

Chapter 2 - Biology and Psychology

1. Direct artificial stimulation of the occipital lobe produces visual sensations.

- a. True
- b. False

ANSWER: True

2. Alia was just about to fall asleep when she heard something crash in the kitchen. The noise jolted her awake. This was due to the secretion of oxytocin.

- a. True
- b. False

ANSWER: False

3. One of the concepts of evolutionary psychology is that not only physical traits but also many patterns of behavior, including social behavior, evolve and can be transmitted genetically from generation to generation.

- a. True
- b. False

ANSWER: True

4. Monozygotic twins are important in the study of the relative influences of nature and nurture because differences between monozygotic twins are the result of nurture.

- a. True
- b. False

ANSWER: True

5. Sacs called synaptic vesicles in the axon terminals contain neurotransmitters.

- a. True
- b. False

ANSWER: True

6. The pineal gland secretes prolactin.

- a. True
- b. False

ANSWER: False

7. Dizygotic twins are formed when a zygote divides into two cells that share the same genetic code.

- a. True
- b. False

ANSWER: False

8. Neurons carry messages from the axon terminals through the axon to the dendrites.

- a. True
- b. False

ANSWER: False

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9. Acetylcholine is excitatory at the heart but inhibitory at synapses between nerves and muscles that involve voluntary movement.

- a. True
- b. False

ANSWER: False

10. The two main divisions of the central nervous system are the somatic nervous system and the autonomic nervous system.

- a. True
- b. False

ANSWER: False

11. Instinctive behavior is absent in an individual who is reared in isolation from others of its kind.

- a. True
- b. False

ANSWER: False

12. When children reared by adoptive parents are more similar to their natural parents in a particular trait, strong evidence exists for a genetic role in the development of that trait.

- a. True
- b. False

ANSWER: True

13. Psychologists are thinking in terms of behavioral genetics when they ask about the inborn reasons why individuals may differ in their behavior and mental processes.

- a. True
- b. False

ANSWER: True

14. When a nerve impulse reaches a synapse, it jumps across the synaptic cleft like a spark because of its electrical nature.

- a. True
- b. False

ANSWER: False

15. Split-brain operations are primarily aimed at curing botulism.

- a. True
- b. False

ANSWER: False

16. Norepinephrine is manufactured exclusively by the adrenal glands.

- a. True
- b. False

ANSWER: False

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17. Every time a neuron fires, it transmits an impulse of varying length.

- a. True
- b. False

ANSWER: False

18. The somatic nervous system controls activities such as heartbeat, respiration, digestion, and dilation of the pupils.

- a. True
- b. False

ANSWER: False

19. Left-brained people are primarily logical and intellectual.

- a. True
- b. False

ANSWER: True

20. Phoebe recently suffered a major fall in which she sustained brain injuries. Since then, she has had immense difficulty in communicating with others. She appears to understand what others tell her, but her responses are slow and laborious. Her sentences are always incomplete, with important grammatical words missing. Which of the following conditions best reflects Phoebe's case?

- a. Broca's aphasia
- b. Epilepsy
- c. Retrograde amnesia
- d. Wernicke's aphasia

ANSWER: a

21. The _____ is an oblong area of the hindbrain involved in regulation of heartbeat, blood pressure, movement, and respiration.

- a. medulla
- b. pons
- c. cerebrum
- d. thalamus

ANSWER: a

22. Which of the following is a function of norepinephrine?

- a. It is involved in general arousal, learning and memory, and eating.
- b. It acts as an inhibitory neurotransmitter.
- c. It acts exclusively as a neurotransmitter.
- d. It slows down the heartbeat and causes breathing problems.

ANSWER: a

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23. Which of these is a function of prolactin?
- a. It regulates the sleep-wake cycle and may affect the onset of puberty.
 - b. It regulates the rate at which the body uses oxygen and produces energy.
 - c. It regulates the growth of muscles, bones, and glands.
 - d. It regulates maternal behavior in lower mammals.

ANSWER: d

24. Some researchers consider the _____ to be the "executive center" of the brain, where decisions are made to keep information in working memory and to solve problems.
- a. cerebellum
 - b. prefrontal cortex
 - c. corpus callosum
 - d. thalamus

ANSWER: b

25. Which of the following statements is true of a neural impulse?
- a. A neural impulse jumps across a synaptic cleft like an electrical spark because of the polarization of chloride ions.
 - b. The process by which a neural impulse travels is electrochemical.
 - c. A neural impulse is carried by efferent neurons and not by afferent neurons.
 - d. The strength of a neural impulse varies from high to low depending on the distance travelled by it.

ANSWER: b

26. _____ intensifies most emotions and is central to the experience of fear and anxiety.
- a. Prolactin
 - b. Thyroxin
 - c. Vasopressin
 - d. Epinephrine

ANSWER: d

27. _____ remove dead neurons and waste products from the nervous system.
- a. Glial cells
 - b. Neurotransmitters
 - c. Red blood cells
 - d. White blood cells

ANSWER: a

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28. The _____ is a group of structures involved in memory, motivation, and emotion that forms a fringe along the inner edge of the cerebrum.

- a. corpus callosum
- b. circulatory system
- c. reticular formation
- d. limbic system

ANSWER: d

29. A _____ reveals deformities in shape and structure that are connected with blood clots, tumors, and other health problems.

- a. magnetoencephalography scan
- b. computerized axial tomography scan
- c. complete blood count test
- d. radio frequency identification system

ANSWER: b

30. _____ is produced largely by neurons in the brain stem and acts both as a neurotransmitter and as a hormone.

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

ANSWER: c

31. Which of the following statements is true of instinctive behavior?

- a. Instinctive behavior tends to resist modification, even when it serves no purpose.
- b. Instinctive behavior varies among the members of the species in which it appears.
- c. Instinctive behavior evolves only when some form of punishment is involved.
- d. Instinctive behavior does not appear when an individual is reared in isolation from others of its kind.

ANSWER: a

32. Every time a neuron fires, it transmits an impulse of the same strength. This occurrence is known as the _____.

- a. refraction effect
- b. polarization effect
- c. resting potential
- d. all-or-none principle

ANSWER: d

33. Which of the following represents an interaction of one's nature and nurture?

- a. Phenotype
- b. Genotype
- c. The resting potential
- d. The action potential

ANSWER: a

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34. When a neural impulse reaches the axon terminal of a neuron, the vesicles release varying amounts of neurotransmitters into the _____.

- a. myelin sheath
- b. dendrite
- c. synaptic cleft
- d. nucleus

ANSWER: c

35. Which of the following techniques relies on subtle shifts in blood flow to create a brain scan?

- a. Positron emission tomography
- b. Electroencephalography
- c. Magnetic resonance imaging
- d. Electrocardiography

ANSWER: c

36. Which of the following refers to a time during which a neuron is insensitive to messages from other neurons and does not fire?

- a. A temporary threshold shift
- b. A refractory period
- c. The resting period
- d. The resistance stage

ANSWER: b

37. Which of the following is a feature of gray matter?

- a. It is a neurotransmitter that controls muscles.
- b. It contains only inhibitory neurotransmitters.
- c. It consists of gray platelets.
- d. It consists of non-myelinated neurons.

ANSWER: d

38. Which of the following is a function of the medulla of the brain?

- a. It serves as a relay station for sensory stimulation.
- b. It receives messages from skin senses all over the body.
- c. It plays roles in sleeping, sneezing, and coughing.
- d. It regulates body temperature and concentration of fluids.

ANSWER: c

39. _____ is part of the maturation process that leads to a child's ability to crawl and walk during the first year.

- a. Myelination
- b. Natural selection
- c. Depolarization
- d. Reticular formation

ANSWER: a

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40. Nicotine, alcohol, and many other drugs are pleasurable because they heighten levels of _____.
a. acetylcholine
b. norepinephrine
c. dopamine
d. amphetamine

ANSWER: c

41. Dr. Kennett is a neurologist who is conducting research using brain scans. He wants to study pictures of his subjects' brains while they are speaking or using a language. These pictures will help Dr. Kennett understand the parts of the brain that are being used to speak and the other processes that occur simultaneously in the brain. Based on the nature of study, it would be most suitable for Dr. Kennett to use _____.
a. functional magnetic resonance imaging
b. positron emission tomography
c. electroencephalography
d. computerized axial tomography

ANSWER: a

42. The brain and the spinal cord make up the _____, which controls and commands bodily functions.
a. peripheral nervous system
b. somatic nervous system
c. central nervous system
d. autonomic nervous system

ANSWER: c

43. The _____ uses oxygen and nutrients to generate the energy needed to carry out the work of a neuron cell.
a. axon
b. dendrite
c. myelin sheath
d. nucleus

ANSWER: d

44. Thyroxin deficiency in children can lead to _____, which is a condition characterized by stunted growth and mental retardation.
a. bulimia
b. cretinism
c. adaptive thermogenesis
d. rheumatism

ANSWER: b

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45. A neuron has a(n) _____ that extends like a trunk from the cell body.

- a. synapse
- b. nucleus
- c. dendrite
- d. axon

ANSWER: d

46. Which of the following neurotransmitters is involved in emotional arousal and sleep?

- a. Acetylcholine
- b. Serotonin
- c. Gamma-aminobutyric acid
- d. Norepinephrine

ANSWER: b

47. Studies show that _____ is connected with aggressive behavior in monkeys, cats, and other animals.

- a. the thalamus
- b. the amygdala
- c. the medulla
- d. Broca's area

ANSWER: b

48. Which of the following statements is true of neurotransmitters?

- a. Neurotransmitters have identical chemical structures that can fit into any receptor site.
- b. "Loose" neurotransmitters are held by synapses before being released into the synaptic fluid.
- c. Once released by the synaptic vesicles, all the molecules of a neurotransmitter find their way into receptor sites.
- d. "Loose" neurotransmitters are either broken down or reabsorbed by the axon terminal.

ANSWER: d

49. Shana is a young girl who was in a bus accident a few years ago. Since her accident, Shana is only able to remember people she had met before the accident and instances from her childhood. However, she is unable to remember people she met recently or events that are currently happening in her life. She reads the same newspaper for several days without realizing that she has read it before. The accident has disabled Shana's ability to permanently store new information because she sustained an injury to her _____.

- a. reticular formation
- b. hippocampus
- c. cerebral cortex
- d. corpus callosum

ANSWER: b

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50. The electroencephalograph is a method of:
- a. brain imaging that passes a narrow X-ray beam through the head and measures the structures that reflect the beams from various angles.
 - b. detecting brain waves by means of measuring the current between electrodes placed on the scalp.
 - c. using the Karvonen technique to monitor abnormal heartbeats in a person.
 - d. detecting heartbeats by means of measuring the current between electrodes placed in one's hands.

ANSWER: b

51. The _____ is a bulge in the hindbrain that lies forward of the medulla and transmits information about body movement.
- a. cerebellum
 - b. pons
 - c. reticular formation
 - d. thalamus

ANSWER: b

52. _____ are specialized cells of the nervous system that receive and transmit messages.
- a. Nephrons
 - b. Hormones
 - c. Neurons
 - d. Glial cells

ANSWER: c

53. Which of the following statements is true of hormones?
- a. They are secreted exclusively by glands that have ducts.
 - b. They are secreted exclusively by the pituitary gland.
 - c. They are secreted directly into the bloodstream.
 - d. They transmit hereditary traits across generations.

ANSWER: c

54. _____ takes the form of a double helix and contains the genetic code of an organism.
- a. Ribonucleic acid
 - b. Antidiuretic hormone
 - c. Deoxyribonucleic acid
 - d. Adrenocorticotrophic hormone

ANSWER: c

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55. Which of the following statements highlights the relationship between dopamine and schizophrenia?
- a. Underutilization of dopamine by the brain is connected with hallucinations and disturbances of thoughts and emotions.
 - b. People with schizophrenia may have more receptor sites for dopamine in an area of the brain that is involved in emotional responding.
 - c. Dopamine fails to produce any pleasurable effects that heighten the sensory experience of a patient suffering from schizophrenia.
 - d. Schizophrenia manifests as a result of an imbalance in dopamine levels between two adjoining neurons with conflicting electrical charges.

ANSWER: b

56. The _____ lies below the hypothalamus and is dubbed the "master gland."
- a. reticular formation
 - b. limbic system
 - c. pituitary gland
 - d. corpus callosum

ANSWER: c

57. Will was driving down a road one night. Suddenly, a man appeared in front of his car. Will got scared and slammed the brakes hard, missing the man by inches. Which hormone was responsible for this reaction?
- a. Thyroxin
 - b. Melatonin
 - c. Prolactin
 - d. Epinephrine

ANSWER: d

58. Bobby was standing in line to purchase a movie ticket. All of a sudden, the man in front of him took a few steps back and stepped on Bobby's foot. Bobby immediately felt pain in his foot. This sensation was transmitted to the spinal cord and the brain through _____.
- a. glial cells
 - b. pituitary glands
 - c. afferent neurons
 - d. efferent neurons

ANSWER: c

59. Monozygotic twins share _____ of their genes.
- a. 20 percent
 - b. 40 percent
 - c. 100 percent
 - d. 50 percent

ANSWER: c

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60. The term _____ is used to describe the nucleotides found along just one of the rungs of a DNA double helix.
- a. neural impulse
 - b. genetic code
 - c. synapse
 - d. mutation

ANSWER: b

61. Which of the following is a function of the reticular formation?
- a. It serves as a relay station for sensory stimulation.
 - b. It receives messages from skin senses all over the body.
 - c. It is vital in the functions of attention, sleep, and arousal.
 - d. It is vital in the regulation of body temperature, motivation, and emotion.

ANSWER: c

62. The hearing or auditory area of the cortex lies in the _____ lobe along the lateral fissure of the cerebral cortex.
- a. frontal
 - b. parietal
 - c. temporal
 - d. occipital

ANSWER: c

63. Which of the following structures of the limbic system is connected with vigilance?
- a. The cerebral cortex
 - b. The amygdala
 - c. The fornix
 - d. The hypothalamus

ANSWER: b

64. Axons end in small, bulb-shaped structures called _____.
- a. dendrites
 - b. terminal buttons
 - c. glial cells
 - d. neurotransmitter vesicles

ANSWER: b

65. The _____ is the branch of the autonomic nervous system that is most active during processes that restore the body's reserves of energy.
- a. somatic division
 - b. parasympathetic division
 - c. central nervous system
 - d. sympathetic division

ANSWER: b

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66. Which of the following is a likely consequence of low thyroxin secretion in adults?
- a. Adults who secrete too little thyroxin may feel tired and sluggish and may put on weight.
 - b. Adults who secrete too little thyroxin may show symptoms of Down syndrome.
 - c. Adults who secrete too little thyroxin may experience excitability, insomnia, and weight loss.
 - d. Adults who secrete too little thyroxin may feel an excess of euphoria under normal circumstances.

ANSWER: a

67. What role does the somatic nervous system play?
- a. It converts messages that are received from the central nervous system into involuntary reflexes.
 - b. It primarily regulates the glands and the muscles of internal organs.
 - c. It commands the brain to filter unwanted neural impulses that have been accidentally triggered.
 - d. It transmits messages about sights, sounds, smells, and so on, to the central nervous system.

ANSWER: d

68. A number of people with severe cases of epilepsy have split-brain operations in which much of _____ is severed.
- a. the corpus callosum
 - b. the reticular formation
 - c. the somatosensory cortex
 - d. Wernicke's area

ANSWER: a

69. In positron emission tomography, to track the metabolism of glucose, a radioactive compound called a(n) _____ is mixed with glucose and injected into the bloodstream.
- a. inhibitor
 - b. tracer
 - c. clotting agent
 - d. activator

ANSWER: b

70. A neuron relays its message to another neuron across a junction called a _____.
- a. nucleus
 - b. myelin sheath
 - c. stem
 - d. synapse

ANSWER: d

71. Which of the following best describes association areas?
- a. The left and right hemispheres of the brain that duplicate each other's functions
 - b. Areas of the limbic system that are primarily involved in motor activity
 - c. Areas of the cerebral cortex that are not primarily involved in sensation or motor activity
 - d. The part of the parietal lobe that acts as the brain's executive center

ANSWER: c

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72. What is the purpose of a split-brain operation?
- a. To confine epileptic seizures to one hemisphere of the cerebral cortex
 - b. To modify the language functions of the brain
 - c. To enhance aesthetic and emotional responses
 - d. To integrate the functions of both the hemispheres of the cerebral cortex

ANSWER: a

73. Which of the following statements is true of handedness?
- a. Being right-handed appears to provide a somewhat greater-than-average probability of health problems.
 - b. Being right-handed appears to provide a somewhat greater-than-average probability of language problems.
 - c. Being left-handed was once seen as a deficiency.
 - d. Handedness is acquired by a person as a result of conditioning and is not hereditary.

ANSWER: c

74. Traits such as sociability and aggressiveness are thought to be _____.
- a. monogenic
 - b. non-inherent
 - c. vestigial
 - d. polygenic

ANSWER: d

75. Derek is working on a thesis on the changes in social behavior in the context of finding partners. An important part of his study concerns the various practices followed by males and females over the course of generations and how they have gradually transformed into our current social norms. Derek can be called a(n) _____ psychologist.
- a. personality
 - b. developmental
 - c. clinical
 - d. evolutionary

ANSWER: d

76. Emily suffers from insomnia. When she went to see a doctor, she was told that her sleeplessness was caused by the deficiency of a particular hormone. The doctor then gave her sleeping pills containing the deficient hormone. Emily has _____ deficiency.
- a. melatonin
 - b. thyroxin
 - c. vasopressin
 - d. oxytocin

ANSWER: a

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77. In the context of behavioral genetics, identify the correct statement.

- a. Heredity refers to the transmission of non-biological cultural factors from one generation to another.
- b. Heredity is apparently involved in psychological disorders ranging from anxiety and depression to personality disorders.
- c. Heredity does not play a role in substance abuse and self-esteem.
- d. Heredity factors include environmental factors such as the social environment of an individual.

ANSWER: b

78. Labib has been having severe epileptic seizures since a very young age. His seizures have become less frequent since he underwent an operation. However, he has problems expressing what he feels. When he feels happy, his facial expressions often show anger. Labib has most likely undergone a(n) _____ operation.

- a. osseous resective
- b. multiple subpial
- c. split-brain
- d. gastric bypass

ANSWER: c

79. _____ relatives have a genetic overlap of about 50 percent.

- a. First-degree
- b. Second-degree
- c. Third-degree
- d. Fourth-degree

ANSWER: a

80. Messages from the brain or spinal cord are transmitted to muscles or glands through _____.

- a. Schwann cells
- b. afferent neurons
- c. glial cells
- d. motor neurons

ANSWER: d

81. The fluid-filled gap between two neurons through which neurotransmitters carry neural impulses is known as the _____.

- a. receptor site
- b. axon terminal
- c. synaptic cleft
- d. sympathetic division

ANSWER: c

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82. _____ is the concept that holds that adaptive genetic variations among members of a species enable individuals with those variations to survive and reproduce.

- a. Genetic drift
- b. Biased mutation
- c. Natural selection
- d. Reinforcement

ANSWER: c

83. Heredity defines one's _____, which is based on biological structures and processes.

- a. nature
- b. attitude
- c. environment
- d. status

ANSWER: a

84. _____ is a method of brain imaging that passes a narrow X-ray beam through the head and measures the structures that reflect the beams from various angles, generating a three-dimensional image.

- a. Computerized axial tomography
- b. Positron emission tomography
- c. Magnetic resonance imaging
- d. Functional magnetic resonance imaging

ANSWER: a

85. During puberty, _____ stokes the growth of muscle and bone and the development of primary and secondary sex characteristics in a male body.

- a. testosterone
- b. vasopressin
- c. estrogen
- d. norepinephrine

ANSWER: a

86. Being left-handed appears to provide a somewhat greater-than-average probability of having _____.

- a. autism
- b. dyslexia
- c. multiple sclerosis
- d. botulism

ANSWER: b

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87. Among lower animals, stimulation of various areas of the _____ can trigger instinctual behaviors such as fighting, mating, or nest building.

- a. hypothalamus
- b. corpus callosum
- c. hippocampus
- d. medulla

ANSWER: a

88. In the context of the brain's language functions, identify the correct statement.

- a. The right hemisphere of the brain contains language functions for nearly all right-handed people.
- b. Broca's area responds mainly to auditory information.
- c. People with Wernicke's aphasia usually speak freely and with proper syntax.
- d. Retrograde amnesia impairs people's abilities to comprehend speech and to think of the proper words to express their own thoughts.

ANSWER: c

89. While returning from the grocery store, Bob was held at gunpoint by two men who wanted to rob him of his belongings. Bob had never been in a fight before, yet he could feel his heartbeat rapidly rise, along with a sudden urge to fight the two men. This involuntary increase in Bob's heartbeat and his immediate urge to fight the men are controlled by the _____.

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

ANSWER: d

90. Each kind of neurotransmitter has a unique chemical structure, and each can fit into a specifically tailored harbor, or _____, on the cell receiving a message.

- a. receptor site
- b. synapse
- c. nucleus
- d. myelin sheath

ANSWER: a

91. The _____ is the body's system of ductless glands that secrete hormones and release them directly into the bloodstream.

- a. peripheral nervous system
- b. endocrine system
- c. central nervous system
- d. lymphatic system

ANSWER: b

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92. Which of the following causes Down syndrome?
- a. The presence of an extra chromosome on the 21st pair
 - b. The presence of only 22 pairs of chromosomes
 - c. The presence of more than 23 pairs of chromosomes
 - d. The presence of an extra chromosome on the 23rd pair

ANSWER: a

93. Paul is a fifty-five-year-old man who has been having some difficulty recalling important details. On visiting a doctor, he was told that he was in the early stages of Alzheimer's disease. The deficiency of _____ is most likely to be linked to Paul's condition.

- a. prolactin
- b. acetylcholine
- c. serotonin
- d. gamma-aminobutyric acid

ANSWER: b

94. A(n) _____ is a stereotyped pattern of behavior that is triggered in a specific situation.

- a. instinct
- b. intuition
- c. mutation
- d. drive

ANSWER: a

95. The surface of the cerebrum—the cerebral cortex—is wrinkled, or convoluted, with ridges and valleys. These valleys are known as _____.

- a. synaptic clefts
- b. fissures
- c. ducts
- d. hemispheres

ANSWER: b

96. Alicia was recently in a car accident. Since then, she cannot retain memories of events that occurred after the accident. However, she can recall events that took place before the accident. She recognizes her family and friends and important dates, such as her birthday and her marriage anniversary, but has to be constantly reintroduced to the new people in her life. Alicia has most likely sustained damage to her _____.

- a. hypothalamus
- b. somatosensory cortex
- c. hippocampus
- d. medulla

ANSWER: c

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97. Which of the following describes the electrical impulse that provides the basis for the conduction of a neural impulse along an axon of a neuron?

- a. An action potential
- b. The Moro reflex
- c. A resting potential
- d. The Babinski reflex

ANSWER: a

98. Which of the following is a difference between the thalamus and the hypothalamus?

- aThe thalamus serves as a relay station for sensory stimulation, whereas the hypothalamus controls the regulation of body temperature, concentration of fluids, storage of nutrients, and motivation and emotion.
- bThe thalamus receives messages from skin senses all over the body, whereas the hypothalamus regulates basic functions such as heart rate, blood pressure, and respiration.
- cThe thalamus controls the regulation of body temperature, concentration of fluids, storage of nutrients, and motivation and emotion, whereas the hypothalamus serves as a relay station for sensory stimulation.
- dThe thalamus controls the regulation of body temperature, concentration of fluids, storage of nutrients, and motivation and emotion, whereas the hypothalamus receives messages from skin senses all over the body.

ANSWER: a

99. _____ is best defined as a sudden variation in an inheritable characteristic, as distinguished from a variation that results from generations of gradual selection.

- a. Natural selection
- b. Classical conditioning
- c. Adaptation
- d. Mutation

ANSWER: d

100. John recently suffered a blow to his head. Since then, he finds it difficult to comprehend what others say to him. He also finds it difficult to express his thoughts and cannot seem to find the right words to say while speaking. However, he can speak freely with proper syntax. In this scenario, John is most likely suffering from _____.

- a. Broca's aphasia
- b. epilepsy
- c. retrograde amnesia
- d. Wernicke's aphasia

ANSWER: d

101. The _____ minimizes leakage of the electrical current being carried along the axon, thereby allowing messages to be conducted more efficiently.

- a. dendrite
- b. synapse
- c. myelin sheath
- d. glial cell column

ANSWER: c

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102. Peter went out cycling one morning. He was not wearing a helmet. He fell off a ridge and fell into a steep valley. Apart from fracturing his arm and acquiring several bruises, Peter severely injured his head. The doctor noticed a swelling on the right side of his head and suspected that it was a blood clot. Which of the following did the doctor use to obtain a three-dimensional image of Peter's brain for further investigation?

- a. Computerized axial tomography
- b. Positron emission tomography
- c. Electroencephalography
- d. Electrocardiography

ANSWER: a

103. Which of the following is a function of oxytocin?

- a. It inhibits production of urine when the body's fluid levels are low.
- b. It stimulates labor in pregnant women.
- c. It helps regulate the sleep-wake cycle.
- d. It affects the rate at which the body uses oxygen and produces energy.

ANSWER: b

104. Which of the following pituitary hormones regulates the adrenal cortex?

- a. Testosterone
- b. Melatonin
- c. Adrenocorticotrophic hormone
- d. Antidiuretic hormone

ANSWER: c

105. Sara is a pregnant woman who is well past her due date, which was three weeks ago. The doctors decide that they must induce labor in Sara and inject her with _____.

- a. oxytocin
- b. vasopressin
- c. melatonin
- d. thyroxin

ANSWER: a

106. _____ is a neurotransmitter that controls muscle contractions.

- a. Acetylcholine
- b. Serotonin
- c. Norepinephrine
- d. Thyroxin

ANSWER: a

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107. Which of the following diseases stems from food poisoning and prevents the release of acetylcholine?

- a. Botulism
- b. Anemia
- c. Meningitis
- d. Multiple sclerosis

ANSWER: a

108. Which of the following is one of the features of the neurotransmitter gamma-aminobutyric acid (GABA) that interests psychologists?

- a. GABA is an inhibitory neurotransmitter that may help calm anxiety reactions.
- b. GABA increases the release of dopamine, which can help cure schizophrenia.
- c. GABA is an inhibitory neurotransmitter that can simulate the effects of morphine addiction.
- d. GABA inhibits the formation of serotonin, which increases emotional arousal.

ANSWER: a

109. Allen was adopted at an early age by a Japanese American couple. As a result, he grew up speaking both Japanese and English fluently. In terms of genetics, this manifestation of Allen's ability to speak is an example of a(n) _____.

- a. genotype
- b. phenotype
- c. mutation
- d. alarm reaction

ANSWER: b