibers which extend from the neurons allowing it to receive messages from other neurons are
   a. axons
   b. dendrites
   c. nerve bundles
   d. synapses
   Answer b % correct 79 a = 19 b = 79 c = 1 d = 1 *r* = .38

5. A young man reads in a letter that he has just won $1,000 in a state-wide lottery and he literally jumps for joy. Which neurons are sending messages from his brain to his legs ordering them to jump?
   a. sensory neurons
   b. motor neurons
   c. interaction neurons
   d. association neurons
   Answer b % correct 89 a = 4 b = 89 c = 2 d = 4 *r* = .34

6. When the electrical charge inside a neuron is negative in relation to the outside, the neuron is said to be in a state of:
   a. equilibrium.
   b. shock.
   c. polarization.
   d. depolarization.
   Answer c % correct 81 a = 3 b = 2 c = 73 d = 12 *r* = .27

7. The period in which the neuron begins to pump sodium ions out of the cell and can only fire if the incoming message is extremely powerful is called the
   a. absolute refractory period
   b. relative refractory period
   c. secondary refractory period
   d. recovery period
   Answer b % correct 64 a = 21 b = 64 c = 8 d = 7 *r* = .53

8. Which of the following neurotransmitters is known for its role in schizophrenia and Parkinson's disease?
   a. acetylcholine
   b. dopamine
   c. serotonin
   d. norepinephrine
   Answer b % correct 80 a = 11 b = 80 c = 2 d = 7 *r* = .21

9. Human beings have _____ pairs of chromosomes
   a. 12
   b. 17
   c. 23
   d. 45
   Answer c % correct 92 a = 3 b = 2 c = 92 d = 3 *r* = .25

10. The part of the neuron that carries outgoing messages either to another neuron or to a muscle or gland is the
    a. myelin sheath
    b. axon
    c. dendrite
    d. cell body
    Answer b % correct 80 a = 1 b = 80 c = 19 d = 0 *r* = .21

11. The cell body is enclosed by the
    a. axon
    b. dendrite
    c. cell membrane
    d. myelin sheath
    Answer c % correct 82 a = 3 b = 3 c = 82 d = 13 *r* = .23

12. Which of the following is true of neural impulses in a single neuron?
    a. The neuron may fire during the absolute refractory period.
    b. The strength of a neural impulse increases as the strength of the incoming message gets stronger.
    c. The strength of a neural impulse decreases as the strength of the incoming message gets stronger.
    d. The strength of a neural impulse is the same each time the neuron fires.
    Answer d % correct 60 a = 6 b = 30 c = 4 d = 60 *r* = .35

13. The three parts of every neuron are:
    a. myelin; glia; cell body.
    b. dendrite; cell body; axon.
    c. glia; dendrite; axon.
    d. myelin; cell body; dendrite.
    Answer b % correct 83 a = 1 b = 83 c = 3 d = 13 *r* = .23

14. The small gap between adjacent neurons is the:
    a. glia.
    b. myelin sheath.
    c. synaptic cleft.
    d. terminal.
    Answer c % correct 83 a = 2 b = 6 c = 83 d = 9 *r* = .20

15. The neural impulse traveling down the axon is _____; it gets across the synapse by _____.
    a. electrical; remaining electrical but changing from positively charged to negatively charged
    b. electrical; remaining electrical but changing from negatively charged to positively charged
    c. electrical; being changed into a chemical message
    d. chemical; being changed into an electrical message
    Answer c % correct 50 a = 13 b = 22 c = 50 d = 13 *r* = .37

16. Neurons are:
    a. cells in the brain that are believed to help clean and feed brain cells.
    b. cells that send and receive information.
    c. bundles of nerves.
    d. chemical transmitters found in the hypothalamus.
    Answer b % correct 96 a = 0 b = 96 c = 3 d = 1 *r* = .44

17. Axons:
    a. receive/detect neural impulses.
    b. carry messages away from a cell body.
    c. secrete chemicals to lubricate the cell body.
    d. are found in the cell body.
    Answer b % correct 82 a = 15 b = 82 c = 1 d = 3 *r* = .36

18. The myelin sheath:
    a. is a fatty substance protecting the dendrites.
    b. helps to speed up neural messages within the cell.
    c. is found in all neurons.
    d. protects the cell's vesicles.
    Answer b % correct 51 a = 30 b = 51 c = 5 d = 14 *r* = .44

19. The basic message-carrying cells of the nervous system are labeled:
    a. dendrites.
    b. neurons.
    c. nerves.
    d. ganglia.
    Answer b % correct 91 a = 5 b = 91 c = 4 d = 0 *r* = .23

20. What kinds of neurons are connected to receptor cells in the skin, muscles, and joints?
    a. peripheral neurons
    b. interneurons
    c. sensory neurons
    d. motor neurons
    Answer c % correct 70 a = 3 b = 5 c = 70 d = 22 *r* = .27

21. A nerve impulse from one neuron affects the activity of a neighboring neuron at a point of interaction called the:
    a. corpuscle.
    b. synapse.
    c. transmission cleft.
    d. neuronal junction.
    Answer b % correct 96 a = 0 b = 96 c = 3 d = 1 *r* = .26

22. Assume that you are testing a split-brain human subject whose language center is in his left hemisphere. If you place a house key into his left hand, he will:
    a. not be able to later select the object he was holding from a group of various objects.
    b. not be able to tell you what object he is presently holding.
    c. immediately be able to tell you what he is holding.
    d. be able to tell you what he is presently holding if allowed to think about it for several seconds.
    Answer b % correct 80 a = 5 b = 80 c = 6 d = 8 *r* = .24

23. Specialized cells in the brain which send and receive information are called:
    a. limbic cells.
    b. neurons.
    c. ganglia
    d. gonads.
    Answer b % correct 83 a = 15 b = 83 c = 2 d = 0 *r* = .21

24. Our brain contains nerves and _____.
    a. neurons.
    b. synapse
    c. ganglia
    d. all of the above
    Answer d % correct 82 a = 8 b = 2 c = 8 d = 82 *r* = .29

25. Our brain contains _____.
    a. neurons.
    b. synapse
    c. ganglia
    d. all of the above
    Answer d % correct 88 a = 1 b = 9 c = 2 d = 88 *r* = .20

26. Axons
    a. may be up to a quarter of a mile long.
    b. carry messages away from a cell body.
    c. are primarily responsible for the hypothalamic functions of regulation and motivation of sexual functions.
    d. are contained within the cell nucleus.
    Answer b % correct 89 a = 7 b = 89 c = 1 d = 3 *r* = .33

27. Dendrites:
    a. may be up to a quarter of a mile long.
    b. carry messages to cell bodies.
    c. are primarily responsible for the hypothalamic functions of regulation and motivation of sexual functions.
    d. are contained within the cell nucleus.
    Answer b % correct 82 a = 10 b = 82 c = 4 d = 4 *r* = .26

28. The myelin sheath:
    a. is a special substance protecting the dendrites.
    b. helps to speed up transmission of neural messages.
    c. is responsible for polarization.
    d. all of the above
    Answer b % correct 71 a = 7 b = 71 c = 0 d = 22 *r* = .54

29. Neural messages travel faster on axons which
    a. are polarized.
    b. are not exposed to acetylcholine (ACh).
    c. are located in the hypothalamus.
    d. have a myelin sheath.
    Answer d % correct 88 a = 6 b = 2 c = 5 d = 88 *r* = .35

30. Dr. Chapin has just finished a delicate brain operation. He turns to a group of interns and says, "She probably lost about 1000 _____, but since she still has over 100 billion left, she should recover nicely." Dr. Chapin was most likely referring to:
    a. parts of the brain.
    b. neurons.
    c. pituitary glands.
    d. speech and language areas.
    Answer b % correct 98 a = 1 b = 98 c = 1 d = 0 *r* = .21

31. A synapse is most important in:
    a. separating the medulla from the hindbrain.
    b. regulating the parasympathetic nervous system.
    c. the process of transmitting messages between neurons.
    d. connecting the basal ganglia.
    Answer c % correct 96 a = 2 b = 2 c = 96 d = 0 *r* = .37

32. The smallest unit in the nervous system is the _____.
    a. dendrite
    b. neuron
    c. axon
    d. myelin sheath
    Answer b % correct 64 a = 21 b = 64 c = 7 d = 8 *r* = .34

33. The cell which underlies the activity of the entire nervous system is the _____.
    a. transmitter cell
    b. amoeba
    c. neuron
    d. carcinoma
    Answer c % correct 83 a = 16 b = 0 c = 83 d = 1 *r* = .34

34. There are approximately _____ neurons in the brain of an average human being.
    a. 100 thousand
    b. 100 million
    c. 100 billion
    d. 100 trillion
    Answer c % correct 76 a = 0 b = 4 c = 76 d = 19 *r* = .30

35. The short fibers which extend from the neuron allowing it to receive messages from other neurons are _____.
    a. axons
    b. dendrites
    c. nerve bundles
    d. cell membranes
    Answer b % correct 86 a = 1 b = 1 c = 86 d = 12 *r* = .26

36. The part of the neuron that carries outgoing messages either to another neuron or to a muscle or gland is the _____.
    a. myelin sheath
    b. axon
    c. dendrite
    d. cell body
    Answer b % correct 81 a = 2 b = 81 c = 18 d = 0 *r* = .20

37. The purpose of the myelin sheath is to _____.
    a. provide a place for respiration and metabolism to occur
    b. carry messages from the spinal cord to the brain
    c. insulate the neuron so it can act more efficiently
    d. receive messages from outside the neuron and carry them to the cell nucleus
    Answer c % correct 87 a = 0 b = 3 c = 87 d = 10 *r* = .37

38. The tiny space between the axon terminal and the dendrites of another neuron is called the _____.
    a. synaptic vesicle
    b. synaptic knob
    c. synaptic cleft or gap
    d. synapse
    Answer c % correct 84 a = 8 b = 1 c = 84 d = 6 *r* = .31

39. The entire area composed of the axon terminal of one neuron, the synaptic cleft, and the dendrite, or cell body of the next neuron is called the _____.
    a. synaptic vesicle
    b. synaptic knob
    c. synaptic space
    d. synapse
    Answer d % correct 80 a = 11 b = 2 c = 6 d = 80 *r* = .22

40. Most axon terminals contain a number of tiny oval sacs called _____.
    a. synaptic vesicles
    b. synaptic knobs
    c. neurotransmitters
    d. receptor sites
    Answer a % correct 41 a = 41 b = 6 c = 35 d = 15 *r* = .21

41. When a neural impulse reaches the end of an axon, it causes the tiny oval sacs at the end of the axon to release chemicals called _____.
    a. effectors
    b. neurotransmitters
    c. stimulants
    d. ions
    Answer b % correct 95 a = 3 b = 95 c = 0 d = 2 *r* = .27

42. Which of the following is NOT true of all neurotransmitters?
    a. They are chemicals.
    b. They are stored in synaptic vesicles.
    c. They are released across the synaptic space.
    d. They increase the likelihood that the next neuron will fire.
    Answer d % correct 70 a = 11 b = 12 c = 7 d = 70 *r* = .31

43. The myelin sheath _____.
    a. is a fatty substance protecting the dendrites
    b. helps to speed up neural messages within the cell
    c. is found in all neurons
    d. protects the cell's vesicles
    Answer b % correct 60 a = 25 b = 60 c = 6 d = 8 *r* = .40

44. An emergency room physician must quickly treat a patient who has been bitten by a black widow spider. The physician knows she must:
    a. prevent the buildup of acetylcholine in the patient's nervous system.
    b. prevent the buildup of catecholamines in the patient's nervous system.
    c. prevent the breakdown of catecholamines in the patient's nervous system.
    d. prevent the reabsorption of acetylcholine in the patient's nervous system.
    Answer a % correct 73 a = 73 b = 2 c = 7 d = 18 *r* = .33

45. An emergency room physician must treat a patient who has recently eaten a can of tainted mushrooms. Suspecting botulism, the physician must treat the woman in order to:
    a. prevent the breakdown of catecholamines in the patient's nervous system.
    b. prevent the botulism toxin from blocking the release of acetylcholine.
    c. prevent the toxin from breaking down the acetylcholine in the patient's nervous system.
    d. prevent the botulism from blocking the release of catecholamines.
    Answer b % correct 78 a = 3 b = 78 c = 8 d = 11 *r* = .23

46. Axons _____.
    a. receive/detect neural impulses
    b. carry messages away from a cell body
    c. secrete chemicals to lubricate the cell body
    d. are found in the cell body
    Answer b % correct 80 a = 15 b = 80 c = 1 d = 3 *r* = .30

47. Nodes of Ranvier are:
    a. specialized synapses.
    b. gaps in the myelin sheath.
    c. functional divisions of the brain produced by the central, lateral, and longitudinal fissures.
    d. none of the above
    Answer b % correct 50 a = 5 b = 50 c = 12 d = 34 *r* = .29

48. Neurons whose primary purpose is to carry messages from the spinal cord or the brain to the muscles and glands are called _____.
    a. afferent neurons
    b. active neurons
    c. efferent neurons
    d. interneurons
    Answer c % correct 40 a = 27 b = 11 c = 40 d = 22 *r* = .21

49. Neurons whose primary purpose is to collect information from the sensory organs and carry that information to the spinal cord or brain are called _____.
    a. afferent neurons
    b. active neurons
    c. efferent neurons
    d. interneurons
    Answer a % correct 43 a = 43 b = 14 c = 22 d = 19 *r* = .21

50. A young woman returns from a day at the beach to find she has developed a severe sunburn. Which neurons are sending the messages from her burned skin to her brain informing her of the pain from the burn?
    a. sensory neurons
    b. motor neurons
    c. synaptic neurons
    d. association neurons
    Answer a % correct 88 a = 88 b = 2 c = 7 d = 3 *r* = .24

The Brain-Behavior Network

51. The nervous system is comprised of two major parts: _____.
    a. the central nervous system and the peripheral nervous system
    b. the afferent nervous system and the efferent nervous system
    c. the sympathetic nervous system and the parasympathetic nervous system
    d. the brain and the spinal cord
    Answer a % correct 69 a = 69 b = 2 c = 11 d = 17 *r* = .38

52. The system that relays messages in the form of electrochemical impulses throughout the body is called _____.
    a. the arousal system
    b. the nervous system
    c. the limbic system
    d. the endocrine system
    Answer b % correct 92 a = 0 b = 92 c = 5 d = 2 *r* = .20

53. All nerve cells and fibers that are **NOT** in the brain or spinal cord make up the _____ nervous system.
    a. central
    b. peripheral
    c. autonomic
    d. sympathetic
    Answer b % correct 76 a = 9 b = 76 c = 10 d = 6 *r* = .48

54. The division of the nervous system that connects the brain and spinal cord to the rest of the body is the _____ system.
    a. peripheral nervous
    b. endocrine
    c. central nervous
    d. secondary nervous
    Answer a % correct 42 a = 42 b = 12 c = 12 d = 4 *r* = .45

55. The FIRST division of the nervous system consists of the:
    a. central and peripheral nervous systems.
    b. brain and spinal cord.
    c. somatic and autonomic nervous systems.
    d. sympathetic and parasympathetic nervous systems.
    Answer a % correct 73 a = 73 b = 20 c = 4 d = 26 *r* = .41

56. The nervous system is comprised of two parts: _____.
    a. the central nervous system and the peripheral nervous system
    b. the afferent nervous system and the efferent nervous system
    c. the sympathetic nervous system and the parasympathetic nervous system
    d. the brain and the spinal cord
    Answer b % correct 96 a = 1 b = 96 c = 0 d = 3 *r* = .34

57. The central nervous system consists of the _____.
    a. parasympathetic and sympathetic divisions
    b. brain and the spinal cord
    c. muscles and glands
    d. sense organs and sensory neurons
    Answer b % correct 94 a = 4 b = 94 c = 1 d = 1 *r* = .25

58. The two major divisions of the central nervous system are:
    a. left and right hemispheres.
    b. the brain and autonomic systems.
    c. brain and spinal cord.
    d. peripheral and autonomic systems.
    Answer c % correct 90 a = 3 b = 1 c = 90 d = 6 *r* = .26

59. Which of the following most directly controls bodily reflexes?
    a. peripheral nervous system
    b. brainstem
    c. spinal cord
    d. hindbrain
    Answer c % correct 55 a = 30 b = 4 c = 55 d = 11 *r* = .37

60. Which hemisphere of the cerebral cortex is usually dominant in spatial tasks?
    a. the front hemisphere
    b. the rear hemisphere
    c. the left hemisphere
    d. the right hemisphere
    Answer d % correct 46 a = 13 b = 14 c = 27 d = 46 *r* = .46

61. The area in the back of the temporal lobe that is important in our ability to listen and in processing and understanding what others are saying is _____.
    a. Korsakoff's area
    b. Wernicke's area
    c. Broca's area
    d. Sach's area
    Answer b % correct 60 a = 4 b = 60 c = 34 d = 1 *r* = .35

62. The structure in the hindbrain that controls certain reflexes and coordinates the body's movements is the _____.
    a. medulla
    b. cerebellum
    c. pons
    d. reticular formation
    Answer b % correct 70 a = 13 b = 70 c = 5 d = 12 *r* = .29

63. The part of the brain that receives sensations of touch, balance, bodily position, and oversees spatial abilities is the _____.
    a. occipital lobe
    b. temporal lobe
    c. parietal lobe
    d. frontal lobe
    Answer c % correct 61 a = 10 b = 15 c = 61 d = 13 *r* = .33

64. The outer surface of the two cerebral hemispheres that regulate most complex behavior is called the _____.
    a. cerebellum
    b. corpus callosum
    c. cerebral cortex
    d. substantia nigra
    Answer c % correct 74 a = 7 b = 12 c = 74 d = 7 *r* = .44

65. The part of the brain that helps process hearing and give meaning to words is the _____.
    a. the occipital lobe
    b. the temporal lobe
    c. the parietal lobe
    d. the frontal lobe
    Answer b % correct 72 a = 9 b = 72 c = 12 d = 6 *r* = .37

66. The cerebellum _____.
    a. controls blood pressure
    b. is involved in emotional behavior
    c. coordinates actions so that movements are efficient
    d. relays messages from the sensory receptors
    Answer c % correct 74 a = 4 b = 12 c = 74 d = 11 *r* = .44

67. Which hemisphere of the cerebral cortex is usually dominant in language tasks?
    a. the front hemisphere
    b. the rear hemisphere
    c. the left hemisphere
    d. the right hemisphere
    Answer c % correct 70 a = 8 b = 4 c = 70 d = 18 *r* = .38

68. The part of the brain which interprets visual information is the _____.
    a. occipital lobe
    b. temporal lobe
    c. parietal lobe
    d. frontal lobe
    Answer a % correct 89 a = 89 b = 6 c = 3 d = 2 *r* = .26

69. A young woman recovering from a blow to her head finds she has great difficulty maintaining her balance and coordinating her movements. Injury to which part of her brain is likely to be causing her difficulties?
    a. cerebellum
    b. medulla
    c. cerebral cortex
    d. thalamus
    Answer a % correct 47 a = 47 b = 18 c = 18 d = 17 *r* = .22

70. The part of the brain most people think of when they talk about the brain is the _____.
    a. cerebral cortex
    b. pons
    c. medulla
    d. cerebellum
    Answer a % correct 50 a = 50 b = 3 c = 13 d = 34 *r* = .33

71. The notion that human language production is controlled primarily by the left cerebral cortex was first proposed by _____.
    a. Paul Broca
    b. Sally Shaywitz
    c. Karl Wernicke
    d. Hermann Ebbinghaus
    Answer a % correct 53 a = 53 b = 3 c = 35 d = 7 *r* = .31

72. The part of the hind brain that largely controls breathing, heart rate, and blood pressure is the _____.
    a. cerebral cortex
    b. pons
    c. medulla
    d. cerebellum
    Answer c % correct 86 a = 3 b = 2 c = 86 d = 9 *r* = .29

73. Garfield is having great difficulty controlling his appetite. All he wants to do is eat and no matter how much he eats he is still hungry. His weight is approaching 400 pounds and he still constantly wants to eat. His physician says the problem is due to a disorder in a specific center of the brain. The brain center is most likely the _____.
    a. medulla
    b. cerebral cortex
    c. thalamus
    d. hypothalamus
    Answer d % correct 51 a = 0 b = 10 c = 39 d = 51 *r* = .28

74. The site of many mental processes that are unique to humans (self-awareness, initiative, planning ability, and goal-directed behavior) is the _____.
    a. occipital lobes
    b. temporal lobes
    c. parietal lobes
    d. frontal lobes
    Answer d % correct 68 a = 7 b = 12 c = 13 d = 68 *r* = .57

75. "Split Brain" patients are patients who have had _____.
    a. a prefrontal lobotomy
    b. their cerebellum split in the middle
    c. their corpus callosum cut
    d. a fracture skull in which bone fragments penetrated into the brain
    Answer c % correct 78 a = 7 b = 16 c = 78 d = 0 *r* = .36

76. Despite its dangers, a young man continues to take cocaine because of the feeling of euphoria it produces for him. This powerful arousal of his nervous system is probably due to cocaine's ability to:
    a. inhibit enzymes that break down neurotransmitters.
    b. increase the release of neurotransmitters.
    c. block the receptor sites for neurotransmitters.
    d. prevent neurotransmitters from being reabsorbed into the synaptic vesicles.
    Answer d % correct 40 a = 2 b = 22 c = 35 d = 40 *r* = .43

77. The forebrain is one of _____ operationally distinct sections of the brain.
    a. two
    b. three
    c. four
    d. five
    Answer b % correct 57 a = 4 b = 57 c = 35 d = 4 *r* = .39

78. Eating, drinking, sexual behavior, temperature control, and sleeping are most strongly influenced by the:
    a. medulla.
    b. cerebral cortex.
    c. thalamus.
    d. hypothalamus.
    Answer d % correct 55 a = 10 b = 19 c = 15 d = 55 *r* = .40

79. The part of the brain which controls hearing, does some additional processing of visual information, and is probably the site of permanent memory storage is:
    a. the occipital lobe.
    b. the temporal lobe.
    c. the parietal lobe.
    d. the frontal lobe.
    Answer b % correct 74 a = 8 b = 74 c = 14 d = 3 *r* = .45

80. The structure that connects the two hemispheres of the cerebral cortex is the _____.
    a. corpus callosum
    b. pineal gland
    c. pons
    d. reticular formation
    Answer a % correct 84 a = 84 b = 0 c = 8 d = 8 *r* = .40

81. A "split brain" patient is asked to stare at a spot on a screen. When a picture of an object is shown to the left of the spot, the patient can _____.
    a. identify the object verbally and pick it out of a group of hidden objects using her right hand
    b. identify the object verbally and pick it out of a group of hidden objects using her left hand
    c. pick the object out of a group of hidden objects using her left hand, but cannot identify it verbally
    d. pick the object out of a group of hidden objects using her right hand, but cannot identify it verbally
    Answer c % correct 46 a = 17 b = 8 c = 46 d = 29 *r* = .21

82. The limbic system is most closely connected to the _____.
    a. hypothalamus
    b. endocrine system
    c. frontal lobes
    d. thalamus
    Answer a % correct 24 a = 24 b = 38 c = 29 d = 9 *r* = .42

83. The medulla, pons, and thalamus are all part of the:
    a. limbic system.
    b. corpus callosum.
    c. cerebral cortex.
    d. brainstem.
    Answer d % correct 72 a = 9 b = 3 c = 15 d = 72 *r* = .38

84. The brain's "relay station" is the _____.
    a. hypothalamus
    b. medulla
    c. pons
    d. thalamus
    Answer d % correct 72 a = 10 b = 13 c = 4 d = 72 *r* = .51

85. Which of the following is NOT a function of the hypothalamus?
    a. regulating eating
    b. regulating sleeping
    c. relaying sensory inputs to the higher centers in the brain
    d. regulating the "restorative" functioning of the autonomic nervous system after an emergency has passed
    Answer c % correct 39 a = 6 b = 19 c = 39 d = 36 *r* = .27

86. Which of the following is NOT a function of the hypothalamus?
    a. maintaining homeostasis
    b. regulating the output of the pituitary
    c. controlling the emergency response of the autonomic nervous system
    d. coordinating smooth muscle movement
    Answer d % correct 45 a = 27 b = 7 c = 21 d = 45 *r* = .24

87. A neuroanatomist destroyed a dog's reticular formation to determine its function. Of the following, which is the most likely result? The dog:
    a. could no longer hear.
    b. could no longer see.
    c. lapsed into a complete and irreversible coma.
    d. became hyper alert and no longer slept normally.
    Answer c % correct 36 a = 4 b = 21 c = 36 d = 39 *r* = .20

88. If the limbic system were destroyed, which of the following structures would be damaged?
    a. cerebellum and corpus callosum
    b. cerebellum and amygdala
    c. amygdala and hippocampus
    d. hippocampus and corpus callosum
    Answer c % correct 69 a = 18 b = 8 c = 69 d = 3 *r* = .39

89. The part of our brain that MOST makes us human is the:
    a. cerebellum.
    b. cerebral cortex.
    c. medulla.
    d. pons.
    Answer b % correct 65 a = 20 b = 65 c = 11 d = 4 *r* = .46

90. Which of the following is NOT a lobe of the brain?
    a. corpus callosum
    b. frontal
    c. occipital
    d. parietal
    Answer a % correct 99 a = 99 b = 0 c = 0 d = 1 *r* = .15

91. The somatosensory cortex is located in the _____ lobe of the brain.
    a. frontal
    b. occipital
    c. parietal
    d. temporal
    Answer c % correct 47 a = 32 b = 10 c = 47 d = 11 *r* = .37

92. The motor cortex is located in the _____ lobe of the brain.
    a. frontal
    b. occipital
    c. parietal
    d. temporal
    Answer a % correct 74 a = 74 b = 6 c = 21 d = 9 *r* = .38

93. A victim of a car wreck with head injuries, whose involuntary bodily processes (breathing, heartbeat, etc.) have been disturbed, probably has had damage done to the _____.
    a. hindbrain
    b. pons
    c. medulla
    d. forebrain
    Answer c % correct 78 a = 10 b = 6 c = 78 d = 6 *r* = .36

94. Damage to the medulla can seriously impair one's ability to:
    a. sing.
    b. write.
    c. breathe.
    d. metabolize food.
    Answer c % correct 78 a = 3 b = 11 c = 78 d = 7 *r* = .35

95. Which part of the brain can be thought of as a major switching station that directs incoming information to the correct brain structure?
    a. midbrain
    b. thalamus
    c. cerebellum
    d. reticular activating system
    Answer b % correct 50 a = 15 b = 50 c = 13 d = 21 *r* = .32

96. The motor impulses/commands associated with the muscular coordination and movements necessary for one to write originate in which lobe of the cerebral cortex?
    a. temporal
    b. parietal
    c. occipital
    d. frontal
    Answer d % correct 55 a = 10 b = 33 c = 2 d = 55 *r* = .30

97. A brain tumor's growth has caused Dick's vision to suffer. Which lobe of the brain is being affected by the tumor's growth?
    a. frontal
    b. occipital
    c. parietal
    d. temporal
    Answer b % correct 91 a = 2 b = 91 c = 4 d = 3 *r* = .23

98. The bundle of nerves that connects the two hemispheres of the brain is called the:
    a. basal ganglia.
    b. longitudinal fissure.
    c. corpus callosum
    d. somatosensory cortex
    Answer c % correct 84 a = 7 b = 10 c = 84 d = 0 *r* = .40

99. After removal of a tumor from the LEFT side of her brain, Sharon recovered well. However, some of her former abilities are now limited. Which of the following abilities are most likely affected?
    a. coordinated walking movements
    b. solving algebra equations
    c. assembling puzzles
    d. recognizing objects that she sees
    Answer b % correct 68 a = 14 b = 68 c = 10 d = 8 *r* = .28

100. The two major divisions of the central nervous system are:
    a. left and right hemispheres.
    b. the brain and autonomic systems.
    c. brain and spinal cord.
    d. peripheral and autonomic systems.
    Answer c % correct 70 a = 2 b = 2 c = 70 d = 26 *r* = .20

101. The brain is part of the:
    a. nervous system.
    b. endocrine system.
    c. thalamic system.
    d. cranial system.
    Answer a % correct 92 a = 92 b = 3 c = 2 d = 3 *r* = .44

102. The brain:
    a. is an integrated system within itself.
    b. controls the endocrine system.
    c. is part of the nervous system.
    d. All of the above.
    Answer d % correct 95 a = 1 b = 1 c = 4 d = 95 *r* = .20

103. The human brain
    a. weighs about 6 to 7 ounces.
    b. is composed of several thousand neurons.
    c. is half nerve tissue and half motor tissue.
    d. none of the above.
    Answer d % correct 62 a = 13 b = 16 c = 9 d = 62 *r* = .20

104. Which of the following statements about the brain is FALSE?
    a. It weighs about 3 pounds.
    b. It contains billions of neurons.
    c. It is composed of nerve tissues.
    d. It can be subdivided on the basis of structure, but not function.
    Answer d % correct 88 a = 5 b = 1 c = 6 d = 88 *r* = .21

105. The part of the brain which controls breathing, heartbeat, and posture is the
    a. pituitary gland.
    b. neocortex.
    c. hypothalamus.
    d. medulla.
    Answer d % correct 82 a = 0 b = 0 c = 18 d = 82 *r* = .41

106. If you are shot in the head and there is damage to the medulla this can seriously impair your ability to
    a. sing.
    b. write.
    c. breathe.
    d. urinate.
    Answer c % correct 87 a = 2 b = 8 c = 87 d = 3 *r* = .31

107. The medulla, pons, and cerebellum are all part of the:
    a. midbrain.
    b. hindbrain.
    c. spinal cord.
    d. forebrain.
    Answer b % correct 89 a = 4 b = 89 c = 5 d = 2 *r* = .47

108. The hypothalamus does NOT control:
    a. bowel movements.
    b. sweating.
    c. reactions to pain.
    d. fine motor coordination.
    Answer d % correct 59 a = 21 b = 7 c = 14 d = 59 *r* = .22

109. The corpus callosum:
    a. is an integral area of the hindbrain.
    b. is responsible for taste and smell sensations.
    c. connects the left and right cerebral hemispheres.
    d. supports the reticular activating system.
    Answer c % correct 90 a = 3 b = 3 c = 90 d = 4 *r* = .39

110. The left and right cerebral hemispheres are connected by the:
    a. occipital lobe.
    b. pons.
    c. sylvian fissure.
    d. corpus callosum.
    Answer d % correct 95 a = 1 b = 2 c = 3 d = 95 *r* = .38

111. The left cerebral hemisphere primarily controls:
    a. the right side of the body.
    b. the left side of the body.
    c. all motor functions.
    d. spatial reasoning.
    Answer a % correct 91 a = 91 b = 2 c = 4 d = 3 *r* = .35

112. The right cerebral hemisphere primarily controls:
    a. the right side of the body.
    b. the left side of the body.
    c. speech and language.
    d. a and c.
    Answer b % correct 93 a = 2 b = 93 c = 3 d = 2 *r* = .28

113. Individuals who have had their corpus callosum cut are said to have a:
    a. split brain
    b. disintegrating personality
    c. cranial refraction
    d. migraine headache
    Answer a % correct 96 a = 96 b = 2 c = 2 d = 0 *r* = .35

114. An individual with a "split brain":
    a. will most likely die.
    b. will probably become schizophrenic.
    c. will probably develop a split personality.
    d. none of the above
    Answer d % correct 84 a = 3 b = 3 c = 10 d = 84 *r* = .21

115. The brain is connected to the rest of the body via the:
    a. corpus callosum.
    b. spinal cord.
    c. limbic system.
    d. cranial nerve.
    Answer b % correct 96 a = 0 b = 96 c = 2 d = 2 *r* = .21

116. The spinal cord:
    a. connects the brain to the rest of the body.
    b. is composed of nerve tissue.
    c. can work independently of the brain.
    d. all of the above
    Answer d % correct 80 a = 15 b = 4 c = 1 d = 80 *r* = .28

117. Which of the following is NOT one of the three distinct parts of the brain?
    a. hindbrain
    b. lateralbrain
    c. midbrain
    d. forebrain
    Answer b % correct 99 a = 1 b = 99 c = 0 d = 0 *r* = .06

118. The part of the hindbrain that controls such things as breathing, heart rate, and blood pressure is the _____.
    a. cerebral cortex
    b. pons
    c. medulla
    d. cerebellum
    Answer c % correct 60 a = 3 b = 17 c = 60 d = 20 *r* = .22

119. A young woman recovering from a blow to her head finds she has great difficulty maintaining her balance and coordinating her movements. Injury to which part of her brain is likely to be causing her difficulties?
    a. cerebellum
    b. medulla
    c. cerebral cortex
    d. thalamus
    Answer a % correct 72 a = 72 b = 8 c = 18 d = 2 *r* = .37

120. The cerebellum _____.
    a. controls blood pressure
    b. is involved in emotional behavior
    c. coordinates actions so that movements are efficient
    d. relays messages from the sensory receptors
    Answer c % correct 84 a = 3 b = 5 c = 84 d = 8 *r* = .40

121. The structure in the center of the forebrain that relays sensory information is called the _____.
    a. medulla
    b. hypothalamus
    c. pons
    d. thalamus
    Answer d % correct 63 a = 10 b = 12 c = 15 d = 63 *r* = .41

122. Eating, drinking, sexual behavior, temperature control, and sleeping are strongly influenced by the _____.
    a. medulla
    b. cerebral cortex
    c. thalamus
    d. hypothalamus
    Answer d % correct 71 a = 3 b = 5 c = 21 d = 71 *r* = .29

123. The part of the brain responsible for emotional behavior and regulating the nervous system in times of stress is the _____.
    a. medulla
    b. cerebellum
    c. thalamus
    d. hypothalamus
    Answer d % correct 60 a = 8 b = 4 c = 28 d = 60 *r* = .35

124. Garcia is having great difficulty controlling his appetite. All he wants to do is eat and no matter how much he eats, he is still hungry. His weight is approaching 400 pounds and he still constantly wants to eat. His physician says the problem is due to a disorder in a specific center of the brain. That brain center is most likely the _____.
    a. medulla
    b. cerebral cortex
    c. thalamus
    d. hypothalamus
    Answer d % correct 60 a = 15 b = 8 c = 17 d = 60 *r* = .44

125. Darlene has just discovered that she made the dean's list, and she's in ecstasy--singing and dancing down the corridor. Which area of the brain is directing her behavior?
    a. hypothalamus
    b. thalamus
    c. cerebellum
    d. midbrain
    Answer a % correct 21 a = 21 b = 16 c = 36 d = 28 *r* = .20

126. The part of the brain which controls hearing, does some additional processing of visual information, and is probably the site of permanent memory storage is _____.
    a. the occipital lobe
    b. the temporal lobe
    c. the parietal lobe
    d. the frontal lobe
    Answer b % correct 64 a = 15 b = 64 c = 11 d = 10 *r* = .37

127. The part of the brain that receives sensations of touch, balance, and bodily position is the _____.
    a. occipital lobe
    b. temporal lobe
    c. parietal lobe
    d. frontal lobe
    Answer c % correct 62 a = 9 b = 14 c = 62 d = 15 *r* = .51

128. Corey was in an automobile accident that resulted in an injury to her brain. She now has difficulty maintaining her balance and normal body positions. Her sense of touch has also been injured. The part of her brain most likely injured was her _____.
    a. occipital lobe
    b. temporal lobe
    c. parietal lobe
    d. frontal lobe
    Answer c % correct 66 a = 4 b = 13 c = 66 d = 16 *r* = .34

129. Corey was in an automobile accident that resulted in an injury to her brain. She now has difficulty with her hearing and her memory. The part of her brain most likely injured was her _____.
    a. occipital lobe
    b. temporal lobe
    c. parietal lobe
    d. frontal lobe
    Answer b % correct 68 a = 10 b = 68 c = 11 d = 10 *r* = .34

130. The structure that connects the two hemispheres of the cerebral cortex is the _____.
    a. corpus callosum
    b. pineal gland
    c. pons
    d. reticular formation
    Answer a % correct 99 a = 99 b = 0 c = 1 d = 0 *r* = .02

131. Which hemisphere of the cerebral cortex is dominant in language tasks?
    a. front
    b. rear
    c. left
    d. right
    Answer c % correct 66 a = 18 b = 3 c = 66 d = 13 *r* = .38

132. Which hemisphere of the cerebral cortex is dominant in spatial tasks and concept formation?
    a. front
    b. rear
    c. left
    d. right
    Answer d % correct 62 a = 17 b = 6 c = 16 d = 62 *r* = .29

133. A "split brain" patient is a patient who has had _____.
    a. a prefrontal lobotomy
    b. their cerebellum split in the middle
    c. their corpus callosum cut
    d. a fractured skull in which bone fragments penetrated into the brain
    Answer c % correct 90 a = 2 b = 8 c = 90 d = 0 *r* = .38

134. The hemisphere of the brain that acts as an interpreter, helping us with sequencing and logic is the _____.
    a. front
    b. rear
    c. left
    d. right
    Answer d % correct 51 a = 12 b = 4 c = 51 d = 33 *r* = .24

135. A victim of a car wreck with head injuries, whose involuntary bodily processes (breathing, heartbeat, etc.) have been disturbed, probably has had damage done to the _____.
    a. hindbrain
    b. pons
    c. medulla
    d. forebrain
    Answer c % correct 81 a = 9 b = 1 c = 81 d = 9 *r* = .34

136. A brain tumor's growth has caused Dick's vision to suffer. Which lobe of the brain is being affected by the tumor's growth?
    a. frontal
    b. occipital
    c. parietal
    d. temporal
    Answer b % correct 92 a = 5 b = 92 c = 3 d = 1 *r* = .21

137. The bundle of nerves that connects the two hemispheres of the brain is called the _____.
    a. basal ganglia
    b. longitudinal fissure
    c. corpus callosum
    d. somatosensory cortex
    Answer c % correct 88 a = 6 b = 3 c = 88 d = 3 *r* = .38

138. Which part of the brain can be thought of as a major switching station that directs incoming information to the correct brain structure?
    a. midbrain
    b. thalamus
    c. cerebellum
    d. reticular activating system
    Answer b % correct 54 a = 6 b = 54 c = 17 d = 23 *r* = .28

139. The brain is connected to the other parts of the nervous system by the _____.
    a. spinal cord
    b. corpus callosum
    c. brainstem
    d. peripheral nervous system
    Answer a % correct 58 a = 58 b = 2 c = 37 d = 3 *r* = .33

140. The _____ looks like two wrinkled hemispheres.
    a. cerebellum
    b. cerebrum
    c. forebrain
    d. all of the above
    Answer b % correct 35 a = 29 b = 35 c = 5 d = 31 *r* = .27

141. When the sympathetic nervous system assumes control of the involuntary bodily processes during a stressful situation, which of the following changes is likely to occur?
    a. digestion stops
    b. less blood is pumped to muscles
    c. air passages become smaller
    d. sweat glands are less active
    Answer a % correct 68 a = 68 b = 12 c = 16 d = 3 *r* = .45

142. Calm is to aroused as _____ is to _____.
    a. parasympathetic; sympathetic
    b. autonomic; motor
    c. sympathetic; parasympathetic
    d. central; peripheral
    Answer a % correct 66 a = 66 b = 7 c = 23 d = 4 *r* = .54

143. It's midnight, and you are alone in your room studying. You hear a loud crash outside your room, and your whole body reacts instantly and furiously. The system that produces these reactions is the _____ system.
    a. central nervous
    b. sympathetic nervous
    c. parasympathetic nervous
    d. limbic
    Answer b % correct 80 a = 6 b = 80 c = 12 d = 3 *r* = .52

144. The autonomic and somatic nervous systems are divisions of the _____ system.
    a. central
    b. parasympathetic
    c. peripheral
    d. sympathetic
    Answer c % correct 63 a = 22 b = 5 c = 63 d = 10 *r* = .28

145. The autonomic nervous system is responsible for:
    a. controlling the skeletal muscles.
    b. sending sensory input to the brain.
    c. making choices and decisions.
    d. the activity of internal organs and glands.
    Answer d % correct 70 a = 9 b = 11 c = 9 d = 70 *r* = .35

146. The part of the nervous system that allows the brain to regulate digestion, heart rate, and respiration without our conscious attention is the:
    a. autonomic nervous system.
    b. central nervous system.
    c. somatic nervous system.
    d. spinal cord.
    Answer a % correct 77 a = 77 b = 20 c = 3 d = 0 *r* = .27

147. The nervous system called the "fight or flight" system is the _____ system.
    a. central
    b. parasympathetic
    c. somatic
    d. sympathetic
    Answer d % correct 74 a = 5 b = 10 c = 10 d = 74 *r* = .45

148. Calm is to aroused as _____ is to _____.
    a. parasympathetic; sympathetic
    b. autonomic; motor
    c. sympathetic; parasympathetic
    d. central; peripheral
    Answer a % correct 77 a = 77 b = 3 c = 21 d = 0 *r* = .31

149. One evening Betty was walking to the dorm from the gym when she was stopped by two men who demanded her money. Since she was a good athlete, Betty decided to make a run for it. Pretending to open her purse, she suddenly turned and dashed off. Although pursued, Betty outran her assailants. During this incident, which part of Betty's nervous system was most directly responsible for her successful escape?
    a. midbrain
    b. parasympathetic nervous system
    c. forebrain
    d. sympathetic nervous system
    Answer d % correct 78 a = 2 b = 14 c = 6 d = 78 *r* = .45

150. The autonomic nervous system is divided into two parts. These are termed the _____ nervous systems.
    a. ascending and descending
    b. frontal and temporal
    c. left and right
    d. parasympathetic and sympathetic
    Answer d % correct 96 a = 2 b = 2 c = 0 d = 96 *r* = .43

151. The parasympathetic and sympathetic divisions make up the:
    a. motor cortex.
    b. endocrine system.
    c. autonomic nervous system.
    d. neocortex.
    Answer c % correct 97 a = 2 b = 0 c = 97 d = 1 *r* = .31

152. The branch of the autonomic nervous system that prepares the body for quick action in an emergency is the _____ division.
    a. central
    b. secondary
    c. parasympathetic
    d. sympathetic
    Answer d % correct 76 a = 1 b = 3 c = 19 d = 76 *r* = .38

153. The process of digesting your last snack or meal or the unconscious regulation of your breathing are all primarily rooted in the _____ nervous system.
    a. autonomic
    b. limbic
    c. somatic
    d. secondary
    Answer a % correct 66 a = 66 b = 12 c = 18 d = 4 *r* = .44

154. The autonomic nervous system has two divisions: _____.
    a. central and peripheral
    b. receptors and effectors
    c. sympathetic and parasympathetic
    d. limbic and endocrine
    Answer c % correct 79 a = 9 b = 5 c = 79 d = 7 *r* = .36

155. The branch of the autonomic nervous system that prepares the body for quick action in an emergency is the _____ division.
    a. central
    b. secondary
    c. sympathetic
    d. parasympathetic
    Answer c % correct 73 a = 1 b = 7 c = 73 d = 19 *r* = .34

156. The glands that secrete hormones directly into the bloodstream are called _____.
    a. lymph glands
    b. exocrine glands
    c. hippocampal glands
    d. endocrine glands
    Answer d % correct 77 a = 6 b = 10 c = 7 d = 77 *r* = .31

157. Endocrine glands are glands that secrete _____.
    a. excitory neurotransmitters
    b. inhibitory neurotransmitters
    c. hormones
    d. enzymes
    Answer c % correct 73 a = 12 b = 5 c = 73 d = 10 *r* = .25

158. Chemical substances released by the endocrine glands to help regulate bodily functions are _____.
a. enzymes
b. neurotransmitters
c. antigens
d. hormones
Answer d % correct 63 a = 14 b = 18 c = 4 d = 63 *r* = .51

159. The glands that secrete hormones directly into the bloodstream are called _____.
a. lymph glands
b. exocrine glands
c. hippocampal glands
d. endocrine glands
Answer d % correct 93 a = 3 b = 4 c = 0 d = 93 *r* = .28

160. Jeff is 13 years old and he has recently noticed some remarkable changes in himself. Over the past few months his voice has started to change, growing deeper. He has begun to grow pubic hair, as well as the beginnings of a facial beard. He is also filling out, with his muscles developing rapidly. These changes in Jeff are probably due to the action of _____.
a. gonads
b. thyroid gland
c. pineal gland
d. adrenal gland
Answer a % correct 60 a = 60 b = 24 c = 10 d = 6 *r* = .32

161. The pea-sized gland that is stimulated by light and helps regulate activity levels over the course of a day is the:
a. adrenal
b. pituitary
c. pineal
d. thyroid
Answer c % correct 61 a = 13 b = 22 c = 61 d = 5 *r* = .43

162. The pituitary gland is controlled by the:
a. brainstem.
b. hypothalamus.
c. reticular formation.
d. spinal cord.
Answer b % correct 73 a = 10 b = 73 c = 11 d = 5 *r* = .37

163. The thyroid and pituitary glands are parts of the _____ system.
a. gonad
b. endocrine
c. steroid
d. lymphatic
Answer b % correct 84 a = 1 b = 84 c = 0 d = 15 *r* = .35

164. Hank has been overweight since childhood. He diets frequently and can lose weight but always seems to gain it back, because he is unable to control his eating. Hank may have a problem with his:
a. catecholamine level.
b. thyroid gland.
c. pituitary gland.
d. limbic system.
Answer b % correct 87 a = 4 b = 87 c = 4 d = 3 *r* = .22

165. The endocrine system is made up of:
    a. special centers which control our language functions.
    b. neurons which transmit electrically charged messages.
    c. glands which release hormones into the bloodstream.
    d. none of the above
    Answer c % correct 95 a = 0 b = 3 c = 95 d = 2 *r* = .21

166. The _____ system is made up of glands which release hormones into the bloodstream.
    a. motor
    b. endocrine
    c. limbic
    d. autonomic
    Answer b % correct 81 a = 2 b = 81 c = 11 d = 6 *r* = .38

167. The thyroid and pituitary glands are part of our _____ system.
    a. motor
    b. glandular
    c. limbic
    d. endocrine
    Answer d % correct 81 a = 0 b = 8 c = 11 d = 81 *r* = .35

168. Which of the following is NOT a part of the endocrine system?
    a. thyroid
    b. pons
    c. pituitary
    d. pancreas
    Answer b % correct 88 a = 0 b = 88 c = 0 d = 12 *r* = .33

169. The limbic system is responsible for _____.
    a. filtering incoming messages to the brain
    b. connecting the brain to most of the rest of the body
    c. fighting disease organisms that attempt to infect the brain
    d. controlling learning and emotional behavior
    Answer d % correct 60 a = 25 b = 11 c = 4 d = 60 *r* = .27

170. The _____ gland produces the hormone which regulates the body's rate of metabolism.
    a. pituitary
    b. adrenal
    c. thyroid
    d. parathyroid
    Answer c % correct 55 a = 34 b = 10 c = 55 d = 1 *r* = .22