

Test Bank for Psychology A Concise Introduction 6th Griggs

Chapter 02: Multiple Choice

1. The human brain is estimated to consist of approximately _____ nerve cells (neurons).

- a. 100 million
- b. 500 million
- c. 100 billion
- d. 500 billion

ANSWER: c

2. The _____ is the totality of the connections between neurons in your nervous system.

- a. genome
- b. connectome
- c. neuronome
- d. glianome

ANSWER: b

3. The cells comprising the support system in the nervous system are the _____, and the cells responsible for receiving, sending, and integrating information in the nervous system are the _____.

- a. neurons; glial cells
- b. glial cells; neurons
- c. glial cells; glial cells
- d. neurons; neurons

ANSWER: b

4. According to recent research on glial cells, which statement is FALSE?

- a. Glial cells communicate with other glial cells.
- b. Glial cells release neurotransmitters.
- c. Glial cells strengthen and weaken neuronal connections.
- d. Glial cells insulate neurons and remove the waste products of neurons.

ANSWER: b

5. Which part of the neuron looks like the branches of a tree?

- a. the axon
- b. the cell body
- c. the dendrites
- d. the myelin sheath

ANSWER: c

6. The neuronal structure responsible for receiving information from other neurons is the:

- a. axon.
- b. axon terminal.
- c. dendrite.
- d. cell body.

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ANSWER: c

7. Which part of the neuron contains the nucleus?

- a. axon
- b. dendrites
- c. cell body
- d. myelin sheath

ANSWER: c

8. The process of neural transmission within a neuron begins at the _____ and ends at the _____.

- a. cell body; axon
- b. axon terminals; cell body
- c. cell body; dendrites
- d. dendrites; axon terminals

ANSWER: d

9. Starting with incoming information, which ordering describes the sequence of neuronal transmission?

- a. dendrites → cell body → axon → axon terminal
- b. dendrites → axon terminal → axon → cell body
- c. axon → axon terminal → cell body → dendrite
- d. axon terminal → axon → cell body → dendrite

ANSWER: a

10. The long, singular fiber leaving the cell body is the:

- a. dendrite.
- b. axon.
- c. glial cell.
- d. axon terminal.

ANSWER: b

11. Which part of the neuron decides whether or not information should be passed on to other neurons?

- a. the axon
- b. the cell body
- c. the dendrites
- d. the axon terminals

ANSWER: b

12. According to the neurocognitive theory of dreams, who is most likely to have simple, less emotional and bizarre dreams?

- a. Phil, a 50-year-old man
- b. Luis, a 20-year-old man

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- c. Frederica, a 40-year-old woman
- d. Mila, a 7-year-old girl

ANSWER: d

13. The main function of the _____ is to receive information from other neurons.
- a. dendrites
 - b. cell body
 - c. axon
 - d. axon terminals

ANSWER: a

14. Within neurons, communication is _____. Between neurons, communication is _____.
- a. chemical; chemical
 - b. chemical; electrical
 - c. electrical; chemical
 - d. electrical; electrical

ANSWER: c

15. In which instances will the cell body generate an impulse?
- a. Excitatory input and inhibitory input are equal.
 - b. Inhibitory input outweighs excitatory input by a certain amount.
 - c. Excitatory input outweighs inhibitory input by a certain amount.
 - d. The cell body will generate an impulse if excitatory input and inhibitory input are equal or if excitatory input outweighs inhibitory input by a certain amount.

ANSWER: c

16. We are able to interpret varying intensities of stimuli (e.g., a pat versus a slap) because:
- a. a single neuron can send an intense message or a less intense message.
 - b. specialized neurons are activated by intense stimuli to generate an impulse.
 - c. more neurons generate impulses frequently when we receive intense stimuli.
 - d. each neuron sends a different type of signal, forming a particular activation pattern.

ANSWER: c

17. When Cheyanne sees a bright light compared with a dim light:
- a. more neurons generate impulses with no change in rate.
 - b. more neurons generate impulses with an increase in rate.
 - c. the same number of neurons generates impulses with an increase in rate.
 - d. the impulse travels down the axon faster.

ANSWER: b

18. Which statement about the speed of neural impulses is TRUE?

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- a. Impulses in all neurons travel at the same speed.
- b. Impulses can travel as fast as 200 miles per hour.
- c. Impulses travel slower if an axon is encased in myelin.
- d. Impulses travel faster if the intensity of the stimulus is strong.

ANSWER: b

19. Compared with the impulses generated by a whisper, a loud scream will cause:
- a. impulses to travel faster down axons.
 - b. fewer neurons to generate impulses.
 - c. more neurons to generate impulses more often.
 - d. a single neuron to send a bigger impulse.

ANSWER: c

20. The _____ is an insulating layer of a white fatty substance.
- a. glial cell
 - b. dendrite
 - c. axon
 - d. myelin sheath

ANSWER: d

21. Why do neural impulses travel faster in myelinated axons than in unmyelinated axons?
- a. Myelin is a better conductor of electricity than other material in the axon.
 - b. The impulse leaps from gap to gap in the myelin sheath, rather than traveling continuously down the axon.
 - c. Myelin prevents other substances from interfering with the impulse.
 - d. Unmyelinated axons are less developed than myelinated axons.

ANSWER: b

22. What is true of neurons generating an impulse?
- a. Neurons that can generate an impulse are specialized.
 - b. The strength of the impulse determines whether or not neurotransmitters will be manufactured.
 - c. Generating an impulse is an all-or-nothing event.
 - d. Neurons can decide how fast an impulse should travel down the axon.

ANSWER: c

23. Recently diagnosed with multiple sclerosis, Mrs. Samuels suffers from deterioration of _____, leading to a difficulty in _____.
- a. glial cells; memory formation
 - b. glial cells; moving
 - c. the myelin sheath; memory formation
 - d. the myelin sheath; moving

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ANSWER: d

24. The destruction of the myelin sheath results in movement difficulties for sufferers of multiple sclerosis because:

- a. unmyelinated axons transmit neural messages erratically, greatly slowing movement.
- b. cell bodies cannot respond to dendritic messages when axons are unmyelinated.
- c. the transmission of the neural impulses is greatly slowed when myelin deteriorates.
- d. the all-or-nothing event is stopped when axons are unmyelinated.

ANSWER: c

25. White matter in the brain is composed of:

- a. myelinated axons.
- b. unmyelinated axons.
- c. myelinated dendrites.
- d. unmyelinated dendrites.

ANSWER: a

26. The outside layer of our cerebral hemispheres appears gray because it is composed of billions of:

- a. neurotransmitters.
- b. cell bodies.
- c. dendrites and glial cells.
- d. myelinated axons.

ANSWER: b

27. While white matter is composed of myelinated axons, gray matter is composed of:

- a. unmyelinated axons, cell bodies, and dendrites.
- b. myelinated axons and dendrites.
- c. dendrites only.
- d. cell bodies and myelinated axons.

ANSWER: a

28. What happens when the impulse reaches the axon terminals?

- a. The impulse reverses direction and travels back to the cell body.
- b. The vesicles in the axon terminals fuse together.
- c. The vesicles in the axon terminals open and neurotransmitters enter the synaptic gap.
- d. The vesicles absorb neurotransmitters.

ANSWER: c

29. After carrying their message across the synapse to the receptor sites, neurotransmitters:

- a. may be consumed by the brain for energy.
- b. may be destroyed in the synaptic gap by enzymes.

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- c. may travel through the receptor sites into the next neuron.
- d. None of the answers is correct.

ANSWER: b

30. What happens to neurotransmitters after they deliver their message to the receiving neuron?
- a. They may be destroyed by enzymes.
 - b. They may be taken back into the axon terminals of the sending neuron for reuse.
 - c. They may be destroyed by enzymes or taken back into the axon terminals of the sending neuron for reuse.
 - d. They are neither destroyed by enzymes nor taken back into the axon terminals of the sending neuron.

ANSWER: c

31. Recycling is to aluminum cans as _____ is/are to _____.
- a. reuptake; neurotransmitters
 - b. neurotransmitters; reuptake
 - c. myelination; axons
 - d. axons; myelination

ANSWER: a

32. A neurotransmitter is:
- a. the microscopic gap between neurons.
 - b. a naturally occurring chemical in our nervous system that specializes in transmitting information.
 - c. a chemical substance manufactured outside the body that can pass through the blood–brain barrier.
 - d. a structure that pushes sodium out of the neuron.

ANSWER: b

33. The synaptic gap is so small that _____ synaptic gaps would fill one strand of human hair.
- a. 100
 - b. 500
 - c. 2,000
 - d. 10,000

ANSWER: c

34. The synapse is:
- a. the microscopic gap between neurons.
 - b. a naturally occurring chemical in our nervous system that specializes in transmitting information.
 - c. a fiber that emanates out of the cell body like the branches of a tree.
 - d. the long singular fiber leaving the cell body.

ANSWER: a

35. In relation to neural transmission, what is happening during binding?

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- a. Neurotransmitters attach themselves to cell bodies.
- b. Neurotransmitters travel from the axon to the axon terminals.
- c. Neurotransmitters attach to the axon terminals.
- d. Neurotransmitters attach to dendrite receptor sites.

ANSWER: d

36. Neurotransmitters are to _____ as hormones are to _____.
- a. neurons; endocrine glands
 - b. endocrine glands; neurons
 - c. CNS; PNS
 - d. PNS; CNS

ANSWER: a

37. Our mind and our behavior are controlled by our:
- a. myelin sheaths.
 - b. dendrites.
 - c. synapses.
 - d. glial cells.

ANSWER: c

38. Neurons that do more work require:
- a. more resting periods.
 - b. more oxygen and nutrients.
 - c. less resting periods.
 - d. less oxygen and nutrients.

ANSWER: b

39. Radioactive glucose is essential for:
- a. neurotransmitter reuptake.
 - b. neural communication.
 - c. positron emission tomography (PET).
 - d. functional magnetic resonance imaging (fMRI).

ANSWER: c

40. The brain consumes approximately _____ % of the body's blood supply.
- a. 5
 - b. 10
 - c. 20
 - d. 50

ANSWER: c

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41. Approximately _____ % of consumed calories are used by the brain.

- a. 10–15
- b. 20–30
- c. 25–40
- d. 40–50

ANSWER: b

42. In studying the brain, the _____ technique involves detection of radioactive substances, and the _____ technique involves the detection of the amount of oxygen being used by brain areas.

- a. fMRI; X-ray
- b. X-ray; PET scan
- c. fMRI; PET scan
- d. PET scan; fMRI

ANSWER: d

43. Prior to undergoing a brain scan, Brian takes a harmless dose of radioactive glucose. It is likely that Brian's doctor is using which technique?

- a. PET scan
- b. fMRI
- c. X-ray
- d. CT scan

ANSWER: a

44. The fMRI is preferred over the PET scan because:

- a. it is much less costly.
- b. health insurance is more likely to cover fMRIs than PET scans.
- c. fMRIs are less invasive and produce sharper images.
- d. The fMRI is preferable for all of these reasons.

ANSWER: c

45. An agonist _____ the activity of one or more neurotransmitters, and an antagonist _____ the activity of one or more neurotransmitters.

- a. increases; increases
- b. increases; decreases
- c. decreases; increases
- d. decreases; decreases

ANSWER: b

46. The neurotransmitter implicated in the memory losses associated with Alzheimer's disease is:

- a. acetylcholine.
- b. dopamine.

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- c. GABA.
- d. serotonin.

ANSWER: a

47. Acetylcholine (ACh) is a neurotransmitter that is involved in:
- a. control of arousal and mood states.
 - b. pain relief.
 - c. inhibitory control.
 - d. muscle movement.

ANSWER: d

48. How is curare, a poison from South America, able to paralyze victims?
- a. It occupies receptor sites for ACh, preventing ACh molecules from binding to the sites.
 - b. It increases the production of neurotransmitters.
 - c. It decreases the production of ACh.
 - d. It encourages the continuous release of neurotransmitters from the axon terminal.

ANSWER: a

49. Botulinum poison, an _____ for acetylcholine (ACh), works by _____ ACh.
- a. antagonist; blocking receptor sites for
 - b. antagonist; blocking release of
 - c. agonist; stimulating receptor sites for
 - d. agonist; stimulating release of

ANSWER: b

50. Which drug or poison initially acts as an agonist for acetylcholine (ACh) by causing its continuous release?
- a. black widow spider venom
 - b. botulinum
 - c. curare
 - d. L-dopa

ANSWER: a

51. Considering their effects on acetylcholine (ACh), the poison curare _____ and the poison botulinum _____.
- a. stimulates release; blocks release
 - b. occupies receptor sites; stimulates release
 - c. occupies receptor sites; blocks release
 - d. blocks release; occupies receptor sites

ANSWER: c

52. In which way may a drug or poison have an agonistic effect on a neurotransmitter?
- a. stimulating release

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- b. inhibiting release
- c. stimulating neurotransmitter breakdown
- d. blocking receptor sites

ANSWER: a

53. Black widow spider venom is _____ to ACh, and antianxiety drugs are _____ to GABA.

- a. agonistic; antagonistic
- b. antagonistic; agonistic
- c. agonistic; agonistic
- d. antagonistic; antagonistic

ANSWER: c

54. Why has Parkinson's disease been treated by injections of L-dopa rather than injections of dopamine?

- a. Dopamine cannot be made into a drug.
- b. Dopamine cannot cross the blood–brain barrier.
- c. L-dopa has fewer side effects than dopamine when taken as a drug.
- d. L-dopa is less expensive to manufacture than dopamine.

ANSWER: b

55. Treating Parkinson's disease with L-dopa may lead to an increase in:

- a. the ability of dopamine to cross the blood–brain barrier.
- b. the amount of dopamine in the brain.
- c. schizophrenia-like symptoms.
- d. both the amount of dopamine in the brain and schizophrenia-like symptoms.

ANSWER: d

56. Schizophrenia is associated with high levels of:

- a. SSRIs.
- b. ACh.
- c. GABA.
- d. dopamine.

ANSWER: d

57. In which way may a drug or poison have an antagonistic effect on a neurotransmitter?

- a. stimulating release
- b. stimulating production
- c. blocking release
- d. blocking reuptake

ANSWER: c

58. _____ is a neurotransmitter involved in arousal and mood states, thought processes, and physical movement.

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- a. Serotonin
- b. Norepinephrine
- c. Dopamine
- d. GABA

ANSWER: c

59. Dopamine activity is believed to be _____ among people diagnosed with schizophrenia and _____ among people with Parkinson's disease.

- a. lower; lower
- b. higher; higher
- c. higher; lower
- d. lower; higher

ANSWER: c

60. Botulinum poisoning (food poisoning) causes paralysis by blocking the release of _____, and curare paralyzes by occupying the receptor sites for _____.

- a. acetylcholine; acetylcholine
- b. acetylcholine; GABA
- c. GABA; acetylcholine
- d. GABA; GABA

ANSWER: a

61. Cocaine acts as a dopamine _____ by _____.

- a. agonist; stimulating dopamine release
- b. agonist; blocking reuptake of dopamine
- c. antagonist; stimulating dopamine release
- d. antagonist; blocking reuptake of dopamine

ANSWER: a

62. Pleasurable mood effects of addictive drugs are associated with the release of:

- a. acetylcholine.
- b. dopamine.
- c. norepinephrine.
- d. GABA.

ANSWER: b

63. Cocaine does NOT block the reuptake of:

- a. dopamine.
- b. serotonin.
- c. norepinephrine.
- d. GABA.

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ANSWER: d

64. _____ is a neurotransmitter involved in levels of arousal and mood that is influenced by drugs such as Zoloft.

- a. Serotonin
- b. GABA
- c. Dopamine
- d. ACh

ANSWER: a

65. _____ is a neurotransmitter involved in sleeping and eating.

- a. Serotonin
- b. GABA
- c. Dopamine
- d. ACh

ANSWER: a

66. How do drugs such as Prozac work to reduce depression?

- a. They block the reuptake of serotonin.
- b. They block the release of serotonin.
- c. They block the reuptake of GABA.
- d. They block the release of GABA.

ANSWER: a

67. _____ is the main excitatory neurotransmitter in the nervous system, whereas _____ is the main inhibitory neurotransmitter in the nervous system.

- a. Glutamate; GABA
- b. GABA; glutamate
- c. Serotonin; dopamine
- d. Dopamine; serotonin

ANSWER: a

68. Brakes are to an automobile as _____ is to the nervous system.

- a. dopamine
- b. GABA
- c. serotonin
- d. glutamate

ANSWER: b

69. The main inhibitory neurotransmitter in the nervous system is:

- a. GABA.

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- b. norepinephrine.
- c. glutamate.
- d. dopamine.

ANSWER: a

70. Anti-anxiety drugs are _____ for GABA; they _____ GABA activity.

- a. agonists; reduce
- b. agonists; increase
- c. antagonists; reduce
- d. antagonists; increase

ANSWER: b

71. _____ agonists have been used as antiepileptic treatments.

- a. Endorphin
- b. Serotonin
- c. Glutamate
- d. GABA

ANSWER: d

72. Jose has epilepsy and has been prescribed Valium, a _____ agonist, to help block epileptic convulsions.

- a. serotonin
- b. norepinephrine
- c. GABA
- d. glutamate

ANSWER: c

73. An SSRI works by blocking the reuptake of:

- a. dopamine.
- b. serotonin.
- c. norepinephrine.
- d. GABA.

ANSWER: b

74. The neurotransmitter(s) involved in pain relief is/are:

- a. GABA.
- b. ACh.
- c. endorphins.
- d. dopamine.

ANSWER: c

75. Morphine and heroin produce their pain-relieving effects by:

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- a. releasing serotonin.
- b. binding to serotonin receptors.
- c. releasing endorphins.
- d. binding to endorphin receptors.

ANSWER: d

76. While exercising, Sally experiences a "runner's high" that is associated with an increase in levels of:

- a. acetylcholine.
- b. endorphins.
- c. GABA.
- d. norepinephrine.

ANSWER: b

77. Shelby had been receiving acupuncture to help relieve her back pain. Acupuncture may partially be explained as stimulation of:

- a. endorphins.
- b. glutamate.
- c. serotonin.
- d. norepinephrine.

ANSWER: a

78. The brain is part of the _____ nervous system and the spinal cord is part of the _____ nervous system.

- a. central; central
- b. central; peripheral
- c. peripheral; central
- d. peripheral; peripheral

ANSWER: a

79. _____ carry information to the CNS, whereas _____ carry information from the CNS.

- a. Motor neurons; interneurons
- b. Interneurons; sensory neurons
- c. Sensory neurons; motor neurons
- d. Motor neurons; sensory neurons

ANSWER: c

80. Which type of neurons are found only within the central nervous system?

- a. sensory neurons
- b. motor neurons
- c. interneurons
- d. PK cells

ANSWER: c

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81. Sensory and motor neurons are located _____ nervous system(s) and interneurons are located _____ nervous system.

- a. in both the central and peripheral; only in the central
- b. in both the central and peripheral; only in the peripheral
- c. only in the central; only in the peripheral
- d. only in the peripheral; only in the central

ANSWER: d

82. Which type of neuron carries information from the CNS to the rest of the body?

- a. sensory neuron
- b. motor neuron
- c. interneuron
- d. glial

ANSWER: b

83. The sympathetic nervous system is to _____ as the parasympathetic nervous system is to _____.

- a. internal environment; external environment
- b. external environment; internal environment
- c. fight-or-flight; rest-and-digest
- d. rest-and-digest; fight-or-flight

ANSWER: c

84. Which is NOT a function of the spinal cord?

- a. It is the pathway for incoming sensory messages to the brain.
- b. It is the pathway for outgoing messages from the brain about motor movements.
- c. It controls reflexes such as the knee-jerk reflex that do not involve the brain.
- d. It regulates essential body functions such as heartbeat, breathing, and blood pressure.

ANSWER: d

85. Autonomic is to somatic as _____ is to _____.

- a. parasympathetic; sympathetic
- b. external; internal
- c. involuntary; voluntary
- d. fight; flight

ANSWER: c

86. At dinner, when John picks up his fork, his _____ nervous system controls the movement of his finger. His _____ nervous system regulates his stomach and controls the digestion of food.

- a. autonomic; autonomic
- b. autonomic; somatic

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- c. somatic; autonomic
- d. somatic; somatic

ANSWER: c

87. George's pupils are dilated and his heart rate is speeding up. The part of the nervous system responsible for these changes is the _____ nervous system.

- a. somatic
- b. central
- c. sympathetic
- d. parasympathetic

ANSWER: c

88. Which action is associated with the sympathetic nervous system?

- a. pupil contraction
- b. stimulation of digestion
- c. slowed heartbeat
- d. contraction of blood vessels

ANSWER: d

89. _____ are chemical messengers produced by the endocrine glands and transmitted _____.

- a. Neurotransmitters; in the bloodstream
- b. Hormones; across the synapse
- c. Neurotransmitters; across the synapse
- d. Hormones; in the bloodstream

ANSWER: d

90. The _____, which releases hormones essential for human growth, is/are controlled by the _____.

- a. pituitary gland; hypothalamus
- b. hypothalamus; pituitary gland
- c. adrenal glands; pancreas
- d. pancreas; adrenal glands

ANSWER: a

91. A doctor has diagnosed Denise with a high blood-sugar level, a diagnosis that is MOST likely linked to a problem with the:

- a. thyroid gland.
- b. pituitary gland.
- c. hypothalamus.
- d. pancreas.

ANSWER: d

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92. Adrenal glands are involved in _____, whereas the thyroid gland is involved in _____.
- a. regulating metabolism; digestion and maintaining blood-sugar levels
 - b. digestion and maintaining blood-sugar levels; regulating metabolism
 - c. triggering the fight-or-flight response; releasing hormones affecting growth and maturation
 - d. releasing hormones essential for human growth; triggering the fight-or-flight response

ANSWER: c

93. Why is the pituitary gland referred to as the "master gland"?
- a. It is located near the very top of the brain.
 - b. It controls the functioning of the somatic nervous system.
 - c. It releases hormones that direct other endocrine glands to release their hormones.
 - d. All of the answers are correct.

ANSWER: c

94. Hormones are released:
- a. quickly.
 - b. into the bloodstream.
 - c. directly to their target sites.
 - d. within the brain only.

ANSWER: b

95. What is the most influential gland in the endocrine system?
- a. the thyroid gland
 - b. the pancreas
 - c. the pituitary gland
 - d. the adrenal gland

ANSWER: c

96. Which statement about the physical component of emotion is FALSE?
- a. The physical component of emotion involves the autonomic nervous system.
 - b. When we are aroused, the sympathetic nervous system increases blood pressure.
 - c. Different emotions seem to lead to subtly different patterns of arousal.
 - d. We have a lower body temperature when we are angry than when we are afraid.

ANSWER: d

97. In the _____ theory of emotion, the physiological arousal and behavioral response _____ the emotional feeling.
- a. James-Lange; precede
 - b. James-Lange; follow
 - c. Cannon-Bard; precede
 - d. Cannon-Bard; follow

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ANSWER: a

98. Walking down a dark, deserted street, Brian suddenly hears footsteps behind him. He starts to sweat and begins to run down the street, interpreting his sweating and running as an indication of fear. This particular description of an emotional experience MOST directly agrees with which theory of emotion?

- a. Cannon-Bard
- b. James-Lange
- c. LeDoux
- d. Schachter and Singer's two-factor

ANSWER: b

99. Using the Cannon-Bard theory of emotion, how would you explain the emotional response to seeing one's romantic partner?

- a. The three components of emotional response occur simultaneously, yet independently, when individuals see their romantic partner.
- b. The racing heartbeat and increased skin sensitivity we feel in the presence of a romantic partner is interpreted as the emotion of love.
- c. The physiological, behavioral, and cognitive responses to the presence of a romantic partner occur in varying orders depending on contextual factors, such as time of day and frequency of exposure.
- d. The racing heartbeat we feel when we are afraid is only distinguishable from the racing heartbeat we feel when in love after 10 seconds.

ANSWER: a

100. Alone in an isolated vacation cabin, Kristie hears the sound of a window breaking. Simultaneously, she feels very nervous, runs to the phone to call 911, and experiences the emotion of fear. This particular description of an emotional experience MOST directly agrees with which theory of emotion?

- a. Cannon-Bard
- b. James-Lange
- c. LeDoux
- d. Schachter and Singer's two-factor

ANSWER: a

101. According to the James-Lange theory of emotion, emotion occurs _____ autonomic arousal and the behavioral response. According to the Cannon-Bard theory of emotion, emotion occurs _____ autonomic arousal and the behavioral response.

- a. before; after
- b. after; before
- c. before; at the same time as
- d. after; at the same time as

ANSWER: d

102. What are the two factors in Schachter and Singer's two-factor theory?

- a. physiological arousal and behavioral response

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- b. behavioral response and emotional feeling
- c. cognitive appraisal and emotional feeling
- d. physiological arousal and cognitive appraisal

ANSWER: d

103. When he saw the tornado cloud approach his home, Jason's level of arousal was extremely high. Cognitively appraising the situation and his arousal, Jason labeled his emotion as fear. This particular description of an emotional experience in which cognitive appraisal precedes an emotion MOST directly agrees with which theory of emotion?

- a. Cannon-Bard
- b. James-Lange
- c. LeDoux
- d. Schachter and Singer's two-factor

ANSWER: d

104. _____ proposed that there are different brain systems for different emotions.

- a. James-Lange
- b. Cannon-Bard
- c. Schachter-Singer
- d. LeDoux

ANSWER: d

105. Liz died from a drug overdose that impaired her ability to breathe. It is likely that the drug suppressed the functioning of the:

- a. medulla.
- b. pons.
- c. cerebellum.
- d. hypothalamus.

ANSWER: a

106. The reticular formation is involved in:

- a. modulating levels of arousal and consciousness.
- b. controlling essential body functions.
- c. coordinating movements and balance.
- d. relaying sensory information.

ANSWER: a

107. Which brain structure is responsible for coordinating movement?

- a. the amygdala
- b. the medulla
- c. the cerebellum

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d. the thalamus

ANSWER: c

108. Which structure is NOT in the central core of the brain?

- a. the medulla
- b. the basal ganglia
- c. the thalamus
- d. the amygdala

ANSWER: d

109. The _____, a brain stem structure, is involved in regulating body functions needed for survival, such as breathing and heartbeat.

- a. amygdala
- b. medulla
- c. thalamus
- d. cerebellum

ANSWER: b

110. Which structure in the central core is involved in sleep and dreaming?

- a. the thalamus
- b. the reticular formation
- c. the pons
- d. the medulla

ANSWER: c

111. Cerebellum is to _____ as pons is to _____.

- a. essential body functions; levels of arousal and consciousness
- b. levels of arousal and consciousness; essential body functions
- c. coordination of our movements and balance; involvement in sleeping and dreaming
- d. involvement in sleeping and dreaming; coordination of our movements and balance

ANSWER: c

112. In our daily lives, we are constantly exposed to a wide array of sensory stimuli. What part of the brain is involved in deciding which of these stimuli enter our conscious awareness?

- a. the thalamus
- b. the reticular formation
- c. the basal ganglia
- d. the amygdala

ANSWER: b

113. After an accident, Carl has some difficulty keeping his balance and also seems to have forgotten how to ride a bike. It is MOST likely that Carl has suffered damage to which brain structure?

Chapter 02: Multiple Choice

- a. the cerebellum
- b. the hippocampus
- c. the hypothalamus
- d. the thalamus

ANSWER: a

114. A ballet dancer's ability to coordinate a variety of physical movements during performances would be disrupted after damage to the _____.

- a. cerebellum
- b. amygdala
- c. hippocampus
- d. hypothalamus

ANSWER: a

115. Following a night of drinking, Stephen is unsteady and cannot walk in a straight line. These uncoordinated movements are likely due to the effect of alcohol on the:

- a. pons.
- b. cerebellum.
- c. thalamus.
- d. hypothalamus.

ANSWER: b

116. Which statement is FALSE?

- a. The thalamus serves as a relay station for incoming sensory information.
- b. The cerebellum is concerned mainly with the coordination of physical movements.
- c. The reticular formation is responsible for our different levels of arousal and consciousness.
- d. The medulla is responsible for the initiation and execution of physical movements.

ANSWER: d

117. Which brain structure is responsible for initiating and executing physical movements?

- a. the basal ganglia
- b. the pons
- c. the medulla
- d. the thalamus

ANSWER: a

118. Sheila was in an accident in which she received damage to her cerebellum. Sheila is MOST likely to have difficulty:

- a. understanding what she reads.
- b. playing soccer.
- c. storing information in short-term memory.

Chapter 02: Multiple Choice

- d. transferring information from short-term memory to long-term memory.

ANSWER: b

119. Which is NOT a similarity between Huntington's chorea and Parkinson's disease?

- a. Both involve difficulties in movement.
- b. Both involve the basal ganglia.
- c. Both involve neurotransmitter deficits.
- d. Both involve dopamine activity.

ANSWER: d

120. Parkinson's disease is to _____ as Huntington's disease is to _____.

- a. dopamine deficits; GABA and acetylcholine deficits
- b. GABA and acetylcholine deficits; dopamine deficits
- c. dopamine hyperactivity; serotonin deficits
- d. serotonin deficits; dopamine hyperactivity

ANSWER: a

121. Which three structures are found in the limbic system?

- a. the hypothalamus, the medulla, and the hippocampus
- b. the thalamus, the hypothalamus, and the medulla
- c. the hypothalamus, the hippocampus, and the amygdala
- d. the hypothalamus, the medulla, and the amygdala

ANSWER: c

122. The limbic system plays an important role in:

- a. basic bodily functions such as heartbeat, breathing, and blood pressure.
- b. relaying incoming sensory information.
- c. the initiation and execution of physical movements.
- d. our survival, emotion, and memory.

ANSWER: d

123. Which functions are regulated by the hypothalamus?

- a. the operation of basic drives such as eating
- b. the operation of the somatic nervous system
- c. the operation of procedural memory
- d. The hypothalamus controls both the operation of basic drives and the somatic nervous system.

ANSWER: a

124. Which statement about the limbic system is FALSE?

- a. The limbic system plays an important role in survival, memory, and emotion.
- b. The limbic system is comprised of the hippocampus, hypothalamus, and amygdala.

Chapter 02: Multiple Choice

- c. The limbic system is where higher-level cognitive processes occur.
- d. The limbic system surrounds the top of the brain stem.

ANSWER: c

125. Which brain structure plays a significant role in memory formation?
- a. the hypothalamus
 - b. the medulla
 - c. the hippocampus
 - d. the basal ganglia

ANSWER: c

126. Hypothalamus is to _____ as hippocampus is to _____.
- a. eating; drinking
 - b. drinking; eating
 - c. memory; sex
 - d. sex; memory

ANSWER: d

127. The hippocampus is involved in:
- a. communication between the two hemispheres.
 - b. decision-making processes.
 - c. controlling emotions such as anger and fear.
 - d. neurogenesis.

ANSWER: d

128. Fred Gage discovered that the hippocampus was capable of creating new neurons through his study of:
- a. Phineas Gage's brain.
 - b. postmortem brains of cancer victims.
 - c. H. M.'s brain.
 - d. postmortem brains of Huntington's chorea victims.

ANSWER: b

129. The hippocampus is involved in _____, whereas the amygdala is involved in _____.
- a. regulating aggression and fear; maintaining an internal equilibrium
 - b. maintaining an internal equilibrium; regulating aggression and fear
 - c. forming memories; regulating aggression and fear
 - d. maintaining an internal equilibrium; forming memories

ANSWER: c

130. Violent rhesus monkeys become tame and docile following surgical removal of their:
- a. hippocampus.

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- b. thalamus.
- c. amygdala.
- d. hypothalamus.

ANSWER: c

131. The structure that allows the two cerebral hemispheres to communicate is the:

- a. cerebral cortex.
- b. hippocampus.
- c. corpus callosum.
- d. central core.

ANSWER: c

132. The right and left hemispheres of the brain are connected by the _____ and are covered by the _____.

- a. association areas; motor cortex
- b. motor cortex; association areas
- c. corpus callosum; cerebral cortex
- d. cerebral cortex; corpus callosum

ANSWER: c

133. Which structure is the LARGEST part of the brain?

- a. the brain stem
- b. the cerebral cortex
- c. the cerebellum
- d. the limbic system

ANSWER: b

134. The _____ differentiates the human brain from that of all other animals.

- a. cerebellum
- b. cerebral cortex
- c. corpus callosum
- d. central core

ANSWER: b

135. The part of the brain that enables you to feel someone holding your hand is in the _____ lobe.

- a. parietal
- b. temporal
- c. occipital
- d. frontal

ANSWER: a

136. Interpreting body sensation is to _____ as motor movement is to _____.

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- a. temporal lobe; parietal lobe
- b. parietal lobe; frontal lobe
- c. frontal lobe; parietal lobe
- d. occipital lobe; frontal lobe

ANSWER: b

137. The proportion of space in the motor cortex devoted to a specific body part depends on the:

- a. size of the body part.
- b. location of the body part.
- c. sensitivity of the body part.
- d. precision of movement made by the body part.

ANSWER: d

138. Motor cortex is to _____ as somatosensory cortex is to _____.

- a. frontal lobe; parietal lobe
- b. parietal lobe; temporal lobe
- c. frontal lobe; temporal lobe
- d. occipital lobe; frontal lobe

ANSWER: a

139. The amount of space for body parts in the motor cortex is allocated according to the _____, and the amount of space for body parts in the somatosensory cortex is allocated according to the _____.

- a. size of the body part; size of the body part
- b. precision and complexity of the movement of the body part; sensitivity to touch of the body part
- c. precision and complexity of the movement of the body part; size of the body part
- d. size of the body part; sensitivity to touch of the body part

ANSWER: b

140. When the doctor gives Takisha an injection in her right arm, the temporary pain of the needle is registered by the _____ cortex in her _____ hemisphere.

- a. motor; left
- b. motor; right
- c. somatosensory; left
- d. somatosensory; right

ANSWER: c

141. Where is the primary visual cortex located?

- a. the frontal lobe
- b. the occipital lobe
- c. the parietal lobe
- d. the temporal lobe

Chapter 02: Multiple Choice

ANSWER: b

142. The _____ cortex in the _____ lobe allows us to move different parts of our body.

- a. motor; frontal
- b. somatosensory; parietal
- c. motor; temporal
- d. somatosensory; occipital

ANSWER: a

143. Gina has not sustained a physical injury to her eyes, but her sight has been deteriorating. Which part of the brain is most likely linked to Gina's poor vision?

- a. the frontal lobe
- b. the occipital lobe
- c. the parietal lobe
- d. the temporal lobe

ANSWER: b

144. The amount of space devoted to each part of the body in the somatosensory cortex is:

- a. greater for larger parts, such as the torso.
- b. related to the size of a specific body part.
- c. related to the sensitivity of a specific body part.
- d. the same for all body parts, excluding the lips, hands, and feet, which receive greater space.

ANSWER: c

145. The homunculi for the motor and somatosensory strips were determined by:

- a. Fred Gage.
- b. Carl Lange.
- c. Paul Broca.
- d. Wilder Penfield.

ANSWER: d

146. How is it possible for people to be conscious during brain surgery?

- a. Local anesthesia can be applied to the cerebral cortex.
- b. The brain does not have pain receptors.
- c. Endorphins can inhibit the somatosensory cortex.
- d. Dopamine cannot pass the blood–brain barrier.

ANSWER: b

147. The auditory cortex is located in the _____ lobes, and the visual cortex is located in the _____ lobes.

- a. temporal; occipital
- b. occipital; temporal

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- c. temporal; frontal
- d. occipital; parietal

ANSWER: a

148. The ability to see the beautiful dance movements in a ballet performance results from processing in the _____ lobe. The ability to hear the music accompanying the dance movements results from processing in the _____ lobe.

- a. occipital; temporal
- b. temporal; occipital
- c. frontal; parietal
- d. parietal; frontal

ANSWER: a

149. All cortical areas in the brain, except those devoted to primary sensory or motor processing, are referred to as _____ cortex.

- a. the sensory
- b. the association
- c. Wernicke's
- d. Broca's

ANSWER: b

150. LeDoux proposed that some emotional responses may depend upon cognitive appraisal, but _____ can be generated almost immediately.

- a. anger
- b. fear
- c. sadness
- d. happiness

ANSWER: b

151. Which sequence best demonstrates the James-Lange theory of emotion?

- a. stimulus → physiological arousal and behavioral responses → cognitive appraisal of situation and identification of emotion → emotional feeling
- b. stimulus → simultaneous physiological arousal and emotional feeling
- c. stimulus → physiological arousal and behavioral responses → emotional feeling
- d. stimulus → emotional feeling → physiological arousal and behavioral responses

ANSWER: c

152. The majority of the cortex, devoted to the _____ of information, is called the _____ cortex.

- a. initial detection: sensory
- b. initial detection; association
- c. integration; sensory
- d. integration; association

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ANSWER: d

153. Approximately _____ % of the cortex is association cortex.

- a. 40
- b. 50
- c. 70
- d. 80

ANSWER: c

154. The fusiform face area (FFA) is located in the _____ lobe.

- a. frontal
- b. parietal
- c. occipital
- d. temporal

ANSWER: d

155. When Pamela recognized her mother's face, the _____ hemisphere of her _____ lobe was most active.

- a. left; parietal
- b. right; parietal
- c. left; temporal
- d. right; temporal

ANSWER: d

156. Phineas Gage's accident led neuroscientists to hypothesize the involvement of the:

- a. frontal lobes in impulse control.
- b. occipital lobes in vision.
- c. parietal lobes in sensitivity to pain.
- d. temporal lobes in hearing.

ANSWER: a

157. The _____ lobes are important for planning, decision-making, and personality.

- a. frontal
- b. parietal
- c. occipital
- d. temporal

ANSWER: a

158. Incomplete development or damage to the _____ may partially explain poor decision-making and risky behaviors.

- a. frontal lobe
- b. parietal lobe

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- c. corpus callosum
- d. somatosensory cortex

ANSWER: a

159. Broca's area, involved in the _____ of speech, is most often located only in the _____ hemisphere.
- a. production; left
 - b. production; right
 - c. comprehension; left
 - d. comprehension; right

ANSWER: a

160. An impairment in generating fluent speech is called _____ aphasia, whereas an impairment in language comprehension is called _____ aphasia.
- a. Broca's; association
 - b. Wernicke's; Broca's
 - c. association; Wernicke's
 - d. Broca's; Wernicke's

ANSWER: d

161. Broca's area is to the _____ lobe as Wernicke's area is to the _____ lobe.
- a. frontal; temporal
 - b. temporal; frontal
 - c. parietal; occipital
 - d. occipital; parietal

ANSWER: a

162. People with damage to Broca's area have problems:
- a. understanding speech.
 - b. singing.
 - c. reading silently.
 - d. speaking fluently.

ANSWER: d

163. Which statement about language areas in the brain is TRUE?
- a. Broca's area and Wernicke's area are located in the left hemisphere in the majority of people.
 - b. Broca's area, located in the left temporal lobe, is responsible for generating fluent speech.
 - c. Wernicke's area, located in the left frontal lobe, is responsible for comprehension of speech and text.
 - d. Damage to Broca's area results in nonsensical speech.

ANSWER: a

164. Interestingly, damage to Broca's area not only influences _____, it also influences _____.

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- a. language comprehension; language production
- b. language production; the ability to use sign language
- c. the ability to use sign language; language comprehension
- d. the ability to sing; the ability to use sign language

ANSWER: b

165. After an accident, David has difficulty understanding what other people say to him. It is highly probable that David has suffered damage to:

- a. his frontal lobe.
- b. his parietal lobe.
- c. Wernicke's area.
- d. Broca's area.

ANSWER: c

166. Most right-handers process speech in the _____ hemisphere, and most left-handers process speech in the _____ hemisphere.

- a. right; right
- b. right; left
- c. left; right
- d. left; left

ANSWER: d

167. Which statement concerning hemispheric specialization is FALSE?

- a. Most right-handers process speech in the left hemisphere, and most left-handers process speech in the right hemisphere.
- b. More right-handers than left-handers process speech in the left hemisphere.
- c. The ability to produce speech and the ability to use sign language are both processed primarily in the left hemisphere.
- d. None of these statements is false.

ANSWER: a

168. How did Einstein's brain differ from a "normal" brain?

- a. It was much larger in overall size.
- b. The cortex had a much larger surface area.
- c. The cerebellum was much larger.
- d. The corpus callosum was much thinner.

ANSWER: b

169. Severing the corpus callosum has been used as a medical treatment for severe cases of:

- a. depression.
- b. epilepsy.

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- c. multiple personality disorder.
- d. schizophrenia.

ANSWER: b

170. In severe cases, surgeons have severed the _____ in humans to reduce the symptoms of _____.
- a. cerebral cortex; epilepsy
 - b. corpus callosum; epilepsy
 - c. cerebral cortex; aphasia
 - d. corpus callosum; aphasia

ANSWER: b

171. Split-brain patients:
- a. have a dominant left hemisphere.
 - b. can orally identify information presented in their left visual field.
 - c. have a severed corpus callosum.
 - d. only use the right hemisphere.

ANSWER: c

172. Visual information in the left visual field is processed by _____ and then routed to the _____ hemisphere.
- a. only the right eye; left
 - b. only the left eye; right
 - c. both eyes; left
 - d. both eyes; right

ANSWER: d

173. If a split-brain patient has a picture of a spoon flashed briefly in his left visual field, the:
- a. image will be processed in his left hemisphere.
 - b. image will be processed in his right hemisphere.
 - c. patient will be able to identify the image with his right hand.
 - d. patient will be able to say that he saw a spoon.

ANSWER: b

174. In laboratory testing of a split-brain patient, suppose a picture of a dog is flashed to the patient's left visual field and a picture of a cat is flashed to the right visual field. Which of the pictures could the split-brain patient verbally identify?
- a. both the cat and the dog
 - b. only the cat
 - c. only the dog
 - d. neither the cat nor the dog

ANSWER: b

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175. In laboratory testing of a split-brain patient, suppose a picture of a baseball is flashed only to the patient's left visual field. How would the split-brain patient be able to identify the baseball?

- a. by saying the word "baseball"
- b. by sense of touch, using the right hand
- c. by sense of touch, using the left hand
- d. by either saying the word "baseball" or by sense of touch, using the right hand

ANSWER: c

176. A split-brain patient is presented with a lime to her right visual field and a lemon to her left visual field. If asked to say orally what she saw, her response would be _____. If asked to point with her left hand to what she saw, she would point at the _____.

- a. lime; lime
- b. lemon; lemon
- c. lime; lemon
- d. lemon; lime

ANSWER: c

177. The right hemisphere processes information from the:

- a. left eye.
- b. left half of each eye.
- c. right visual field.
- d. left visual field.

ANSWER: d

178. Information in a person's left visual field goes to the _____ half of each eye and then to the _____ hemisphere.

- a. left; left
- b. left; right
- c. right; right
- d. right; left

ANSWER: c

179. Damage to the right hemisphere will MOST likely disrupt a person's ability to:

- a. balance a checkbook.
- b. recognize faces.
- c. do logic problems.
- d. give speeches.

ANSWER: b

180. A person suffering a stroke that produces severe damage to the left hemisphere might experience difficulty with:

- a. drawing a map.

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- b. recognizing faces.
- c. completing a block design puzzle.
- d. balancing a checkbook.

ANSWER: d

181. In general, the left hemisphere is more involved in _____ tasks, and the right hemisphere is more involved in _____ tasks.

- a. analytic; spatial
- b. spatial; analytic
- c. verbal; mathematical
- d. mathematical; verbal

ANSWER: a

182. Left hemisphere is to _____ as right hemisphere is to _____.

- a. flowers; buds
- b. trees; forest
- c. verbal; analytical
- d. analytical; verbal

ANSWER: b

183. Which statement BEST describes the scope of consciousness?

- a. We are conscious of the overwhelming majority of our brain and body functioning.
- b. We are conscious of how the brain processes information.
- c. We are conscious of both how the brain processes information and the results of that processing.
- d. We are conscious of our inner thinking and feeling and what is happening in our external environment.

ANSWER: d

184. _____ is to electrical activity as _____ is to oxygen use.

- a. PET; fMRI
- b. PET; EEG
- c. fMRI; PET
- d. EEG; fMRI

ANSWER: d

185. _____ is used to monitor electrical activity via small electrodes attached to the scalp.

- a. PET
- b. CT
- c. fMRI
- d. EEG

ANSWER: d

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186. A doctor has suggested that Dwayne should undergo a sleep study to determine why he is having difficulty sleeping. When Dwayne arrives at the study, the doctors use a(n) _____ to measure his brain waves as he sleeps.

- a. PET
- b. fMRI
- c. EEG
- d. EOG

ANSWER: c

187. Sleep researchers have hypothesized that sleep spindles, occurring during _____ sleep, serve to _____ the brain's sensitivity to sensory input.

- a. Stage 2; decrease
- b. Stage 2; increase
- c. REM; decrease
- d. REM; increase

ANSWER: a

188. As we progress from Stage 1 to Stage 4 sleep, which statement BEST describes how our brain waves change?

- a. They become faster and larger.
- b. They become faster and smaller.
- c. They become slower and larger.
- d. They become slower and smaller.

ANSWER: c

189. Stage 2 sleep is characterized by the presence of _____, and Stage 4 sleep is characterized by the presence of _____.

- a. sleep spindles; delta waves
- b. delta waves; sleep spindles
- c. sleep spindles; alpha waves
- d. alpha waves; sleep spindles

ANSWER: a

190. Although we may dream about running, it is unlikely that we can even walk while we are dreaming. Why is it unlikely that we can actually walk while we are dreaming?

- a. Our brain is not consuming enough oxygen to support walking.
- b. We are too tired to walk.
- c. Our bodies are essentially paralyzed.
- d. Our eyelids are closed, and we would get hurt if we walked.

ANSWER: c

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191. Which stage of sleep is referred to as paradoxical sleep?

- a. Stage 2
- b. Stage 3
- c. Stage 4
- d. REM sleep

ANSWER: d

192. Why is REM sleep sometimes referred to as paradoxical sleep?

- a. Brain waves are very slow, even if a person is dreaming about activity.
- b. Body muscles are relaxed and immobilized, but the brain is active.
- c. Sleepwalking may occur, but memory is not active enough to recall it.
- d. Eyes are still, but people feel as if they are watching events in a dream.

ANSWER: b

193. One possible reason why dreams seem highly emotional is that during REM sleep, the frontal lobes are _____ and the amygdala and hippocampus are _____.

- a. shut down; shut down
- b. shut down; active
- c. active; shut down
- d. active; active

ANSWER: b

194. The fact that Alzheimer's disease is often associated with sleep disturbances suggests support for which theory regarding the function of sleep?

- a. Sleep helps us process what we learn.
- b. Sleep helps the brain clean itself of toxic metabolic byproducts.
- c. Sleep evolved as an adaptive process.
- d. Sleep contributes to the production of myelin.

ANSWER: b

195. Which consequence has NOT been asserted as resulting from sleep deprivation?

- a. muscle mass loss
- b. suppression of the immune system
- c. feelings of weakness and discomfort
- d. impaired concentration

ANSWER: a

196. Which purpose has NOT been proposed as a function of sleep?

- a. restoring the brain and body
- b. consolidating memory
- c. adapting to a dangerous environment

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d. building stronger muscles

ANSWER: d

197. Which statement is a major criticism of the activation-synthesis theory?

- a. It fails to explain why not all individuals remember their dreams.
- b. Dream content is often more incoherent, bizarre, and confusing than would be expected.
- c. Dream content is more consistent over time than would be expected.
- d. It fails to explain why young children recall their dreams more often than older children.

ANSWER: c

198. _____ theory of dreams suggests that dreams result from our normal cognitive processes, but they use self-generated sensory data during sleep rather than external sensory input as they do when we are awake.

- a. Activation-synthesis
- b. Neurocognitive
- c. REM-rebound
- d. Brain activation

ANSWER: b

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1. The _____ contain(s) the nucleus of the neuron.

- a. axon
- b. dendrites
- c. cell body
- d. glial cell

ANSWER: c

2. During reuptake:

- a. vesicles release neurotransmitter molecules into the synaptic gap.
- b. neurotransmitter molecules cross the synaptic gap and attach to the receiving neuron.
- c. neurotransmitter molecules are reabsorbed into the sending neuron's axon terminals.
- d. enzymes destroy unused neurotransmitters in the synaptic gap.

ANSWER: c

3. _____ increases neurotransmitter activity while _____ decreases neurotransmitter activity.

- a. Curare; L-dopa
- b. GABA; botulinum poison
- c. Botulinum poison; black widow spider venom
- d. Amphetamine; curare

ANSWER: d

4. Agonists _____ neurotransmitter activity while antagonists _____ neurotransmitter activity.

- a. halt; initiate
- b. stabilize; destabilize
- c. increase; decrease
- d. catalyze; regulate

ANSWER: c

5. How do morphine and heroin reduce pain?

- a. They prevent the reuptake of dopamine.
- b. They prevent the release of GABA.
- c. They block the receptor sites for serotonin.
- d. They stimulate the receptor sites for endorphins.

ANSWER: d

6. Which statement about the sympathetic and parasympathetic nervous systems is FALSE?

- a. The two systems are connected to different glands and organs, thus explaining their dissimilar effects.
- b. The sympathetic nervous system is called our "fight-or-flight" system because it prepares us for action in an emergency situation.
- c. The parasympathetic nervous system is called our "rest-and-digest" system because it returns the

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body to its normal resting state after arousal.

- d. Both systems are part of the peripheral nervous system.

ANSWER: a

7. Endocrine glands do NOT include:

- a. the pituitary gland.
- b. tear glands.
- c. the pancreas.
- d. the thyroid gland.

ANSWER: b

8. Which statement is TRUE?

- a. The basal ganglia serve as a relay station for incoming sensory information.
- b. The cerebellum is concerned mainly with the coordination of physical movements.
- c. The thalamus is responsible for our different levels of arousal and consciousness.
- d. The reticular formation is involved in essential body functions such as heartbeat, breathing, blood pressure, digestion, and swallowing.

ANSWER: b

9. Which statement concerning dreaming is FALSE?

- a. We spend about two hours per night dreaming.
- b. We are most likely to remember dreams from our last phase of REM sleep.
- c. REM is the stage in which most dreaming occurs.
- d. Some individuals do not dream, as evidenced by their inability to recall dreams.

ANSWER: d

10. Which is NOT true of REM sleep?

- a. Dreaming occurs during REM sleep.
- b. There is a significant increase in the amount of REM sleep following deprivation of REM sleep.
- c. Disruption of REM sleep following learning impairs memory for this learning.
- d. Humans are the only mammals that exhibit REM sleep.

ANSWER: d