

1. Psychologists who specialize in considering the ways in which the biological structures and functions of the body affect behavior are known as _____.

- A. genetic psychologists
- B. bio psychologists**
- C. evolutionary psychologists
- D. clinical neuro psychologists

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Profession of Psychology

Topic: Subfields of Psychology

2. The basic elements of the nervous system are called:

- A. axons.
- B. glial cells.
- C. neurons.**
- D. neuro transmitters.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

3. There is a cluster of fibers at the end of every neuron that receives messages from other neurons called:

- A. axons.**
- B. terminal buttons.
- C. glial fibers.
- D. dendrites.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

4. An axon is a:

- A. neuron's cell body.**
- B. cluster of fibers at one end of a neuron.
- C. support cell in the nervous system.
- D. long, slim, tube-like extension.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

5. Which of the following structures is especially important for carrying messages received by the dendrites to other neurons?

- A. Neurotransmitter
- B. Synapse
- C. Axon**
- D. Glial cell

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

6. Terminal buttons are found at the end of:

- A. neurotransmitters.
- B. dendrites.
- C. axons.**
- D. glial cells.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

7. Which of the following sequences correctly arranges nervous system structures from the most general to the most specific?

- A. Neuron → axon → terminal button**
- B. Neuron → terminal button → axon
- C. Axon → terminal button → neuron
- D. Axon → neuron → terminal button

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

8. Dendrite is to axon what _____ is to _____.

- A. receiving; sending**
- B. sending; receiving
- C. reuptake; action potential
- D. action potential; reuptake

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

9. Which of the following sequences accurately reflects the route followed by nerve impulses when one neuron communicates with another?

- A. Dendrite → axon → cell body
- B. Dendrite → cell body → axon**
- C. Cell body → axon → dendrite
- D. Axon → dendrite → cell body

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

10. Electrical wires are generally protected by a tube of plastic. A similar insulating function is performed in the nervous system by a:

- A. myelin sheath.**
- B. glial cell.
- C. terminal button.
- D. synapse.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

11. A _____ is a protective coat of fat and protein that wraps around the axon.

- A. myelin sheath
- B. glial cell
- C. dendrite
- D. synapse

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

12. The rule that neurons are either on or off is known as the _____ law.

- A. intensity of stimulus
- B. graded action
- C. all-or-none
- D. incremental transformational

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: How Neurons Fire

13. The state in which a neuron has a negative electrical charge of about -70 millivolts is known as the _____ state.

- A. triggering
- B. terminal
- C. optimum
- D. resting

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: How Neurons Fire

14. Which of the following statements is true regarding the action potentials?

- A. As an impulse travels along an axon, the movement of ions changes the charge from positive to neutral in successive sections of the axon.
- B. An action potential moves from one end of an axon to the other like a flame moving along a fuse.
- C. After an impulse has passed through a particular section of an axon, negative ions are pumped out of that section, and its charge returns to positive while an action potential continues to move along the axon.
- D. Just after an action potential has passed through a section of an axon, a neuron can fire again immediately if it receives enough stimulation.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: How Neurons Fire

15. When an action potential occurs, a neuron's electrical charge:

- A. changes from negative to neutral.
- B. changes from positive to neutral.
- C. changes from negative to positive.

D. changes from positive to negative.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: How Neurons Fire

16. _____ are specialized neurons that fire not only when a person enacts a particular behavior, but also when a person simply observes another individual carrying out the same behavior.

A. Pharyngeal motor neurons

B. Mirror neurons

C. Ventral cord motor neurons

D. Amphid neurons

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: Mirror Neurons

17. A(n) _____ is the space between two neurons where the axon of a sending neuron communicates with the dendrites of a receiving neuron by using chemical messages.

A. synapse

B. terminal button

C. axon

D. cell body

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.3: Summarize how messages travel from one neuron to another.

Module: 5: Neurons

Topic: Synapse

18. Which of the following statements regarding inhibitory messages is true?

A. Inhibitory messages always increase the likelihood that a receiving neuron will fire.

B. Inhibitory messages decrease the likelihood that a receiving neuron will fire.

C. The dendrites of a neuron can't receive both excitatory and inhibitory messages simultaneously.

D. Inhibitory messages make it more likely that an action potential will travel down its axon.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.3: Summarize how messages travel from one neuron to another.

Module: 5: Neurons

Topic: Neurotransmitters

19. The reabsorption of neuro transmitters by a terminal button is termed as:

A. recycling.

B. reassertion.

C. reuptake.

D. reuse.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.3: Summarize how messages travel from one neuron to another.

Module: 5: Neurons

Topic: Neurotransmitters

20. Which neurotransmitter is described incorrectly?

A. Acetylcholine: transmits messages related to skeletal muscles

- B.** GABA: an excitatory neurotransmitter inhibited by alcohol or tranquilizers
C. Serotonin: helps regulate sleep and mood
D. Glutamate: plays a role in memory

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

21. The neurotransmitter dopamine is:
A. associated with the brain's effort to deal with pain.
B. related to Alzheimer's disease.
C. involved in the regulation of sleep, eating, mood, and pain.
D. involved in movement, attention, and learning.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

22. Which neurotransmitter is correctly matched with a psychological function?
A. Relief of pain: glutamate
B. Regulates mood: acetylcholine
C. Facilitates learning: dopamine
D. Contributes to memory: serotonin

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

23. Which disorder is correctly paired with an associated neurotransmitter?
A. Parkinson's disease: dopamine
B. Depression: glutamate
C. Schizophrenia: serotonin
D. Alzheimer's disease: endorphins

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

24. Inhibitory is to excitatory what _____ is to _____.
A. glutamate; GABA
B. glutamate; acetylcholine
C. GABA; glutamate
D. endorphins; GABA

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

25. The nervous system is divided into the _____ and the _____ nervous systems.
A. primary; secondary

- B. somatic; autonomic
- C. sympathetic; parasympathetic
- D. central; peripheral**

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Central Nervous System

Topic: Nervous System

Topic: Peripheral Nervous System

26. The brain and the spinal cord constitute the _____ nervous system.

- A. central**
- B. peripheral
- C. extraneous
- D. parasympathetic

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Central Nervous System

Topic: Nervous System

27. A(n) _____ is an automatic, involuntary response to an incoming stimulus.

- A. action potential**
- B. intuition
- C. instinct
- D. reflex

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Central Nervous System

Topic: Nervous System

28. The _____ is the main means for transmitting messages between the brain and the rest of the body.

- A. cortex
- B. medulla
- C. axon
- D. spinal cord**

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Central Nervous System

Topic: Nervous System

29. Which of the following is true of the spinal cord's control of behavior?

- A. The spinal cord can't control any behavior without the help of the brain.
- B. The spinal cord is not involved in reflexes.
- C. The spinal cord can control some simple reflexes without the brain's help.**
- D. The spinal cord can control relatively complex behavior without the brain's help.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

30. The central nervous system is composed of _____. The peripheral nervous system comprises _____.
- A. the somatic and autonomic nervous systems; the sympathetic and parasympathetic nervous systems
 - B. the somatic and autonomic nervous systems; the brain and the spinal cord
 - C. the sympathetic and parasympathetic nervous systems; the somatic and autonomic nervous systems
 - D. the brain and the spinal cord; the somatic and autonomic nervous systems**

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Central Nervous System

Topic: Nervous System

Topic: Peripheral Nervous System

31. Sensory is to motor what _____ is to _____.
- A. efferent; afferent
 - B. afferent; efferent**
 - C. afferent; interneuron
 - D. interneuron; efferent

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

32. _____ communicate information in the opposite direction, from the brain and nervous system to muscles and glands.
- A. Mirror neurons
 - B. Amphid neurons
 - C. Motor neurons**
 - D. Autoneurons

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

33. The two major divisions of the peripheral nervous system are the _____ and _____ divisions.
- A. somatic; autonomic**
 - B. sympathetic; parasympathetic
 - C. afferent; efferent
 - D. sensory; motor

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

34. The _____ is the part of the peripheral nervous system that specializes in the control of voluntary movements and the communication of information to and from the sense organs.
- A. somatic division**
 - B. sympathetic division
 - C. parasympathetic division

D. autonomic division

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

35. Somatic is to autonomic what _____ is to _____.

A. involuntary; voluntary

B. voluntary; involuntary

C. excitation; rest

D. rest; excitation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

36. The part of the autonomic division of the nervous system that acts to prepare the body for action in stressful situations, engaging all the organism's resources to respond to a threat is known as the _____.

A. somatic division

B. sympathetic division

C. parasympathetic division

D. apathetic division

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Autonomic Division

Topic: Nervous System

Topic: Peripheral Nervous System

37. The fight-or-flight response is associated with the _____ division.

A. somatic

B. sympathetic

C. parasympathetic

D. apathetic

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Autonomic Division

Topic: Nervous System

Topic: Peripheral Nervous System

38. The part of the autonomic division of the nervous system that acts to calm the body after an emergency has ended is known as the _____ division.

A. somatic

B. sympathetic

C. parasympathetic

D. apathetic

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.
Module: 6: The Nervous System and the Endocrine System
Topic: Autonomic Division
Topic: Nervous System
Topic: Peripheral Nervous System

39. The _____ division directs the body to store energy for use in emergencies.

- A. somatic
- B. sympathetic
- C. parasympathetic**
- D. apathetic

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APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.
Module: 6: The Nervous System and the Endocrine System
Topic: Autonomic Division
Topic: Nervous System
Topic: Peripheral Nervous System

40. Which of the following situations is most likely to involve the action of the parasympathetic nervous system?

- A. Brooke accidentally touches a hot iron, and she immediately jerks her hand away.
- B. Callie panics when she mistakes her roommate for a thief, but she relaxes after having a glass of water.**
- C. Denise walks toward her car in a deserted street and is alarmed when a strange-looking man appears out of nowhere.
- D. Peyton gets ready to go to bed and is alarmed when she sees a stranger at her window.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
APA Outcome: 1.3: Describe applications of psychology.
Bloom's: Apply
Difficulty: Hard
Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.
Module: 6: The Nervous System and the Endocrine System
Topic: Autonomic Division
Topic: Nervous System
Topic: Peripheral Nervous System

41. Izzy sees a snake in her backyard. Her pupils dilate, and her heart starts pounding. Her breathing is shallow and rapid. Her _____ nervous system is active.

- A. parasympathetic
- B. sympathetic**
- C. apathetic
- D. somatic

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
APA Outcome: 1.3: Describe applications of psychology.
Bloom's: Apply
Difficulty: Hard
Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.
Module: 6: The Nervous System and the Endocrine System
Topic: Autonomic Division
Topic: Nervous System
Topic: Peripheral Nervous System

42. The study of the effects of heredity on how people conduct themselves is known as _____.

- A. behavioral genetics**
- B. classical genetics
- C. development genetics
- D. molecular genetics

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.
Module: 6: The Nervous System and the Endocrine System
Topic: Evolutionary Foundations of Nervous System

43. Dr. Schilling is investigating the potential genetic basis of antisocial personality disorder by examining the relative prevalence of the disorder among either identical or fraternal twins, raised either together or in different families. Dr. Schilling is best described as a _____.

- A. behavioral geneticist
- B. classical geneticist
- C. development geneticist
- D. molecular geneticist

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Hard

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Evolutionary Foundations of Nervous System

44. Which of the following statements best expresses the relationship between the nervous system and the endocrine system?

- A. They operate entirely independently.
- B. The endocrine system is part of the central nervous system.
- C. The endocrine system influences and is influenced by the nervous system.
- D. The central nervous system is part of the endocrine system.

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 6.2: Describe the operation of the endocrine system and how it affects behavior.

Module: 6: The Nervous System and the Endocrine System

Topic: Endocrine System

45. The _____ gland is a major component of the endocrine system, which secretes hormones that control growth and other parts of the endocrine system.

- A. esophageal
- B. apocrine
- C. parotid
- D. pituitary

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.2: Describe the operation of the endocrine system and how it affects behavior.

Module: 6: The Nervous System and the Endocrine System

Topic: Endocrine System

46. The _____ gland has sometimes been called the master gland because it controls the functioning of the rest of the endocrine system.

- A. pituitary
- B. esophageal
- C. apocrine
- D. parotid

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.2: Describe the operation of the endocrine system and how it affects behavior.

Module: 6: The Nervous System and the Endocrine System

Topic: Endocrine System

47. Your friend is considering using steroids to increase muscle mass. You would warn him that steroid abuse can lead to:

- A. violent, dangerous behavior.
- B. obesity.
- C. autism.
- D. Type II diabetes.

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 6.2: Describe the operation of the endocrine system and how it affects behavior.

Module: 6: The Nervous System and the Endocrine System

Topic: Endocrine System

48. Which of the following is NOT a brain-scanning technique?

- A. Electroencephalogram (EEG)
- B. Electromyogram (EMG)**
- C. Positron emission tomography (PET)
- D. Transcranial magnetic stimulation imaging (TMS)

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

49. Which brain-scanning technique below is correctly matched with its description?

- A. EEG: records the brain's electrical activity through electrodes**
- B. PET: causes a momentary interruption of the brain's electrical activity
- C. fMRI: traces biochemical activity in the brain
- D. TMS: produces a graph of electrical wave patterns

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

50. Brent is taking part in an experiment in the cognitive neuroscience lab on campus. Silently, he reads sequences of words flashed on a computer screen. Simultaneously, the electrical activity of his brain is recorded through electrodes placed on the outside of his skull. The brain-scanning technique used in this study is:

- A. fMRI.
- B. PET.
- C. EEG.**
- D. TMS.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

51. One of the newest brain-scanning techniques that is sometimes called a virtual lesion is:

- A. PET.
- B. EEG.
- C. TMS.**
- D. fMRI.

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

52. Marisol is trying a new treatment for severe depression. A tiny region of her brain is exposed to a strong magnetic field. Marisol is undergoing:

- A. optogenetic therapy.
- B. transcranial magnetic stimulation.**
- C. positron emission tomography.

D. functional magnetic resonance imaging.

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

53. It is possible to view individual circuits of neurons due to the emerging field of:

- A. optogenetics.
- B. synaptic reflectance.
- C. neurogenetics.
- D. transcranial magnetic stimulation.

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.

Module: 7: The Brain

Topic: Brain Imaging

54. Which of the following structures is NOT part of the brain's central core?

- A. Hippocampus
- B. Cerebellum
- C. Pons
- D. Reticular formation

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Structure

Topic: Central Core

55. The hindbrain includes each of the following structures EXCEPT the:

- A. medulla.
- B. thalamus.
- C. pons.
- D. cerebellum.

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Structure

Topic: Central Core

56. The part of the brain closest to the spinal cord is the _____, and it controls critical body functions, such as _____.

- A. cerebellum; maintaining body temperature
- B. cerebellum; heart rate and respiration
- C. medulla; maintaining body temperature
- D. medulla; heart rate and respiration

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Brain Structure

Topic: Central Core

57. The pons serves to:
- A. regulate arousal.
 - B. relay sensory information to the brain's association areas.
 - C. integrate movement between the left and right halves of the body.**
 - D. consolidate memories.

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Central Core

58. Yves has been drinking. He has difficulty walking a straight line when asked to do so by a police officer. In this scenario, Yves' _____ is most likely to be functioning poorly.

- A. thalamus
- B. cerebellum**
- C. corpus callosum
- D. reticular formation

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Accessibility: Keyboard Navigation

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

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Central Core

59. The part of the brain extending from the medulla through the pons and made up of groups of nerve cells that can immediately activate other parts of the brain to produce general bodily arousal is known as the _____.

- A. reticular formation**
- B. thalamus
- C. cerebellum
- D. limbic system

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Brain Structure

Topic: Central Core

60. The _____ is the part of the brain that is located in the middle of the central core and acts primarily to relay information about the senses.

- A. thalamus**
- B. cerebellum
- C. hypothalamus
- D. amygdala

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Brain Structure

Topic: Central Core

61. The _____ is a tiny part of the brain that maintains homeostasis and produces and regulates vital behavior, such as eating, drinking, and sexual behavior.

- A. medulla
- B. cerebellum
- C. hypothalamus**

D. hypothalamus

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Brain Structure

Topic: Central Core

62. Our motivation or drive for things such as pizza, beer, and sex is associated with the activity in the region of the brain known as the:

- A. hypothalamus.**
- B. thalamus.
- C. hippocampus.
- D. amygdala.

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Accessibility: Keyboard Navigation

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

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Central Core

63. The _____ in the brain contributes to the body's maintenance of a steady internal environment called _____.

- A. thalamus; homeostasis
- B. hypothalamus; homeostasis**
- C. hippocampus; equilibrium
- D. thalamus; equilibrium

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.2: Describe the central core of the brain.

Module: 7: The Brain

Topic: Brain Function

Topic: Central Core

64. The limbic system contains which of the following structures?

- A. Amygdala**
- B. Pons
- C. Thalamus
- D. Corpus callosum

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.3: Describe the limbic system of the brain.

Module: 7: The Brain

Topic: Limbic System

65. The structures of the _____ jointly control a variety of basic functions relating to emotions and self-preservation, such as eating, aggression, and reproduction.

- A. central core of the brain
- B. endocrine system
- C. limbic system**
- D. cerebral cortex

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.3: Describe the limbic system of the brain.

Module: 7: The Brain

Topic: Limbic System

66. The _____ is referred to as the new brain.

- A. hindbrain
- B. limbic system
- C. cerebral cortex**
- D. central core

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.4: Describe the cerebral cortex of the brain.

Module: 7: The Brain

Topic: Cerebral Cortex

67. In the context of the cerebral cortex of the brain, the motor area is located in the _____ lobes.

- A. occipital
- B. frontal**
- C. parietal
- D. temporal

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.4: Describe the cerebral cortex of the brain.

Module: 7: The Brain

Topic: Cerebral Cortex

68. In a neuro physiological investigation, a monkey makes an involuntary gesture when a portion of its brain is electrically stimulated. The area of the brain that was most likely stimulated is the:

- A. parietal lobe.
- B. frontal lobe.**
- C. temporal lobe.
- D. occipital lobe.

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Accessibility: Keyboard Navigation

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

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.4: Describe the cerebral cortex of the brain.

Module: 7: The Brain

Topic: Cerebral Cortex

69. The _____ area is the site in the brain of the tissue that corresponds to each of the senses, with the degree of sensitivity related to the amount of the tissue allocated to that site.

- A. attribution
- B. sensory**
- C. motor
- D. association

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Accessibility: Keyboard Navigation

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.4: Describe the cerebral cortex of the brain.

Module: 7: The Brain

Topic: Cerebral Cortex

70. The somatosensory area is to the auditory area what the _____ lobe is to the _____ lobe.

- A. temporal; parietal
- B. parietal; occipital
- C. occipital; parietal
- D. parietal; temporal**

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium
Learning Objective: 7.4: Describe the cerebral cortex of the brain.
Module: 7: The Brain
Topic: Cerebral Cortex

71. The visual area in the cortex is located in the _____.
- A. frontal lobe
 - B. occipital lobe**
 - C. temporal lobe
 - D. parietal lobe

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Accessibility: Keyboard Navigation
APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.4: Describe the cerebral cortex of the brain.
Module: 7: The Brain
Topic: Cerebral Cortex

72. The _____ areas are considered to be the site of higher mental processes, such as thinking, language, memory, and speech.
- A. sensory
 - B. attribution
 - C. motor
 - D. association**

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Accessibility: Keyboard Navigation
APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.4: Describe the cerebral cortex of the brain.
Module: 7: The Brain
Topic: Cerebral Cortex

73. The process by which the brain continually reorganizes itself throughout the life span is termed:
- A. neuroformation.
 - B. neuroplasticity.**
 - C. neuroadaptation.
 - D. neuromutability.

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Accessibility: Keyboard Navigation
APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.5: Recognize neuroplasticity and its implications.
Module: 7: The Brain
Topic: Plasticity

74. _____ is the creation of new neurons.
- A. Neurogenesis
 - B. Neuroadaptation**
 - C. Neuromutability
 - D. Neuropathy

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Accessibility: Keyboard Navigation
APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.5: Recognize neuroplasticity and its implications.
Module: 7: The Brain
Topic: Plasticity

75. Neurogenesis is especially evident in brain areas related to learning and memory. Based on this statement, you might expect neurogenesis to be particularly prevalent in the brain's:
- A. thalamus.
 - B. cerebellum.
 - C. hippocampus.**
 - D. hypothalamus.

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Accessibility: Keyboard Navigation

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.5: Recognize neuroplasticity and its implications.

Module: 7: The Brain

Topic: Plasticity

76. Which of the following statements is most accurate in the context of lateralization of language?

- A.** Language processing is most likely to occur in the left side of the brain.
- B. Language processing is most likely to occur in the right side of the brain.
- C. The control of language is shared equally between the hemispheres.
- D. The lateralization of language varies dramatically from one person to another.

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Specialization of Hemispheres

77. Trevor is desperately trying to solve a verbal analogy as part of a standardized entrance examination. On the other hand, Sienna is giving an oral presentation in a political science class. Of the brain's hemispheres, Trevor's _____ hemisphere is most active, and Sienna's _____ hemisphere is most active.

- A. right; right
- B.** left; left
- C. right; left
- D. left; right

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Accessibility: Keyboard Navigation

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Hard

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Specialization of Hemispheres

78. Kate has suffered damage to the right side of her brain. Which of the following processes is least likely to be affected?

- A. Achieving *fengshui* in her living room by rearranging the couch and the TV
- B.** Balancing her checkbook
- C. Reading that look on her boyfriend's face
- D. Thinking that a new song on the radio is really catchy

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Accessibility: Keyboard Navigation

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

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Hard

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Specialization of Hemispheres

79. Ramona is a woman. Stefan is a man. Which of the following statements is true regarding the potential differences in the corpus callosum between these two individuals?

- A. Stefan's corpus callosum is probably the same size as Ramona's.
- B.** Ramona's corpus callosum is larger than Stefan's.
- C. Ramona's corpus callosum is slightly smaller than Stefan's.
- D. Stefan's corpus callosum is much larger than Ramona's.

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Accessibility: Keyboard Navigation

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Specialization of Hemispheres

80. People whose corpus callosum has been surgically cut to stop seizures are called _____.

- A. deep-brain patients
- B. dual brain patients

- C. split-brain patients
- D. bicameral patients

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Remember

Difficulty: Easy

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Split Brain

81. Mrs. Simon has learned to lessen the pain associated with her migraines by voluntarily relaxing specific muscles and reducing her blood pressure. This example illustrates:
- A. deep-brain stimulation.
 - B. biofeedback.**
 - C. split-brain control.
 - D. transcranial stimulation.

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Accessibility: Keyboard Navigation

APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Medium

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Biofeedback

82. The **myelin sheath** is an insulating coat of fat and protein wrapped around an axon.

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Module: 7: The Brain

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.1: Explain the structure of a neuron.

Module: 5: Neurons

Topic: Neurons

83. According to the **all-or-none** law, neurons are either on or off.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: How Neurons Fire

84. After a long run, Aaron sometimes experiences a feeling of euphoria, a "runners's high," reflecting the activity of the neurotransmitter called **endorphins**.

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APA Outcome: 1.3: Describe applications of psychology.

Bloom's: Apply

Difficulty: Hard

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

85. **Afferent** neurons transmit information from the perimeter of the body to the central nervous system.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.3: Summarize how messages travel from one neuron to another.

Module: 5: Neurons

Topic: Neurons

86. The somatic nervous system controls voluntary movement. In contrast, the **autonomic** nervous system controls involuntary movement.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

87. Wilma has been experiencing memory difficulties, and her doctor is concerned that Wilma may have a brain tumor. He is most likely to recommend a(n) **PET** scan to confirm his diagnosis.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
APA Outcome: 1.3: Describe applications of psychology.
Bloom's: Apply
Difficulty: Medium
Learning Objective: 7.1: Illustrate how researchers identify the major parts and functions of the brain.
Module: 7: The Brain
Topic: Brain Imaging

88. Extending from the medulla, through the midbrain, into the forebrain is the **reticular formation**, which can activate other parts of the brain immediately to produce general bodily arousal.

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APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.2: Describe the central core of the brain.
Module: 7: The Brain
Topic: Central Core

89. Information travels from our sensory receptors to the **thalamus** in the brain, which communicates the information upward to higher parts of the brain.

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APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.2: Describe the central core of the brain.
Module: 7: The Brain
Topic: Central Core

90. The amygdala and hippocampus are found within the brain's **limbic** system.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.3: Describe the limbic system of the brain.
Module: 7: The Brain
Topic: Limbic System

91. The cortex has four major sections called **lobes**.

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APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.4: Describe the cerebral cortex of the brain.
Module: 7: The Brain
Topic: Cerebral Cortex

92. The **somatosensory** area in the parietal lobe encompasses specific locations associated with the ability to perceive touch and pressure in a particular area of the body.

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APA Outcome: 1.1: Describe key concepts, principles, and overarching themes in psychology.
Bloom's: Remember
Difficulty: Easy
Learning Objective: 7.4: Describe the cerebral cortex of the brain.
Module: 7: The Brain
Topic: Cerebral Cortex

93. Vince has learned to voluntarily control his internal physiological processes as part of the treatment for an anxiety disorder. This is an example of **biofeedback**.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.
APA Outcome: 1.3: Describe applications of psychology.
Bloom's: Apply
Difficulty: Medium
Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.
Module: 7: The Brain

94. Briefly describe mirror neurons.

Mirror neurons are neurons that fire not only when a person enacts a particular behavior but also when a person simply observes another individual carrying out the same behavior. Mirror neurons may help explain how (and why) humans have the capacity to understand others' intentions. Specifically, mirror neurons may fire when we view someone doing something, helping us to predict what their goals are and what they may do next.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 5.2: Describe how neurons fire.

Module: 5: Neurons

Topic: Mirror Neurons

95. Identify how abnormal levels of specific neurotransmitters may be involved in each of these disorders: Alzheimer's disease, Parkinson's disease, and schizophrenia.

The answer should include the following:

Alzheimer's disease: diminished production of acetylcholine

Parkinson's disease: abnormally low levels of dopamine

Schizophrenia: abnormally high levels of dopamine

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Module: 7: The Brain

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 5.4: Identify neurotransmitters.

Module: 5: Neurons

Topic: Neurotransmitters

96. Briefly describe the peripheral nervous system.

The peripheral nervous system branches out from the spinal cord and brain and reaches the extremities of the body. Made up of neurons with long axons and dendrites, the peripheral nervous system encompasses all the parts of the nervous system other than the brain and spinal cord. There are two major divisions—the somatic division and the autonomic division—both of which connect the central nervous system with the sense organs, muscles, glands, and other organs.

The somatic division specializes in the control of voluntary movements and the communication of information to and from the sense organs. The autonomic division controls the parts of the body that keep us alive—the heart, blood vessels, glands, lungs, and other organs that function involuntarily without our awareness.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Nervous System

Topic: Peripheral Nervous System

97. Distinguish between the sympathetic and the parasympathetic divisions of the autonomic nervous system. For each division, provide an example of a situation in which the division would become active. Describe the effects on several bodily processes of the activity of each division.

Students' examples may vary.

The answer should contain the following information:

The sympathetic nervous system acts to prepare the body for action in stressful situations by engaging all of the organism's resources to run away or confront the threat. This response is often called the fight-or-flight response.

The parasympathetic nervous system acts to calm the body once a stressful situation or emergency has ended. It allows the body to store energy.

The sympathetic nervous system becomes active in fight-or-flight situations, such as noticing a threatening stranger in a desolate car park, being part of a near-accident on the road, and so on.

The parasympathetic nervous system becomes active in calm, restful situations, such as relaxing after dinner or resting in bed before falling asleep.

The sympathetic nervous system dilates pupil (enhanced vision), relaxes bronchi (increased air to lungs), accelerates and strengthens heart beat (increased oxygen), inhibits the activity (blood to muscles) of the stomach and intestines, and contracts the vessels of internal organs.

The parasympathetic nervous system contracts pupil, slows heart beat, constricts bronchi, stimulates the activity of the stomach and intestines, and dilates the vessels of internal organs.

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

Bloom's: Understand

Difficulty: Medium

Learning Objective: 6.1: Explain how the structures of the nervous system are linked together.

Module: 6: The Nervous System and the Endocrine System

Topic: Autonomic Division

Topic: Central Nervous System

Topic: Peripheral Nervous System

98. Briefly describe the functions of the endocrine system and the pituitary gland.

Students' answers may vary.

The endocrine system is a chemical communication network that sends messages throughout the body via the blood stream.

Its job is to secrete hormones, chemicals that circulate through the blood and regulate the functioning or growth of the body. It also influences—and is influenced by—the functioning of the nervous system. Although the endocrine system is not part of the brain, it is closely linked to the hypothalamus.

A key component of the endocrine system is the tiny pituitary gland. The pituitary gland has sometimes been called the master gland because it controls the functioning of the rest of the endocrine system. But the pituitary gland is more than just the taskmaster of other glands; it has important functions in its own right.

For instance, hormones secreted by the pituitary gland control growth. Extremely short people and unusually tall ones usually have pituitary gland abnormalities.

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

Bloom's: Remember

Difficulty: Easy

Learning Objective: 6.2: Describe the operation of the endocrine system and how it affects behavior.

Module: 6: The Nervous System and the Endocrine System

Topic: Endocrine System

99. Review recent research investigating the effects of gender and culture on brain structure and function.

Most men tend to show greater lateralization of language in the left hemisphere. For them, language is clearly relegated largely to the left side of the brain. In contrast, women display less lateralization, with language abilities apt to be more evenly divided between the two hemispheres. Such differences in brain lateralization may account, in part, for the superiority often displayed by women on certain measures of verbal skills, such as the onset and fluency of speech.

Other research suggests that men's brains are some what bigger than women's brains even after taking differences in body size into account. In contrast, part of the corpus callosum, a bundle of fibers that connects the hemispheres of the brain, is proportionally larger in women than in men.

Men and women also may process information differently. For example, in one study, fMRI brain scans of men making judgments discriminating real from false words showed activation of the left hemisphere of the brain, whereas women used areas on both sides of the brain. However, the meaning of such sex differences is far from clear.

Culture also gives rise to differences in brain lateralization. For example, the volume of gray-matter material in the cortex is greater in higher-income adolescents than in low-income adolescents. Native speakers of Japanese seem to process information regarding vowel sounds primarily in the brain's left hemisphere. In contrast, North and South Americans, Europeans, and individuals of Japanese ancestry who learn Japanese later in life handle vowel sounds principally in the right hemisphere. One explanation for this difference is that certain characteristics of the Japanese language, such as the ability to express complex ideas by using only vowel sounds, result in the development of a specific type of brain lateralization in native speakers.

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Brain Function

Topic: Brain Structure

100. What is biofeedback? Describe the procedure and identify some of the physical and psychological disorders where it is applied.

Biofeedback is a procedure in which a person learns to control through conscious thought internal physiological processes such as blood pressure, heart and respiration rate, skin temperature, sweating, and the constriction of particular muscles. Although it traditionally had been thought that the

heart rate, respiration rate, blood pressure, and other bodily functions are under the control of parts of the brain over which we have no influence, psychologists have discovered that these responses are actually susceptible to voluntary control.

In biofeedback, a person is hooked up to electronic devices that provide continuous feedback relating to the physiological response in question. For instance, someone interested in controlling headaches through biofeedback might have electronic sensors placed on certain muscles on her head and learn to control the constriction and relaxation of those muscles. Later, when she felt a headache starting, she could relax the relevant muscles and abort the pain.

Although the control of physiological processes through the use of biofeedback is not easy to learn, it has been employed with success in a variety of ailments, including emotional problems (such as anxiety, depression, phobias, tension headaches, insomnia, and hyperactivity), physical illnesses with a psychological component (such as asthma, high blood pressure, ulcers, muscle spasms, and migraine headaches), and physical problems (such as DeMichael's injuries, strokes, cerebral palsy, and curvature of the spine).

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APA Outcome: 1.2: Develop a working knowledge of psychology's content domains.

Bloom's: Understand

Difficulty: Medium

Learning Objective: 7.6: Explain how the two hemispheres of the brain operate interdependently and the implications for human behavior.

Module: 7: The Brain

Topic: Biofeedback

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