TOTAL ASSESSMENT GUIDE

Chapter 2
The Biological

Learning Objectives	Remember the Facts	Understand the Concepts	Apply What You Know	Analyze It
Introduction	1, 2, 146, 180, 181, 215			
2.1 Identify the parts of a neuron and the function of each.	3–10, 12, 13, 17, 18, 20–26, 191–194, 220, 221, 234	15, 19	16	11, 14
2.2 Explain the action potential.	27–29, 31, 195–197, 220, 234	30, 32, 34		33
2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.	35–39, 41, 45, 47, 49, 51, 53, 54, 56, 199, 222–224	42, 43, 58, 59, 198	46, 48, 50, 57	40, 44, 52, 55
2.4 Describe how lesioning studies and brain stimulation are used to study the brain.	60	61	235	
2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.	62, 66, 69–71, 200, 225	65, 74	63, 64, 67, 68, 72, 73, 75, 235	
2.6 Identify the different structures of the hindbrain and the function of each.	76, 78, 79, 81, 83, 86, 87, 201		77, 80, 82, 84, 85, 88–91	
2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.	92–94, 97, 98, 100, 102–104	99	96, 101, 105, 106, 202	95
2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.	107–110, 112–114, 117, 118, 121, 122, 125, 132, 203–205, 236	115, 130, 226	111, 116, 119, 120, 123, 124, 126–129, 131	
2.9 Recall the function of association areas of the cortex, including those especially crucial for language.	133, 134, 136, 227, 228, 236		135, 137, 138	
2.10 Explain how some brain functions differ between the left and right hemispheres.	139, 142, 206, 229	143, 145, 207	140, 141, 144	230

Learning Objectives	Remember the Facts	Understand the Concepts	Apply What You Know	Analyze It
2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.	147–153, 155, 208–212, 237	156, 160	154, 157, 159	158, 231
2.12 Differentiate the roles of the somatic and autonomic nervous systems.	161, 163–166, 170, 171, 173–175, 177, 213, 214, 238	162, 168	167, 169, 172, 176, 178, 179	231, 232
2.13 Explain why the pituitary gland is known as the "master gland."	183, 184, 239	182		
2.14 Recall the role of various endocrine glands.	185, 188, 189, 216–219, 233, 239		186, 187, 190	
2.15 Identify potential strategies for positively coping with attention-deficit/hyperactivity disorder.				

Name _____

Chapter 2 – Quick Quiz 1

1. Which part of the neuron is responsible for maintaining the life of the cell?
   a) axon
   b) soma
   c) dendrite
   d) cell membrane

2. _____ plays a critical role as a neurotransmitter that stimulates skeletal muscles to contract.
   a) Acetylcholine
   b) GABA
   c) Dopamine
   d) Endorphin

3. A brain-imaging method using radio waves and magnetic fields of the body to produce detailed images of the brain is called _____.
   a) magnetic resonance imaging (MRI)
   b) electroencephalography (EEG)
   c) positron emission tomography (PET)
   d) computed tomography (CT)

4. What part of the brain acts as a relay station for incoming sensory information?
   a) hypothalamus
   b) thalamus
   c) cerebellum
   d) pituitary gland

5. Which of the following regions contains the primary visual cortex?
   a) frontal lobe
   b) parietal lobe
   c) temporal lobe
   d) occipital lobe

6. Which of the following is/are functions of the right hemisphere?
   a) perception, expression of emotions, and recognition of patterns
   b) sense of time and rhythm
   c) speech, handwriting, and calculation
   d) language processing in most individuals

7. The two main divisions of the nervous system are the _____ and _____.
   a) brain; spinal cord
   b) autonomic nervous system; somatic nervous system
   c) peripheral nervous system; central nervous system
   d) glands; muscles

8. Which part of the nervous system takes the information received from the senses, makes sense out of it, makes decisions, and sends commands out to the muscles and the rest of the body?
   a) spinal cord
   b) brain
   c) reflexes
   d) interneurons

9. The part of the autonomic nervous system that is responsible for reacting to stressful events and bodily arousal is called the _____ nervous system.
   a) central
   b) somatic
   c) sympathetic
   d) parasympathetic

10. The hormone released by the pineal gland that reduces body temperature and prepares you for sleep is _____.
   a) melatonin
   b) DHEA
   c) parathormone
   d) thyroxin

Chapter 2 – Quick Quiz 1
Answer Key

1. b Explanation: The soma is responsible for maintaining the life of the cell. (Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block, Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.1 Identify the parts of a neuron and the function of each, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

2. a Explanation: Acetylcholine is an excitatory neurotransmitter that stimulates muscles to contract. (Topic: 2.3 Neurotransmission, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

3. a Explanation: MRI is a brain-imaging method using radio waves and magnetic fields of the body. (Topic: 2.5 Neuroimaging Techniques, Skill Level: Remember the Facts, Difficulty Level: Difficult, Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

4. b Explanation: The thalamus acts as a relay station. (Topic: 2.7 Structures Under the Cortex: The Limbic System, Skill Level: Remember the Facts, Difficulty Level: Difficult, Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

5. d Explanation: The occipital lobes contain the primary visual cortex. (Topic: 2.8 The Cortex, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

6. a Explanation: Perception, expression of emotions, and recognition of patterns are functions of the right hemisphere. (Topic: 2.10 The Cerebral Hemispheres, Skill Level: Understand the Concepts, Difficulty Level: Moderate, Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

7. c Explanation: The two main divisions of the nervous system are the central and peripheral nervous systems. (Topic: 2.11–2.12 The Nervous System: The Rest of the Story, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: None, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

8. b Explanation: Interpreting information from the senses and sending commands to the rest of the body are responsibilities of the brain. (Topic: 2.11 The Central Nervous System: The "Central Processing Unit," Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

9. c Explanation: The sympathetic nervous system is responsible for reacting to stressful events and bodily arousal. (Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge, Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

10. a Explanation: The pineal gland secretes melatonin. (Topic: 2.14 Other Endocrine Glands, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.14 Recall the role of various endocrine glands, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

Name _____

Chapter 2 – Quick Quiz 2

1. The branchlike structures that receive messages from other neurons are called _____.
   a) axons
   b) nerve bundles
   c) dendrites
   d) synapses

2. Which of the following are tiny sacs in a synaptic knob that release chemicals into the synapse?
   a) synaptic vesicles
   b) synaptic nodes
   c) terminal buttons
   d) synaptic gaps

3. The point at which the nerves from the left side of the body cross over into the right side of the brain, and vice versa, is the _____.
   a) reticular activating system
   b) pons
   c) medulla
   d) cerebellum

4. The _____ is the part of the brain responsible for the formation of long-term memories.
   a) amygdala
   b) hypothalamus
   c) fornix
   d) hippocampus

5. Which of the following is the upper part of the brain consisting of two cerebral hemispheres and the structures that connect them?
   a) occipital lobe
   b) cerebrum
   c) corpus callosum
   d) cerebellum

6. Which of the following is the section of the brain located at the rear and bottom of each cerebral hemisphere and contains the visual centers of the brain?
   a) occipital lobe
   b) parietal lobe
   c) temporal lobe
   d) frontal lobe

7. The area of the frontal lobe that is devoted to the production of fluent speech is _____ area.
   a) Broca's
   b) Gall's
   c) Wernicke's
   d) Korsakoff's

8. Which of the following are responsible for acting as a facilitator of communication between neurons?
   a) motor neurons
   b) interneurons
   c) sensory neurons
   d) reflexes

9. Every deliberate action you make, such as pedaling a bike, walking, scratching, or smelling a flower, involves neurons in the _____ nervous system.
   a) sympathetic
   b) somatic
   c) parasympathetic
   d) autonomic

10. Which endocrine gland controls all of the other endocrine glands?
    a) thyroid
    b) adrenal
    c) thymus
    d) pituitary

Chapter 2 – Quick Quiz 2
Answer Key

1. c Explanation: Dendrites receive messages from other neurons. (Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.1 Identify the parts of a neuron and the function of each, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

2. a Explanation: Synaptic vesicles are structures within the synaptic knobs. (Topic: 2.3 Neurotransmission, Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

3. c Explanation: The medulla is the point where nerves cross over. (Topic: 2.6 The Hindbrain , Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

4. d Explanation: The hippocampus is responsible for the formation of long-term memories. (Topic: 2.7 Structures Under the Cortex: The Limbic System, Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

5. b Explanation: The cerebrum consists of the two cerebral hemispheres and the structures that connect them. (Topic: 2.8 The Cortex , Skill Level: Remember the Facts, Difficulty Level: Difficult, Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

6. a Explanation: The occipital lobes contain the visual centers of the brain. (Topic: 2.8 The Cortex, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

7. a Explanation: Broca's area is devoted to the production of fluent speech. (Topic: 2.9 The Association Areas of the Cortex, Skill Level: Remember the Facts, Difficulty Level: Moderate, Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

8. b Explanation: Interneurons connect the sensory neurons to the motor neurons. (Topic: 2.11 The Central Nervous System: The "Central Processing Unit," Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

9. b Explanation: The somatic nervous system controls voluntary muscle movement. (Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge, Skill Level: Understand the Concepts, Difficulty Level: Difficult, Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems, APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

10. d Explanation: The pituitary gland controls all other endocrine glands. (Topic: 2.13 The Pituitary: Master of the Hormonal Universe, Skill Level: Remember the Facts, Difficulty Level: Easy, Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland," APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.)

2 The Biological Perspective

MULTIPLE CHOICE

1. The function of the _____ is to carry information to and from all parts of the body.
a) soma
Incorrect. The primary responsibility of the soma is to maintain the life of the neuron.
b) synapse
c) nervous system
Correct. Sending information to and from all parts of the body is the primary function of the nervous system.
d) endorphins
Answer: c
Learning Objective: None
Topic: 2.1–2.3 Neurons and Neurotransmitters
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 91 a= 2 b= 4 c= 91 d=33 *r* = .32
% correct 100 a= 0 b= 0 c= 100 d= 0 *r* = .00
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

2. The nervous system is defined as _____.
a) a complex network of cells that carries information to and from all parts of the body
Correct. The nervous system is a complex network of cells that carry information to and from all parts of the body.
b) a specialized cell that makes up the brain and nervous system
c) all nerves and neurons that are not contained in the brain and spinal cord but that run throughout the body itself
Incorrect. The nervous system includes networks of neurons that are in the brain and spinal cord.
d) a gland located in the brain that secretes human growth hormone
Answer: a
Learning Objective: None
Topic: 2.1–2.3 Neurons and Neurotransmitters
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 92 a= 92 b= 1 c= 6 d= 1 *r* = .27
% correct 94 a= 94 b= 1 c=4 d= 0 *r* = .26
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

3. The branch of life sciences that involves the structure and function of the brain and nervous system is called _____.
a) neuroscience
Correct. This is the branch of life sciences that covers these topics.
b) bioscience
Incorrect. The correct answer is neuroscience.
c) brain scientology
d) neurostemology
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy

Skill Level: Remember the Facts
APA Learning Objective: 1.2 Develop a working knowledge of psychology's content domains.

4. The branch of neuroscience that focuses on the biological bases of psychological processes, behavior, and learning is called _____.
a) biological psychology
Correct. This is the branch of neuroscience that covers these topics.
b) bioscience
Incorrect. The correct answer is biological psychology, which is also called behavioral neuroscience.
c) brain scientology
d) neurostemology
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.2 Develop a working knowledge of psychology's content domains.

5. A specialized cell that makes up the nervous system that receives and sends messages within that system is called a _____.
a) glial cell
Incorrect. Glial cells serve as a structure for neurons.
b) neuron
Correct. A neuron is a specialized cell that makes up the nervous system that receives and sends messages within that system.
c) cell body
d) myelin sheath
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 96 a= 4 b= 96 c= 0 d= 0 *r* = .19
% correct 97 a= 2 b= 97 c= 1 d= 0 *r* = .39
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

6. The part of the neuron whose name literally means "branch" is _____.
a) axon
Incorrect. Dendrite is the correct answer.
b) dendrite
Correct. Dendrite comes from the word tree.
c) myelin
d) soma
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 77 a= 20 b= 77 c= 1 d= 1 *r* = .32
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

7. The branchlike structures that *receive* messages from other neurons are called _____.
a) axons
Incorrect. Axons send but do not receive messages.
b) nerve bundles

c) dendrites
Correct. Dendrites receive messages from other neurons.
d) synapses
Answer: c
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 84 a= 10 b= 2 c= 84 d= 4 *r* = .39
% correct 83 a=11 b= 0 c= 83 d= 5 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

8. Which part of the neuron is responsible for maintaining the life of the cell?
a) axon
b) soma
Correct. The soma is responsible for maintaining the life of the cell.
c) dendrite
d) cell membrane
Incorrect. The soma is responsible for maintaining the life of the cell.
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 70 a= 5 b= 70 c= 2 d= 23 *r* = .37
% correct 74 a= 0 b= 74 c= 26 d= 1 *r* = .32
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

9. The part of a neuron that contains the nucleus and keeps the entire cell alive and functioning is the _____.
a) axon
b) cell membrane
Incorrect. The soma is responsible for maintaining the life of the cell.
c) dendrite
d) soma
Correct. The soma is responsible for maintaining the life of the cell.
Answer: d
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 67 a= 7 b= 23 c= 2 d= 67 *r* = .56
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

10. By what other name is a soma called?
a) axon
b) cell body
Correct. The soma is also called the cell body.
c) dendrite
d) cell membrane
Incorrect. The soma is also called the cell body.
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts

APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

11. Dendrite is to axon as _____.
a) send is to receive
Incorrect. This is the opposite of the correct answer.
b) send is to regulate
c) receive is to send
Correct. Dendrites are treelike parts of the neuron that are designed to receive messages. The axon sends messages to other neurons.
d) receive is to release
Answer: c
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

12. Which part of a neuron is attached to the soma and carries messages out to other cells?
a) soma
b) axon
Correct. The axon carries messages to other cells.
c) dendrite
Incorrect. Dendrites receive messages.
d) cell membrane
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 81 a= 2 b= 81 c= 14 d= 4 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

13. The function of the neuron's axon is to _____.
a) carry messages to other cells
Correct. The function of the axon is to carry messages to other cells.
b) regulate the neuron's life processes
c) receive messages from neighboring neurons
Incorrect. Dendrites, not axons, receive messages.
d) insulate against leakage of electrical impulses
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 67 a= 67 b= 2 c= 10 d= 21 *r* = .41
% correct 80 a= 80 b= 6 c= 13 d= 2 *r* = .30
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

14. _____ receive messages from other neurons and _____ send messages to other neurons.
a) Axons; dendrites
Incorrect. Axons send messages, and dendrites receive messages.
b) Axon; soma
c) Soma; glial cells
d) Dendrites; axons
Correct. Dendrites receive messages, and axons carry messages to other cells.

Answer: d
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Analyze It
% correct 71 a= 23 b= 3 c= 4 d= 71 *r* = .39
% correct 78 a= 17 b= 3 c= 1 d= 78 *r* = .46
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

15. Which of the following BEST represents the order in which a neuron receives and transmits information?
a) dendrites, cell body, axon, axon terminals
Correct. The dendrite receives a message, the cell body processes it, the axon takes a message to the axon terminals, and the terminal buttons release neurotransmitters.
b) axon terminals, dendrites, cell body, axon
c) cell body, dendrites, axon terminals, axon
Incorrect. Every part of this answer is out of the correct order.
d) axon, cell body, dendrites, axon terminals
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

16. Your psychology teacher asks you to describe the sequence of parts of a neuron that the impulse travels during neural conduction. Which of the following sequences will you offer?
a) dendrites, axon, soma, synaptic knob
b) terminal buttons, axon, soma, dendrites
c) axon, soma, dendrites, synaptic knob
Incorrect. The neural impulse begins with the receipt of messages by the dendrites.
d) dendrites, soma, axon, synaptic knob
Correct. This answer describes the correct sequence.
Answer: d
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

17. What term is used to describe the bulbs located at the end of the axon?
a) axon terminals
Correct. The axon terminals are located at the end of the axon.
b) synaptic vesicles
Incorrect. Synaptic vesicles are structures within the synaptic knobs.
c) synapses
d) receptor sites
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 59 a= 59 b= 15 c= 3 d= 22 *r* = .48
% correct 52 a= 52 b= 20 c= 13 d= 15 *r* = .38
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

18. What is the term used to describe the rounded areas on the ends of the axon?
a) synaptic vesicles
Incorrect. Synaptic vesicles are structures within the synaptic knobs.
b) axons
c) dendrites
d) synaptic knobs
Correct. Synaptic knobs are located at the tip of each axon.
Answer: d
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 73 a= 24 b= 1 c= 2 d= 73 *r* = .33
% correct 75 a= 19 b= 1 c= 5 d= 75 *r* = .20
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

19. What are two roles of glial cells?
a) acting as insulation and providing structure to surrounding neurons
Correct. This answer defines two roles of glial cells.
b) shaping cells and moving new neurons into place
Incorrect. Glial cells provide structure and insulation to neurons.
c) regulating metabolic activity and serving as pain detectors
d) monitoring neural transmission and releasing hormones in the brain
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Difficult
Skill Level: Understand the Concepts
% correct 59 a= 59 b= 4 c= 11 d= 22 *r* = .32
% correct 61 a= 61 b= 8 c= 7 d= 24 *r* = .32
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

20. A cell in the human nervous system whose primary function is to provide insulation and structure for neurons on which they may develop and work is called a(n) _____.
a) epidermal cell
b) adipose cell
c) glial cell
Correct. Glial cells serve as a structure on which neurons develop and work.
d) myelin sheath
Incorrect. The myelin sheath does not serve as a structure on which neurons develop and work.
Answer: c
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 46 a= 3 b= 1 c= 46 d= 51 *r* = .34
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

21. Two specialized types of glial cells are called _____ and _____.
a) occipital; lobitical
b) oligodendrocytes; Schwann cells
Correct. These are the two types according to the text.
c) occipital; Schwann
Incorrect. B is the correct answer.
d) oligodendrocytes; lobitical

Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

22. What is the function of myelin?
a) to serve as a structure for neurons
Incorrect. This is the function of glial cells, not myelin.
b) to monitor neural activity
c) to speed up the neural impulse
Correct. Myelin speeds up the neural impulse.
d) to produce neurotransmitters
Answer: c
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 71 a= 14 b= 7 c= 71 d= 9 $r = .33$
% correct 62 a= 28 b= 3 c= 62 d= 8 $r = .44$
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

23. Which of the following statements about myelin is TRUE?
a) It is made of a fatty substance.
Correct. Myelin is made up of a fatty type of tissue produced by certain glial cells.
b) It is covered by axons.
Incorrect. Myelin covers axons. It is not covered by axons.
c) It inhibits neural communication.
d) It slows down neuronal operations.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

24. One purpose of _____ is to speed up the neural message traveling down the axon.
a) the receptor site
b) axon terminals
Incorrect. Axon terminals do not speed up the neural impulse.
c) myelin
Correct. Myelin speeds up the neural impulse.
d) a synaptic vesicle
Answer: c
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 78 a= 2 b= 8 c= 78 d= 13 $r = .31$
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

25. A group of axons bundled together coated in myelin that travels together through the body is called a _____.
a) synaptic vesicle

b) nerve
Correct. Bundles of myelin-coated axons travel together in cables called nerves.
c) neurilemma
Incorrect. Neurilemma enable damaged neurons to repair themselves.
d) myelinated pathway
Answer: b
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 60 a= 20 b= 60 c= 6 d= 14 *r* = .49
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

26. A nerve is a group of _____ bundled together.
a) axons
Correct. Nerves are bundles of myelin-coated axons.
b) interneurons
c) dendrites
Incorrect. Dendrites are part of the neuron.
d) glial cells
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 37 a= 37 b= 37 c= 8 d= 18 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

27. When a cell is "at rest," it is in a state called the _____.
a) stopping point
b) obcipitation junction
Incorrect. This is a fictitious word.
c) resting potential
Correct. A cell at rest is in a state called the resting potential.
d) action potential
Answer: c
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 85 a= 1 b= 0 c= 85 d= 13 *r* = .41
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

28. What do we call the state of a neuron when it is NOT firing a neural impulse?
a) action potential
Incorrect. Action potential is the state a neuron is in when firing a neural impulse.
b) resting potential
Correct. Resting potential is the state a neuron is in when not firing a neural impulse.
c) myelination signal
d) transmission impulse
Answer: b
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Easy
Skill Level: Remember the Facts

% correct 84 a= 11 b= 84 c= 1 d=4 *r* = .18
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

29. The state during which a neuron contains more negatively charged ions inside the cell than outside the cell and is NOT firing is referred to as the _____.
a) action potential
Incorrect. Action potential is the state a neuron is in when firing.
b) quiet potential
c) synaptic potential
d) resting potential
Correct. Resting potential is the state a neuron is in when a cell is not firing a neural impulse.
Answer: d
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 85 a= 4 b= 4 c= 7 d= 85 *r* = .19
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

30. The charge that a neuron at rest maintains is due to the presence of a high number of _____ charged ions inside the neuron's membrane.
a) actively
b) passively
c) negatively
Correct. Negatively charged ions inside the neuron's membrane are what give rise to a negative resting potential.
d) positively
Incorrect. It is during the action potential that the positively charged ions flow into the neuron and outnumber the negatively charged ions.
Answer: c
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

31. When the electrical potential in a cell is in action versus a resting state, this electrical charge reversal is known as the _____.
a) resting potential
Incorrect. This would be when a cell continued to be at rest.
b) excitation reaction
c) action potential
Correct. This is the state in which the electrical charge is reversed.
d) permeable reaction
Answer: c
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 75 a= 14 b= 10 c= 75 d= 1 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

32. The term "fire" when referring to neural transmission indicates that a neuron _____.
a) has become less positive in charge
b) has received, in its dendrites, appropriate inputs from other neurons

Correct. A neuron fires after the dendrites receive enough stimulation to trigger the cell body to generate an action potential.

c) is unable to transmit information to another neuron

d) has become more negative in charge

Incorrect. In fact, the firing state of the neuron occurs when it generates a positive charge rather than a negative charge.

Answer: b
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Difficult
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

33. During action potential, the electrical charge inside the neuron is _____ the electrical charge outside the neuron.

a) positive compared to

Correct. There are more positively charged ions inside the cell than outside.

b) larger than

c) negative compared to

Incorrect. During resting potential, the inside is more negatively charged.

d) smaller than

Answer: a
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Difficult
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

34. When a neuron fires, it fires in a(n) _____ fashion, as there is no such thing as "partial" firing.

a) all-or-none

Correct. This is the term used to describe how neurons fire according to the text.

b) rapid fire

c) accidental patterned

d) quick successioned

Incorrect. This is not the term referred to in the text.

Answer: a
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

35. The saclike structures found inside the synaptic knob containing chemicals are called _____.

a) axon terminals

Incorrect. The axon terminals are limb-like structures.

b) synapses

c) synaptic vesicles

Correct. Synaptic vesicles are structures within the synaptic knobs.

d) receptor sites

Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Remember the Facts

% correct 69 a= 5 b= 8 c= 69 d= 17 *r* = .53
% correct 64 a= 20 b= 12 c= 64 d= 14 *r* = .45
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

36. Which of the following are tiny sacs in an axon terminal that release chemicals into the synapse?
a) synaptic vesicles
Correct. Synaptic vesicles are structures within the synaptic knobs.
b) synaptic nodes
c) terminal buttons
Incorrect. Terminal buttons are the same as synaptic knobs.
d) synaptic gaps
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

37. A chemical found in the synaptic vesicles that, when released, has an effect on the next cell is called a _____.
a) glial cell
b) neurotransmitter
Correct. Neurotransmitters are stored in the synaptic vesicles.
c) precursor cell
d) synapse
Incorrect. The synapse is the space between the synaptic knob of one cell and the dendrites of the next cell.
Answer: b
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 74 a= 4 b= 74 c= 4 d= 18 *r* = .34
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

38. The term *neurotransmitter* refers to _____.
a) a chemical found in the synaptic vesicles that is released into the synapse
Correct. Neurotransmitters are chemicals.
b) any one of a number of chemical compounds that increase the activity of the endocrine system
c) the chemical substance found in the cell membrane
Incorrect. The neurotransmitter is found in the synaptic vesicle.
d) the DNA contained in the nucleus of every neuron
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

39. The fluid-filled space between the synaptic knob of one cell and the dendrites of the next cell is called the _____.
a) receptor site
Incorrect. Molecules that float across the synapse fit themselves into receptor sites, thus activating the next cell.

b) synapse
Correct. The synapse is the space between the axon of a sending neuron and the dendrites of a receiving neuron.
c) synaptic knob
d) axon terminal
Answer: b
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

40. The action potential causes neurotransmitters to be released into the _____.
a) myelin sheath
b) axon
c) synapse
Correct. Neurotransmitters are released into the synapse.
d) synaptic vesicle
Incorrect. Neurotransmitters are stored in the synaptic vesicle.
Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Analyze It
% correct 59 a= 8 b= 11 c= 59 d= 22 *r* = .32
% correct 56 a= 5 b= 16 c= 56 d= 27 *r* = .35
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

41. _____ are three-dimensional proteins on the surface of the dendrites or certain cells of the muscles and glands that are shaped to fit only certain neurotransmitters.
a) Neurotransmitters
b) Axons
c) Synaptic vesicles
Incorrect. Neurotransmitters are stored in the synaptic vesicle.
d) Receptor sites
Correct. Molecules that float across the synapse fit themselves into receptor sites like keys fitting into a lock, thus activating the next cell.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

42. Which structure is like a locked door that only certain neurotransmitter keys can unlock?
a) synapses
Incorrect. Synapses are microscopic fluid-filled spaces between neurons.
b) receptor sites
Correct. Only certain neurotransmitters can fit into receptor sites.
c) neural chiasms
d) response terminals
Answer: b

Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

43. _____ synapses make it more likely that a neuron will send its message to other neurons, whereas _____ synapses make it less likely that a neuron will send its message.
a) Excitatory; inhibitory
Correct. Excitatory synapses turn cells on and inhibitory ones turn cells off.
b) Inhibitory; excitatory
Incorrect. Inhibitory synapses turn cells off and excitatory ones turn cells on.
c) Augmentation; depletion
d) Depletion; augmentation
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Understand the Concepts
% correct 89 a= 89 b= 8 c= 3 d= 0 *r* = .48
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

44. Agonist is to antagonist as _____.
a) neuromodulator is to neurotransmitter
b) reuptake is to receptor
c) mimic is to block
Correct. Agonists mimic neurotransmitters by stimulating specific receptor sites, and antagonists block receptor sites.
d) block is to mimic
Incorrect. This is the opposite of the correct answer.
Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

45. Curare, a poison, works by _____.
a) blocking receptor sites and acting as an antagonist for acetylcholine
Correct. This drug acts as an antagonist for acetylcholine.
b) stimulating the release of excessive amounts of acetylcholine
Incorrect. This drug inhibits the release of acetylcholine.
c) stimulating the release of neurotransmitters
d) inhibiting the production of inhibitory neurotransmitters
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 30 a= 30 b= 26 c= 20 d= 24 *r* = .23
% correct 41 a= 41 b= 24 c= 22 d= 13 *r* = .22

APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

46. After being bitten by a black widow spider, Ling starts to convulse. This is a result of a _____.
a) lack of GABA being released into her bloodstream
Incorrect. The correct answer is d.
b) resurgence of neurotransmitters overstimulating her brain stem
c) surge of chemicals blocking the transmission of fluids to the spinal cord
d) flood of acetylcholine releasing into the body's muscle system
Correct. This is the result of the bite. The result can also include death.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

47. _____ plays a critical role as a neurotransmitter that stimulates skeletal muscles to contract.
a) Acetylcholine
Correct. Acetylcholine is an excitatory neurotransmitter that stimulates muscles to contract.
b) GABA
Incorrect. GABA is an inhibitory neurotransmitter.
c) Dopamine
d) Endorphin
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

48. Peyton has been experiencing a serious memory problem. An interdisciplinary team has ruled out a range of causes and believes that a neurotransmitter is involved. Which neurotransmitter is most likely involved in this problem?
a) GABA
Incorrect. GABA has a tranquilizing effect.
b) dopamine
c) serotonin
d) acetylcholine
Correct. Acetylcholine is found in a part of the brain responsible for forming new memories.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Apply What You Know
% correct 33 a= 0 b= 26 c=41 d= 33 $r = .19$
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

49. Which neurotransmitter is associated with sleep, mood, and appetite?
a) GABA
Incorrect. GABA is associated with helping calm anxiety.

b) serotonin
Correct. Serotonin is associated with mood, sleep, and appetite.
c) dopamine
d) acetylcholine
Answer: b
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 60 a= 6 b= 60 c= 25 d= 8 *r* = .26
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

50. Tristan has decided to seek medical help for mood disturbances and appetite problems. Which neurotransmitter is most likely involved in the problems Tristan is experiencing?
a) GABA
Incorrect. GABA is involved in sleep and inhibits movement but is not associated with mood or appetite.
b) dopamine
c) serotonin
Correct. Serotonin is associated with mood and appetite.
d) acetylcholine
Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

51. GABA functions as _____.
a) the major neurotransmitter involved in voluntary movements
b) an inhibitory neurotransmitter in the brain
Correct. GABA is an inhibitory neurotransmitter.
c) the neurotransmitter responsible for slowing intestinal activity during stress
d) the major excitatory neurotransmitter in the brain
Incorrect. GABA is an inhibitory neurotransmitter.
Answer: b
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

52. The effect of alcohol is to enhance the effect of _____, which causes the general inhibition of the nervous system associated with getting drunk.
a) GABA
Correct. GABA is an inhibitory neurotransmitter.
b) serotonin
c) dopamine
d) acetylcholine
Incorrect. Acetylcholine is not associated with the effects of alcohol.
Answer: a

Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

53. Endorphins are _____.
a) found where neurons meet skeletal muscles
b) less powerful than enkephalins
c) pain-controlling chemicals
Correct. Endorphins are pain-controlling chemicals.
d) radically different in function from neurotransmitters
Incorrect. Endorphins are *neurotransmitters.*
Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 74 a= 4 b= 7 c= 74 d= 15 *r* = .41
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

54. Pain-controlling chemicals in the body are called _____.
a) neural regulators
Incorrect. Not all neural regulators are endorphins.
b) histamines
c) androgens
d) endorphins
Correct. Endorphins are pain-controlling chemicals.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 81 a= 3 b= 7 c= 8 d= 81 *r* = .42
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

55. Because they have similar chemical structures, morphine and heroin are able to lock into receptor sites for _____.
a) GABA
Incorrect. Opiates are not able to lock into GABA receptor sites.
b) serotonin
c) dopamine
d) endorphins
Correct. Endorphins are a natural substance that has the same effect as opiates.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

56. Reuptake is _____.
a) a chemical that is released into the synaptic gap
Incorrect. Reuptake is a process.
b) a protein molecule on the dendrite or cell body of a neuron that will interact only with specific neurotransmitters
c) a process by which neurotransmitters are taken back into the synaptic vesicles
Correct. This is the definition of reuptake.
d) a chemical that plays a role in learning and attention
Answer: c
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 77 a= 7 b= 13 c= 77 d= 3 *r* = .41
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

57. Casey is putting mustard on her hot dog. She realizes she has put too much and sucks up some of it back into the squeeze bottle. This process is similar to _____.
a) the action potential
b) receptor site bindings
c) binding specificity
Incorrect. Binding specificity refers to the fact that receptor sites are designed to receive only one specific neurotransmitter.
d) reuptake
Correct. Reuptake occurs when excess neurotransmitters are reabsorbed into the sending neuron.
Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

58. How is acetylcholine removed from the synapse?
a) It is broken down by an enzyme.
Correct. It is broken down by an enzyme.
b) It is taken back up in the synapse.
Incorrect. It is broken down by an enzyme.
c) It dissipates in the surrounding body fluids.
d) Acetylcholine is one of the few neurotransmitters that is continually present in the synapse.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

59. Enzymatic degradation is the process by which an excess of a neurotransmitter called _____ is removed from synapses. Other neurotransmitters can be removed via the process of reuptake.
a) dopamine
b) GABA
c) norepinephrine

Incorrect. NE can be removed via either process.

d) acetylcholine

Correct. ACh cannot be removed via reuptake, and so it requires enzymatic degradation.

Answer: d
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

60. Insertion into the brain of a thin insulated wire through which an electrical current is sent that destroys the brain cells at the tip of the wire is called _____.

a) lesioning

Correct. Lesioning destroys brain cells.

b) ESB

Incorrect. ESB stimulates brain cells.

c) EEG

d) CT scanning

Answer: a
Learning Objective: 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Topic: 2.4 Methods for Studying Specific Regions of the Brain
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

61. In order to study parts of an animal's brain, researchers may sometimes deliberately damage a part of the brain. They accomplish this by placing into the brain a thin insulated wire through which they send an electrical current that destroys the brain cells at the tip of the wire. This technique is called _____.

a) lesioning

Correct. Lesioning destroys brain cells.

b) ESB

Incorrect. ESB stimulates brain cells.

c) EEG

d) CT scanning

Answer: a
Learning Objective: 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Topic: 2.4 Methods for Studying Specific Regions of the Brain
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

62. _____ is a brain-imaging method that takes computer-controlled X-rays of the brain.

a) Electroencephalography (EEG)

b) Magnetic resonance imaging (MRI)

Incorrect. MRI is a brain-imaging method using radio waves and magnetic fields of the body.

c) Positron emission tomography (PET)

d) Computed tomography (CT)

Correct. CT scans take computer-controlled X-rays of the brain.

Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Remember the Facts

% correct 30 a= 16 b= 42 c= 11 d= 30 *r* = .30
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

63. Violet is in the hospital about to undergo a brain-imaging process that involves taking many X-rays from different angles aided by the use of a computer. What type of imaging technique is being used?
a) electroencephalography (EEG)
b) magnetic resonance imaging (MRI)
Incorrect. MRI is a brain-imaging method using radio waves and magnetic fields of the body.
c) positron emission tomography (PET)
d) computed tomography (CT)
Correct. CT scans take computer-controlled X-rays of the brain.
Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 37 a= 18 b= 42 c= 4 d= 37 *r* = .30
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

64. If Michele's doctor has taken a series of images of her brain using X-rays, then she has likely had a(n) _____.
a) EEG
Incorrect. An electroencephalogram is a graphical representation of the electrical activity in the brain.
b) MRI
c) CT scan
Correct. CT scans use X-rays to create such images.
d) PET scan
Answer: c
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.3 Describe applications of psychology; 2.4 Interpret, design, and conduct basic psychological research.

65. A brain-imaging method called _____ takes advantage of the magnetic properties of different atoms to take sharp, three-dimensional images of the brain.
a) electroencephalography (EEG)
b) magnetic resonance imaging (MRI)
Correct. MRI is a brain-imaging method using radio waves and magnetic fields of the body.
c) positron emission tomography (PET)
d) computed tomography (CT)
Incorrect. CT scans use X-rays.
Answer: b
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

66. A brain-imaging method using radio waves and magnetic fields of the body to produce detailed images of the brain is called _____.

a) electroencephalography (EEG)
b) magnetic resonance imaging (MRI)
Correct. MRI is a brain-imaging method using radio waves and magnetic fields of the body.
c) positron emission tomography (PET)
d) computed tomography (CT)
Incorrect. CT scans use X-rays.
Answer: b
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 64 a= 19 b= 64 c= 7 d= 10 *r* = .20
% correct 81 a= 17 b= 81 c= 0 d= 2 *r* = .29
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

67. Khalif is in the hospital and is about to undergo a brain-imaging process that involves placing him inside a magnetic field so that a computer can create three-dimensional images of his brain. What procedure is he about to undergo?
a) electroencephalography (EEG)
b) magnetic resonance imaging (MRI)
Correct. MRI is a brain-imaging method using radio waves and magnetic fields of the body.
c) computed tomography (CT)
Incorrect. CT scans use X-rays.
d) positron emission tomography (PET)
Answer: b
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Easy
Skill Level: Apply What You Know
% correct 93 a= 4 b= 93 c= 0 d= 4 *r* = .29
APA Learning Objectives: 1.3 Describe applications of psychology; 2.4 Interpret, design, and conduct basic psychological research.

68. Small metal disks are pasted onto Ruby's scalp, and they are connected by wire to a machine that translates the electrical energy from her brain into wavy lines on a moving piece of paper. From this description, it is evident that Ruby's brain is being studied through the use of _____.
a) a CT scan
Incorrect. CT scans take computer-controlled X-rays of the brain.
b) functional magnetic resonance imaging (fMRI)
c) a microelectrode
d) an electroencephalogram (EEG)
Correct. Electroencephalograms record brain wave patterns.
Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Easy
Skill Level: Apply What You Know
% correct 81 a= 10 b= 5 c= 4 d= 81 *r* = .35
APA Learning Objectives: 1.3 Describe applications of psychology; 2.4 Interpret, design, and conduct basic psychological research.

69. Which of the following is a machine designed to record the brain wave patterns produced by electrical activity of

the brain's cortex, just below the scalp?
a) deep lesioning
b) ESB
Incorrect. ESB is insertion of a thin insulated wire into the brain.
c) EEG
Correct. EEG records brain wave patterns.
d) CT scan
Answer: c
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

70. Which equipment is used to monitor brain waves?
a) CT scan
Incorrect. A CT scan is a brain-imaging method.
b) functional magnetic resonance imaging
c) microelectrode
d) electroencephalograph
Correct. Electroencephalographs monitor brain waves.
Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 31 a= 27 b= 19 c= 22 d= 31 *r* = .37
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

71. Which of the following is a brain-imaging method in which radioactive sugar is injected into the subject and a computer compiles a color-coded image of the activity of the brain?
a) electroencephalography (EEG)
b) computed tomography (CT)
c) positron emission tomography (PET)
Correct. PET scan provides a color-coded image of the activity of the brain.
d) functional magnetic resonance imaging (fMRI)
Incorrect. FMRI does not involve radioactive sugar.
Answer: c
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 48 a= 25 b= 12 c= 48 d= 13 *r* = .37
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

72. Aisha's physician refers her to a medical center in order to have the biochemical activity in her brain analyzed. She is given an injection of a radioactive glucose-like substance and then is told to lie down with her head in a scanner. The technique being used is _____.
a) positron emission tomography
Correct. PET involves injecting a radioactive glucose into the patient.
b) functional magnetic resonance imaging
Incorrect. FMRI does not involve injecting the patient with glucose.

c) microelectrode recording
d) electroencephalography
Answer: a
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.3 Describe applications of psychology; 2.4 Interpret, design, and conduct basic psychological research.

73. Catalina needs to have a neuroimaging test that will track the activity of her brain, but wants to use a radioactive tracer that is more easily obtained than those used for PET. Which of the following offers the BEST alternative based on Catalina's needs?
a) electroencephalography (EEG)
b) computed tomography (CT)
c) functional positron emission tomography (fPET)
Incorrect. There is no neuroimaging technique called fPET.
d) single photon emission computed tomography (SPECT)
Correct. SPECT offers this stated benefit over PET scans.
Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.3 Describe applications of psychology; 2.4 Interpret, design, and conduct basic psychological research.

74. Which of the following is the primary benefit of SPECT over PET?
a) SPECT is a noninvasive neuroimaging technique, while PET is invasive.
b) SPECT offers the benefit of using radioactive tracers that are easier to obtain than those used for PET.
Correct. SPECT allows the use of tracers that can be more easily obtained than those used in PET scans.
c) SPECT allows the monitoring of actual brain activity, while PET does not.
d) SPECT offers the monitoring of brain oxygen changes, while PET does not.
Incorrect. Both PET and SPECT can track changes in brain oxygenation levels.
Answer: b
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

75. A researcher wants to obtain a "movie" of changes in the activity of the brain using images from different time periods. Which of these would be the BEST choice for this researcher?
a) electroencephalography (EEG)
b) computed tomography (CT)
c) positron emission tomography (PET)
Incorrect. PET provides a color-coded image of the activity of the brain, not moving images of the brain.
d) functional magnetic resonance imaging (fMRI)
Correct. An fMRI takes MRI images and combines them into a moving image of the brain.
Answer: d
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.

Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 40 a= 25 b= 18 c= 15 d= 40 *r* = .20
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

76. The _____ is a structure in the brain stem responsible for life-sustaining functions, such as breathing and heart rate.
a) reticular activating system
b) pons
Incorrect. The pons plays a role in sleep, dreaming, left-right body coordination, and arousal.
c) medulla
Correct. The medulla is responsible for life-sustaining functions.
d) cerebellum
Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 59 a= 3 b= 19 c= 59 d= 18 *r* = .27
% correct 60 a= 3 b= 14 c= 60 d= 22 *r* = .22
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

77. An auto accident rendered Nathan's nervous system unable to send messages for him to breathe, so he is on a respirator. Which brain structure was damaged in the accident?
a) pons
Incorrect. The pons plays a role in sleep, dreaming, left-right body coordination, and arousal.
b) medulla
Correct. The medulla is responsible for breathing.
c) cerebellum
d) reticular formation
Answer: b
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 48 a= 10 b= 48 c= 37 d= 5 *r* = .22
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

78. The point at which the nerves from the left side of the body cross over into the right side of the brain and vice versa is called the _____.
a) reticular activating system
b) pons
Incorrect. The pons connects the top of the brain to the bottom.
c) medulla
Correct. This is the point where nerves cross over.
d) cerebellum
Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

79. The _____ is a structure in the brain stem that plays a role in sleep, dreaming, left-right body coordination, and arousal.
a) reticular activating system
b) pons
Correct. The pons plays a role in sleep, dreaming, left-right body coordination, and arousal.
c) medulla
Incorrect. The medulla is responsible for life-sustaining functions but does not play a role in sleep, dreaming, and arousal.
d) cerebellum
Answer: b
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

80. A college student is having difficulty staying awake during the day and sleeping through the night. Her difficulties are MOST likely due to problems in the _____.
a) hippocampus
Incorrect. The hippocampus is responsible for the formation of long-term memory and does not play a role in keeping people awake and alert.
b) pons
Correct. The pons plays a role in sleep, dreaming, and arousal.
c) medulla
d) cerebellum
Answer: b
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 44 a= 15 b= 44 c= 25 d= 16 *r* = .22
% correct 41 a= 31 b= 41 c= 12 d= 16 *r* = .47
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

81. Which of the following is responsible for the ability to selectively attend to certain kinds of information in one's surroundings and become alert to changes?
a) reticular formation
Correct. The reticular formation plays a role in selective attention.
b) pons
Incorrect. The pons plays a role in sleep, dreaming, and arousal but not in selective attention.
c) medulla
d) cerebellum
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

82. Since Naomi suffered a head injury in a car accident 3 months ago, she has not experienced dreams as she did in the past. She used to have vivid, active dreams. Which part of her brain was most likely affected during the car accident and is related to her problem dreaming?
a) pons
Correct. The pons has been shown to influence sleep and dreaming as well as arousal.

b) cerebellum
c) cerebral cortex
d) pituitary gland
Incorrect. The correct answer is the pons.
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 46 a= 46 b= 22 c= 32 d= 1 *r* = .40
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

83. What is the main function of the reticular formation?
a) to control thinking
b) to regulate emotions
c) to control levels of alertness and arousal
Correct. The reticular formation controls levels of alertness and arousal.
d) to coordinate involuntary, rapid, fine motor movements
Incorrect. This is the role of the cerebellum.
Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 37 a= 3 b= 30 c= 37 d= 30 *r* = .20
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

84. Aaliyah has grown up sleeping with a fan running in her room since she was an infant. This provides white noise to drown out the television programs being watched by other family members who were still awake. In an effort to save electricity, her mother has started coming into her room and turning her fan off after she thinks Aaliyah is asleep. However, each time Aaliyah wakes up and asks for the fan to be turned back on. Aaliyah is selectively attending to certain kinds of information in her surroundings, which has been linked to the _____ part of the brain.
a) reticular formation
Correct. Research has shown that the reticular formation in the brain would be sensitive to this difference in the environment.
b) pons
c) cerebellum
d) medulla
Incorrect. The correct answer is the reticular formation.
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

85. Maricella is typing her term paper in the computer lab. Although a class is going on just a few feet away, she does not seem to notice. Which part of the brain allows Maricella to focus on her typing and ignore the distractions that surround her?
a) reticular formation
Correct. The reticular formation is responsible for selective attention.
b) pons

Incorrect. The pons plays a role in sleep, dreaming, and arousal but not in selective attention.
c) medulla
d) cerebellum
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

86. The cerebellum _____.
a) controls blood pressure
b) is involved in emotional behavior
c) coordinates involuntary, rapid, fine motor movement
Correct. The cerebellum does coordinate involuntary, rapid, fine motor movement.
d) relays messages from the sensory receptors
Incorrect. The cerebellum coordinates involuntary, rapid, fine motor movement.
Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 65 a= 4 b= 14 c= 65 d= 17 *r* = .25
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

87. Which of the following coordinates involuntary, rapid, fine motor movement?
a) medulla
b) pons
c) reticular formation
Incorrect. The reticular formation is not involved in movement.
d) cerebellum
Correct. The cerebellum coordinates involuntary, rapid, fine motor movement.
Answer: d
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

88. Damage to the cerebellum is likely to disrupt which of the following?
a) playing basketball
Correct. The cerebellum coordinates movements that have to happen in rapid succession.
b) sleeping
Incorrect. The pons plays a role in sleep and dreaming.
c) homeostasis
d) thinking
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

89. Simone has been unable to participate in her gymnastics class and has become very uncoordinated since she was

involved in an accident in which she suffered a head injury. As a result of the accident, she is likely to have suffered damage to her _____.

a) cerebellum

Correct. This part of the brain controls coordination and balance.

b) medulla

c) cerebral cortex

d) hypothalamus

Incorrect. This is not the correct part of the brain that controls these functions.

Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

90. If your _____ is damaged, you might walk oddly and have trouble standing normally.

a) pons

b) medulla

Incorrect. The medulla is responsible for life-sustaining functions like respiration and circulation.

c) cerebellum

Correct. The cerebellum is responsible for balance and fine motor coordination.

d) amygdala

Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

91. Alice has been diagnosed with spinocerebellar degeneration. The first stage of the disease involves tremors and unsteady gate. In the later stages, she will be unable to stand or walk and will be uncoordinated in her movements. This disease affects the part of the brain called the _____.

a) hippocampus

b) amygdala

c) cerebellum

Correct. This is the part of the brain that is affected by this disease.

d) cerebral cortex

Incorrect. This is not the part of the brain that is affected.

Answer: c
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

92. The _____ is a group of several brain structures located primarily under the cortex and is involved in learning, emotion, memory, and motivation.

a) limbic system

Correct. This structure is involved in learning, memory, emotion, and motivation.

b) cerebellum

c) cerebral cortex

d) cerebrum

Incorrect. The cerebrum consists of the cerebral hemispheres and connecting structures.

Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

93. The structures of the limbic system play an important role in _____ and _____.
a) heart rate; breathing
b) breathing; decision making
c) memory; emotion
Correct. These structures play a role in memory and emotion.
d) spatial tasks; sequential tasks
Incorrect. The limbic system does not play an important role in these tasks.
Answer: c
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 58 a= 28 b= 5 c= 58 d= 8 *r* = .30
% correct 44 a= 26 b= 22 c=44 d= 7 *r* = .40
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

94. What part of the brain acts as a relay station for incoming sensory information?
a) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sexual drive.
b) thalamus
Correct. The thalamus acts as a relay station.
c) cerebellum
d) pituitary gland
Answer: b
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 48 a= 19 b= 48 c= 25 d= 8 *r* = .53
% correct 48 a= 22 b= 48 c= 22 d= 8 *r* = .48
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

95. The thalamus is often compared to a _____.
a) triage nurse
Correct. As your authors note, the thalamus is often compared to a triage nurse because it routes sensory information to different parts of the cerebral cortex.
b) fast-food menu
Incorrect. There is really nothing about this answer that could be considered correct.
c) stop sign
d) bus stop
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate

Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

96. Arjun loves the smell of the grass after it rains. This is a result of his _____, which has/have received signals from neurons in his sinus cavity.
a) thalamus
b) olfactory bulbs
Correct. This is the part of the brain that is related to the sense of smell.
c) opticfactory bulbs
d) hippocampus
Incorrect. The correct answer is the olfactory bulbs.
Answer: b
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Apply What You Know
% correct 75 a= 14 b= 75 c= 0 d= 12 *r* = .43
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

97. Which part of the brain is very small but extremely powerful and controls the pituitary gland?
a) hippocampus
b) thalamus
Incorrect. The thalamus acts as a relay station for incoming sensory information.
c) hypothalamus
Correct. The hypothalamus is very small but extremely powerful and controls the pituitary gland.
d) amygdala
Answer: c
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

98. Eating, drinking, sexual behavior, sleeping, and body temperature are most strongly influenced by the _____.
a) hippocampus
b) thalamus
Incorrect. The thalamus acts as a relay station for incoming sensory information and is not involved in eating, drinking, sexual behavior, sleeping, and body temperature.
c) hypothalamus
Correct. The hypothalamus regulates sleep, hunger, thirst, and sex.
d) amygdala
Answer: c
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 50 a= 12 b= 24 c= 50 d= 14 *r* = .21
% correct 59 a= 8 b= 11 c= 59 d= 22 *r* = .32
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

99. Which of the following is a likely effect of damage to the hypothalamus?
a) reduced use of left arm
b) deregulation of hormones
Correct. The hypothalamus regulates the pituitary gland and therefore damage can result in the deregulation of hormones.
c) development of aphasia
Incorrect. Damage to Broca's and Wernicke's areas plays a role in the development of aphasia.
d) reduced ability to reason
Answer: b
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

100. The _____ is the part of the brain responsible for the formation of long-term memories.
a) hippocampus
Correct. The hippocampus is responsible for the formation of long-term memories.
b) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sex and is not involved in memory.
c) fornix
d) amygdala
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 59 a= 59 b= 19 c= 0 d= 22 *r* = .45
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

101. If you have a problem remembering things that happened a year ago, doctors might check for damage to the area of the brain called the _____.
a) hippocampus
Correct. The hippocampus is responsible for the formation of long-term memories.
b) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sex, but not memory.
c) fornix
d) amygdala
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

102. People suffering from Alzheimer's disease have much lower levels of acetylcholine in the _____.
a) hippocampus
Correct. Acetylcholine is involved in the memory function of the hippocampus.
b) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sex, but not memory.
c) fornix
d) amygdala

Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

103. Which of the following brain structures is located near the hippocampus and is responsible for fear responses and memory of fear?
a) hippocampus
b) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sex, not fear responses.
c) fornix
d) amygdala
Correct. The amygdala is responsible for fear responses and memory of fear.
Answer: d
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 37 a= 3 b= 51 c= 8 d= 37 *r* = .29
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

104. Rats that have a damaged _____ will show no fear when placed next to a cat.
a) hippocampus
b) hypothalamus
Incorrect. The hypothalamus regulates sleep, hunger, thirst, and sex, not fear responses.
c) fornix
d) amygdala
Correct. The amygdala is responsible for fear responses and memory of fear.
Answer: d
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 49 a= 27 b= 23 c= 1 d= 49 *r* = .52
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

105. Sheldon has been extremely afraid of cats since he was scratched as a 5-year-old. Whenever he sees a cat, he remembers the time he was scratched across his face, and he starts to feel afraid. If a cat comes toward him, he often runs away immediately, as he is afraid of being scratched again. Sheldon's behaviors and recollection of this trauma are a result of the _____ in the limbic system.
a) hippocampus
b) thalamus
c) amygdala
Correct. This is the part of the brain that controls many fear responses and memories.
d) medulla
Incorrect. The correct answer is the amygdala.
Answer: c
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System

Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

106. As Tyler walks to his car late at night, he hears footsteps behind him. Feeling afraid, Tyler grips his keys and quickens his pace. It is likely that Tyler's _____ has been activated.
a) hypothalamus
Incorrect. The hypothalamus would be responsible for activating the fight-or-flight system, but only after the amygdala interpreted a fearful or threatening response.
b) hippocampus
c) amygdala
Correct. The amygdala processes the emotions of anger and fear.
d) cerebellum
Answer: c
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

107. The outermost part of the brain, made up of tightly packed neurons and only a tenth of an inch thick, is called the _____.
a) amygdala
b) medulla
c) cerebellum
Incorrect. The cerebellum is not the outermost part of the brain.
d) cortex
Correct. The outermost part of the brain is called the cortex.
Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

108. The cortex is divided into two sections referred to as _____.
a) cerebral hemispheres
Correct. The two sections of the cortex are called cerebral hemispheres.
b) cerebellums
Incorrect. The cerebellum is not a section of the cortex.
c) corpus callosums
d) neurotransmitters
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 91 a= 91 b= 3 c= 5 d= 0 *r* = .29
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

109. The thick band of neurons that connects the right and left cerebral hemispheres is called the _____.
a) cortex
Incorrect. The cortex is the outermost part of the brain.
b) cerebrum
c) corpus callosum
Correct. The corpus callosum connects the right and left cerebral hemispheres.
d) cerebellum
Answer: c
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 90 a= 3 b= 1 c= 90 d= 5 *r* = .51
% correct 81 a=0 b= 4 c= 81 d= 15 *r* = .54
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

110. The _____ lobe is the section of the brain located at the rear and bottom of each cerebral hemisphere and contains the visual centers of the brain.
a) occipital
Correct. The occipital lobes contain the visual centers of the brain.
b) parietal
Incorrect. The parietal lobe contains the somatosensory cortex, not the visual centers.
c) temporal
d) frontal
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

111. After Jayla suffers a head injury, she reports that she is unable to see, although her eyes are uninjured. A doctor would suspect an injury in Jayla's _____ lobe.
a) occipital
Correct. The occipital lobes contain the visual centers of the brain.
b) parietal
Incorrect. The parietal lobes contain the somatosensory cortex, not the visual centers.
c) temporal
d) frontal
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

112. Which of the following regions contains the primary visual cortex?
a) occipital lobe
Correct. The occipital lobes contain the primary visual cortex.
b) parietal lobe
Incorrect. The parietal lobes contain the somatosensory cortex, not the primary visual cortex.

c) temporal lobe
d) frontal lobe
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 82 a= 82 b= 4 c= 14 d= 0 *r* = .47
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

113. The part of the occipital lobe that is responsible for receiving visual information from the eyes is called the _____.
a) primary visual cortex
Correct. The occipital lobes contain the primary visual cortex.
b) somatosensory cortex
Incorrect. The parietal lobes contain the somatosensory cortex.
c) temporal lobe
d) frontal lobe
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 74 a= 74 b= 18 c= 8 d= 3 *r* = .30
% correct 79 a= 79 b= 14 c= 5 d= 2 *r* = .36
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

114. The section of the brain responsible for interpreting the visual information in the primary visual cortex is called the _____.
a) visual association cortex
Correct. This part of the brain is responsible for interpreting visual information.
b) somatosensory cortex
Incorrect. The somatosensory cortex processes information from the skin and internal body receptors for touch, temperature, and body position, not visual information.
c) temporal lobe
d) frontal lobe
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

115. Damage to the _____ would result in an inability to identify and comprehend what is seen through the eyes.
a) visual association cortex
Correct. This part of the brain is responsible for interpreting visual information.
b) primary visual cortex
Incorrect. The primary visual cortex receives visual information from the eyes but does not interpret it.
c) temporal lobe
d) frontal lobe
Answer: a

Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Understand the Concepts
% correct 20 a= 20 b= 26 c= 36 d= 19 *r* = .30
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

116. Xander decided to learn how to wrestle. On his first day of practice, a seasoned wrestler slammed the back of Xander's head to the mat. He was shaken and reported to the trainer that he "saw stars" after he hit his head. It is likely that Xander's _____ was temporarily affected as a result of the slam and caused him to "see stars."
a) corpus callosum
b) occipital lobe
Correct. This part of the brain is in the back of the head and controls vision.
c) parietal lobe
Incorrect. This is not correct, as the occipital lobe controls vision.
d) somatosensory cortex
Answer: b
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 92 a= 2 b= 92 c= 3 d= 3 *r* = .34
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

117. Which of the following regions contains the somatosensory cortex?
a) occipital lobe
Incorrect. This region contains the primary visual cortex.
b) parietal lobe
Correct. The parietal lobes contain the somatosensory cortex.
c) temporal lobe
d) frontal lobe
Answer: b
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

118. The _____ lobes are located at the top and back of each cerebral hemisphere and contain the centers for touch, body position, and temperature.
a) frontal
b) temporal
Incorrect. The temporal lobes are responsible for the sense of hearing and meaningful speech, not for touch, body position, or temperature.
c) occipital
d) parietal
Correct. The parietal lobes contain the centers for touch, body position, and temperature.
Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex

Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

119. Aiden is trying to decide whether the shower is hot enough to step into. Hugo is listening to his MP3 player. Santiago is looking at a beautiful painting in an art museum. Which individual is using his parietal lobe?
a) Aiden
Correct. The processing of "touch" information like this is handled by the parietal lobe.
b) Hugo
Incorrect. Auditory processing is handled by the temporal lobe, not the parietal lobe.
c) Santiago
d) Hugo and Santiago are, but Aiden is not.
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

120. Aaradhya was in an automobile accident that resulted in an injury to her brain. Her sense of touch has been affected. Which part of the brain is the most likely site of the damage?
a) frontal lobe
b) temporal lobe
Incorrect. The temporal lobes are responsible for the sense of hearing and meaningful speech, not touch.
c) occipital lobe
d) parietal lobes
Correct. The parietal lobes contain the centers for touch, body position, and temperature.
Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
% correct 65 a= 20 b= 11 c= 4 d= 65 *r* = .30
% correct 62 a= 18 b= 16 c= 5 d= 62 *r* = .32
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

121. Which region of the brain contains the auditory cortex?
a) temporal lobes
Correct. The temporal lobes contain the auditory cortex.
b) parietal lobes
Incorrect. The parietal lobes contain the somatosensory cortex but not the auditory cortex.
c) frontal lobes
d) occipital lobes
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 63 a= 63 b=7 c= 22 d= 7 *r* = .44
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

122. The _____lobes are located just behind the temples and contain neurons responsible for the sense of hearing and meaningful speech.
a) temporal
Correct. The temporal lobes are responsible for the sense of hearing and meaningful speech.
b) parietal
Incorrect. The parietal lobes are not involved with hearing or speech.
c) frontal
d) occipital
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 72 a= 72 b= 15 c= 8 d= 5 *r* = .51
% correct 79 a= 79 b= 12 c= 4 d= 5 *r* = .40
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

123. Leo was rollerblading when a cat jumped right in front of him, causing him to fall. When he fell, he landed on the side of his head. Shortly afterward, Leo complained that he could not understand what people were saying to him. Which lobe would have been most affected by this fall given what he experienced?
a) frontal lobe
b) temporal lobe
Correct. The comprehension of language is one of the many tasks handled by the temporal lobe.
c) parietal lobe
d) occipital lobe
Incorrect. The occipital lobe is responsible for visual processing and does not play any role in the comprehension of language.
Answer: b
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

124. Isaiah is having trouble deciding what he wants to eat for breakfast. Which lobe of his brain is especially active as he makes his selection?
a) temporal lobe
Incorrect. This part of the brain is responsible for the sense of hearing and meaningful speech.
b) parietal lobe
c) frontal lobe
Correct. The frontal lobes are responsible for decision-making skills.
d) occipital lobe
Answer: c
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 64 a= 10 b= 21 c= 64 d= 5 *r* = .42
% correct 66 a= 8 b= 26 c= 66 d= 1 *r* = .38

APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

125. Which of the following lobes are involved in planning, memory, and personality?
a) temporal lobes
Incorrect. This part of the brain is responsible for the sense of hearing and meaningful speech, not planning, memory, or personality.
b) parietal lobes
c) frontal lobes
Correct. The frontal lobes are involved in planning, memory, and personality.
d) occipital lobes
Answer: c
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 70 a= 11 b= 0 c= 70 d= 18 *r* = .30
% correct 70 a= 10 b= 2 c= 70 d= 18 *r* = .34
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

126. Avery was rollerblading when a cat jumped right in front of her, causing her to trip and fall. When she fell, she partially landed on the front side of her head near her forehead. Shortly afterward, Avery exhibited symptoms similar to those of Phineas Gage. Which lobe would have been most affected by this fall?
a) frontal lobe
Correct. Phineas Gage suffered extreme trauma to the frontal lobe of his brain, impacting all sorts of functions, including his personality.
b) temporal lobe
Incorrect. The famous story of Phineas Gage gave us insight into the functioning of the frontal lobe of the brain.
c) parietal lobe
d) occipital lobe
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.2 Develop a working knowledge of psychology's content domains; 1.3 Describe applications of psychology.

127. Phineas Gage tragically had a tamping iron propelled through his head. Both left and right sides of the prefrontal cortex were severely damaged. As a result of the accident, Phineas Gage _____.
a) died from his injuries
b) suffered the loss of his arms and legs
c) lost his sense of hearing
Incorrect. Hearing is handled by the temporal lobe, not the frontal lobe of the brain.
d) suffered a change in personality
Correct. After Gage's accident, his personality changed dramatically.
Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Apply What You Know
APA Learning Objective: 1.2 Develop a working knowledge of psychology's content domains.

128. Riley was driving through a rough part of town late at night when a stray bullet hit the front side of his head. Both the left and right sides of his prefrontal cortex were severely damaged. As a result of the accident, Riley most likely _____.

a) died from his injuries

Incorrect. Similar injuries occurred in the famous case of Phineas Gage, who did not die as a result of the accident.

b) suffered the loss of his arms and legs

c) lost his sense of hearing

d) suffered a change in personality

Correct. Personality changes could be a result of damage to the frontal lobes of the brain, as in the famous case of Phineas Gage.

Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

129. Ever since Trey suffered a brain injury by falling from a ladder, his wife has continued to tell his doctor that his personality has changed. He used to be fun loving and carefree, but he is now more critical and yells at his children for seemingly little reason. Trey is likely to have suffered damage to the _____ lobe of his cortex.

a) occipital

Incorrect. If his vision were affected, this would be accurate.

b) parietal

c) temporal

d) frontal

Correct. The frontal lobes are connected to personality and decision-making processes.

Answer: d
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

130. _____ neurons are fired when an animal or person performs an action and also when an animal or person observes that same action being performed by another. For example, an infant will mimic the facial expressions of adults.

a) Mirror

Correct. Mirror neurons are fired.

b) Statue

c) Facial

d) Observation

Incorrect. This is a fictitious name for a neuron.

Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

131. Imani was in an automobile accident and suffered an injury to her brain, resulting in paralysis of her left arm. What part of Imani's brain was injured?

a) auditory association area
b) motor cortex

Correct. The motor cortex is responsible for sending motor commands to the muscles of the somatic nervous system.

c) association areas
d) somatosensory cortex

Incorrect. This area processes information from the skin and internal body receptors for touch, temperature, and body position, but is not involved with arm muscles.

Answer: b
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Apply What You Know
% correct 82 a= 0 b= 82 c= 5 d= 11 *r* = .36
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

132. Messages from the brain to the muscles and glands in the body begin their journey in the _____.

a) auditory association area
b) motor cortex

Correct. Messages from the brain to the muscles and glands begin their journey in the motor cortex.

c) association areas
d) somatosensory cortex

Incorrect. This area is not involved with muscles and glands.

Answer: b
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

133. Incoming sensory messages are made sense of in _____.

a) Broca's area

Incorrect. Broca's area is devoted to the production of speech rather than helping people make sense of incoming sensory input.

b) the motor projection areas
c) the association areas

Correct. The association areas help people make sense of incoming sensory input.

d) Wernicke's area

Answer: c
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 41 a= 20 b= 14 c= 41 d= 25 *r* = .49
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

134. The area of the frontal lobe that is devoted to the production of fluent speech is _____ area.

a) Broca's

Correct. Broca's area is devoted to the production of fluent speech.

b) Gall's

c) Wernicke's
Incorrect. Wernicke's area is devoted to the production of meaningful language.
d) Korsakoff's
Answer: a
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 74 a= 74 b= 3 c= 19 d= 4 *r* = .31
% correct 73 a= 73 b= 3 c= 21 d= 4 *r* = .27
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

135. Will was admitted to the hospital last week after he fell. When Will's son visited, he found that his father was unable to get words out in a smooth, connected fashion. If Will's difficulty speaking is due to brain damage, what is the likely location of the damage?
a) Broca's area
Correct. Broca's area is devoted to the production of fluent speech.
b) Gall's area
c) Wernicke's area
Incorrect. Wernicke's area is devoted to the production of meaningful language.
d) Korsakoff's area
Answer: a
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
% correct 75 a= 75 b= 2 c= 22 d= 2 *r* = .35
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

136. The area at the back of the left temporal lobe that is crucial in the ability to listen, process, and understand what others are saying is _____ area.
a) Broca's
Incorrect. Broca's area is devoted to the production of fluent speech.
b) Gall's
c) Wernicke's
Correct. Wernicke's area is devoted to the production of meaningful language.
d) Korsakoff's
Answer: c
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 49 a= 37 b= 8 c= 49 d= 6 *r* = .35
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

137. Valentina suffered a head injury in a car accident last week. Since that time, she is able to speak fluently but uses the wrong words when expressing herself. Valentina may be exhibiting _____ aphasia.
a) Broca's
Incorrect. A person with Broca's aphasia has halting speech and mispronounces words but does not use the wrong words.
b) Gall's

c) Wernicke's
Correct. A person with Wernicke's aphasia often uses the wrong words.
d) Korsakoff's
Answer: c
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

138. Zachary's mother is usually meticulous in her presentation. When picking her up for a family dinner, he noticed that her makeup was only applied to the right side of her face. Her hair was also brushed on the right side, but on the left it was matted and uncombed. He immediately took her to the hospital as it was clear that she was unaware of any problems. She was diagnosed with _____, which is evidenced by damage to the association areas of the right hemisphere.
a) Wernicke's aphasia
b) Broca's aphasia
Incorrect. If her speech were affected, this could be the possible cause.
c) spatial neglect
Correct. This would be the cause of her attention to the right side of her body and neglecting the left.
d) split-brain
Answer: c
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

139. The _____ is the upper part of the brain consisting of two cerebral hemispheres and the structures that connect them.
a) occipital lobe
b) cerebrum
Correct. The cerebrum consists of the two cerebral hemispheres and the structures that connect them.
c) corpus callosum
d) cerebellum
Incorrect. The cerebellum is at the base of the skull, not the upper part of the brain.
Answer: b
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 41 a= 2 b= 41 c= 40 d= 18 *r* = .35
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

140. Since Penelope is a split-brain patient, we can infer that she likely has a history of _____.
a) mental illness
b) severe epilepsy
Correct. Severe epilepsy is one of the very few medical conditions that is treated by using a split-brain procedure.
c) anosognosia
d) frontal lobe damage

Incorrect. Split-brain procedures are not used to treat frontal lobe damage; in fact, it would make no sense at all to use this procedure for this type of medical problem.
Answer: b
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Easy
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

141. Nina has decided to undergo surgery to treat her severe epilepsy. Consequently, her doctors will use a surgical procedure in which they will sever her _____.
a) parietal lobe
b) corpus callosum
Correct. The corpus callosum is the thick band of axons that connects the left and right cerebral hemispheres. It is what is severed during a split-brain procedure to treat severe epilepsy.
c) cerebral cortex
d) subcortical structure
Incorrect. In order to treat severe epilepsy, the corpus callosum is cut in a split-brain procedure. This is a last treatment effort and is only done in the most serious cases.
Answer: b
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

142. Researcher Roger Sperry won a Nobel Prize for his research on epilepsy. Sperry cut through the _____, which joins the two hemispheres of the brain.
a) medulla
b) pons
c) pituitary gland
Incorrect. This part of the brain is not severed in split-brain individuals.
d) corpus callosum
Correct. In a split-brain procedure, this part of the brain is severed, creating "two brains in one body."
Answer: d
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 82 a= 11 b= 5 c= 2 d= 82 $r = .38$
APA Learning Objective: 1.2 Develop a working knowledge of psychology's content domains.

143. Traditionally, many have made the analogy that the left brain is to the right brain as _____.
a) logical is to artistic
Correct. Though recent research suggests that this analogy may not be completely accurate, it is what most people have believed about the brain for many years.
b) verbal is to analytical
c) intuitive is to perceptual
Incorrect. Traditionally, the left brain has been thought of as analytical, and the right brain has been thought of as perceptual.
d) intuitive is to analytical
Answer: a
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres

Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

144. If Sam's brain is like that of most people, then language will be handled by his _____.
a) corpus callosum
b) occipital lobe
c) right hemisphere
Incorrect. The right hemisphere does not control language for most people.
d) left hemisphere
Correct. For most people, the left hemisphere controls language.
Answer: d
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

145. Which of the following are functions of the right hemisphere?
a) perception, recognition of emotion, and recognition of patterns
Correct. These are functions of the right hemisphere.
b) sense of time and rhythm
c) speech, handwriting, and calculation
d) language processing in most individuals
Incorrect. This is a function of the left hemisphere.
Answer: a
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

146. The two main divisions of the nervous system are the _____ and _____.
a) brain; spinal cord
b) autonomic nervous system; somatic nervous system
Incorrect. The autonomic and somatic nervous systems are divisions of the peripheral nervous system.
c) peripheral nervous system; central nervous system
Correct. These are the two main divisions of the nervous system.
d) glands; muscles
Answer: c
Learning Objective: None
Topic: 2.11–2.12 The Nervous System: The Rest of the Story
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 73 a=8 b= 18 c= 73 d= 0 *r* = .42
% correct 68 a= 18 b= 13 c= 68 d= 0 *r* = .47
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

147. The brain and spinal cord are two components of the _____.
a) central nervous system
Correct. The brain and spinal cord are two components of the central nervous system.
b) somatic nervous system
c) peripheral nervous system
Incorrect. The two components of the peripheral nervous system are the autonomic and somatic nervous systems.
d) autonomic nervous system

Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 100 a= 100 b= 0 c= 0 d= 0 *r* = .00
% correct 94 a= 94 b= 2 c= 1 d= 2 *r* = .39
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

148. The central nervous system consists of _____.
a) the parasympathetic and sympathetic divisions
Incorrect. These are divisions of the autonomic nervous system.
b) the brain and spinal cord
Correct. The brain and spinal cord are the two most basic components of the central nervous system.
c) muscles and glands
d) sense organs and sensory neurons
Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 77 a= 17 b= 77 c= 0 d= 6 *r* = .24
% correct 82 a= 16 b= 82 c= 1 d= 2 *r* = .32
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

149. Which part of the nervous system takes the information received from the senses, makes sense out of it, makes decisions, and sends commands out to the muscles and the rest of the body?
a) spinal cord
Incorrect. The spinal cord carries messages between the body and the brain.
b) brain
Correct. That is the responsibility of the brain.
c) reflexes
d) interneurons
Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 85 a= 7 b= 85 c= 1 d= 7 *r* = .21
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

150. The long bundle of neurons that carries messages between the body and the brain and is responsible for very fast, lifesaving reflexes is called the _____.
a) spinal cord
Correct. The spinal cord carries messages between the body and the brain.
b) brain
Incorrect. The brain receives messages from the spinal cord.
c) reflexes
d) interneurons
Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.

Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 89 a= 89 b= 0 c= 2 d= 9 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

151. The _____ is a long bundle of neurons that functions as a carrier of messages between the brain and the body and is responsible for certain reflexes.
a) spinal cord
Correct. The spinal cord carries messages between the body and the brain.
b) cerebellum
c) somatic nervous system
Incorrect. The somatic nervous system carries information from the senses to the central nervous system (CNS) and from the CNS to voluntary muscles of the body.
d) amygdala
Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 77 a= 77 b= 2 c= 19 d= 2 *r* = .29
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

152. Which of the following are the three basic types of neurons?
a) reflexes, sensory neurons, motor neurons
Incorrect. Reflexes are not a type of neuron.
b) sensory neurons, motor neurons, stem cells
c) motor neurons, stem cells, reflexes
d) interneurons, sensory neurons, motor neurons
Correct. All of these are neurons.
Answer: d
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 89 a= 3 b= 7 c= 0 d= 89 *r* = .36
% correct 79 a= 13 b= 8 c= 0 d= 79 *r* = .31
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

153. Neurons that carry information from the senses to the spinal cord are called _____.
a) motor neurons
b) interneurons
Incorrect. Interneurons connect sensory neurons to the motor neurons.
c) sensory neurons
Correct. Sensory neurons carry information from the senses to the spinal cord.
d) reflexes
Answer: c
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 75 a= 19 b= 5 c= 75 d= 0 *r* = .32

% correct 80 a= 11 b= 9 c= 80 d= 1 *r* = .28
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

154. LaKeisha stepped on a piece of glass and quickly pulled her foot away from that sharp object. Which of the following are responsible for sending a message to the muscles in LaKeisha's foot, resulting in her pulling her foot away from the piece of glass?
a) motor neurons
Correct. Motor neurons carry messages from the central nervous system to the muscles of the body.
b) interneurons
Incorrect. Interneurons connect the sensory neurons to the motor neurons.
c) sensory neurons
d) reflexes
Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 58 a= 58 b= 2 c= 18 d= 21 *r* = .27
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

155. Neurons found in the center of the spinal cord that receive information from the sensory neurons and send commands to the muscles through the motor neurons are called _____.
a) motor neurons
Incorrect. Motor neurons carry messages from the central nervous system to the muscles of the body.
b) interneurons
Correct. Interneurons connect the sensory neurons to the motor neurons.
c) sensory neurons
d) reflexes
Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

156. Which of the following are responsible for acting as a facilitator of communication between neurons?
a) motor neurons
Incorrect. Motor neurons carry messages from the central nervous system to the muscles of the body.
b) interneurons
Correct. Interneurons connect the sensory neurons to the motor neurons.
c) sensory neurons
d) reflexes
Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Understand the Concepts
% correct 80 a= 8 b= 80 c= 8 d= 3 *r* = .37
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

157. Rashad put his hand on a hot stove. Which neuron is responsible for sending a pain message up his spinal

column, where it would then enter into the main area of the spinal cord?
a) motor neuron
b) interneuron
Incorrect. Interneurons connect the sensory neurons to the motor neurons.
c) sensory neuron
Correct. Sensory neurons carry information from the senses to the spinal cord.
d) reflex
Answer: c
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Apply What You Know
% correct 90 a= 5 b= 3 c= 90 d= 1 *r* = .27
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

158. Why do many reflexes, such as pulling your hand away from a hot iron, happen so quickly?
a) They involve the neurotransmitter GABA rather than dopamine.
b) The message involved does not have to go all the way to the brain.
Correct. The message goes to the central area of the spinal cord and not up to the brain.
c) The speed of processing is faster in the frontal lobes than in the occipital lobes.
d) The path that reflexes follow to the brain is direct and does not involve any neurotransmitters.
Incorrect. The message involved does not have to go all the way to the brain.
Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Difficult
Skill Level: Analyze It
% correct 49 a= 17 b= 49 c= 14 d= 21 *r* = .51
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

159. Liam suffered a brain injury as a result of hitting his head while waterskiing. One of the problems that developed was that Liam could not pronounce certain words correctly for a long period of time until he had extensive speech therapy; he can now speak as he did before his accident. This is an example of the brain's _____, which allowed the structure and function of his brain cells to change to adjust to the trauma.
a) adaptology
b) stagnation
c) neuroplasticity
Correct. This allowed Liam's brain to adapt after the trauma.
d) reflex arc
Incorrect. Neuroplasticity accounts for Liam's brain allowing him to speak correctly despite damage.
Answer: c
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

160. Neuroplasticity is most evident in which of the following circumstances?
a) during the elderly years

Incorrect. As your authors point out, plasticity is higher during childhood than in later years.

b) when we learn something new or store new information

Correct. Learning or storing new information would cause the brain to change its structure slightly, which demonstrates plasticity.

c) when we are trying to undo previous pruning

d) when reuptake of excess neurotransmitters is taking place

Answer: b
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Difficult
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

161. The peripheral nervous system consists of _____.

a) all of the nerve cells that are not in the brain and spinal cord

Correct. The peripheral nervous system consists of all the nerve cells that are not in the brain and spinal cord.

b) all of the nerves in the brain and the spinal cord

Incorrect. The central nervous system consists of the brain and spinal cord.

c) the spinal cord and autonomic system

d) the brain and the autonomic system

Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 69 a= 69 b= 6 c= 15 d= 10 *r* = .45
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

162. The division of the nervous system that allows the brain and the spinal cord to communicate with the sensory systems of the eyes, ears, skin, and mouth and allows the brain and spinal cord to control the muscles and glands of the body is called the _____ system.

a) peripheral nervous

Correct. The peripheral nervous system allows the brain and spinal cord to communicate with the sensory systems and control the muscles and glands.

b) central nervous

Incorrect. The peripheral nervous system enables the central nervous system, which consists of the brain and spinal cord, to communicate with the sensory systems and control the muscles and glands.

c) endocrine

d) secondary nervous

Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Understand the Concepts
% correct 69 a= 69 b= 22 c= 7 d= 1 *r* = .43
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

163. The peripheral nervous system consists of the _____ and _____ nervous systems.

a) autonomic; somatic

Correct. The peripheral nervous system consists of the autonomic and somatic nervous systems.

b) autonomic; sympathetic

c) parasympathetic; somatic

d) parasympathetic; sympathetic

Incorrect. These are the two divisions of the autonomic nervous system.

Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 53 a= 53 b= 7 c= 5 d= 35 *r* = .33
% correct 57 a= 57 b= 11 c= 7 d= 25 *r* = .40
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

164. Voluntary muscles are controlled by the _____ nervous system.
a) somatic
Correct. The somatic nervous system controls voluntary muscles.
b) autonomic
Incorrect. The autonomic nervous system controls involuntary muscles.
c) sympathetic
d) parasympathetic
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 69 a= 69 b= 17 c=11 d= 3 *r* = .46
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

165. The subdivision of the peripheral nervous system that is made up of all nerves carrying messages from the senses to the central nervous system and all nerves carrying messages from the central nervous system to skeletal muscles is called the _____ nervous system.
a) autonomic
Incorrect. The autonomic nervous system consists of nerves that control all of the involuntary muscles, organs, and glands.
b) parasympathetic
c) somatic
Correct. This describes the somatic nervous system.
d) central
Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 59 a= 25 b= 13 c= 59 d= 3 *r* = .46
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

166. In the peripheral nervous system, _____ carry messages from special sense receptors in the skin, muscles, and other internal and external sense organs to the spinal cord.
a) autonomic nerves
b) sensory pathway neurons
Correct. Sensory pathway neurons carry messages from sense receptors.
c) motor pathway neurons
Incorrect. Motor pathway neurons travel from the central nervous system to the voluntary muscles.
d) autonomic neurons
Answer: b
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Easy
Skill Level: Remember the Facts

APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

167. Deion is typing on his laptop keyboard. The motion of his fingers on the keys is probably being controlled by the _____.
a) autonomic nervous system
b) sensory pathway neurons
Incorrect. These neurons make up the nerves that come from the sensory organs.
c) motor pathway neurons
Correct. Movements of fingers are associated with motor pathway neurons, which control voluntary muscles.
d) autonomic neurons
Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

168. Every deliberate action you make, such as pedaling a bike, walking, or raising your hand in class, involves neurons in the _____ nervous system.
a) sympathetic
b) somatic
Correct. The somatic nervous system controls voluntary muscle movement.
c) parasympathetic
d) autonomic
Incorrect. The autonomic nervous system consists of nerves that control all of the involuntary muscles, organs, and glands.
Answer: b
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Understand the Concepts
% correct 50 a= 12 b= 50 c= 12 d= 25 *r* = .23
% correct 60 a= 14 b= 60 c= 11 d= 14 *r* = .21
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

169. As she walks out of the kitchen, Millie turns out the light. In this example, Millie's _____ nervous system is active.
a) sympathetic
b) parasympathetic
c) autonomic
Incorrect. Turning out the light requires voluntary muscle movement.
d) somatic
Correct. Turning out the light requires voluntary muscle movement.
Answer: d
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Apply What You Know
% correct 48 a= 8 b= 14 c= 30 d= 48 *r* = .42
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

170. Involuntary muscles are controlled by the _____ nervous system.
a) somatic

Incorrect. The somatic nervous system controls voluntary muscles.

b) autonomic

Correct. The autonomic nervous system controls involuntary muscles like the heart, stomach, and intestines.

c) sympathetic

d) parasympathetic

Answer: b
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 64 a= 14 b= 64 c= 14 d= 9 *r* = .27
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

171. The subdivision of the peripheral nervous system that consists of nerves that control all of the involuntary muscles, organs, and glands is called the _____ nervous system.

a) somatic

Incorrect. The somatic nervous system controls voluntary muscles.

b) autonomic

Correct. The autonomic nervous system controls involuntary muscles and glands.

c) sympathetic

d) parasympathetic

Answer: b
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 71 a= 10 b= 71 c= 10 d= 7 *r* = .26
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

172. When you see someone you have a crush on and your heart pounds, your hands get sweaty, and your cheeks feel hot, your _____ nervous system is active.

a) skeletal

b) spinal

c) autonomic

Correct. The autonomic nervous system controls involuntary muscles and glands.

d) somatic

Incorrect. The somatic nervous system controls voluntary muscles.

Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

173. The autonomic nervous system has two divisions: the _____ and the _____.

a) central; peripheral

Incorrect. The two divisions of the autonomic nervous system are the sympathetic and parasympathetic nervous systems.

b) sympathetic; parasympathetic

Correct. These are the divisions of the autonomic nervous system.

c) receptors; effectors

d) limbic; endocrine

Answer: b
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.

Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 96 a= 4 b= 96 c= 0 d= 0 *r* = .19
% correct 91 a= 6 b= 91 c= 1 d= 3 *r* = .22
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

174. Which component of the nervous system mobilizes the body in times of stress?
a) central
b) somatic
c) sympathetic
Correct. The sympathetic nervous system mobilizes the body in times of stress.
d) parasympathetic
Incorrect. The parasympathetic nervous system restores the body to normal functioning after arousal.
Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 60 a= 8 b= 12 c= 60 d= 20 *r* = .37
% correct 69 a= 3 b= 10 c= 69 d= 17 *r* = .47
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

175. The part of the autonomic nervous system that is responsible for reacting to stressful events and bodily arousal is called the _____ nervous system.
a) central
b) somatic
c) sympathetic
Correct. The sympathetic nervous system is responsible for reacting to stressful events and bodily arousal.
d) parasympathetic
Incorrect. The parasympathetic nervous system restores the body to normal functioning after arousal.
Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 66 a= 5 b= 9 c= 66 d= 19 *r* = .40
% correct 79 a= 1 b= 5 c= 79 d= 14 *r* = .40
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

176. As Li Min is walking across campus, a car swerves toward her. Her heart races and sweat breaks out as she jumps out of harm's way. This mobilization of energy is due to the action of Li Min's _____ nervous system.
a) somatic
b) skeletal
c) parasympathetic
Incorrect. The parasympathetic nervous system restores the body to normal functioning after arousal.
d) sympathetic
Correct. The sympathetic nervous system is responsible for reacting to stressful events and bodily arousal.
Answer: d
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Apply What You Know
% correct 73 a= 11 b= 0 c= 16 d= 73 *r* = .48
% correct 81 a= 11 b= 0 c= 9 d= 81 *r* = .51

APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

177. The branch of the autonomic nervous system that restores the body to normal functioning after arousal and is responsible for day-to-day functioning of the organs and glands is called the _____.

a) spinal cord
b) somatic nervous system
c) sympathetic nervous system

Incorrect. The sympathetic nervous system is responsible for reacting to stressful events and bodily arousal.

d) parasympathetic nervous system

Correct. The parasympathetic nervous system restores the body to normal functioning after arousal.

Answer: d
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Remember the Facts
% correct 66 a= 2 b= 9 c= 23 d= 66 *r* = .37
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

178. Eli is studying alone in his room late at night when he hears a loud noise downstairs. His heartbeat increases significantly and his breathing becomes shallow. He wonders if a burglar has entered the house and decides to investigate. When he gets downstairs, he discovers his cat has knocked over a plant stand. His body begins to relax and return to normal. Which part of his nervous system was responsible for putting Eli's body on "high alert" when he did not know the source of the sound?

a) spinal cord
b) somatic nervous system
c) sympathetic nervous system

Correct. The sympathetic nervous system mobilizes the body in times of stress.

d) parasympathetic nervous system

Incorrect. The parasympathetic nervous system restores the body to normal functioning after arousal.

Answer: c
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

179. Eli is studying alone in his room late at night when he hears a loud noise downstairs. His heartbeat increases significantly and his breathing becomes shallow. He wonders if a burglar has entered the house and decides to investigate. When he gets downstairs, he discovers his cat has knocked over a plant stand. His body begins to relax and return to normal. Which part of his nervous system is responsible for returning Eli to a normal state?

a) spinal cord
b) somatic nervous system
c) sympathetic nervous system

Incorrect. The sympathetic nervous system mobilizes the body in times of stress.

d) parasympathetic nervous system

Correct. The parasympathetic nervous system restores the body to normal functioning after arousal.

Answer: d
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

180. Hormones are chemicals that are secreted and go directly into _____.
a) the bloodstream
Correct. Hormones are secreted by endocrine glands and go into the bloodstream.
b) specific organs
c) nerve endings
d) the brain
Incorrect. Hormones go directly into the bloodstream.
Answer: a
Learning Objective: None
Topic: 2.13–2.14 The Endocrine Glands
Difficulty Level: Difficult
Skill Level: Remember the Facts
% correct 59 a= 59 b= 12 c= 8 d= 21 *r* = .42
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

181. Endocrine glands _____.
a) secrete hormones directly into the bloodstream
Correct. Endocrine glands do secrete hormones.
b) are chemicals released into the bloodstream
Incorrect. Glands are not chemicals; they are organs that secrete chemicals.
c) are an extensive network of specialized cells
d) are a thin layer of cells coating the axons
Answer: a
Learning Objective: None
Topic: 2.13–2.14 The Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 91 a= 91 b= 5 c= 2 d= 2 *r* = .56
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

182. The idea that the pituitary gland is the "master gland" is _____.
a) completely accurate and appropriate
Incorrect. The pituitary gland is controlled by the hypothalamus, so to suggest that calling it the master gland is completely accurate is something of a misnomer.
b) completely inaccurate since it doesn't control any other glands or related structures
c) true; yet, it is still controlled by the brain
Correct. The pituitary gland can be thought of as the master of the endocrine system, but it is still controlled by the hypothalamus in the brain.
d) a matter of debate, since many other researchers refer to the adrenal gland as the "master gland"
Answer: c
Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Topic: 2.13 The Pituitary: Master of the Hormonal Universe
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

183. Which endocrine gland controls all of the other endocrine glands?
a) thyroid
Incorrect. The thyroid gland does not control other endocrine glands.
b) adrenal
c) thymus
d) pituitary
Correct. The pituitary gland controls all other endocrine glands.
Answer: d

Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Topic: 2.13 The Pituitary: Master of the Hormonal Universe
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

184. _____ has been dubbed the "love hormone" because of its role in bonding and affection between people.
a) Oxytocin
Correct. The role of oxytocin in bonding has been a very popular topic in research.
b) Progesterone
c) Thyroxin
d) Estrogen
Incorrect. This is a primary female hormone, but not the best answer.
Answer: a
Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Topic: 2.13 The Pituitary: Master of the Hormonal Universe
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

185. The hormone released by the pineal gland that reduces body temperature and prepares you for sleep is _____.
a) melatonin
Correct. The pineal gland secretes melatonin.
b) DHEA
c) parathormone
d) thyroxin
Incorrect. The thyroid secretes thyroxin, which regulates metabolism.
Answer: a
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

186. Josh is overweight. His physician has decided to test him to see if there is a problem with the regulation of his _____. Which endocrine gland will be the focus of diagnostic testing?
a) adrenal glands
Incorrect. The adrenal glands have nothing to do with metabolism. They secrete sex hormones and hormones that regulate salt intake.
b) thymus
c) thyroid
Correct. The thyroid gland regulates metabolism.
d) pancreas
Answer: c
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

187. Meaghan just received the results of a complete physical that found her body is not producing enough insulin. Which of the following endocrine glands is affecting her body's ability to produce insulin?
a) adrenal

Incorrect. The adrenal glands have nothing to do with insulin. They secrete sex hormones and hormones that regulate salt intake.

b) thymus

c) thyroid

d) pancreas

Correct. The pancreas controls the level of blood sugar in the body.

Answer: d
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

188. The sex glands, which secrete hormones that regulate sexual development and behavior as well as reproduction, are called _____.

a) the pancreas

b) the gonads

Correct. Gonads are sex glands.

c) cortisol

Incorrect. Cortisol is a hormone that is released when the body experiences stress.

d) the hypothalamus

Answer: b
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
% correct 87 a= 1 b= 87 c= 3 d= 9 *r* = .50
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

189. The _____, located on the top of the kidneys, secrete(s) hormones that regulate salt intake, control stress reactions, and provide a secondary source of sex hormones affecting the sexual changes that occur during adolescence.

a) adrenal glands

Correct. The adrenal glands secrete sex hormones and hormones that regulate salt intake.

b) thymus

c) thyroid gland

d) pancreas

Incorrect. The pancreas is primarily responsible for regulation of glucose in the blood.

Answer: a
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

190. Silas is very anxious over an upcoming exam. Consequently, his adrenal glands will probably produce _____.

a) more testosterone

b) less estrogen

Incorrect. Nothing about Silas's circumstance would result in a change in production of estrogen.

c) more cortisol

Correct. Stressful or tense situations cause the adrenal glands to produce more cortisol.

d) less cortisol

Answer: c

Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 1.3 Describe applications of psychology.

TRUE OR FALSE

191. One function of the nervous system is to send information to and receive information from all parts of the body.
Answer: True
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

192. The axon receives messages from other neurons.
Answer: False
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

193. Glial cells provide structure for neurons.
Answer: True
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

194. Myelin not only insulates the neuron, it also slows down the neural message, helping with transmission of messages traveling down the axon.
Answer: False
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

195. A neuron's cell membrane is semipermeable.
Answer: True
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

196. Neurons that are at rest are still electrically charged.
Answer: True
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse

Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

197. During a resting potential, the neuron is positively charged inside and negatively charged outside.
Answer: False
Learning Objective: 2.2 Explain the action potential.
Topic: 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

198. A synapse is like a locked door that only certain neurotransmitter keys can unlock.
Answer: False
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

199. Acetylcholine is an agonist or an excitatory neurotransmitter also found in a part of the brain responsible for forming new memories and stimulating muscle contraction.
Answer: True
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

200. Positron emission tomography (PET) is a brain-imaging method using radio waves and magnetic fields of the body to produce detailed images of the brain.
Answer: False
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

201. The medulla is responsible for people's ability to selectively attend to certain kinds of information in their surroundings.
Answer: False
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Topic: 2.6 The Hindbrain
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

202. A person who suffered brain damage is likely to have problems controlling his emotions as a result of damage with the connection from the temporal lobe to the limbic system.
Answer: False
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.

Topic: 2.7 Structures Under the Cortex: The Limbic System
Difficulty Level: Moderate
Skill Level: Apply What You Know
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

203. The cortex "wrinkles" as a result of fluid filling the brain over the lifespan.
Answer: False
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

204. Researchers in the field of autism are considering that the condition is related to a faulty mirror system in the brain.
Answer: True
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

205. The occipital lobes contain the visual cortex, where visual signals are processed.
Answer: True
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

206. The cerebrum is divided into two hemispheres that control opposite sides of the body.
Answer: True
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

207. The cerebral cortex is severed in individuals who are considered to have a "split brain" in a surgery to stop epileptic seizures.
Answer: False
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

208. The central nervous system consists of the brain and spinal cord.
Answer: True
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"

Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

209. Motor neurons carry messages from special receptors in the skin, from muscles, and from sense organs to the spinal cord.
Answer: False
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

210. Interneurons connect sensory neurons to the motor neurons.
Answer: True
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

211. Neuroplasticity is the concept that when the brain is injured, it is unable to change the structure and function of the cells to adjust to the damage.
Answer: False
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

212. Stem cells can become other cells, such as blood cells, nerve cells, and brain cells.
Answer: True
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

213. The somatic nervous system is made up of nerves carrying messages from the central nervous system to the muscles of the body.
Answer: True
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

214. Activation of the sympathetic nervous system leads to pupil dilation, inhibition of digestion, and an accelerated heartbeat.
Answer: True
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.

Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

215. Endocrine glands secrete chemicals directly into the body's tissues through specialized ducts.
Answer: False
Learning Objective: None
Topic: 2.13–2.14 The Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

216. The pineal gland secrets a hormone called insulin.
Answer: False
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

217. The thyroid gland secretes a hormone called thyroxin.
Answer: True
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

218. If the pancreas secretes too little insulin, the result is diabetes.
Answer: True
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

219. If the body secretes too much insulin, the result is hyperglycemia.
Answer: False
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

SHORT ANSWER

220. List three main parts of the human neuron and explain the role each plays in the transmission of neural communication.
Learning Objectives: 2.1 Identify the parts of a neuron and the function of each; 2.2 Explain the action potential.
Topics: 2.1 Structure of the Neuron: The Nervous System's Building Block; 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Remember the Facts

APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

221. List two different functions of glial cells.
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Topic: 2.1 Structure of the Neuron: The Nervous System's Building Block
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

222. What is a synapse?
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

223. What are neurotransmitters?
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

224. Name three neurotransmitters and their functions.
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Topic: 2.3 Neurotransmission
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

225. How does a magnetic resonance imaging (MRI) scan allow the exploration of the brain without the injection of chemicals? What is the difference between a traditional MRI and MRI spectroscopy?
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topic: 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objectives: 1.1 Describe key concepts, principles, and overarching themes in psychology; 2.4 Interpret, design, and conduct basic psychological research.

226. Why is the cortex in the brain so wrinkled?
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Topic: 2.8 The Cortex
Difficulty Level: Moderate
Skill Level: Understand the Concepts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

227. What are the symptoms of Broca's aphasia?
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex

Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

228. What are the symptoms of Wernicke's aphasia?
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topic: 2.9 The Association Areas of the Cortex
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

229. Briefly explain Roger Sperry's split-brain research.
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.2 Develop a working knowledge of psychology's content domains.

230. What are the differences in how the right and left cerebral hemispheres function?
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Topic: 2.10 The Cerebral Hemispheres
Difficulty Level: Moderate
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

231. Explain the difference between the central nervous system (CNS) and the peripheral nervous system (PNS).
Learning Objectives: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury; 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topics: 2.11 The Central Nervous System: The "Central Processing Unit"; 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Difficult
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

232. What is the difference between the sympathetic and parasympathetic nervous systems?
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Moderate
Skill Level: Analyze It
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

233. Name two hormones that are of particular interest to psychologists and state which gland they are related to and some of the tasks that these hormones perform.
Learning Objective: 2.14 Recall the role of various endocrine glands.
Topic: 2.14 Other Endocrine Glands
Difficulty Level: Difficult
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

ESSAY

234. What is a neuron? Describe the major parts of a neuron and their functions. Explain the process of how a neural message is transmitted from the end of one neuron to the beginning of another and the process by which a neuron

moves from a resting state (resting potential) to firing (action potential) and then back to a resting state.
Learning Objectives: 2.1 Identify the parts of a neuron and the function of each; 2.2 Explain the action potential.
Topics: 2.1 Structure of the Neuron: The Nervous System's Building Block; 2.2 Generating the Message Within the Neuron: The Neural Impulse
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

235. Choose any three methods that psychologists use to learn about the functions of the brain. Describe the method, how it works, and the type of information we can learn from it.
Learning Objectives: 2.4 Describe how lesioning studies and brain stimulation are used to study the brain; 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Topics: 2.4 Methods for Studying Specific Regions of the Brain; 2.5 Neuroimaging Techniques
Difficulty Level: Difficult
Skill Level: Apply What You Know
APA Learning Objective: 2.4 Interpret, design, and conduct basic psychological research.

236. Identify the four lobes of the cerebral cortex and identify the major functions that are controlled by each of them.
Learning Objectives: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body; 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Topics: 2.8 The Cortex; 2.9 The Association Areas of the Cortex
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

237. Describe the functions of the brain and the spinal cord. How are these functions similar? How are these functions dissimilar?
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Topic: 2.11 The Central Nervous System: The "Central Processing Unit"
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

238. What are the primary functions of the sympathetic and parasympathetic components of the peripheral nervous system? Describe a situation or experience in which activation of the sympathetic and parasympathetic divisions has occurred.
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Topic: 2.12 The Peripheral Nervous System: Nerves on the Edge
Difficulty Level: Easy
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

239. How does the endocrine system influence behavior? Describe the functions of three glands and the hormones each secretes.
Learning Objectives: 2.13 Explain why the pituitary gland is known as the "master gland"; 2.14 Recall the role of various endocrine glands.
Topics: 2.13 The Pituitary: Master of the Hormonal Universe; 2.14 Other Endocrine Glands
Difficulty Level: Moderate
Skill Level: Remember the Facts
APA Learning Objective: 1.1 Describe key concepts, principles, and overarching themes in psychology.

Test Yourself

Pick the best answer.

1. In the structure of the neuron, the _____ receives messages from other cells.
a. axon
b. dendrite
c. soma
d. myelin

2. Oligodendrocytes and Schwann cells generate a fatty substance known as
a. soma.
b. glial.
c. myelin.
d. neurilemma.

3. Which of the following insulates and protects a neuron's axon, as well as helps speed along electrical impulses?
a. synaptic knobs
b. myelin sheath
c. receptor sites
d. neuromodulators

4. When a neuron is in the resting potential state, the neuron is negatively charged on the _____ and positively charged on the _____.
a. top, bottom
b. outside, inside
c. inside, outside
d. bottom, top

5. Which neurotransmitter stimulates skeletal muscle cells to contract but slows contractions of the heart?
a. GABA
b. acetylcholine (ACh)
c. serotonin
d. endorphin

6. Heroin mimics the actions of endorphins, inhibiting pain signals. Heroin is an example of a(n)
a. glial cell.
b. protagonist.
c. antagonist.
d. agonist.

7. Bailey is a subject in a study on memory and problem solving. The researcher is applying magnetic pulses to her brain through copper wire coils positioned directly above her scalp. Bailey's study would best be described as a(n) _____ technique.
a. EEG
b. invasive stimulation
c. noninvasive stimulation
d. PET

8. Which technique of studying the brain involves injecting the patient with radioactive glucose?
a. EEG
b. PET
c. MRI
d. CT

9. Maria often sleeps soundly and rarely awakens to any outside noise. However, the cries of Maria's baby can awaken her immediately. What part of the brain is responsible for this reaction?
a. cerebellum
b. medulla
c. pons
d. reticular formation

10. Nicole and Camille are synchronized swimmers for their college swim team. They often work long hours to ensure the movements in their routine are perfectly timed. What part of their brains must Camille and Nicole rely most upon?
a. pons
b. medulla
c. cerebellum
d. reticular formation

11. Your psychology professor refers to this as the great relay station of the brain. What part is he or she referring to?
a. amygdala
b. hypothalamus
c. hippocampus
d. thalamus

12. Which part of the brain is involved in the creation of long-term, declarative memories and is often linked to Alzheimer's disease?
a. amygdala
b. thalamus
c. hypothalamus
d. hippocampus

13. Jessica suffered a severe blow to the back of her head when she was thrown from her horse. Subsequently, her occipital lobe has been injured. Which of her senses has the highest chance of being affected?
a. hearing
b. vision
c. touch
d. taste and smell

14. Jaime's grandfather recently suffered a stroke and has had difficulty with language production ever since. Most likely, he has experienced damage to the _____ area of his brain.
a. right frontal
b. right rear
c. left rear
d. left frontal

15. Felicia is recovering from a brain injury. She is able to speak fluently but often uses incorrect words in a sentence. In one instance at a friend's birthday party, she said, "I would like something to drink. Can I have some battery?" Felicia's problem may be a symptom of
a. Broca's aphasia.
b. spatial neglect.
c. visual agnosia.
d. Wernicke's aphasia.

16. Although the brain works largely as a whole, which of the following is not a correct pairing of hemisphere and function?
a. left: control of right-handed motor functions
b. right: control of right-handed motor functions

c. right: recognition of faces
d. left: reading

17. Involuntary muscles are controlled by the _____ nervous system.
a. somatic
b. autonomic
c. sympathetic
d. parasympathetic

18. As you take notes, your heart beats at a normal rate. Your breathing is normal and your stomach slowly digests your earlier meal. What part of the peripheral nervous system is currently in action?
a. parasympathetic division
b. sympathetic division
c. autonomic division
d. somatic division

19. Which gland(s) influence all other glands within the endocrine system?
a. adrenal glands
b. pineal gland
c. thyroid gland
d. pituitary gland

20. Robert has had difficulty sleeping for the past 6 months, and his body seemingly no longer differentiates between night and day. His doctor believes the problem lies with Robert's endocrine system. What gland will Robert's physician focus on?
a. thyroid
b. pituitary
c. adrenal
d. pineal

EXTRA BANK OF QUESTIONS

2: THE BIOLOGICAL PERSPECTIVE

2.1–2.3 Neurons and Neurotransmitters

2.1 Structure of the Neuron: The Nervous System's Building Block

1. 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

2. 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

3. Specialized cells in the brain that 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

4. 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

5. The cell that 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

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

7. 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

8. 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
Answer b % correct 82 a= 15 b= 82 c= 1 d= 3 *r* = .36

9. 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

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
Answer b % correct 81 a= 2 b= 81 c= 18 d= 0 *r* = .20

11. 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

12. _____ are short fibers that extend from the neurons and allow it to receive messages from other neurons.
a. Axons
b. Dendrites
c. Nerve bundles
d. Synapses
Answer b % correct 79 a= 19 b= 79 c= 1 d= 1 *r* = .38

13. The short fibers that 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= 86 c= 1 d= 12 *r* = .26

14. 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
Answer b % correct 60 a= 25 b= 60 c= 6 d= 8 *r* = .40

15. 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

16. Neural messages travel faster on axons that _____.
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

2.2 Generating the Message Within the Neuron: The Neural Impulse

17. 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

2.3 Neurotransmission

18. 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

19. Endorphins _____.
a. are found where neurons meet skeletal muscles
b. are less powerful than enkaphalins
c. reduce pain messages in the brain
d. are radically different in function from neurotransmitters
Answer c % correct 86 a= 3 b= 3 c= 86 d= 8 *r* = .23

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

21. 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

22. 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

23. 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

24. 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

25. 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

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

27. Despite its dangers, a young man continues to take cocaine because of the feeling of euphoria it produces in 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

2.6–2.10 From the Bottom Up: The Structures of the Brain

2.6 The Hindbrain

28. 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

29. The part of the hindbrain 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

30. 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
Answer c % correct 81 a= 9 b= 1 c= 81 d= 9 *r* = .34

31. 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

32. 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

33. 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

34. 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
Answer c % correct 84 a= 3 b= 5 c= 84 d= 8 *r* = .40

35. Pavati is recovering from a blow to her head and finds that she has great difficulty maintaining her balance and coordinating her movements. Injury to which part of Pavati's 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
Answer a % correct 72 a= 72 b= 8 c= 18 d= 2 *r* = .37

36. The outer surface of the two cerebral hemispheres that regulates 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

37. 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

38. 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

39. 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

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

2.7 Structures Under the Cortex: The Limbic System

41. 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
Answer d % correct 71 a= 3 b= 5 c= 21 d= 71 *r* = .29

42. 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

43. Ryan 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 51 a= 0 b= 10 c= 39 d= 51 *r* = .28

44. 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

45. 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

46. 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

47. 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

2.8 The Cortex

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

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

50. Maya 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 Maya's brain most likely injured was her _____ lobe.
a. occipital
b. temporal
c. parietal
d. frontal
Answer c % correct 66 a= 4 b= 13 c= 66 d= 16 *r* = .34

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

52. Margot 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 Margot's brain most likely injured was her _____ lobe.
a. occipital
b. temporal
c. parietal
d. frontal
Answer b % correct 68 a= 10 b= 68 c= 11 d= 10 *r* = .34

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

54. The growth of a brain tumor has caused Zhang Wei's vision to suffer. Which lobe of his brain is being affected by the tumor's growth?
a. frontal lobe
b. occipital lobe
c. parietal lobe
d. temporal lobe

Answer b % correct 91 a= 2 b= 91 c= 4 d= 3 *r* = .23

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

56. 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 lobe
b. parietal lobe
c. occipital lobe
d. frontal lobe
Answer d % correct 55 a= 10 b= 33 c= 2 d= 55 *r* = .30

57. 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

58. 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

59. 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
Answer a % correct 99 a= 99 b= 0 c= 1 d= 0 *r* = .02

60. 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
Answer c % correct 88 a= 6 b= 3 c= 88 d= 3 *r* = .38

61. 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

62. 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

2.9 The Association Areas of the Cortex

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

64. 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. Carl Wernicke
d. Hermann Ebbinghaus
Answer a % correct 53 a= 53 b= 3 c=35 d= 7 *r* = .31

2.10 The Cerebral Hemispheres

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

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

67. Which hemisphere of the cerebral cortex is usually dominant in language tasks?
a. front hemisphere
b. rear hemisphere
c. left hemisphere
d. right hemisphere
Answer c % correct 66 a= 18 b= 3 c= 66 d= 13 *r* = .38
Answer c % correct 70 a= 8 b= 4 c= 70 d= 18 *r* = .38

68. 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

69. After removal of a tumor from the LEFT side of her brain, Liv 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

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

SPLIT-BRAIN RESEARCH

71. 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

72. "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 skull fracture in which bone fragments penetrated into the brain
Answer c % correct 78 a= 7 b= 16 c= 78 d= 0 *r* = .36
Answer c % correct 90 a= 2 b= 8 c= 90 d= 0 *r* = .38

73. 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

74. 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

2.11–2.12 The Nervous System: The Rest of the Story

75. The nervous system is composed of two parts: _____.
a. the afferent nervous system and the efferent nervous system
b. the central nervous system and the peripheral 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

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

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

78. 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

2.11 The Central Nervous System: The "Central Processing Unit"

79. The two major divisions of the central nervous system are the _____.
a. left and right hemispheres
b. 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

80. 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

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

82. Which of the following most directly controls bodily reflexes?
a. peripheral nervous system

b. brain stem
c. spinal cord
d. hindbrain
Answer c % correct 55 a= 30 b= 4 c= 55 d= 11 *r* = .37

83. 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

84. 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

85. 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

86. Justin learns that he has just won $1,000 in a statewide 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

87. What kind 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

88. Delaney 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

2.12 The Peripheral Nervous System: Nerves on the Edge

89. 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

90. 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

91. 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

92. 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

93. 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

94. The process of digesting your last snack or meal and 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

95. The autonomic nervous system is made up of what two systems?
a. central and peripheral nervous systems
b. receptors and effectors
c. sympathetic and parasympathetic divisions
d. limbic and endocrine systems
Answer c % correct 79 a= 9 b= 5 c= 79 d= 7 *r* = .36

96. 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

97. 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

98. 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

99. 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

100. 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

101. 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

102. A deer waits motionlessly, hidden in the thicket as a band of hunters approaches. As the hunters get closer, their dogs bark, picking up the scent of their prey. In a futile effort to escape, the deer bolts. Which of the following most accurately describes the nervous system of the hunted deer at this point?
a. Its sympathetic nerve fibers are more active than its parasympathetic nerve fibers.
b. Its parasympathetic nerve fibers are more active than its sympathetic nerve fibers.
c. Both its sympathetic and parasympathetic nerve fibers are equally active.
d. Neither its sympathetic nor its parasympathetic nerve fibers are aroused.
Answer a % correct 77 a= 77 b= 13 c= 10 d= 0 *r* = .37

103. 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

104. One evening Rory 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, Rory decided to make a run for it. Pretending to open her purse, she suddenly turned and dashed off. Although pursued, Rory outran her assailants. During this incident, which part of Rory'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

2.13–2.14 The Endocrine Glands

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

106. 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

107. The _____ system is made up of glands that 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

108. 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

109. 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

2.13 The Pituitary: Master of the Hormonal Universe

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

2.14 Other Endocrine Glands

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

112. The _____ gland produces the hormone that 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

113. Rocco 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. Rocco 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

114. Cooper 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 Cooper are probably due to the action of the _____.
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

Revel Quizzes

The following questions appear at the end of each module and at the end of the chapter in Revel for *Psychology*, Sixth Edition.

End of Module Quiz 2.1–2.3 Neurons and Neurotransmitters

EOM Q2.1.1

Which part of the neuron carries messages to other cells?
a) axon
b) dendrite
Consider This: This is a fiber that branches out into several shorter fibers that have swellings or little knobs on the ends. 2.1 Identify the parts of a neuron and the function of each.
c) soma
Consider This: This is a fiber that branches out into several shorter fibers that have swellings or little knobs on the ends. 2.1 Identify the parts of a neuron and the function of each.
d) myelin
Consider This: This is a fiber that branches out into several shorter fibers that have swellings or little knobs on the ends. 2.1 Identify the parts of a neuron and the function of each.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.1.2

Which one of the following is NOT a function of glial cells?
a) generating action potentials
b) getting nutrients to the neurons
Consider This: While historically viewed as support cells for neurons, the expanded roles of glia are still being discovered. 2.1 Identify the parts of a neuron and the function of each.
c) cleaning up the remains of dead neurons
Consider This: While historically viewed as support cells for neurons, the expanded roles of glia are still being discovered. 2.1 Identify the parts of a neuron and the function of each.
d) generating myelin
Consider This: While historically viewed as support cells for neurons, the expanded roles of glia are still being discovered. 2.1 Identify the parts of a neuron and the function of each.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.2.3

When a neuron's resting potential is occurring, the neuron is _____ charged on the inside.
a) negatively
b) positively
Consider This: A neuron that's at rest is not currently firing a neural impulse or message. 2.2 Explain the action potential.
c) both positively and negatively

Consider This: A neuron that's at rest is not currently firing a neural impulse or message. 2.2 Explain the action potential.
d) neutrally
Consider This: A neuron that's at rest is not currently firing a neural impulse or message. 2.2 Explain the action potential.
Answer: a
Learning Objective: 2.2 Explain the action potential.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.3.4

Neurotransmitters must pass from an axon terminal to the next dendrite by crossing a fluid-filled space called the _____.
a) synapse
b) neuron
Consider This: Neurotransmitters originate inside neurons and must cross this gap between adjacent neurons to transmit messages. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
c) reuptake inhibitor
Consider This: Neurotransmitters originate inside neurons and must cross this gap between adjacent neurons to transmit messages. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
d) glial cell
Consider This: Neurotransmitters originate inside neurons and must cross this gap between adjacent neurons to transmit messages. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.3.5

The venom of a black widow spider acts as a(n) _____ by mimicking the effects of acetylcholine.
a) agonist
b) protagonist
Consider This: This is a chemical substance that mimics or enhances the effects of a neurotransmitter. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
c) antagonist
Consider This: This is a chemical substance that mimics or enhances the effects of a neurotransmitter. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
d) glial cell
Consider This: This is a chemical substance that mimics or enhances the effects of a neurotransmitter. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.3.6

Which of the following is associated with pain relief?
a) endorphins
b) acetylcholine
Consider This: When a person is hurt, these pain-relieving chemicals are released when a neurotransmitter signaling pain reaches the brain. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
c) glutamate
Consider This: When a person is hurt, these pain-relieving chemicals are released when a neurotransmitter signaling pain reaches the brain. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
d) serotonin
Consider This: When a person is hurt, these pain-relieving chemicals are released when a neurotransmitter signaling pain reaches the brain. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Module: Neurons and Neurotransmitters
Skill Level: Remember the Facts
Difficulty Level: Easy

End of Module Quiz 2.4–2.5 Looking Inside the Living Brain

EOM Q2.4.1

Which of the following techniques involves passing a mild current through the brain to activate certain structures without damaging them?
a) electrical stimulation of the brain (ESB)
b) electroconvulsive tomography (ECT)
Consider This: This has become an important technique in psychology, as its use in animals has informed us in many areas of investigation, including new directions for therapy. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
c) magnetic resonance imaging (MRI)
Consider This: This has become an important technique in psychology, as its use in animals has informed us in many areas of investigation, including new directions for therapy. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
d) deep brain lesioning
Consider This: This has become an important technique in psychology, as its use in animals has informed us in many areas of investigation, including new directions for therapy. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Answer: a
Learning Objective: 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Module: Looking Inside the Living Brain
Skill Level: Understand the Concepts
Difficulty Level: Moderate

EOM Q2.5.2

Which of the following techniques analyzes blood oxygen levels to look at the functioning of the brain?
a) fMRI
b) EEG
Consider This: In this technique, a modification of a method typically used for imaging brain structure is used to assess brain function. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.

c) CT
Consider This: In this technique, a modification of a method typically used for imaging brain structure is used to assess brain function. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
d) PET
Consider This: In this technique, a modification of a method typically used for imaging brain structure is used to assess brain function. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Answer: a
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Module: Looking Inside the Living Brain
Skill Level: Understand the Concepts
Difficulty Level: Moderate

EOM Q2.5.3

Dr. Roll is conducting a research study. She wants to measure the physical connectivity in the research participants' brains by imaging their white matter. Which of the following methods will she use?
a) diffusion tensor imaging (DTI)
b) MRI spectroscopy
Consider This: This technique uses MRI technology. It has been used to investigate both normal function and structural changes associated with various disorders and conditions. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
c) functional magnetic resonance imaging (fMRI)
Consider This: This technique uses MRI technology. It has been used to investigate both normal function and structural changes associated with various disorders and conditions. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
d) computed tomography (CT)
Consider This: This technique uses MRI technology. It has been used to investigate both normal function and structural changes associated with various disorders and conditions. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Answer: a
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Module: Looking Inside the Living Brain
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.5.4

If you were suffering from neurological problems and your neurologist wanted to have a study done of your brain and its electrical functioning, which of the following techniques would be most appropriate?
a) EEG
b) PTI
Consider This: This technique involves having metal or sponge-like electrodes placed directly onto your scalp. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
c) PET
Consider This: This technique involves having metal or sponge-like electrodes placed directly onto your scalp. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
d) DTI
Consider This: This technique involves having metal or sponge-like electrodes placed directly onto your scalp. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Answer: a
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.

Module: Looking Inside the Living Brain
Skill Level: Apply What You Know
Difficulty Level: Moderate

End of Module Quiz 2.6–2.10 From the Bottom Up: The Structures of the Brain

EOM Q2.7.1

Which brain structure relays incoming sensory information?
a) thalamus
b) hypothalamus
Consider This: This structure might process that sensory information before sending it on to the part of the cortex that deals with that kind of sensation. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
c) reticular formation
Consider This: This structure might process that sensory information before sending it on to the part of the cortex that deals with that kind of sensation. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
d) pons
Consider This: This structure might process that sensory information before sending it on to the part of the cortex that deals with that kind of sensation. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Module: From the Bottom Up: The Structures of the Brain
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.7.2

If you were to develop a rare condition in which you were not able to remember to be afraid of certain situations, animals, or events, which part of the brain would most likely be damaged?
a) amygdala
b) cingulate cortex
Consider This: This is involved in fear responses and memory of fear. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
c) hypothalamus
Consider This: This is involved in fear responses and memory of fear. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
d) thalamus
Consider This: This is involved in fear responses and memory of fear. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Module: From the Bottom Up: The Structures of the Brain
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.8.3

What part of the brain can sometimes be referred to as the "rind" or outer covering?
a) cortex
b) thalamus

Consider This: This is very recognizable surface anatomy because it is full of wrinkles. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
c) medulla
Consider This: This is very recognizable surface anatomy because it is full of wrinkles. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
d) corpus callosum
Consider This: This is very recognizable surface anatomy because it is full of wrinkles. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Module: From the Bottom Up: The Structures of the Brain
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.8.4

In which of the following lobes of the cortex would you find the primary visual cortex?
a) occipital
b) frontal
Consider This: This is located at the base of the cortex, toward the back of the brain. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
c) temporal
Consider This: This is located at the base of the cortex, toward the back of the brain. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
d) parietal
Consider This: This is located at the base of the cortex, toward the back of the brain. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Module: From the Bottom Up: The Structures of the Brain
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.9.5

You have a dream in which you wake up to find that people around you are using words that make no sense. What's more, your friends don't seem to understand you when you speak. At one point in your dream, your mom tells you that you almost forgot your tree limb today. When you give her a puzzled look, she holds up your lunchbox and repeats, "You know, your tree limb." Your predicament in your dream is most like which of the following disorders?
a) Wernicke's aphasia
b) Broca's aphasia
Consider This: A person with this condition is able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
c) apraxia
Consider This: A person with this condition is able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
d) spatial neglect
Consider This: A person with this condition is able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Answer: a

Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Module: From the Bottom Up: The Structures of the Brain
Skill Level: Apply What You Know
Difficulty Level: Moderate

End of Module Quiz 2.11–2.12 The Nervous System: The Rest of the Story

EOM Q2.11.1

If you touch a hot stove, your spinal cord can prompt you to withdraw your hand without having to send the message all the way to the brain. This is due to what scientists call _____.
a) the reflex arc
b) neuroplasticity
Consider This: Having this controlled by the spinal cord alone allows for very fast response times. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
c) the parasympathetic nervous system
Consider This: Having this controlled by the spinal cord alone allows for very fast response times. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
d) the sympathetic nervous system
Consider This: Having this controlled by the spinal cord alone allows for very fast response times. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Module: The Nervous System: The Rest of the Story
Skill Level: Apply What You Know
Difficulty Level: Easy

EOM Q2.11.2

What is the process whereby the structure and function of brain cells change in response to trauma, damage, or even learning?
a) neuroplasticity
b) shallow lesioning
Consider This: Dendrites grow and new synapses are formed in at least some areas of the brain as people learn new things throughout life. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
c) deep lesioning
Consider This: Dendrites grow and new synapses are formed in at least some areas of the brain as people learn new things throughout life. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
d) cell regeneration
Consider This: Dendrites grow and new synapses are formed in at least some areas of the brain as people learn new things throughout life. 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Answer: a
Learning Objective: 2.11 Describe how the components of the central nervous system interact and how they may respond to experiences or injury.
Module: The Nervous System: The Rest of the Story
Skill Level: Remember the Facts
Difficulty Level: Easy

EOM Q2.12.3

The neurons of the sensory pathway contain _____.

a) afferent neurons
b) efferent neurons
Consider This: The sensory pathway comprises all the nerves carrying messages from the senses to the central nervous system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
c) both efferent and afferent neurons
Consider This: The sensory pathway comprises all the nerves carrying messages from the senses to the central nervous system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
d) voluntary muscle fibers
Consider This: The sensory pathway comprises all the nerves carrying messages from the senses to the central nervous system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Module: The Nervous System: The Rest of the Story
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.12.4

Yvonne's ability to reach for and pick up her book is largely due to the functions of the _____ pathway of the _____ nervous system.
a) motor, somatic
b) sensory, somatic
Consider This: This pathway is all the nerves carrying messages from the central nervous system to the voluntary, or skeletal, muscles of the body. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
c) autonomic, peripheral
Consider This: This pathway is all the nerves carrying messages from the central nervous system to the voluntary, or skeletal, muscles of the body. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
d) parasympathetic, autonomic
Consider This: This pathway is all the nerves carrying messages from the central nervous system to the voluntary, or skeletal, muscles of the body. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Module: The Nervous System: The Rest of the Story
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.12.5

Which of the following would be active if you have just had an automobile accident?
a) sympathetic division
b) parasympathetic division
Consider This: This is called the "fight-or-flight system" because it allows people and animals to deal with all kinds of stressful events. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
c) somatic division
Consider This: This is called the "fight-or-flight system" because it allows people and animals to deal with all kinds of stressful events. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
d) motor division
Consider This: This is called the "fight-or-flight system" because it allows people and animals to deal with all kinds of stressful events. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Module: The Nervous System: The Rest of the Story
Skill Level: Apply What You Know
Difficulty Level: Moderate

End of Module Quiz 2.13–2.14 The Endocrine Glands

EOM Q2.14.1

Your friend Melissa has suffered from diabetes for her entire life. She regularly tests her blood to make sure her sugar levels are not too high or low. Which gland in her endocrine system is responsible for regulating her blood sugar?
a) pancreas
b) thyroid
Consider This: This gland secretes insulin and glucagon. 2.14 Recall the role of various endocrine glands.
c) pituitary
Consider This: This gland secretes insulin and glucagon. 2.14 Recall the role of various endocrine glands.
d) adrenal
Consider This: This gland secretes insulin and glucagon. 2.14 Recall the role of various endocrine glands.
Answer: a
Learning Objective: 2.14 Recall the role of various endocrine glands.
Module: The Endocrine Glands
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.14.2

Andrew has always been thin. In fact, he often seems to be able to eat whatever he wants without gaining weight. The doctor told his parents that Andrew's _____ gland is the cause of his fast metabolism.
a) thyroid
b) pituitary
Consider This: This gland secretes a hormone that controls the burning of energy. 2.14 Recall the role of various endocrine glands.
c) adrenal
Consider This: This gland secretes a hormone that controls the burning of energy. 2.14 Recall the role of various endocrine glands.
d) pancreas
Consider This: This gland secretes a hormone that controls the burning of energy. 2.14 Recall the role of various endocrine glands.
Answer: a
Learning Objective: 2.14 Recall the role of various endocrine glands.
Module: The Endocrine Glands
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOM Q2.13.3

Although oxytocin has been tied to a variety of prosocial behaviors such as "love" and "trust," some researchers believe that in humans, it may actually work to increase _____.
a) the importance of some social stimuli
b) heart rate and empathy
Consider This: Oxytocin's effects depend on what people believe about themselves in relation to other people and what they believe about achieving close social relationships. 2.13 Explain why the pituitary gland is known as the "master gland."
c) negative pair bonding
Consider This: Oxytocin's effects depend on what people believe about themselves in relation to other people and what they believe about achieving close social relationships. 2.13 Explain why the pituitary gland is known as the "master gland."
d) social loafing

Consider This: Oxytocin's effects depend on what people believe about themselves in relation to other people and what they believe about achieving close social relationships. 2.13 Explain why the pituitary gland is known as the "master gland."
Answer: a
Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Module: The Endocrine Glands
Skill Level: Understand the Concepts
Difficulty Level: Moderate

EOM Q2.13.4

Which gland(s) have the greatest influence over other components of the endocrine system?
a) pituitary
b) gonads
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
c) pineal
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
d) pancreas
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
Answer: a
Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Module: The Endocrine Glands
Skill Level: Understand the Concepts
Difficulty Level: Moderate

End of Chapter Quiz: The Biological Perspective

EOC Q2.1

In the structure of the neuron, the _____ receives messages from other cells.
a) dendrite
b) axon
Consider This: This structure looks like the branches of a tree. 2.1 Identify the parts of a neuron and the function of each.
c) soma
Consider This: This structure looks like the branches of a tree. 2.1 Identify the parts of a neuron and the function of each.
d) myelin
Consider This: This structure looks like the branches of a tree. 2.1 Identify the parts of a neuron and the function of each.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.2

Oligodendrocytes and Schwann cells generate a fatty substance known as _____.
a) myelin
b) glial
Consider This: This substance wraps around the shaft of the axons, forming an insulating and protective sheath. 2.1 Identify the parts of a neuron and the function of each.

c) soma
Consider This: This substance wraps around the shaft of the axons, forming an insulating and protective sheath. 2.1 Identify the parts of a neuron and the function of each.
d) neurilemma
Consider This: This substance wraps around the shaft of the axons, forming an insulating and protective sheath. 2.1 Identify the parts of a neuron and the function of each.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.3

Which of the following insulates and protects a neuron's axon, as well as helps speed along electrical impulses?
a) myelin sheath
b) synaptic knobs
Consider This: Sections of this bump up next to each other on the axon. 2.1 Identify the parts of a neuron and the function of each.
c) receptor sites
Consider This: Sections of this bump up next to each other on the axon. 2.1 Identify the parts of a neuron and the function of each.
d) neuromodulators
Consider This: Sections of this bump up next to each other on the axon. 2.1 Identify the parts of a neuron and the function of each.
Answer: a
Learning Objective: 2.1 Identify the parts of a neuron and the function of each.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.4

When a neuron is in the resting potential state, the neuron is negatively charged on the _____ and positively charged on the _____.
a) inside, outside
b) outside, inside
Consider This: A neuron that's at rest—not currently firing a neural impulse or message—is actually electrically charged. 2.2 Explain the action potential.
c) top, bottom
Consider This: A neuron that's at rest—not currently firing a neural impulse or message—is actually electrically charged. 2.2 Explain the action potential.
d) bottom, top
Consider This: A neuron that's at rest—not currently firing a neural impulse or message—is actually electrically charged. 2.2 Explain the action potential.
Answer: a
Learning Objective: 2.2 Explain the action potential.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.5

Which neurotransmitter stimulates skeletal muscle cells to contract but slows contractions of the heart?
a) acetylcholine (ACh)
b) GABA

Consider This: This was the first neurotransmitter ever identified. It is often found at the synapses between neurons and muscle cells. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
c) serotonin
Consider This: This was the first neurotransmitter ever identified. It is often found at the synapses between neurons and muscle cells. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
d) endorphin
Consider This: This was the first neurotransmitter ever identified. It is often found at the synapses between neurons and muscle cells. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.6

Heroin mimics the actions of endorphins, inhibiting pain signals. Heroin is an example of a(n) _____.
a) agonist
b) protagonist
Consider This: This can mimic or enhance the effects of neurotransmitters on the receptor sites of the next cell. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
c) antagonist
Consider This: This can mimic or enhance the effects of neurotransmitters on the receptor sites of the next cell. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
d) glial cell
Consider This: This can mimic or enhance the effects of neurotransmitters on the receptor sites of the next cell. 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Answer: a
Learning Objective: 2.3 Describe how neurons use neurotransmitters to communicate with each other and with the body.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.7

Bailey is a subject in a study on memory and problem solving. The researcher is applying magnetic pulses to her brain through copper wire coils positioned directly above her scalp. Bailey's study would best be described as a(n) _____ technique.
a) noninvasive stimulation
b) invasive stimulation
Consider This: In this technique, the resulting magnetic fields stimulate neurons in the targeted area of the cortex. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
c) EEG
Consider This: In this technique, the resulting magnetic fields stimulate neurons in the targeted area of the cortex. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
d) PET
Consider This: In this technique, the resulting magnetic fields stimulate neurons in the targeted area of the cortex. 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Answer: a
Learning Objective: 2.4 Describe how lesioning studies and brain stimulation are used to study the brain.
Module: The Biological Perspective

Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.8
Which technique of studying the brain involves injecting the patient with radioactive glucose?
a) PET
b) EEG
Consider This: Active brain areas require energy. In this technique, brain activity is examined by identifying which cells are using up the radioactive glucose. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
c) MRI
Consider This: Active brain areas require energy. In this technique, brain activity is examined by identifying which cells are using up the radioactive glucose. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
d) CT
Consider This: Active brain areas require energy. In this technique, brain activity is examined by identifying which cells are using up the radioactive glucose. 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Answer: a
Learning Objective: 2.5 Compare and contrast neuroimaging techniques for mapping the brain's structure and function.
Module: The Biological Perspective
Skill Level: Understand the Concepts
Difficulty Level: Moderate

EOC Q2.9

Maria often sleeps soundly and rarely awakens to any outside noise. However, the cries of Maria's baby can awaken her immediately. What part of the brain is responsible for this reaction?
a) reticular formation
b) medulla
Consider This: This is the part of the brain that helps keep people alert and aroused. 2.6 Identify the different structures of the hindbrain and the function of each.
c) pons
Consider This: This is the part of the brain that helps keep people alert and aroused. 2.6 Identify the different structures of the hindbrain and the function of each.
d) cerebellum
Consider This: This is the part of the brain that helps keep people alert and aroused. 2.6 Identify the different structures of the hindbrain and the function of each.
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.10

Nicole and Camille are synchronized swimmers for their college swim team. They often work long hours to ensure the movements in their routine are perfectly timed. What part of their brains must Camille and Nicole rely most upon?
a) cerebellum
b) medulla
Consider This: This part of the brain coordinates voluntary movements that have to happen in rapid succession. 2.6 Identify the different structures of the hindbrain and the function of each.
c) pons

Consider This: This part of the brain coordinates voluntary movements that have to happen in rapid succession. 2.6 Identify the different structures of the hindbrain and the function of each.
d) reticular formation
Consider This: This part of the brain coordinates voluntary movements that have to happen in rapid succession. 2.6 Identify the different structures of the hindbrain and the function of each.
Answer: a
Learning Objective: 2.6 Identify the different structures of the hindbrain and the function of each.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.11

Your psychology professor refers to this as the great relay station of the brain. What part is he or she referring to?
a) thalamus
b) hypothalamus
Consider This: Recent research has also suggested that this part of the brain may affect the functioning of task-specific regions of the cortex. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
c) hippocampus
Consider This: Recent research has also suggested that this part of the brain may affect the functioning of task-specific regions of the cortex. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
d) amygdala
Consider This: Recent research has also suggested that this part of the brain may affect the functioning of task-specific regions of the cortex. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.12

Which part of the brain is involved in the creation of long-term, declarative memories and is often linked to Alzheimer's disease?
a) hippocampus
b) thalamus
Consider This: This is the Greek word for "seahorse," and it was given to this brain structure because the first scientists who dissected the brain thought it looked like a seahorse. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
c) hypothalamus
Consider This: This is the Greek word for "seahorse," and it was given to this brain structure because the first scientists who dissected the brain thought it looked like a seahorse. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
d) amygdala
Consider This: This is the Greek word for "seahorse," and it was given to this brain structure because the first scientists who dissected the brain thought it looked like a seahorse. 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Answer: a
Learning Objective: 2.7 Identify the structures of the brain that are involved in emotion, learning, memory, and motivation.
Module: The Biological Perspective
Skill Level: Remember the Facts

Difficulty Level: Easy

EOC Q2.13

Jessica suffered a severe blow to the back of her head when she was thrown from her horse. Subsequently, her occipital lobe has been injured. Which of her senses has the highest chance of being affected?
a) vision
b) hearing
Consider This: The primary cortical processing area for this sensory modality is found in the occipital lobe. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
c) touch
Consider This: The primary cortical processing area for this sensory modality is found in the occipital lobe. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
d) taste and smell
Consider This: The primary cortical processing area for this sensory modality is found in the occipital lobe. 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Answer: a
Learning Objective: 2.8 Identify the parts of the cortex that process the different senses and those that control movement of the body.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.14

Jaime's grandfather recently suffered a stroke and has had difficulty with language production ever since. Most likely, he has experienced damage to the _____ area of his brain.
a) left frontal
b) right rear
Consider This: This area coordinates various brain areas, allowing a person to speak smoothly and fluently. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
c) left rear
Consider This: This area coordinates various brain areas, allowing a person to speak smoothly and fluently. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
d) right frontal
Consider This: This area coordinates various brain areas, allowing a person to speak smoothly and fluently. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Answer: a
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.15

Felicia is recovering from a brain injury. She is able to speak fluently but often uses incorrect words in a sentence. In one instance at a friend's birthday party, she said, "I would like something to drink. Can I have some battery?" Felicia's problem may be a symptom of _____.
a) Wernicke's aphasia
b) spatial neglect
Consider This: People with this condition are able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
c) visual agnosia

Consider This: People with this condition are able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
d) Broca's aphasia
Consider This: People with this condition are able to speak fluently and pronounce words correctly, but the words would be the wrong ones entirely. 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Answer: a
Learning Objective: 2.9 Recall the function of association areas of the cortex, including those especially crucial for language.
Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate

EOC Q2.16

Although the brain works largely as a whole, which of the following is not a correct pairing of hemisphere and function?
a) right: control of right-handed motor functions
b) left: control of right-handed motor functions
Consider This: An organizational feature of the cortex is that for specific regions, each hemisphere is responsible for the opposite side of the body, either for control or for receiving information. 2.10 Explain how some brain functions differ between the left and right hemispheres.
c) right: recognition of faces
Consider This: An organizational feature of the cortex is that for specific regions, each hemisphere is responsible for the opposite side of the body, either for control or for receiving information. 2.10 Explain how some brain functions differ between the left and right hemispheres.
d) left: reading
Consider This: An organizational feature of the cortex is that for specific regions, each hemisphere is responsible for the opposite side of the body, either for control or for receiving information. 2.10 Explain how some brain functions differ between the left and right hemispheres.
Answer: a
Learning Objective: 2.10 Explain how some brain functions differ between the left and right hemispheres.
Module: The Biological Perspective
Skill Level: Understand the Concepts
Difficulty Level: Moderate

EOC Q2.17

Involuntary muscles are controlled by the _____ nervous system.
a) autonomic
b) somatic
Consider This: Involuntary muscles, such as the heart, stomach, and intestines, are controlled by clumps of neurons located on or near the spinal column. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
c) sympathetic
Consider This: Involuntary muscles, such as the heart, stomach, and intestines, are controlled by clumps of neurons located on or near the spinal column. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
d) parasympathetic
Consider This: Involuntary muscles, such as the heart, stomach, and intestines, are controlled by clumps of neurons located on or near the spinal column. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.18

As you take notes, your heart beats at a normal rate. Your breathing is normal and your stomach slowly digests your earlier meal. What part of the peripheral nervous system is currently in action?
a) parasympathetic division
b) sympathetic division
Consider This: This system is sometimes called the "rest and digest" system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
c) autonomic division
Consider This: This system is sometimes called the "rest and digest" system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
d) somatic division
Consider This: This system is sometimes called the "rest and digest" system. 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Answer: a
Learning Objective: 2.12 Differentiate the roles of the somatic and autonomic nervous systems.
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.19

Which gland(s) influence all other glands within the endocrine system?
a) pituitary gland
b) pineal gland
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
c) thyroid gland
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
d) adrenal glands
Consider This: Part of this gland secretes several hormones that influence the activity of the other glands. 2.13 Explain why the pituitary gland is known as the "master gland."
Answer: a
Learning Objective: 2.13 Explain why the pituitary gland is known as the "master gland."
Module: The Biological Perspective
Skill Level: Remember the Facts
Difficulty Level: Easy

EOC Q2.20

Robert has had difficulty sleeping for the past 6 months, and his body seemingly no longer differentiates between night and day. His doctor believes the problem lies with Robert's endocrine system. What gland will Robert's physician focus on?
a) pineal
b) pituitary
Consider This: This gland secretes a hormone called melatonin, which helps track day length. 2.14 Recall the role of various endocrine glands.
c) adrenal
Consider This: This gland secretes a hormone called melatonin, which helps track day length. 2.14 Recall the role of various endocrine glands.
d) thyroid
Consider This: This gland secretes a hormone called melatonin, which helps track day length. 2.14 Recall the role of various endocrine glands.
Answer: a
Learning Objective: 2.14 Recall the role of various endocrine glands.

Module: The Biological Perspective
Skill Level: Apply What You Know
Difficulty Level: Moderate