1. Brain activity is the source of
   a. human consciousness.
   b. behavior.
   c. intelligence.
   d. all of these.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.
KEYWORDS: Fact
OTHER: * (New Question)

2. Nervous system activities and structures are associated with which of the following?
   a. actions and motives
   b. sensations and feelings
   c. thoughts and memories
   d. all of these

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.
KEYWORDS: Fact
OTHER: * (New Question)

3. Two-time Super Bowl winner Dave Duerson died of a self-inflicted gunshot wound to the stomach in February 2011. He shot himself in the stomach because he wanted to leave his brain to science. He blamed his post-football troubles, including memory loss, troubles spelling words, depression, and moodiness, on the repeated concussions he suffered while on the playing field. An autopsy of his brain did reveal the same signs of chronic traumatic brain injury that have been found in dozens of other retired NFL players, as well as in athletes from many other violent sports, such as hockey and boxing. The boxers' name for this condition is
   a. knockout.
   b. punch-drunk.
   c. counterpunch.
   d. the bum's rush.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system

activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Application

OTHER: * (New Question)

4. Almost instantly, victims who have a stroke realize that something is wrong. However, many brain injuries are less dramatic but involve equally disabling changes in personality, thinking, judgment, or emotions that can take years to become apparent. This type of brain injury that has been found in dozens of retired NFL players, hockey players, and boxers is called

a. comprehensive aphasic brain injury.

b. neuroplastic cerebral trauma.

c. chronic traumatic encephalopathy.

d. comprehensive traumatic corticalization.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Concept

OTHER: * (New Question)

5. When an artery in a person's brain becomes blocked or bursts open, we say that the person has experienced

a. a stroke.

b. neural induction.

c. neural congestion.

d. spatial neglect.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Concept

6. Up early to feed his cat, Bryan was shocked that he could not see his left hand, or anything else to his upper left side. He realized that he had most likely suffered

a. aphasia.

b. virilism.

c. a stroke.

d. an ablation.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Application

OTHER: * (New Question)

7. An artery carrying blood to Derrick's brain has become blocked and caused some brain tissue to die. Derrick has suffered

a. edema.

b. an epileptic seizure.

c. a stroke.

d. virilism.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Application

OTHER: * (New Question)

8. Regarding nervous system activities and damage to the nervous system, which of the following statements is FALSE?

a. A stroke occurs when an artery carrying blood in the brain bleeds or becomes blocked, causing some brain tissue to die.

b. Chronic traumatic encephalopathy involves less dramatic, but disabling changes in personality, thinking, judgment, or emotions that can take years to become apparent.

c. Signs of chronic traumatic brain injury have been found in retired NFL players, as well as in athletes from many other violent sports, such as hockey and boxing.

d. The name boxers have given to the symptoms of chronic traumatic brain injury is the sucker-punch.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.

KEYWORDS: Fact

OTHER: * (New Question)

9. Although playing catch and flying a kite in the park appear to be simple activities, in reality, each of these activities requires the work of many billions of individual nerve cells called

a. synapses.

b. neuropeptides.

c. neurons.
d. neurotransmitters.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.1 - Explain how our sensations, thoughts, feelings, motives, actions, memories, and all other human capacities are associated with nervous system activities and structures; and discuss the types of damage that often affect the nervous system.
KEYWORDS: Application
OTHER: * (New Question)

10. The two main divisions of the human nervous system are the peripheral nervous system and the _____ nervous system.

a. central
b. autonomic
c. sympathetic
d. somatic

ANSWER: a
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.2 - List and describe the two major divisions of the nervous system.
KEYWORDS: Fact

11. The two main divisions of the human nervous system are the central nervous system and the _____ nervous system.

a. autonomic
b. sympathetic
c. somatic
d. peripheral

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.2 - List and describe the two major divisions of the nervous system.
KEYWORDS: Fact
OTHER: * (New Question)

12. The central and peripheral are the two main divisions of the _____ system.

a. nervous
b. endocrine
c. cardiovascular
d. limbic

ANSWER: a
POINTS: 1

DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.2 - List and describe the two major divisions of the nervous system.
KEYWORDS: Fact
OTHER: * (New Question)

13. The central nervous system is composed of the
    a. brain and spinal cord.
    b. sympathetic and parasympathetic systems.
    c. autonomic and somatic systems.
    d. brain and somatic system.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

14. In a car accident, a person sustained major trauma to his brain and the spinal cord region of his neck. Damage, in this case, was mainly to areas of which nervous system?
    a. autonomic
    b. somatic
    c. central
    d. sympathetic

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Application

15. The brain carries out most of the “computing” in the nervous system and communicates with the rest of the body through the large bundle of nerves called the
    a. parietal branch.
    b. spinal cord.
    c. occipital cord.
    d. temporal branch.

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and

explain the differences in a neuron and a nerve.

KEYWORDS: Fact

OTHER: * (New Question)

16. Axons leaving the spinal cord
    a. form the cranial nerves.
    b. carry sensory and motor messages.
    c. make a total of 22 pairs of nerves.
    d. are characterized by all of these.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.

KEYWORDS: Fact

17. Nerves that leave the brain directly are called _____ nerves.
    a. spinal
    b. cranial
    c. sympathetic
    d. peripheral

ANSWER: b

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.

KEYWORDS: Fact

18. How many pairs of spinal nerves do humans have?
    a. 31
    b. 22
    c. 12
    d. six

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.

KEYWORDS: Fact

19. How many pairs of cranial nerves do humans have?

a. 31
b. 22
c. 12
d. six

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

20. An individual nerve cell is known as a
a. nerve.
b. neuron.
c. synaptic vesicle.
d. neurotransmitter.

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

21. Which of the following CAN be seen without magnification?
a. a neuron
b. a nerve
c. both a nerve and a neuron
d. neither a nerve nor a neuron

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

22. Neurons are tiny cells that
a. cannot be seen without a microscope.
b. are made up of nerves.
c. are scientifically classified as neurilemmas.
d. are characterized by all of these.

ANSWER: a

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Concept

23. Large bundles of many axons, which are visible to the unaided eye, are called
    a. neurons.
    b. neurilemmas.
    c. nerves.
    d. neurotransmitters.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

24. Messages flow from the brain to the spinal cord and then to other parts of the body through the _____ nervous system.
    a. central
    b. peripheral
    c. parietal
    d. temporal

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

25. The peripheral system is the intricate network of nerves that carries information to and from the _____ nervous system.
    a. central
    b. occipital
    c. parietal
    d. temporal

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Fact

26. The peripheral nervous system is composed of the

a. brain and spinal cord.

b. central and sympathetic systems.

c. somatic and autonomic systems.

d. spinal cord and 12 thoracic nerves.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Fact

27. Which nervous system controls the voluntary function of the limbs and the sense organs?

a. sympathetic

b. autonomic

c. parasympathetic

d. somatic

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Fact

28. During a lecture when students receive information through their eyes from the notes on the screen and information through their ears as the instructor lectures, the information will first travel through neurons within which nervous system?

a. sympathetic

b. autonomic

c. somatic

d. parasympathetic

ANSWER: c

POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

29. Aaron flexes his muscles as he shoots a basketball into the goal. His voluntary use of his muscles is controlled by which nervous system?

a. sympathetic
b. autonomic
c. somatic
d. parasympathetic

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

30. When you are playing a video game, your hand and eye movements are under the influence of the _____ nervous system.

a. sympathetic
b. parasympathetic
c. autonomic
d. somatic

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

31. The voluntary command Steve uses to raise his hand in class would be controlled by the _____ nervous system.

a. sympathetic
b. parasympathetic
c. autonomic

d. somatic

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

32. The somatic system carries messages to and from the
    a. internal organs and glands.
    b. parasympathetic system.
    c. sense organs and skeletal muscles.
    d. sympathetic system.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

33. The somatic system governs
    a. muscle movements.
    b. involuntary activities.
    c. glandular secretions.
    d. heart rate and breathing.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

34. The autonomic system carries messages to and from
    a. the sense organs.
    b. the internal organs and glands.
    c. the skeletal muscles.

d. all of these.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

35. The autonomic system is
a. self-governing.
b. in control of the sense organs.
c. responsible for muscle movement.
d. mainly in control of voluntary actions.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

36. The involuntary physical changes that occur in the body, such as increases and decreases in heart rate, blood pressure, perspiration, and glandular secretions are controlled by the
a. occipital lobe.
b. parietal lobe.
c. somatic nervous system.
d. autonomic nervous system.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

37. Which of the following functions is NOT controlled by the autonomic nervous system?
a. utilization of the sense organs
b. heart rate and respiration

c. secretion of hormones
d. digestion

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

38. Immediate emotional responses to a traumatic event are most directly under the control of the
a. somatic nervous system.
b. central nervous system.
c. autonomic nervous system.
d. cerebral cortex.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

39. Which nervous system plays such a central role in our emotional lives that without it, a person would feel very little emotion?
a. autonomic
b. somatic
c. parietal
d. temporal

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept
OTHER: * (New Question)

40. When you see an attractive person sit down next to you on the bus, the mad pounding of your heart is under the

influence of which nervous system?

a. central
b. diathesis
c. autonomic
d. somatic

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

41. Regarding the workings of your nervous systems, which of the following statements is FALSE?

a. The autonomic nervous system and the somatic nervous system work together to coordinate the body's internal reactions to events in the outside world.
b. The two branches of the autonomic nervous system are always active.
c. The somatic nervous system is made up of the sympathetic and parasympathetic branches.
d. The combined action of the sympathetic and parasympathetic branches determines if your body is more or less relaxed or aroused.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

42. The autonomic nervous system contains two branches called the

a. sympathetic and parasympathetic systems.
b. somatic and spinal systems.
c. spinal nerves and cranial nerves.
d. parasympathetic and spinal systems.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

43. The part of the nervous system that is known as the “fight or flight” system because it arouses the body to meet emergencies and respond to emotional events is the _____ branch.

a. pineal
b. endocrine
c. sympathetic
d. parasympathetic

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

44. The part of the nervous system that quiets the body after arousal and helps maintain vital functions (like breathing) at moderate levels is the _____ branch.

a. sympathetic
b. parasympathetic
c. central
d. peripheral

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Fact

45. When the sympathetic branch is activated,

a. the pupils of one’s eyes constrict.
b. one’s digestion is stimulated.
c. there is a release of sugar from the liver.
d. one’s blood vessels constrict.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined

activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Concept

46. When the parasympathetic branch is controlling one's body,
    a. the pupils of one's eyes dilate.
    b. one's digestion is inhibited.
    c. one's bladder relaxes.
    d. tears and salivation are stimulated.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

47. When the sympathetic branch is activated,
    a. tears and salivation are stimulated.
    b. digestion is stimulated.
    c. pupils of the eyes dilate.
    d. blood vessels are constricted.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept
OTHER: * (New Question)

48. When the parasympathetic branch is controlling one's body,
    a. there is a release of sugar from the liver.
    b. tears and salivation are inhibited.
    c. the pupils of the eyes dilate.
    d. digestion is stimulated.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the

	sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS:	Concept
OTHER:	* (New Question)

49. You are in the forest and see a large, snarling, drooling grizzly bear running directly toward you. The adrenaline rush you feel as you run toward the cabin is controlled by the

a. sympathetic branch.

b. parasympathetic branch.

c. central nervous system.

d. neurotransmitter dopamine.

ANSWER:	a
POINTS:	1
DIFFICULTY:	Difficult
REFERENCES:	2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES:	PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS:	Application

50. After successfully running into the cabin from the large, snarling, drooling grizzly bear that was headed in your direction, you pause to catch your breath and collect your wits. The physical symptoms you now experience are controlled by the

a. sympathetic branch.

b. parasympathetic branch.

c. central nervous system.

d. neurotransmitter acetylcholine.

ANSWER:	b
POINTS:	1
DIFFICULTY:	Difficult
REFERENCES:	2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES:	PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS:	Application

51. After rushing to catch the bus, when you find a seat and begin to relax, the return to your normal heart rate is under the influence of the

a. central nervous system.

b. parasympathetic branch.

c. sympathetic branch.

d. somatic nervous system.

ANSWER:	b
POINTS:	1

DIFFICULTY: Difficult

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Application

52. Your instructor announces a "pop" test. You have not read the chapter yet. Your heart and breathing rate increases, and your mouth becomes dry. Which nervous system was responsible for this reaction?

a. sympathetic

b. parasympathetic

c. somatic

d. central

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Application

53. Your instructor has just decided not to give the pop test that was announced at the beginning of class. The class breathes a collective "sigh of relief." This relief is best explained by which nervous system?

a. somatic

b. central

c. parasympathetic

d. sympathetic

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Application

54. You are watching a horror movie. The music changes to the familiar tune you recognize as a prelude to danger. You tense up, your heart rate increases, your breathing becomes shallow, and your mouth is dry. Which nervous system has been activated?

a. somatic

b. central

c. parasympathetic

d. sympathetic

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Application

55. Viewed under a microscope, the nervous system is a large network of about 85 billion interlinked nerve cells, or

a. neurilemmas.
b. neuropeptides.
c. neurotransmitters.
d. neurons.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

56. The individual nerve cells specialized to carry and process information are called

a. neurotransmitters.
b. synapses.
c. ions.
d. neurons.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

57. The billions of neurons in the brain are accompanied by an almost equal number of other cells whose function is to support the neurons in a variety of ways. These cells are called

a. effector cells.
b. glial cells.
c. vesicles.
d. myelins.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

58. Glial cells are the
a. chemicals released by a neuron that alter activity in other neurons.
b. electrically charged molecules found inside each neuron.
c. cells that support neurons in a variety of ways.
d. thin layer of cells that form a “tunnel” that damaged neuron fibers can follow as they repair themselves.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

59. Which of the following carry information from the senses to the brain, activate muscles and glands, and form vast networks that produce intelligence and consciousness?
a. neurons
b. glial cells
c. synapses
d. nuclei ions

ANSWER: a
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Concept
OTHER: * (New Question)

60. Regarding neurons, which of the following statements is FALSE?
a. Neurons carry information from the senses to the brain and also activate muscles and glands.
b. When neurons form vast networks, they produce intelligence and consciousness.
c. The axons are the tree-root like parts of neurons that are specially designed to receive the messages from other neurons.
d. While neurons come in very different shapes and sizes, most have four basic parts: dendrites, soma, axon, and axon terminals.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

61. A neuron is made up of dendrites, a soma, and a(n)
    a. axon.
    b. synapse.
    c. diaton.
    d. peptide.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

62. Within a neuron, information typically flows in which directional order?
    a. soma, dendrites, axon
    b. dendrites, soma, axon
    c. dendrites, myelin, axon terminal
    d. axon terminal, neurilemma, dendrites
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

63. The part of the neuron that specializes in receiving messages from other neurons is the
    a. axon.
    b. nucleus.
    c. dendrites.
    d. telodendria.
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.

KEYWORDS: Fact

64. Once information is received at the dendrites, it next flows into the
    a. soma.
    b. axon.
    c. myelin sheath.
    d. glial cell.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.

KEYWORDS: Fact

65. The cell body of a neuron is also called the
    a. dendrite.
    b. axon.
    c. myelin.
    d. soma.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.

KEYWORDS: Fact

66. The soma is the part of the nerve cell that
    a. transmits information to the next neuron.
    b. collects and combines incoming information.
    c. carries nerve impulses over large distances.
    d. forms branching connections at the end of each axon.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.

KEYWORDS: Fact

67. Which part of the neuron receives and collects information from other neurons, combines this information, and sends it down the axon?

a. neuropeptide
b. glial cell
c. ion channel
d. soma

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

68. The part of the nerve cell that carries information away from the cell body to other neurons is the

a. axon.
b. dendrite.
c. soma.
d. synapse.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

69. When the neuron sends information to other neurons, it “branches out” into smaller fibers, which end in bulb-shaped parts known as

a. myelin sheaths.
b. ion channels.
c. dendrite arcs.
d. axon terminals.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

70. The bulb-shaped structures found at the end of neurons form connections with the dendrites and somas of other neurons and allow information to pass from neuron to neuron. These bulb-shaped structures are called the

a. myelin sheaths.
b. ion channels.
c. dendrite arcs.
d. axon terminals.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

71. Regarding axons, which of the following statements is FALSE?
a. Some axons are only 0.1 millimeter long.
b. Some axons stretch for several feet through the nervous system.
c. Axons “branch out” into slightly larger fibers, which end in several bulb-shaped somas.
d. Large bundles of axons comprise most of the spinal cord and the nerves of the peripheral nervous system (PNS).

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

72. Most of the spinal cord and the nerves of the peripheral nervous system are comprised of large bundles of
a. axons.
b. neuropeptides.
c. glial cells.
d. somas.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact
OTHER: * (New Question)

73. Which of the following is NOT a part of a neuron?
a. axon
b. axon terminal

c. synapse
d. soma

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

74. The electrically charged molecules that are involved in a nerve impulse are called
a. axons.
b. dendrites.
c. ampules.
d. ions.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

75. Regarding ions, which of the following statements is TRUE?
a. Ions are found only on the outside of the neuron until it is activated.
b. Ions have a neutral charge, neither positive nor negative, until they are activated.
c. When a neuron is inactive (or resting), more “plus” charges exist outside the neuron and more “minus” charges exist inside.
d. Ions can be found only inside the neuron, which creates in your brain an electronic charge of about -10 millivolts.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

76. The charge that exists across the nerve cell membrane is a result of differing
a. amounts of DNA and RNA.
b. types of neurotransmitters on either side of the nerve cell membrane.
c. types of neurons inside and outside the nerve cell membrane.
d. concentrations of ions on either side of the nerve cell membrane.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

77. When a neuron is inactive, more of which of the following exist OUTSIDE the neuron?
    a. positive ions
    b. negative ions
    c. myelin sheaths
    d. neuropeptides

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

78. When a neuron is inactive, more of which of the following exist INSIDE the neuron?
    a. negative ions
    b. positive ions
    c. neuropeptides
    d. myelin sheaths

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

79. Since the inside of each resting neuron in your brain has an electrical charge of about −60 to −70 millivolts at the axon compared to the outside of the cell, every neuron in your brain acts as a(n)
    a. tiny biological battery.
    b. chemical reactor.
    c. ion channel booster.
    d. electrical shock absorber.

ANSWER: a
POINTS: 1

DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Concept
OTHER: * (New Question)

80. The inside of each resting neuron in your brain has an electrical charge of how many millivolts at the axon?
    a. - 5 to -10 millivolts
    b. -20 to -40 millivolts
    c. -60 to -70 millivolts
    d. -90 to -110 millivolts
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact
OTHER: * (New Question)

81. In the nervous system, the electrical charge of an inactive neuron is called its
    a. depolarized state.
    b. resting potential.
    c. action potential.
    d. ionic state.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

82. A resting potential occurs when a neuron
    a. reaches -50 millivolts.
    b. is inactive.
    c. reaches its threshold.
    d. reaches its trigger point for firing.
ANSWER: b
POINTS: 1

DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

83. A neuron's resting potential is raised and lowered
    a. by messages arriving from other neurons.
    b. by the occurrence of neurogenesis.
    c. through a process known as neuroplasticity.
    d. when lateralization occurs.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Concept
OTHER: * (New Question)

84. If the electrical charge of the neuron changes to about minus 50 millivolts, the neuron will reach its
    a. synaptic potential.
    b. negative after-potential.
    c. threshold for firing.
    d. fusion level for firing.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

85. A neuron's threshold is
    a. another name for its synaptic potential.
    b. another name for its negative after-potential
    c. when a neuron is inactive.
    d. its trigger point for firing.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

86. The threshold for firing occurs when the electrical charge within the nerve cell reaches
    a. -10 millivolts.
    b. -50 millivolts.
    c. +100 millivolts.
    d. +10 millivolts.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

87. The fastest neurons can send impulses at about _____ miles per hour.
    a. 200
    b. 425
    c. 150
    d. 45

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

88. When a nerve impulse travels along an axon at about 200 miles per hour, then you know that
    a. polarization has begun.
    b. an action potential is occurring.
    c. a negative after-potential has been completed.
    d. a synaptic potential is impossible.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the

myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Concept

89. The conduction of a nerve impulse down the axon is called a(n)

a. ion potential.
b. action potential.
c. resting discharge.
d. synapse.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

90. When the threshold for firing within a neuron occurs, we say that which of the following is taking place?

a. volume gradient
b. myelination
c. action potential
d. resting discharge

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

91. The channels that transport sodium and potassium within the axon are called _____ channels.

a. DNA and RNA
b. membrane
c. nucleic
d. ion

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

92. During an action potential, the “gates” covering the axon’s ion channels pop open to allow which ions to rush into the axon?

a. sodium
b. potassium
c. chlorine
d. iodine

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

93. During an action potential, which of the following occurs?

a. Sodium ions are pumped out of the neuron into the synaptic cleft.
b. The molecular gates open to allow sodium ions into the neuron.
c. The electrical stimulation of the neuron must dip below -70 millivolts and remain so during the action potential.
d. Neurotransmitters enter the axon through gaps in the myelin sheath.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Concept

94. When the “gates” to the ion channels open, they allow sodium ions to rush into the axon at which location FIRST?

a. within the receptor sites of the dendrites
b. near the axon terminals
c. near the soma
d. within the synaptic cleft

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

95. The "all or nothing event" refers to the fact that
a. nerve cells are continually in an action potential.
b. action potentials occur completely or not at all.
c. synaptic transmissions occur completely or not at all.
d. all the neurons in the brain fire or none of them fire.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

96. Which of the following statements best describes an action potential?
a. The action potential is strongest when neurilemma is present.
b. The action potential starts near the synapse.
c. The action potential occurs when neurotransmitters enter the axon.
d. The action potential is an all-or-nothing event.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

97. Electrically charged particles of which two elements are crucial in the transmission of the nerve impulse?
a. iron and sodium
b. iron and potassium
c. sodium and nickel
d. sodium and potassium

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

98. After a nerve impulse occurs, the neuron is temporarily less likely to fire because
a. the cell is still above its resting level.
b. potassium ions flow out of the neuron while the membrane gates are open.

c. acetylcholine acts as an inhibitor.

d. a positive after-potential has occurred.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Concept

99. Negative after-potential refers to

a. a nerve cell's electrical charge reaching its threshold.

b. a nerve cell reaching a negative trigger point.

c. a nerve cell briefly dropping below its resting level.

d. the axon's readiness for another wave of activity.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

100. A neuron is less willing to fire when it is in a(n)

a. action potential.

b. resting potential.

c. negative after-potential.

d. depolarized state.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

101. During a negative after-potential, there is an outward flow of which of the following from the axon?

a. negative charges

b. potassium ions

c. neurotransmitters

d. sodium ions

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

102. The whitish, fatty substance that surrounds some axons and aids conduction of a nerve impulse down the axon is called

a. myelin.
b. neurilemma.
c. synaptic vesicles.
d. neurotransmitters.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

103. Myelin covers which part(s) of the neuron?

a. soma
b. dendrite
c. axon
d. all of these parts

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

104. Areas of the brain containing mainly neuron cell bodies are commonly referred to as

a. gray matter.
b. white matter.
c. neurilemma.
d. reflex arcs.

ANSWER: a
POINTS: 1

DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact
OTHER: * (New Question)

105. Areas of the brain containing mainly myelinated axons are commonly referred to as
a. gray matter.
b. white matter.
c. neurilemma.
d. reflex arcs.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact
OTHER: * (New Question)

106. Small gaps in the myelin result in nerve impulses jumping from gap to gap, which causes these nerve impulses to move
a. faster.
b. slower.
c. at a normal speed.
d. at a declining rate of speed.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

107. The small gaps in the myelin covering of a nerve act to
a. decrease the speed of transmission of nerve impulses.
b. increase the speed of transmission of nerve impulses.
c. decrease or increase the transmission of nerve impulses, depending on the state of the firing neurons.
d. stimulate the repair of damaged nerve cells.
ANSWER: b
POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

108. The process by which nerve impulses are conducted down an axon by jumping from gap to gap in the myelin layer is known as

a. neuroplasticity.
b. synaptic transmission.
c. saltatory conduction.
d. positive after-potential.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

109. Saltatory conduction refers to

a. a drop in electrical charge below the resting potential.
b. the capacity of our brains to change in response to experience.
c. the simplest behavior, in which a stimulus provokes an automatic response.
d. a nerve impulse jumping from gap to gap in the myelin layer.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

110. The word “saltatory” comes from the Latin word *saltare*, which means to

a. slow or stop.
b. repeat or return.
c. jump or leap.
d. salute or talk

ANSWER: c

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

111. When a car suddenly brakes in front of you,

a. neurilemma repair the myelin layer so that you can stop.

b. myelin slows your response time.

c. small gaps in the myelin speed reaction time.

d. nerve impulses move faster through the tunnel formed by the myelin.

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Application

112. The purpose of the myelin that surrounds the axon is to

a. keep nerve cells continually active.

b. help electrical currents cross the synapse completely.

c. repair neurons within the peripheral nervous system.

d. speed the transmission of an impulse down the axon.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Concept

113. Multiple sclerosis is a disease in which the immune system attacks and destroys

a. the nucleus of nerve cells.

b. neurilemma.

c. the receptor sites.

d. myelin.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions,

resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

114. Which of the following is a disease in which the immune system attacks and destroys the myelin in a person's body, causing the person to experience numbness, weakness, or paralysis?

a. rheumatoid arthritis
b. multiple sclerosis
c. Huntington's disease
d. muscular dystrophy

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

115. Miriam has been suffering from numbness, weakness, and partial paralysis. Miriam's doctor told her that her immune system has attacked and destroyed the myelin in her body, causing her to have

a. rheumatoid arthritis.
b. multiple sclerosis.
c. Huntington's disease.
d. muscular dystrophy.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Application

116. The action potential is an all or nothing event that

a. takes place within the synapse.
b. takes place at the dendrite receptor sites.
c. is primarily an electrical process.
d. is primarily a chemical process.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

117. The passage of information within a single neuron would be described as

a. chemical.
b. electrical.
c. synaptic.
d. retroactive.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

118. The communication between neurons would be described as

a. chemical.
b. electrical.
c. proactive.
d. retroactive.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

119. Communication between neurons would be considered a chemical change involving

a. sodium ions.
b. neurilemmas.
c. neurotransmitters.
d. potassium ions.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic,

duplicate, or block the neurotransmitters.

KEYWORDS: Fact

120. Neurons "talk" to each other chemically when which of the following are released?

a. neurilemmas

b. neurotransmitters

c. somas

d. ion channels

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

121. The microscopic space separating neurons from one another and across which information must be transmitted is known as a(n)

a. synapse.

b. synaptic vesicle.

c. receptor site.

d. ion channel.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

122. Neurotransmitters are released at the

a. axon hillock.

b. myelin sheath.

c. axon terminals.

d. teleodendria.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are

carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

123. When a nerve impulse reaches the end of the axon, the tiny sacs that store the neurotransmitters move to the surface and release these chemicals. These tiny sacs that store the neurotransmitters are called

a. synaptic vesicles.
b. myelin sheaths.
c. neurilemmas.
d. ion channels.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

124. Communication is carried out between neurons when neurotransmitters are released into the

a. neurilemma tunnel.
b. synaptic gap.
c. dendritic furrow.
d. ion channels.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

125. Tiny areas on the surfaces of neurons and other cells that are sensitive to neurotransmitters or hormones are called

a. axon terminals.
b. somatic retention areas.
c. dendritic retention areas.
d. receptor sites.

ANSWER: d
POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

126. Receptor sites for neurotransmitters are found in large numbers

a. on the axon terminals.

b. on dendrites and cell bodies.

c. within the ion channels.

d. on the myelin sheath and neurilemma.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

127. Neurotransmitters bind to which of the following located on dendrites and cell bodies?

a. synaptic vesicles

b. neurilemmas

c. receptor sites

d. myelin sheaths

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

128. Nerve cell bodies and dendrites are not the only locations sensitive to neurotransmitters. Receptor sites can also be found on

a. muscles and glands.

b. skeletal joints.

c. axon terminals.

d. all vital organs.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

129. Which of the following best describes the means by which neurons communicate with each other?

a. Sodium ions from one neuron flow into a second neuron, and potassium ions flow out.

b. Potassium ions from one neuron flow into a second neuron, and sodium ions flow out.

c. Neurotransmitters flow across the synapse and attach to receptor sites.

d. Electrical charges cross the synapse.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

130. The chemicals that are released at an axon terminal and can either excite or inhibit other neurons are called

a. synapses.

b. synaptic vesicles.

c. neurilemmas.

d. neurotransmitters.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

131. What effect do neurotransmitters from one neuron have on the next neuron?

a. They have no effect.

b. They excite it.

c. They inhibit it.

d. They may excite or inhibit it.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

132. How many different transmitter chemicals are found in the brain?

a. fewer than 10

b. approximately 25

c. approximately 50

d. more than 100

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

133. Acetylcholine, norepinephrine, dopamine, and GABA are examples of

a. neurotransmitters.

b. negative after-potentials.

c. synaptic ions.

d. neurilemmas.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

134. Which of the following is an excitatory neurotransmitter that participates in movement, autonomic function, learning, and memory with a deficiency in this neurotransmitter playing a role in Alzheimer's disease?

a. norepinephrine
b. acetylcholine
c. serotonin
d. glutamate

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

135. A deficiency in acetylcholine has been shown to play a major role in the development of

a. Alzheimer's disease.
b. Parkinson's disease.
c. schizophrenia.
d. multiple sclerosis.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

136. Which of the following is an excitatory neurotransmitter that participates in motivation, reward, and the planning of behavior with a deficiency leading to Parkinson's disease and an excess leading to schizophrenia?

a. dopamine
b. acetylcholine
c. serotonin
d. glutamate

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the

different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

137. Gerald has developed Parkinson's disease due to a deficiency in a neurotransmitter, while Al developed schizophrenia due to an excess of this same neurotransmitter. The excitatory neurotransmitter that appears responsible for both of these conditions is

a. glutamate.
b. acetylcholine.
c. serotonin.
d. dopamine.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Application
OTHER: * (New Question)

138. Motivation, reward, and the planning of behavior are influenced by this neurotransmitter with reduced feelings of pleasure as well as Parkinson's disease being linked with a deficiency of it. This excitatory neurotransmitter is

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

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

139. An excess of dopamine has been linked with the development of which of the following?

a. multiple sclerosis
b. schizophrenia
c. Alzheimer's disease
d. spatial neglect

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

140. A deficiency in dopamine has been linked with the development of which of the following?
a. multiple sclerosis
b. schizophrenia
c. Alzheimer's disease
d. Parkinson's disease
ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

141. Which of the following neurotransmitters causes a major inhibitory effect in the central nervous system?
a. glutamate
b. acetylcholine
c. GABA
d. dopamine
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

142. A deficiency in GABA may lead to
a. anxiety.

b. spatial neglect.
c. multiple sclerosis.
d. Parkinson’s disease.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

143. LaShonda has been experiencing a great deal of anxiety. A deficiency in which inhibitory neurotransmitter could be producing her feelings of anxiety?

a. acetylcholine
b. GABA
c. glutamate
d. dopamine

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Application
OTHER: * (New Question)

144. Which of the following is an excitatory neurotransmitter that is involved with learning and memory with an excess of this neurotransmitter leading to neuron death and autism and a deficiency leading to tiredness?

a. glutamate
b. acetylcholine
c. GABA
d. dopamine

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these

neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

145. An excess of glutamate has been linked to
   a. tiredness and depression.
   b. Alzheimer's disease.
   c. autism and neuron death.
   d. multiple sclerosis.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

146. Autism has been linked to an excess of which neurotransmitter?
   a. acetylcholine
   b. GABA
   c. serotonin
   d. glutamate

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept
OTHER: * (New Question)

147. Which of the following is an excitatory neurotransmitter that is involved with arousal and vigilance and mood with an excess leading to anxiety problems?
   a. glutamate
   b. acetylcholine
   c. norepinephrine
   d. dopamine

ANSWER: c
POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

148. Having an excess of norepinephrine can lead to

a. anxiety.

b. neuron death.

c. the development of Parkinson's disease.

d. the development of schizophrenia.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

OTHER: * (New Question)

149. Ian has been experiencing extreme anxiety for the last month. He most likely has an excess of which neurotransmitter?

a. acetylcholine

b. GABA

c. norepinephrine

d. glutamate

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Application

OTHER: * (New Question)

150. Which of the following is an inhibitory neurotransmitter that plays a role in mood, appetite, and sleep with a deficiency leading to depression?

a. dopamine
b. acetylcholine
c. serotonin
d. glutamate

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

151. Fallon has been diagnosed with a major depression. She is most likely deficient in which neurotransmitter?
a. acetylcholine
b. serotonin
c. GABA
d. glutamate

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Application
OTHER: * (New Question)

152. Having a deficiency in serotonin can lead to
a. the development of multiple sclerosis.
b. neuron death.
c. the development of Parkinson’s disease.
d. depression.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept
OTHER: * (New Question)

153. Although other neurotransmitters are present, the brain's reward or "pleasure" system has a predominance of which neurotransmitter?

a. norepinephrine
b. acetylcholine
c. histamine
d. dopamine

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

154. Regarding neurotransmitters, which of the following statements is FALSE?

a. Slight variations in neurotransmitter function may be related to temperament differences in infancy and personality differences in adulthood.
b. Too much acetylcholine may cause schizophrenia.
c. Too little serotonin may underlie depression.
d. Some neurotransmitters are used by specific "pathways" that interlink regions of the brain, which prevents the intermixing of messages.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact
OTHER: * (New Question)

155. Many of the mind-altering drugs affect the brain by

a. absorbing neural impulses.
b. imitating, duplicating, or blocking neurotransmitters.
c. changing the sodium balance in the synapse.
d. duplicating the effect of potassium in the nuclei.

ANSWER: b
POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

156. The chemical structure of cocaine is similar to which neurotransmitter?

a. dopamine
b. acetylcholine
c. GABA
d. serotonin

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

OTHER: * (New Question)

157. Cocaine triggers an increase in which neurotransmitter resulting in a drug “high” in the reward system of the brain?

a. serotonin
b. acetylcholine
c. dopamine
d. histamine

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

158. Jeff’s drug addiction to cocaine occurred because cocaine overstimulated the reward system in his brain and disturbed the function of which neurotransmitter?

a. serotonin
b. acetylcholine

c. dopamine
d. histamine

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Application

159. Which neurotransmitter normally activates muscles?
a. acetylcholine
b. serotonin
c. curare
d. histamine

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Fact

160. A person would not be able to walk nor a musician move his or her fingers to play an instrument without the neurotransmitter
a. curare.
b. serotonin.
c. acetylcholine.
d. histamine.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Application

161. When curare blocks the action of acetylcholine it
a. prevents muscle activation, causing paralysis.
b. stimulates muscle activity, causing convulsions.
c. retards cell growth, causing paralysis.
d. causes neurotransmitters to both inhibit and excite activity.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

162. The paralyzing effect of curare is caused by its ability to
a. block the action of acetylcholine at neuron-muscle synapses.
b. create an imbalance in the sodium content in the dendrite.
c. produce an overproduction of acetylcholine in the neural soma.
d. produce a disintegration at the synapse.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.
KEYWORDS: Concept

163. Ricardo was given curare and suffered paralysis. By attaching to receptor sites on his muscles, curare competes with
a. dopamine.
b. acetylcholine.
c. serotonin.
d. enkephalins.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Application

164. Chemicals that regulate the activity of other neurons but do not carry messages directly are called
a. brain deregulators.
b. neural inductors.
c. neuropeptides.
d. ion channeling agents.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Fact

165. The neurotransmitters that regulate the activity of other neurons and affect memory, pain, emotion, pleasure, mood, hunger, sexual behavior, and other basic processes are called
a. somatic ions.
b. amyl opiates.
c. organic placebos.
d. neuropeptides.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Fact

166. Enkephalins and endorphins are examples of
a. brain disregulators.
b. neural inductors.
c. neuropeptides.
d. ion channeling agents.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Fact

167. The brain produces opiate-like neural regulators that help relieve stress and pain and are referred to as
a. acetylcholine inhibitors.

b. somatic ions.
c. enkephalins.
d. neurilemmas.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Fact

168. When you touch a hot stove, neurotransmitters cause you to jerk your hand away, while the pain produced causes your brain to release
a. acetylcholines.
b. histamines.
c. enkephalins.
d. neurilemmas.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Application

169. Endorphins are released from the _____ gland.
a. adrenal
b. pituitary
c. pineal
d. thyroid

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Fact

170. Santana steps on a tack and jerks her foot back. This pain will
a. raise her endorphin levels.
b. lower her endorphin levels.
c. cause depolarization of her pain receptors.
d. cause a repolarization of her pain receptors.

ANSWER: a

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Application

171. Needles inserted into the body during the acupuncture procedure may relieve pain because the pain
a. results in the release of neuropeptides.
b. blocks the functioning of pain-relieving neurons.
c. paralyzes the central nervous system.
d. suppresses the production of all neurotransmitters.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Concept

172. Feelings of pleasure or euphoria similar to being “high” on morphine occur when which of the following are released in the brain?
a. acetylcholines
b. endorphins
c. synaptic vesicles
d. neurilemmas
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.
KEYWORDS: Concept

173. In an experiment to test the effects of a new pain killing drug, the control group was given a placebo, which initially reduced their pain because the placebo
a. raised their endorphin levels.
b. lowered their endorphin levels.
c. activated the neurilemmas in their receptor sites.
d. deactivated the neurilemmas in the receptor sites.
ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.

KEYWORDS: Application

174. The “runner’s high” and the euphoria sometimes associated with childbirth, painful initiation rites, and sports parachuting are due to the release of

a. acetylcholine.

b. endorphins.

c. neurilemma.

d. epinephrine.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.

KEYWORDS: Concept

175. Ultimately, depression, schizophrenia, and drug addiction may be explained by the

a. interaction between the thyroid and hippocampus.

b. interaction between the pituitary and the parietal lobes.

c. absence of placebos.

d. regulatory actions of neuropeptides.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.

KEYWORDS: Concept

176. Interlinked collections of neurons that process information in our nervous system are called

a. neural networks.

b. synaptic vesicles.

c. neurilemmas.

d. ion channels.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Fact

OTHER: * (New Question)

177. The processing of information within our nervous system occurs because of the cooperation of large numbers of neurons connected together in

a. neurilemmas.
b. synaptic vesicles.
c. neural networks.
d. neural nodes.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Concept
OTHER: * (New Question)

178. The simplest neural network that is organized within the spinal cord is the

a. reflex arc.
b. autonomic reflex.
c. somatic reflex.
d. central synapse.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

179. The simplest behavior, in which a stimulus provokes an automatic response, is called a

a. reflex arc.
b. neurilemma.
c. cranial arc.
d. habitual response.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

OTHER: * (New Question)

180. The behavior sequence resulting from the actions of a sensory neuron, a connector neuron, a motor neuron, and an effector cell is a(n)

a. autonomic chain.
b. cranial arc.
c. effector reflex.
d. reflex arc.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

181. A reflex arc involves a sensory neuron, a motor neuron, and a(n)

a. neurilemma or inductor neuron.
b. interneuron or connector neuron.
c. somatic neuron.
d. deductor neuron.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact
OTHER: * (New Question)

182. As Molly is cutting roses, a thorn pricks her finger, and Molly automatically withdraws her hand. This simple protective mechanism of the body is known as a(n)

a. inductor arc.
b. conditioned behavior.
c. neuro-conductor response.
d. reflex arc.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Application
OTHER: * (New Question)

183. The reflex arc occurs when a stimulus provokes a(n)
a. automatic response within the spinal cord without brain involvement.
b. automatic response from the brain.
c. somatic response from the brain.
d. automatic response from a cranial nerve.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

184. The usual flow of information in a reflex arc is
a. cranial nerve, connector neuron, spinal nerve
b. sensory neuron, connector neuron, motor neuron
c. effector cell, interneuron, connector neuron
d. sensory neuron, motor neuron, reflex neuron

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

185. A barefoot child steps on a bee, then jerks his or her foot back in response to the sting. This response has likely involved all parts of the nervous system EXCEPT
a. the brain.
b. the spinal cord.
c. motor neurons.
d. connector neurons.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Application

186. As Molly is cutting roses, a thorn pricks her finger, and Molly automatically withdraws her hand. This simple response involved all of the following EXCEPT

a. the spinal cord.
b. a sensory neuron.
c. the brain.
d. a motor neuron.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Application
OTHER: * (New Question)

187. A nerve cell carrying information from your eyes, ears, fingers, etc. toward the CNS is called a(n)

a. motor neuron.
b. effector cell.
c. connector neuron.
d. sensory neuron.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

188. A nerve cell carrying information from your brain to muscles and glands is called a(n)

a. motor neuron.
b. effector cell.
c. connector neuron.
d. sensory neuron.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

189. Muscle fibers can contract because they are made up of

a. neurilemma cells.

b. effector cells.

c. connector neurons.

d. sensory neurons.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Fact

190. Because they are made up of effector cells, muscle fibers

a. will combine.

b. tend to separate.

c. can contract.

d. can multiply.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Concept

OTHER: * (New Question)

191. An advantage of having neural reflexes is that they

a. allow our brain to be free to deal with more important decision-making.

b. take place only in the peripheral nervous system.

c. occur regularly, even though their response time is slow.

d. reduce complex stimuli into an all-or-none type of event.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Concept

192. The decision making within a neural network involves a neuron reaching its trigger point when

a. it receives more than 10 "exciting" messages.

b. the number of "inhibiting" messages is half or less than the number of "exciting" messages.

c. "exciting" messages arrive close in time and are not canceled by "inhibiting" messages.

d. "inhibiting" messages arrive close in time and are not canceled by "exciting" messages.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Concept
OTHER: * (New Question)

193. By “listening” to the neurons that synapse with it, a single neuron within which of the following combines this input into an output?

a. ion channel

b. neural network

c. synapse channel

d. reflex network

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.
KEYWORDS: Fact

194. The capacity of our brains to change in response to experience is referred to as

a. neuroplasticity.

b. resiliency.

c. saltatory conduction.

d. neurogenesis.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain’s circuitry is not static by discussing the process of neuroplasticity, including Hebb’s rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Fact

195. In response to experience, new synapses form between neurons, and other connections grow stronger. These changes in the brain due to experience illustrate the brain’s

a. neuroplasticity.

b. resiliency.

c. saltatory conduction.

d. neurogenesis.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Concept

196. The connection between two neurons is strengthened by the repeated activation of the synapses between these neurons, according to

a. the activation-synthesis hypothesis.

b. the phi phenomenon.

c. Sperry's law.

d. Hebb's rule.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Concept

OTHER: * (New Question)

197. According to Hebb's rule, the connection between two neurons is strengthened by the

a. lateralization of the neurons.

b. flow of sodium ions from the axons of the two neurons.

c. negative after-potential that occurs after the original synapse.

d. repeated activation of the synapses between these neurons.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Concept

OTHER: * (New Question)

198. Rats that are raised in a complex environment have more synapses and longer dendrites in their brains than rats raised in a simpler environment. These differences in the rats' brains due to environmental experiences illustrate the brain's

a. saltatory conduction.

b. resiliency.

c. neuroplasticity.

d. neurogenesis.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Concept

199. To demonstrate the impact of different environmental experiences on the brain, one group of rats was raised in a complex environment, while another group of rats was raised in a simpler environment. When their brains were compared, the rats raised in the more complex environments had

a. fewer synapses and shorter dendrites.

b. more synapses and longer dendrites.

c. fewer axons but more neurilemma.

d. less myelin and less neurilemma.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Fact

OTHER: * (New Question)

200. Regarding neuroplasticity, which of the following statements is FALSE?

a. Synaptic connections may grow stronger and new ones may form, while inactive synaptic connections may weaken and even die.

b. The repeated activation of synapses between two neurons that strengthens the connection between them is known as Hebb's rule.

c. Scientists who study the brain believe that every mental event involves a brain event, which means that every new experience we have is reflected in changes to our brains.

d. Adult brains are more neuroplastic than the brains of infants and children.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Fact

OTHER: * (New Question)

201. Nico and Brooke are teenagers who had a large portion of their brains removed as infants. Today they are functioning well because over the years their brains have compensated for their losses through a process called

a. lateralization.
b. saltatory connection.
c. deep lesioning.
d. neuroplasticity.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Application
OTHER: * (New Question)

202. When people suffer from chronic traumatic encephalopathy, their prospects for recovery are not good because the brain damage from these head traumas can be extensive and often triggers
a. multiple sclerosis.
b. increased neuroplasticity.
c. constraint-induced movement disorder.
d. a subsequent disease process that continues to damage the brain.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Fact
OTHER: * (New Question)

203. In which condition are the prospects for recovery poor due to the brain damage being extensive as well as a subsequent disease process being triggered that continues to damage the brain long after the original traumas have ended?
a. neoplastic autism
b. multiple sclerosis
c. chronic traumatic encephalopathy
d. constraint-induced movement disorder

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Concept
OTHER: * (New Question)

204. In one study, people with depression became more able to control their negative moods after undergoing cognitive

behavior therapy. After this therapy, the images of their brains revealed

a. reduced endorphin levels throughout the brain.

b. increased endorphin levels within the subcortical areas.

c. reduced brain activity in the brain areas related to combativeness.

d. more normal activity in brain areas related to emotional processing.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Fact

205. In a study that focused on taxi drivers in London, England, who must learn the names and locations of tens of thousands of streets in order to earn their licenses, the experienced cabbies exhibited superior memory for street information with the parts of their brains responsible for processing this learning being

a. enlarged.

b. lateralized.

c. more myelinated.

d. all of these.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Fact
OTHER: * (New Question)

206. Every time you learn something, you are reshaping your living brain, a process known as

a. brain osmosis.

b. synaptic malleability.

c. self-directed neuroplasticity.

d. self-directed neural induction.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.
KEYWORDS: Concept

207. As you study your psychology textbook, you are changing your mind and your brain about psychology through a process known as

a. brain osmosis.

b. synaptic malleability.

c. self-directed neuroplasticity.

d. self-directed neural induction.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Application

OTHER: * (New Question)

208. Most nerve cell fibers outside the brain and spinal cord are wrapped by a thin layer of cells that aid in the repair of neurons. This thin layer of cells is called

a. myelin.

b. neurilemma.

c. acetylcholine.

d. endorphins.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Fact

209. The main function of the neurilemma is to

a. form a tunnel through which damaged nerve cell fibers grow when they repair themselves.

b. affect the speed of nerve impulses.

c. block the reception of acetylcholine.

d. aid a nerve's receptivity to neurotransmitters by increasing the number of receptor sites available.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Concept

210. Neurilemma is wrapped around most axons in all nervous systems EXCEPT for the _____ nervous system.

a. sympathetic

b. parasympathetic

c. somatic

d. central

ANSWER: d

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Fact

211. The fact that some peripheral nerves can regenerate after being damaged is made possible by the presence of

a. neurilemma.

b. myelin.

c. acetylcholine.

d. none of these, since peripheral nerves cannot regenerate.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Fact

212. Which of the following nerve cells can repair itself if damaged?

a. a nerve cell in the central nervous system that is wrapped in myelin

b. a nerve cell in the brain

c. a nerve cell in the peripheral nervous system that is wrapped in neurilemma

d. a nerve cell in the spinal cord

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Concept

213. Regrowth of a damaged nerve cell is most likely when

a. damage occurs within the brain.

b. the cell body is destroyed.

c. damage occurs in the spinal cord.

d. an accidentally severed toe is sewn back on.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Application

214. Horror movies and science fiction stories are often based on the premise that one person's brain has been surgically removed and implanted in the body of another person. This would actually be impossible because
a. damage to the brain is almost always fatal.
b. if the corpus callosum is cut, the brain cannot function.
c. damage to neurons in the CNS is usually considered permanent.
d. the blood brain barriers would not protect against infection.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Concept

215. Regarding the repair of the central nervous system, which of the following statements is FALSE?
a. Along with the animal research on spinal cord repair, some human trials have also been recently undertaken.
b. Scientists have partially repaired cut spinal cords in rats by establishing cellular bridges to close the gap.
c. Neurilemma covers neurons in the central nervous system and enables these neurons to regrow themselves when activated.
d. Stem cells have been injected into the gap in the spinal cord to repair the damaged spinal cords in rats.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact
OTHER: * (New Question)

216. Transplants or grafts of brain tissue in animals
a. have not been attempted in humans because of ethical restrictions.
b. have been attempted but without any success in any animal so far.
c. created animals that were dangerously aggressive.
d. have been able to partially repair cut spinal cords in rats.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

217. Immature cells that can mature into a variety of specialized cells, such as neurons, are referred to as
a. somas.
b. stem cells.
c. glial cells.
d. neurilemmas.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

218. Scientists have partially repaired cut spinal cords in rats by establishing “cellular bridges” to close the gap. Strategies used include all of the following EXCEPT
a. coaxing severed nerve fibers to grow across the gap.
b. grafting nerve fibers to fill the gap.
c. injecting stem cells into the gap.
d. lateralizing the severed nerve fibers so they fill the gap.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact
OTHER: * (New Question)

219. The production of new brain cells is known as
a. neural induction.
b. depolarization.
c. neural resiliency.
d. neurogenesis.
ANSWER: d

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

220. Each day, thousands of new cells originate deep within the brain and then move to the surface to link up with other neurons to become part of the brain's circuitry through a process known as

a. neural induction.
b. depolarization.
c. neurogenesis.
d. neural resiliency.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

221. Learning, memory, and the ability to adapt to changing circumstances are most likely due to the fact that new brain cells form each day through

a. neural resiliency.
b. neurogenesis.
c. neural induction.
d. depolarization.

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Concept

222. Regarding brain cells regeneration and repair, which of the following statements is FALSE?

a. Constraint-induced movement therapy involves restraining a patient's good arm, which forces his or her impaired arm to be more active and increases neurogenesis in the damaged part of the brain.
b. Doctors have identified specific drugs that can enhance neurogenesis in the damaged areas of the brain.
c. Because of aging, a healthy 75-year-old brain has only about 75 percent of the brain cells of a healthy 25-year-old brain.
d. Although the brain loses cells daily, it simultaneously grows new neurons to replace them.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

223. Regarding brain cells regeneration and repair, which of the following statements is FALSE?

a. Saltatory conduction is the approach in which a patient's good arm is restrained in order to force his or her impaired arm to be more active with a resulting increase in neurogenesis in the damaged part of the brain.
b. Approaches involving neurogenesis are offering hope for persons suffering from a variety of disabilities, such as depression, addiction, and schizophrenia.
c. A healthy 75-year-old brain has just as many neurons as it did when it was 25-year-old.
d. Although the brain loses cells daily, it simultaneously grows new neurons to replace them.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact
OTHER: * (New Question)

224. Bobby suffered a stroke that damaged his brain, causing partial paralysis in his left arm. To increase the rate of neurogenesis in the damaged part of his brain and speed his recovery, Bobby's good right arm is immobilized, which forces his impaired left arm to become more active. This approach is known as

a. ablation.
b. constraint-induced movement.
c. localization of function.
d. synaptic potential immobilization.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Application

225. In constraint induced movement therapy, a person's good arm is immobilized, which forces the impaired arm to become more active and to increase which of the following processes in the damaged part of his brain?

a. ablation

b. neurogenesis
c. lateralization
d. localization of function

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Concept

226. The brains of persons with schizophrenia are usually smaller than normal, indicating that they have fewer neurons. Thus, according to Toro and Deakin, schizophrenia may result from

a. numerous small strokes damaging the brain regions associated with the development of schizophrenia.
b. a deterioration of the myelin sheaths throughout the brain tissue.
c. the inability of the schizophrenic brain to continually create new neurons to replace old ones that have died.
d. a lack of acetylcholine, which cause numerous neurons to rapidly die.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Concept

227. The brains of persons with schizophrenia are usually smaller than normal, indicating that they have fewer neurons. Thus, according to Toro and Deakin, the key to treating this mental disorder may involve new therapies that promote

a. ablation.
b. neurogenesis.
c. lateralization.
d. localization of function.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Concept
OTHER: * (New Question)

228. Anatomists learned that the brain is made up of many distinct areas or “parts” by cutting apart autopsied human and animal brains and then examining them under a microscope. This procedure being used is known as

a. lateralization.
b. neural induction.
c. corticalization.
d. dissection.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

229. Dissection revealed that the brain was made up of many anatomically distinct areas or "parts." This technique involves
a. linking specific structures in the brain with specific psychological or behavioral functions.
b. direct electrical stimulation and activation of brain tissue.
c. cutting apart autopsied human and animal brains and examining them under a microscope.
d. studying subtle behavioral signs of nervous system dysfunction, including clumsiness, an awkward gait, poor hand-eye coordination, and other perceptual and motor problems.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact
OTHER: * (New Question)

230. Dissection reveals that the brain is made up of many anatomically distinct areas comprised of clusters of neuron cell bodies interspersed by bundles of myelinated axons and pathways between those clusters. These clusters of neuron cell bodies are referred to as
a. gray matter.
b. white matter.
c. the limbic system.
d. the subcortex.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact
OTHER: * (New Question)

231. Dissection reveals that the brain is made up of many anatomically distinct areas comprised of clusters of neuron cell bodies interspersed by bundles of myelinated axons and pathways between those clusters. These bundles of myelinated axons are referred to as

a. gray matter.
b. white matter.
c. the limbic system.
d. the subcortex.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact
OTHER: * (New Question)

232. Which of the following brain tools can be used to map location, shape, and size of brain structures in living brains as well as any abnormal structures, such as tumors, that may be present?

a. CT scan and MRI scan
b. PET scan and EEG
c. ESB
d. deep lesioning

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

233. CT scans and MRI scans are considered _____ imaging techniques.

a. structural
b. functional
c. subcortical
d. hemispheric

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

234. Using which brain tool is X-ray information collected by a computer from a number of different angles and then formed into an image of the brain to reveal the effects of strokes, injuries, tumors, and other brain disorders?

a. CT scan
b. EEG
c. PET scan
d. functional MRI

ANSWER: a

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Concept

235. A specialized type of X-ray was used to show the area where a tumor was located within a patient's brain. This type of X-ray is known as

a. a computed tomographic scan.
b. electroencephalography.
c. positron emission tomography.
d. functional magnetic resonance imaging.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

236. During practice, a football player experiences symptoms commonly associated with having a stroke. The coaches rush him to the hospital so that the doctors can view the structure of this player’s brain using a specialized X-ray technique known as a(n)

a. ESB.
b. CT scan.
c. PET scan.
d. ablation.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Application

237. Computed tomographic (CT) scanning involves

a. a specialized type of X-ray.
b. the detection, amplification, and recording of electrical activity in the brain.
c. the use of a magnetic field to develop an image of the brain.
d. a computer-generated image of brain activity based on glucose consumption in the brain.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.

KEYWORDS: Fact
OTHER: * (New Question)

238. Which of the following structural brain techniques may expose patients to unhealthy doses of radioactivity with repeated use?

a. ablations
b. EEGs
c. CT scans
d. MRI scans

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact
OTHER: * (New Question)

239. The technique that uses a magnetic field to develop an image of the brain is called the

a. ESB.
b. ablation technique.
c. MRI scan.
d. EEG.

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

240. The MRI scan obtains an image of the brain by using

a. electrode patches placed on the skull.
b. magnetic fields.
c. x-rays.
d. radioactive glucose.

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact

241. Clarence was in a car accident, and the doctor suspects that he may have suffered damage to his brain. He is put in a chamber with a strong magnetic field that will yield a three-dimensional picture of Clarence's brain. Which technique is being utilized?

a. EEG
b. MRI
c. PET
d. CT

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Application

242. Juan's physician has told him that he wants him to take a test that will give a three-dimensional representation of Juan's brain. This procedure will require Juan to be placed in a strong magnetic field. The test being discussed is the
a. EEG.
b. CT scan.
c. MRI scan.
d. PET scan.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Application

243. Which technique produces the most detailed images of brain structures and allows any two-dimensional plane, or slice, of the body to be selected and displayed as an image on a computer screen?
a. MRI scan
b. ESB
c. CT scan
d. EEG

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Fact
OTHER: * (New Question)

244. Which of the following structural imaging techniques allows scientists to peer into the living brain, almost as if it were transparent, with recent developments in this technique making it possible to explore pathways in the brain in ever great detail?
a. MRI scan
b. CT scan
c. PET scan

d. EEG

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Concept
OTHER: * (New Question)

245. The study of how biological processes, the brain, and the nervous system are related to behavior is called

a. neuroinduction.
b. biopsychology.
c. physiological behaviorism.
d. ablation.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Fact

246. Jessie is a psychologist who specializes in how a person's biological processes, brain, and nervous system are related to behavior. Jessie would be referred to as a

a. neurogenic psychologist.
b. biopsychologist.
c. physiological behaviorist.
d. cranial behaviorist.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Application

247. Dr. Amad is a psychologist who is studying how parts of the brain control particular mental or behavioral functions, such as being able to recognize faces, speak, problem-solve, or move one's hands or feet. Dr. Amad would be referred to as a

a. neurogenic psychologist.
b. biopsychologist.
c. physiological behaviorist.
d. cranial behaviorist.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Application
OTHER: * (New Question)

248. The research strategy of linking specific structures in the brain with specific psychological or behavioral functions is known as

a. ablation.
b. constraint-induced functionality.
c. localization of function.
d. functional analysis.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Fact

249. When a researcher tries to identify which structures in the brain control specific psychological or behavioral functions, such as recognizing faces or moving the hands, the basic research strategy is called

a. localization of function.
b. constraint-induced analysis.
c. extrapolated functional analysis.
d. neuroplasticity.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Concept

250. If damage to a particular part of the brain consistently leads to a particular loss of function, then we say that the function is

a. localized in that structure.
b. generalized for that structure.
c. ablated within that structure.
d. constrained to that structure.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Concept

251. Many techniques have been developed to help identify brain structures and the functions they control. These research techniques are part of the basic research strategy known as

a. constraint-induced analysis.
b. localization of function.
c. neuroplastic analysis.
d. functional lateralization.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Concept
OTHER: * (New Question)

252. Studies that examine changes in personality, behavior, or sensory capacity caused by brain diseases or injuries and help doctors to localize function by linking psychological or behavioral capacities with particular brain structures are known as

a. neural induction.
b. neurogenesis.
c. functional analysis.
d. natural clinical tests.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept
OTHER: * (New Question)

253. A detailed investigation of a single person, especially one suffering from some injury or disease, is known as a natural clinical test, or a(n)

a. ablation.
b. functional analysis.
c. case study.
d. neural dissection.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical

	stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Fact
OTHER:	* (New Question)

254. A psychiatrist does a lengthy and thorough examination of a patient in a hospital. This patient was the victim of a car accident, in which a pen that was lying on the dashboard actually pierced her skull and her brain. The psychiatrist performs physical examinations, interviews with the patient and family members, and closely observes her behavior. This technique is known as a(n)

a. case study.
b. ablation.
c. ESB.
d. functional analysis.

ANSWER:	a
POINTS:	1
DIFFICULTY:	Moderate
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Application

255. After Phineas Gage's accident in which a metal rod entered his brain, the doctors kept notes on his behavior, used tests to measure various responses, and interviewed Phineas and those who knew him. His brain injury was studied using a(n)

a. ablation.
b. natural clinical test.
c. ESB.
d. functional analysis.

ANSWER:	b
POINTS:	1
DIFFICULTY:	Moderate
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Application

256. Which of the following are not direct tests of the brain, but are subtle outward behavioral signs of nervous system dysfunction that have been used to diagnose problems ranging from childhood learning disorders to psychosis?

a. confabulations

b. neurological soft signs
c. neural inductions
d. brain embolisms

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept

257. Jacob suspects he may have had a stroke because he is having some difficulty in controlling his right hand and feels numbness on the right side of his face. This behavioral evidence of possible brain damage is called
a. neurological soft signs.
b. spatial neglect.
c. neurogenesis.
d. virilism.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

258. Ray awoke one morning to find that he could not see anything in the upper right side of his visual field, his right eye and the right side of his mouth looked different in the mirror, his gait when walking was a bit awkward, and he felt generally "clumsy." Ray is exhibiting
a. neurological soft signs of a stroke.
b. the initial onset of spatial neglect.
c. hard neurological signs of facial agnosia.
d. the initial onset of Alzheimer's disease.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such

as lying.

KEYWORDS: Application

259. The symptoms of memory loss, trouble spelling words, depression, and moodiness exhibited by Dave Duerson and other NFL football players who had suffered concussions would be considered

a. neurological soft signs.

b. symptoms of spatial neglect.

c. functional lateralizations.

d. confabulations.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

OTHER: * (New Question)

260. Max, a seventy-year-old man, has recently been exhibiting a somewhat awkward gait and poor eye-hand coordination as well as slight changes to his personality. His family encourages him to see a doctor, who determines that Max has had a slight stroke. Max's family had observed

a. neural inductions.

b. psychotic indicators.

c. confabulations.

d. neurological soft signs.

ANSWER: d

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

261. The use of an electrode to stimulate small areas of the brain beneath the surface is called

a. ESB.

b. deep lesioning.

c. fMRI.

d. electroencephalography.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

262. Any device, such as a wire, needle, or metal plate, used to electrically stimulate or destroy nerve tissue or to record its activity is called a(n)

a. electrode.

b. inductor.

c. neuralizer.

d. telemetry instrument.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

263. A doctor activates the surface of a patient's brain by touching it with a small electrified wire and the patient tells the doctor what effect the stimulation had. Regarding this procedure, which of the following statements is TRUE?

a. This procedure is impossible because patients cannot be awake during brain procedures.

b. The doctor is performing an ablation.

c. The doctor is using an electrode to "turn on" brain structures.

d. The doctor is using an EEG to "turn on" brain structures.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

264. Regarding the use of brain stimulation research, which of the following statements is FALSE?

a. Brain research is often based on electrical stimulation, but chemical stimulation is also used at times.

b. Electrical stimulation of the brain (ESB) has been used to instantly call forth euphoria, aggression, or tears in a person.
c. Electrical stimulation of the brain (ESB) is done during brain surgery while the patient is awake, so they can describe the effect of the stimulation.
d. Electrical stimulation of the brain (ESB) cannot be used to bring forth behaviors, such as eating, sleeping, or speech in a person.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Fact
OTHER: * (New Question)

265. Scientists implanted an electrode into a specific area of a rat's brain. When the electrode was activated, which in turn activated the target area, the rat aggressively attacked a cat within the same cage. The technique being utilized by the scientists is known as

a. ESB.
b. ablation.
c. deep lesioning.
d. PET.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

266. In biopsychology, the surgical removal of tissue from the surface of the brain is called

a. ablation.
b. neuroplasticity.
c. the clinical method.
d. neural induction.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical

stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

267. Pierre Flourens surgically removed portions of a rabbit's cerebellum with the rabbit subsequently showing extreme problems with motor coordination. This surgical removal of the surface portions of the cerebellum is an example of

a. ablation.
b. deep lesioning.
c. ESB.
d. fMRI.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

268. Dr. Anton removed a tumor from the back surface area of a patient's brain. After removal of this brain tissue, the patient experienced extreme visual problems. This type of surgical removal of brain tissue is called

a. deep lesioning.
b. ablation.
c. ESB.
d. fMRI.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

269. The destruction of brain tissue occurs with both deep lesioning and with surgical

a. fMRI.
b. PET.
c. electroencephalography.
d. ablation.

ANSWER: d

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept

270. The use of an electrode to destroy small areas of the brain beneath the surface is called
a. PET.
b. neural induction.
c. deep lesioning.
d. electroencephalography.
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Fact

271. Scientists destroyed a tiny area of a cat's limbic system by inserting a tiny electrode into this target area and then passing an electric current through the electrode. They then observed the cat for any changes in its behavior, which would provide clues about the function of this affected area. The procedure that was used to destroy the tiny area in the cat's brain is known as
a. ESB.
b. neural induction.
c. deep lesioning.
d. FMRI.
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

272. Deep lesioning involves

a. using an electrode to destroy tissue within the brain.

b. direct electrical stimulation and activation of brain tissue.

c. cutting apart autopsied human and animal brains and examining them under a microscope.

d. the detection, amplification, and recording of electrical activity in the brain.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

273. In order to detect the electrical activity of a single neuron, a scientist would most likely use

a. ESB.

b. a microelectrode.

c. PET.

d. fMRI.

ANSWER: b

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Concept

274. An extremely thin glass tube filled with a salty fluid with its tip being small enough to detect the electrical activity of a single neuron would be referred to as a(n)

a. pixel.

b. microelectrode.

c. PET scan.

d. fMRI.

ANSWER: b

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such

as lying.

KEYWORDS: Fact

275. Which of the following techniques provides a fascinating glimpse into the true origins of behavior by allowing scientists to view the action potentials of a single neuron?

a. ablation
b. deep lesioning
c. PET scans
d. microelectrode recording

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept
OTHER: * (New Question)

276. PET scans and EEGs are considered _____ imaging techniques.

a. structural
b. functional
c. hemispheric
d. subcortical

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
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KEYWORDS: Fact

277. Biopsychologists are able to pinpoint areas in the brain responsible for thoughts, feelings, and actions using all of the following EXCEPT for the

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

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Concept

278. Three of these techniques allow scientists to observe the activity of parts of the brain without doing any damage at all. Which technique would cause some degree of damage to the living brain?

a. EEG
b. fMRI
c. PET scan
d. ablation

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

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KEYWORDS: Concept

279. An electroencephalograph (EEG) records

a. the number of neurons in the brain.
b. electrical impulses from the brain.
c. chemical activity in the cranial nerves.
d. the amount of glucose being utilized by the brain.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

280. The procedure that detects, amplifies, and records electrical activity in the brain is known as

a. electrical stimulation of the brain (ESB).
b. functional MRI (fMRI).
c. electroencephalography (EEG).
d. positron emission tomography (PET).

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Fact
OTHER: * (New Question)

281. Dave has just had some medical tests conducted. One of the tests recorded Dave's brain waves on a moving sheet of paper. Dave was probably given the

a. EEG.
b. CT scan.
c. MRI scan.
d. PET scan.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

282. Greg is participating in a sleep lab experiment. Electrodes are affixed to his scalp to measure the beta, alpha, theta, and delta waves Greg exhibits as he goes through the various stages of sleep. What technique is being utilized?

a. EEG
b. MRI
c. PET scan
d. CT scan

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

283. Martina has what appears to be a seizure. To verify whether Martina has epilepsy, her doctor affixes small disk-shaped mental plates to Martina's scalp in order to obtain a recording of her brain waves. What technique is being utilized?

a. MRI
b. EEG
c. PET scan
d. CT scan

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

284. Brain wave activity during sleep, daydreaming, hypnosis, and other mental states is likely to be studied using a(n)

a. CT scan.
b. MRI scan.
c. electroencephalograph.
d. implanted microelectrode.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept

285. Which of the following is an imaging technique that results in a computer-generated image of brain activity and is based on glucose consumption in the brain?

a. computed tomographic scan (CT scan)
b. electroencephalography (EEG)
c. magnetic resonance imaging (MRI)
d. positron emission tomography (PET)

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and

	the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Fact
OTHER:	* (New Question)

286. By detecting the subatomic particles emitted by weakly radioactive glucose as it is consumed by the brain, researchers are able to obtain detailed images of activity both near the surface and below the surface of the brain. This technique is called a(n)

a. ablation.
b. PET scan.
c. MRI scan.
d. CT scan.

ANSWER:	b
POINTS:	1
DIFFICULTY:	Difficult
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Concept

287. A PET scan records the amount of which radioactive substance used by brain cells?

a. potassium
b. iodine
c. glucose
d. sodium

ANSWER:	c
POINTS:	1
DIFFICULTY:	Difficult
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Fact

288. Anthony was a subject in a study in which the glucose in his brain was marked with a radioactive substance. Then the detectors identified the especially active brain areas. Anthony participated in a study that employed a(n)

a. EEG.
b. MRI scan.
c. PPRC.
d. PET scan.

ANSWER:	d

POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

289. A PET scan detects which of the following that are emitted by glucose as it is consumed by the brain cells?
a. potassium
b. radioactive iodine
c. electrons
d. positrons
ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Fact

290. By placing positron detectors around the head and sending data to a computer, it is possible to create a moving, color picture of changes in brain activity using a(n)
a. MRI.
b. CT scan.
c. PET scan.
d. ESB recording.
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept
OTHER: * (New Question)

291. Regarding PET scans, which of the following statements is FALSE?
a. PET scans provide detailed images of activity both near the surface and below the surface of the brain.

b. PET scans detect the negative ion particles emitted by weakly radioactive sodium and potassium as they are consumed by the brain.

c. PET scans show which areas of the brain are using more energy, with higher energy use corresponding with higher activity.

d. PET scans have suggested that different patterns of brain activity accompany major psychological disorders, such as depression or schizophrenia.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

292. Different patterns of brain activity have been found to accompany major psychological disorders, such as depression or schizophrenia, according to studies conducted using which brain tool?

a. MRI

b. CT scan

c. PET scan

d. ESB

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

293. Regarding the findings obtained through brain scan research, which of the following statements is FALSE?

a. Most people use only 10 percent of their brain capacity.

b. Brain scans show that all parts of the brain are active during the waking hours.

c. Some people make better use of their innate brainpower than others.

d. A normally functioning brain has no great hidden or untapped reserves of mental capacity.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and

	the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Fact
OTHER:	* (New Question)

294. Which of the following gives both a three-dimensional structural view of the brain as well as making brain activity visible?

a. CT scan
b. MRI scan
c. EEG
d. fMRI

ANSWER:	d
POINTS:	1
DIFFICULTY:	Difficult
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Fact

295. Regarding the technology used to study the brain, which of the following statements is FALSE?

a. Both PET scans and functional MRIs provide images of activity throughout the brain.
b. Experimentally, fMRI images have been used to tell if a person is lying.
c. PET and fMRI brain scans show that most people use only 10 percent of their brain capacity.
d. Researchers are creating digital three-dimensional brain maps that show both brain structures and their accompanying psychological functions.

ANSWER:	c
POINTS:	1
DIFFICULTY:	Moderate
REFERENCES:	2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES:	PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS:	Concept

296. Psychiatrist Daniel Langleben and his colleagues have used a new brain technique to tell if a person is lying, with the front of the brain being more active when a person is lying rather than telling the truth. This technology is the

a. CT scan.
b. MRI scan.
c. EEG.
d. fMRI.

ANSWER:	d

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept

297. Psychiatrist Daniel Langleben and his colleagues have used fMRI technology to tell if a person is lying. When a person was lying, the

a. front of the brain became more active.
b. back of the brain became more active.
c. brainstem became less active.
d. entire brain became less active.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept

298. Humans are superior to all other animals in

a. intelligence.
b. sensory sensitivity.
c. speed and strength.
d. all of these skills.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

299. Compared with other creatures, our human intelligence is specifically related to the fact that our brains have a much larger

a. limbic system.
b. cerebellum.
c. cerebral cortex.

d. reticular formation.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept
OTHER: * (New Question)

300. In a comparison of the human brain with other animals, which of the following statements is FALSE?

a. Whales have the largest brains in overall size.

b. Humans have a larger brain weight to body weight ratio than any other mammal.

c. Many parts of our brain are surprisingly similar to corresponding brain areas in other animals, such as lizards.

d. Compared with other creatures, our brains have a much larger cerebral cortex.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact
OTHER: * (New Question)

301. Regarding brain size and abilities, which of the following statements is FALSE?

a. A small positive correlation exists between intelligence and brain size.

b. The brain of lower animals is twisted and folded, while the human brain is smooth.

c. Many parts of the human brain are surprisingly similar to corresponding brain areas in lower animals, such as lizards.

d. Other animals surpass humans in almost every category of strength, speed, and sensory sensitivity.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

302. Which is more important in gauging the intelligence of humans versus other animals?

a. the size of the cerebral cortex

b. the overall size of the entire brain

c. the ratio of brain weight to body weight

d. the overall weight of the entire brain

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept

303. Which area of the brain is responsible for the human intellectual superiority within the animal kingdom?

a. hippocampus
b. corpus callosum
c. cerebellum
d. cerebral cortex

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept

304. The most obvious difference between the human brain and the brain of a fish would be in the

a. hypothalamus.
b. thalamus.
c. cerebellum.
d. cerebral cortex.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept

305. Although Einstein’s brain was of normal overall size, there were parts of his cerebral cortex that had a unique anatomy and were larger than in most other brains. The parts of Einstein's cerebral cortex that were larger were the ones necessary for

a. memory.
b. verbal reasoning.
c. spatial reasoning.
d. auditory comprehension.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact
OTHER: * (New Question)

306. Which part of the brain consists of two large hemispheres, which are divided into smaller areas known as lobes?
a. cerebellum
b. cerebral cortex
c. limbic system
d. reticular formation
ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

307. In humans, which of the following looks like a giant, wrinkled walnut that consists of the two large hemispheres and covers the upper part of the brain?
a. cerebellum
b. cerebral cortex
c. limbic system
d. hippocampus
ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

308. The cerebral cortex is divided into two
a. reticular formations.
b. fissures.
c. lobes.
d. hemispheres.
ANSWER: d

POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

309. The cerebral cortex is divided into eight smaller areas known as
a. reticular formations.
b. amygdalas.
c. lobes.
d. hemispheres.
ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

310. Regarding the cerebral cortex of humans, which of the following statements is FALSE?
a. The cerebral cortex covers most of the brain with a mantle of gray matter.
b. The cerebral cortex is only 10 millimeters thick (one third of an inch).
c. The cerebral cortex contains 70 percent of the neurons in the central nervous system.
d. The cerebral cortex shows corticalization.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

311. Seventy percent of the neurons in the central nervous system of humans are located in the
a. cerebral cortex.
b. frontal lobe.
c. spinal cord.
d. medulla.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

312. The cerebral cortex in humans accounts for what percent of all the neurons in the central nervous system?

a. 10 percent
b. 40 percent
c. 70 percent
d. 99 percent

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

313. Which of the following is the brain area in humans that is largely responsible for our ability to use language, make tools, acquire complex skills, and live in complex social groups?

a. cerebral cortex
b. hypothalamus
c. limbic system
d. reticular activation system

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

OTHER: * (New Question)

314. Compared to the human brain, the cortex of lower animals

a. is small and smooth.
b. is twisted and folded.
c. is extremely corticalized.
d. contains 90 percent of the neurons in the central nervous system.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

315. The increased size and wrinkling of the cerebral cortex in higher animals is referred to as

a. cerebralization.
b. hemispherization.
c. corticalization.
d. reticulation.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

316. Human intelligence and the ability to acquire complex skills are basically a result of

a. responsive sensory organs.
b. great upper-body strength.
c. brain corticalization.
d. superior native instincts.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Concept

317. “Half-globes” is the literal translation for the

a. frontal lobes.
b. two parts of the amygdala.
c. hemispheres of the brain.
d. corpus callosum.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray

matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

318. The two cerebral hemispheres are connected by a band of fibers called

a. the corpus callosum.
b. the lateral cortex.
c. the cerebellum.
d. association fibers.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

319. The corpus callosum is a thick band of fibers that connect

a. the hindbrain to the midbrain.
b. the motor cortex to the frontal lobe.
c. hindbrain to the spinal cord.
d. the two cerebral hemispheres.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

320. Differences between the two sides of the body, especially differences in the abilities of the brain hemispheres, is called

a. ablation.
b. corticalization.
c. lateralization.
d. neuroplasticity.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

321. The left hemisphere mainly controls the right side of the body, while the right hemisphere controls the left side of the body. This specialization in the abilities of the two hemispheres is called

a. dexterity.
b. lateralization.
c. corticalization.
d. neuroplasticity.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept
OTHER: * (New Question)

322. In humans, the right side of the brain mainly controls which part of the body?

a. right side
b. left side
c. lower half
d. upper half

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

323. In humans, the left side of the brain mainly controls which part of the body?

a. right side
b. left side
c. lower half
d. upper half

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

324. John has some paralysis and loss of sensation on his right side after a motorcycle accident. It is likely that there is brain damage in the

a. cerebellum.
b. left hemisphere.
c. corpus callosum.
d. right hemisphere.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Application

325. When patients with right-hemisphere strokes ignore the left side of their visual space or refuse to acknowledge their paralyzed left arms, they are exhibiting

a. aphasia.
b. amnesia.
c. spatial neglect.
d. agnosia.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Application

326. A person exhibiting spatial neglect for their left visual field most likely has had damage to the

a. right hemisphere.
b. left hemisphere.
c. corpus callosum.
d. cerebellum.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept

327. Ellie had a right hemisphere stroke. During her rehabilitation period, her family and the hospital staff noticed that she

placed all articles on the right side of the dresser and did not notice an article if it was placed on the left side until it was brought to her attention. Even when eating, she tended to eat the food items on the right side of the plate before she even noticed food items on the left side. Ellie was exhibiting

a. aphasia.
b. agnosia.
c. perceptual neglect.
d. spatial neglect.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Application

328. A person exhibiting spatial neglect will have difficulty

a. making speech sounds.
b. understanding speech.
c. identifying the faces of familiar persons.
d. attending to one side of their visual field.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Concept

329. Through his study of split-brain patients, which of the following scientists won a Nobel Prize in 1981 for his discovery that the right and left brain hemispheres perform differently on tests of language, perception, music, and other capacities?

a. Richard J. Haier
b. Roger Sperry
c. Paul Broca
d. John Dewey

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Fact

330. By studying split-brain patients, scientists discovered that the right hemisphere is especially adapted for handling

perceptual skills, such as drawing a picture or recognizing melodies, while the left hemisphere is especially adapted for the production and understanding of speech. This difference is referred to as

a. brain corticalization.

b. spatial discrimination.

c. hemispheric lateralization.

d. peripheral localization.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Concept

331. An important outcome of Sperry's split-brain research was

a. an understanding of hemispheric lateralization.

b. a procedure for treating schizophrenia.

c. insight into the relationships between the central and peripheral nervous systems.

d. a technique for training enhanced creativity.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Concept

332. The surgical procedure of cutting the corpus callosum is done in cases of

a. communication problems.

b. severe epilepsy.

c. injury or stroke.

d. split personality.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Fact

333. Velishea has severe epileptic seizures that cannot be controlled by medication. Therefore, her doctor suggests that a surgery might help. The surgery would involve

a. cutting the corpus callosum.

b. removing the hippocampus.

c. stimulating the brain's pleasure centers.

d. severing the connection between the prefrontal lobe and the hypothalamus.

ANSWER: a

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

334. In order to perform a split-brain operation, which of the following would be severed?
a. pons
b. cerebellum
c. corpus callosum
d. cerebral cortex
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Fact

335. Regarding the “split-brain” operation, which of the following statements is FALSE?
a. After a “split-brain” operation, it is possible to send information to one hemisphere or the other.
b. After a “split-brain” operation, each hemisphere will have its own separate perceptions, concepts, and impulses to act.
c. If a conflict between the two hemispheres arises after the “split-brain” operation, one hemisphere will usually override the other.
d. Most people show a change in hand dominance after a “split-brain” operation.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Concept
OTHER: * (New Question)

336. After a "split-brain" operation, the majority of these patients
a. show severe impairment of language ability.
b. show constant competition between the two hemispheres.
c. function relatively normally, unless submitted to specialized testing.
d. show a change in hand dominance.
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.

KEYWORDS: Concept

337. After a “split-brain” operation, conflicts between the actions of the two hemispheres are actually rare because
a. the right hemisphere will always be the dominant hemisphere.
b. the left hemisphere will always be the dominant hemisphere.
c. information still must pass through the hypothalamus before one can respond.
d. both halves of the brain normally have about the same experience at the same time.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Concept
OTHER: * (New Question)

338. The most likely consequence of a split-brain operation is a patient
a. whose actions are in continual conflict.
b. with sharply diminished intellectual capacity.
c. who acts normally in most situations.
d. with a schizophrenic personality.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Concept

339. We flash a picture of a tree to the right brain of a split-brain patient and a picture of a dog to his left brain. If we ask the split-brain patient to draw what he saw using his left hand (out of sight), he will
a. draw a dog.
b. draw a tree.
c. draw both a dog and a tree.
d. be unable to draw either picture.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

340. If a split-brain subject were given a key (hidden from sight) to feel with his left hand, he
a. could easily name what he had touched.
b. would be unable to describe the object.
c. would be able to point to the key with his right hand.

d. would have to wait for the information transfer to take place before describing it.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is "split" and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

341. A circle is flashed to the left brain of a split-brain patient, and he is asked what he saw. The split-brain patient will be

a. able to easily name what he saw.
b. unable to verbally describe the circle.
c. able to point to a picture of a circle with his left hand.
d. unable to draw the circle with his right hand.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is "split" and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

342. If a triangle is flashed to a split brain patient's right brain, he will be able to

a. easily name what he saw.
b. draw the triangle with his right hand.
c. point to a picture of a triangle with his left hand.
d. point and draw the triangle with both of his hands.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is "split" and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

343. In most people, the left hemisphere of the brain is in charge of

a. language.
b. art.
c. pattern recognition.
d. music.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Fact

344. Approximately, what percent of people use their left brain for speaking, writing, and understanding language?

a. 10 percent
b. 50 percent
c. 75 percent
d. 95 percent

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Fact

345. Roughly 95 percent of people mainly use which part of the brain for speaking, writing, and reading skills?

a. right cerebral hemisphere
b. cerebellum
c. limbic system
d. left cerebral hemisphere

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Fact

346. Which part of the brain is superior at speech, language, math calculation, judging time and rhythm, and coordinating the order of complex movements?

a. left hemisphere
b. right hemisphere
c. limbic system
d. reticular activating system

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept
OTHER: * (New Question)

347. Sean’s skills in computational math and analytic thought are mainly a function of the

a. right hemisphere.
b. left hemisphere.
c. midbrain.
d. limbic system.

ANSWER: b
POINTS: 1

DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Application

348. Judging time and rhythm and coordinating the order of complex movements, such as those needed for speech, are special skills of the
a. right hemisphere.
b. left hemisphere.
c. corpus callosum.
d. limbic system.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept

349. For most people, an injury to which of the following brain areas would result in impairment of speaking, reading, writing, and math calculation abilities?
a. right cerebral hemisphere
b. cerebellum
c. limbic system
d. left cerebral hemisphere
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept
OTHER: * (New Question)

350. A patient who has suffered brain damage to the left hemisphere is likely to experience diminished capacity for
a. naming objects.
b. recognizing faces.
c. composing melodies.
d. expressing emotions.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Application

351. Carrie has experienced brain damage to her left hemisphere. She will most likely experience difficulty with which ability?

a. putting a puzzle together
b. recognizing faces
c. judging time and rhythm
d. understanding sarcasm and irony

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Application
OTHER: * (New Question)

352. Sue has recovered from extensive injury to her left cerebral hemisphere and has continued her career with little sign of impairment. Her occupation is most likely
a. graphic artist.
b. accountant.
c. English teacher.
d. sports writer for a newspaper.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Application

353. Which of the following best describes how the left hemisphere deals with information?
a. processes information simultaneously
b. focuses on the small details
c. explores the overall pattern and general connections
d. must use non-verbal responses

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept

354. The left hemisphere processes information
a. simultaneously.
b. sequentially.
c. holistically.
d. through general connections.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept

355. Which part of the brain is most effective at breaking information into parts and processing this information in order, one item after the next?

a. cerebellum
b. right hemisphere
c. left hemisphere
d. corpus callosum

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept

356. The most accurate conclusion that can be drawn from research on the brain is that

a. normal people can be taught to use one hemisphere at a time.
b. most people use the right hemisphere more often than the left hemisphere.
c. only creative people can use both hemispheres simultaneously.
d. the activities of both hemispheres of the brain combine to produce most behaviors.

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

357. Regarding the functioning of the left and right hemispheres of the brain, which of the following statements is FALSE?

a. People normally use both sides of the brain at all times.
b. Some tasks may make more use of one hemisphere or the other.
c. A smart brain is one that sees the details first and then works it into an overall pattern.
d. Each hemisphere does the parts of the activity it does best and then shares the information with the other side.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

358. In most people, the right hemisphere of the brain is in charge of which skill area?

a. language
b. logic
c. art

d. mathematics

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Fact

359. Perceptual skills involved in putting puzzles together or recognizing musical melodies are special skills of the

a. right hemisphere.
b. left hemisphere.
c. midbrain.
d. corpus callosum.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Fact

360. Harriet has lost the ability to recognize faces, and she has also lost the ability to detect the emotions that other people are feeling. You would expect to find damage to her

a. left hemisphere.
b. right hemisphere.
c. midbrain.
d. cerebellum.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Application

361. The right hemisphere in humans

a. is the major or dominant one in most right-handed persons.
b. controls psychomotor activity on the right side of the body.
c. governs the ability to use language, do math, and engage in analytical acts.
d. is involved in recognizing faces and in the expression of emotion.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

362. Successfully negotiating a maze, sculpting pottery, or painting a watercolor is a function of the

a. corpus callosum.
b. left hemisphere.
c. right hemisphere.
d. temporal lobe.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

363. Sam has experienced brain damage to his right hemisphere. He will most likely experience difficulty with which ability?
a. math calculation
b. expressing emotions
c. judging time and rhythm
d. ordering of complex movements

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Application
OTHER: * (New Question)

364. Which of the following brain areas was most likely damaged if a person loses his or her ability to understand jokes, irony, sarcasm, and the overall context in which something is said?
a. left hemisphere
b. right hemisphere
c. amygdala
d. corpus callosum

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

365. After having a stroke, Rich can speak and understand what has been said to him, but he now has great difficulty understanding the context in which something is said. Rich also misunderstands sarcasm and jokes. Rich has most likely suffered a stroke to
a. the left hemisphere.
b. the right hemisphere.
c. Broca’s area.
d. Wernicke’s area.

ANSWER: b

POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Application

366. Which of the following best describes how the right hemisphere deals with information?
a. processes information sequentially
b. focuses on the small details
c. explores the overall pattern and general connections
d. coordinates the order and sequencing of complex movements
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

367. The right hemisphere processes information
a. simultaneously.
b. sequentially.
c. by specific details.
d. analytically.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

368. Which part of the brain sees the world from a wide-angle view and is particularly effective at assembling pieces of the world into a coherent picture by seeing overall patterns and general connections?
a. cerebellum
b. right hemisphere
c. left hemisphere
d. corpus callosum
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

369. In studies of men's and women's brains, which of the following statements is FALSE?
a. No physical differences between male and female brains have been found.
b. When presented with a language task, both men and women showed increased activity in Broca's area.

c. During the language task, both the left and right brains were activated in more than half the women tested.

d. Men and women performed equally well on a task that involved sounding out words.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact

370. In studies of men's and women's brains, it currently being hypothesized that

a. the two hemispheres appear to be more interconnected in women than in men.

b. women tend to show a front-to-back connection pattern of the hemispheres, which makes them more willing to quickly go from perception to action.

c. men tend to show a left-to-right connection pattern of the hemispheres, which makes them more willing to combine rational and intuitive judgments.

d. no physical or functional differences exist between male and female brains.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

371. Regarding the studies of men's and women's brains, which of the following statements is FALSE?

a. Many physical differences have been found between male and female brains with these structural differences theorized to be the basis for the observed functional differences between men’s and women’s brains.

b. It has been hypothesized that women show a left-to-right connection pattern of the hemispheres, which makes them more willing to combine rational and intuitive judgments.

c. It has been hypothesized that men show a front-to-back connection pattern of the hemispheres, which makes them more willing to quickly go from perception to action.

d. The two hemispheres appear to be more interconnected in men than in women.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

372. In studies of men's and women's brains, it was hypothesized that women

a. use a front-to-back connection pattern of their brain hemispheres.

b. show a greater readiness than men to quickly go from perception to action.

c. use both sides of their brain for language and other forms of intelligence.

d. exhibit all of these characteristics.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

373. In studies of men's and women's brains, it was hypothesized that men

a. show a left-to-right connection pattern of the hemispheres.

b. are more willing to combine rational and intuitive judgments than women are.

c. use both sides of their brain for language and other forms of intelligence.

d. show none of these characteristics.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

374. In studies of men's and women's brains, it was hypothesized that women

a. show a left-to-right connection pattern of the hemispheres.

b. are more willing to combine rational and intuitive judgments than men are.

c. use both sides of their brain for language and other forms of intelligence.

d. show all of these characteristics.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

375. After damage to Broca's area, many women tend to regain more of their lost language abilities than men because

a. Broca's area in women is larger than men's, making it harder to damage completely.

b. women tend to use a front-to-back connection of the hemispheres in processing language.

c. women tend to use both hemispheres of the brain for language.

d. women have more neurilemma within their brains, which aids the repair of damaged nerve tissue.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Concept

376. Many women typically recover from strokes that result in aphasia faster than men do because many women

a. rarely have strokes in the left hemisphere.
b. process language in both hemispheres.
c. have a larger hippocampus than men.
d. have a larger hypothalamus than men.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Concept

377. Mary and John are both in their 30s, while Frank is in his 60s. All three are listening to a speech pathologist pronounce words that they then repeat. Research shows that this use of language is more likely to occur in both sides of the brain of

a. Mary.
b. both Mary and John.
c. both John and Frank.
d. all three persons.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Application

378. Which of the following are defined by large fissures on the surface of the cortex or are regarded as separate areas because of their function?

a. the limbic systems
b. the lobes
c. the ventromedial chisms
d. the saltatory connections

ANSWER: b

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

379. Which lobes of the brain are associated with motor movements as well as higher mental abilities, such as one's sense of self?

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

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept
OTHER: * (New Question)

380. An arch of tissue called the primary motor area directs the body's muscles and is located at the rear of which lobes of the brain?

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

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

381. A researcher wishes to place electrodes in the brain so that existing motor activity can be used to control an artificial hand designed for amputees. The researcher should place the electrodes in the

a. temporal lobe.
b. limbic system.

c. frontal lobe.
d. midbrain.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

382. Voluntary muscle movement originates in the primary motor cortex, which is located in the _____ lobes.
a. parietal
b. temporal
c. frontal
d. occipital

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

383. Which of the following parts of the body would have the largest area represented on the motor area with regards to dexterity?
a. shoulder
b. feet
c. torso
d. hand

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

384. Regarding dexterity, there is a greater portion of motor cortex devoted to the
a. hands and fingers.

b. feet and toes.
c. legs.
d. arms.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

385. Drawings that represent the areas taken up by the various body parts on the motor cortex appear distorted because they are based on which of the following aspects regarding these body parts?

a. their relative size
b. their tactile sensitivity
c. their evolutionary origin
d. their dexterity

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact
OTHER: * (New Question)

386. Due to neuroplasticity, violin, viola, and cello players have a larger proportion of which of the following areas devoted to their hands?

a. association cortex
b. primary motor cortex
c. reticular formation
d. limbic system

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

387. Which of the following are located in the motor cortex and are active when we perform an action or when we merely observe one?

a. pons
b. mirror neurons
c. neurogenetic nodes
d. neurilemmas

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

388. The action of which of the following may explain how we can intuitively understand the behavior of others and may also underlie our ability to learn new skills by imitating others?

a. pons
b. neurogenetic nodes
c. mirror neurons
d. neurilemmas

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

389. While Italian researchers were recording the activity of a single neuron in the motor cortex of a monkey, they noticed that this neuron responded the same way whether the monkey was actually performing the motor task or just observing a researcher performing the task. This observation led to the discovery of the

a. amygdala.
b. effector cell.
c. mirror neuron.
d. neurilemma.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas,

which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

390. Neuroscientists speculate that newborn humans (and monkeys) are able to imitate others because networks of specific types of neurons are activated when an infant watches someone perform an action with this same network being used to perform that action. These specific types of neurons are called _____ neurons.

a. effector
b. sensory
c. reflector
d. mirror

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

391. The activation of mirror neurons may play a role in a person's ability to identify with another person's experiences and feelings, a skill known as human

a. empathy.
b. evaluation.
c. intuition.
d. reflection.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

392. The human capacity to empathize and identify with other people's points of view and their feelings may arise directly from the activation of

a. mirror neurons.
b. the pons.
c. neurogenic nodes.
d. neurilemmas.

ANSWER: a
POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

393. A malfunction of the mirror neurons has been implicated in an early childhood condition in which the child shows impaired social interaction and communication as well as restricted and repetitive behavior, such as head banging. This condition is known as

a. autism spectrum disorders.

b. Tourette's syndrome.

c. acromegaly.

d. Down syndrome.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

394. Which theory explains that autism may arise in infants due to specific neurons in the frontal lobe being damaged by genetic defects or environmental risk factors?

a. activation-synthesis hypothesis

b. broken mirrors hypothesis

c. cognitive dissonance theory

d. gate control theory

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

OTHER: * (New Question)

395. According to the "broken mirrors" hypothesis, which of the following disorders that involves impaired social interaction and communication may arise in infants whose mirror neuron system has been damaged by genetic defects or environmental risk factors?

a. acromegaly

b. agnosia
c. virilism
d. autism

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

396. According to one theory, autism may arise in some infants because genetic abnormalities or environmental risk factors damage the _____ system.

a. limbic
b. reticular activating
c. mirror neuron
d. endocrine

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

397. The parts of the cerebral cortex that receive information from the senses (sensory) or directly control the body (motor) are referred to as _____ areas.

a. primary
b. association
c. perceptual
d. temporal

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Fact

398. Areas of the brain that are NOT primarily sensory or motor in function are called the

a. somatosensory areas.

b. association cortex.

c. temporal lobes.

d. incidental lobes.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

399. The areas of the cerebral cortex that combine and process information are called _____ areas.

a. primary

b. association

c. perceptual

d. semantic

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

400. Which area of the cortex combines and processes information from the senses and contributes to higher mental abilities, such as language?

a. motor cortex

b. somatosensory cortex

c. aphasic cortex

d. association cortex

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

401. If you see a rose, which area of the brain will help you connect your primary sensory impressions with memories, so that you can recognize the rose and name it?

a. association area

b. aphasic cortex

c. somatosensory cortex

d. reticular activating system

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Application

OTHER: * (New Question)

402. A person with damage to the association areas in the left hemisphere would most likely suffer

a. paralysis.

b. deafness.

c. aphasia.

d. insensitivity to pain and temperature.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

403. A person who has aphasia would have an impaired

a. ability to walk.

b. sense of smell.

c. ability to see.

d. ability to use language.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related

to abstract thought and one's sense of self.

KEYWORDS: Concept

404. Aphasia would be described as a(n)

a. inability to recognize objects in one's left visual field.

b. loss of tactile sensations due to brain damage.

c. language disturbance resulting from brain damage.

d. blind spot due to damage in the occipital lobe.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

405. Aphasia would be the likely result of damage to

a. the primary motor cortex of the frontal lobes.

b. Broca's area or Wernicke's area.

c. the primary visual areas of the occipital lobes.

d. the cerebellum.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

406. Following different accidents, Margo is unable to speak but can comprehend language, while Jeff is unable to comprehend the language he hears but can still produce speech sounds. Both are suffering from

a. agnosia.

b. aphasia.

c. spatial neglect.

d. damage to the primary somatosensory area.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area,

Broca’s area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one’s sense of self.

KEYWORDS: Application

407. The center for the production of speech in 95 percent of all people is located in the _____ association area.

a. left frontal
b. right frontal
c. right temporal
d. left temporal

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca’s area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one’s sense of self.
KEYWORDS: Fact

408. Paul Broca's patient "Tan" lost his ability to speak because an area had deteriorated in his brain. This area is now called Broca’s area and is located in the left _____lobe.

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

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca’s area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one’s sense of self.
KEYWORDS: Application

409. Damage to which of the following causes motor or expressive aphasia?

a. Wernicke’s area
b. Broca’s area
c. the corpus callosum
d. the somatosensory cortex

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas,

which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

410. Damage to Broca's area causes

a. motor aphasia.

b. receptive aphasia.

c. mindblindness.

d. facial agnosia.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

411. Which area of the brain is most closely associated with grammar and the correct pronunciation of words?

a. the amygdala

b. Broca's area

c. Wernicke's area

d. the thalamus

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Fact

412. Damage to Broca's area causes great difficulty in

a. speaking or writing.

b. walking.

c. understanding the meaning of words.

d. feeling pain.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas,

which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

413. Jose has lost his ability to speak following a stroke, although he is still able to understand words spoken to him. Damage was most likely to

a. the occipital lobe.
b. Broca's area.
c. Wernicke's area.
d. the limbic system.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

414. When shown a picture of a spoon, Alfred says, "foon, hoon, poon." Alfred's mispronunciation would be classified as a(n)

a. expressive aphasia.
b. fluent aphasia.
c. receptive aphasia.
d. primary agnosia.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

415. After suffering a stroke, Emil often knows what he wants to say but cannot seem to utter the words. When he does speak, his pronunciation and grammar are poor, and his speech is slow and labored. However, Emil has no difficulty in understanding the speech of others. Emil has

a. receptive aphasia.
b. motor aphasia.
c. agnosia.
d. virilism.

ANSWER: b
POINTS: 1

DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

416. Greg now says "bafe" for "bake" and "seep" for "soap" because a stroke damaged
a. his amygdala.
b. Wernicke's area.
c. Broca's area.
d. his hypothalamus.
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

417. A person with brain damage who mispronounces the word "cross" by saying "croth" and "tsar" for "car" would most likely have damage to
a. the amygdala.
b. Broca's area.
c. Wernicke's area.
d. the corpus callosum.
ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

418. Damage to the frontal lobe may affect all of the following EXCEPT
a. movement of body parts.
b. reasoning and planning ability.
c. tactile sensation of body parts.
d. personality.
ANSWER: c

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

419. Which part of the brain is related to complex behaviors with damage dramatically changing one's personality and emotional life?

a. prefrontal area
b. primary somatosensory area
c. corpus callosum
d. primary auditory area

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

420. Which part of the brain generates our sense of self, including our awareness of our current emotional state?

a. prefrontal cortex
b. primary somatosensory area
c. thalamus
d. Wernicke's area

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

421. Phineas Gage underwent dramatic personality changes after he experienced serious damage to which lobe of his brain?

a. temporal
b. occipital
c. parietal

d. frontal

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

422. One's reasoning and planning ability are centered within which lobes of the brain?

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

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

423. Which of the following changes would you expect to occur in someone whose frontal lobes were damaged in an accident?

a. development of blind spots in the visual field
b. reduced capacity to hear high frequency sounds
c. reduced reasoning and planning abilities and changes in personality
d. inability to sense hot and cold

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

424. Because of his abuse of drugs, Miguel gets "stuck" on mental tasks and repeats the same answers over and over again, even when the answers are wrong. His abuse of drugs most likely caused damage to his _____ lobes.

a. temporal

b. occipital
c. parietal
d. frontal

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Application

425. PET scans suggest that much of what we call intelligence is related to increased activity in the _____ lobes.
a. temporal
b. occipital
c. parietal
d. frontal

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

426. Reduced function in which lobes of the brain has been shown to lead to greater impulsivity and an increased risk for drug addiction?
a. temporal
b. occipital
c. parietal
d. frontal

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.
KEYWORDS: Concept

427. Bodily sensations such as touch, temperature, and pressure register in the _____ lobes.

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

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Fact

428. The primary somatosensory area is located in the _____ lobes.
a. temporal
b. parietal
c. occipital
d. frontal

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Fact

429. Persons are able to read Braille with their fingers because more of which brain part is devoted to the fingers?
a. primary somatosensory cortex
b. primary temporal cortex
c. hypothalamus
d. amygdala

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Concept

430. Regarding sensitivity, more of the primary somatosensory cortex is devoted to the
a. lips.
b. shoulder.
c. feet.
d. legs.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Fact

431. Which of the following parts of the body would have the largest area represented on the primary somatosensory area?

a. foot
b. torso
c. arm
d. hand

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Fact

432. Drawings that represent the areas taken up by the various body parts on the somatosensory cortex appear distorted because they are based on which of the following aspects regarding these body parts?

a. size
b. sensitivity
c. coordination
d. dexterity

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Fact
OTHER: * (New Question)

433. Which of the following is a major function of the primary somatosensory area of the cerebral cortex?

a. primary area for receiving visual information
b. analysis of body sensations
c. location of motor control for the body
d. primary area for receiving auditory information

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Concept

434. When a part of the body is very sensitive to touch or pain, this body part will be associated with a larger area on which part of the cortex?

a. somatosensory area
b. primary temporal area
c. amygdala
d. thalamus

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Concept

435. You are sitting in a very uncomfortable desk that is overly small and has a slight crack in the plastic that pinches your back when you move. This sensation on your body from the uncomfortable chair is being processed in your _____ lobes.

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

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Application

436. You are running the water for your bath and place your hand under the faucet to "feel" and adjust the temperature of the water. The temperature of the water registers in which brain area?

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

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Application

437. Persons with damage to the primary somatosensory area in the parietal lobes will

a. exhibit changes in language comprehension.
b. exhibit poor reasoning and planning abilities.
c. lose the feeling of touch in specific areas of the body.

d. have deficits in visual perception.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Concept

438. Which of the following changes would you expect to occur in someone whose parietal lobes were damaged in an accident?

a. development of blind spots in the visual field
b. reduced capacity to hear sounds
c. reduced reasoning and planning abilities and changes in personality
d. inability to sense hot and cold

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Application

439. The brain center for hearing is in the _____ lobe.

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

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke’s area, results in receptive or fluent aphasia.
KEYWORDS: Fact

440. If a PET scan was done of your brain while you listened to your favorite song, your primary auditory area would be the first to light up, followed by association areas in your _____ lobes.

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

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application
OTHER: * (New Question)

441. A researcher electrically stimulates a part of Raphael's brain, and Raphael "hears" a series of sounds. This researcher most likely stimulated Raphael's _____ lobes.

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

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application

442. Which of the following is a major function of the temporal lobe?

a. primary area for receiving visual information
b. analysis of body sensations
c. location of motor control for the body
d. primary area for receiving auditory information

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Concept

443. Which of the following combinations is correct?

a. frontal lobe-------primary somatosensory cortex
b. occipital lobe-----primary motor cortex
c. temporal lobe----primary auditory area
d. parietal lobe-----primary visual area

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Fact

444. Which of the following changes would you expect to occur in someone whose temporal lobes were damaged in an accident?

a. development of blind spots in the visual field

b. reduced capacity to hear sounds

c. reduced reasoning and planning abilities and changes in personality

d. inability to sense hot and cold

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Concept

445. Persons with temporal lobe damage may

a. show changes in personality and emotions.

b. lose the ability to comprehend language.

c. show deficits in visual perception.

d. lose fine motor control.

ANSWER: b

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Concept

446. Which of the following parts of the brain allows one to understand the meaning of words heard?

a. the hypothalamus

b. Broca's area

c. Wernicke's area

d. the reticular formation

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Concept

OTHER: * (New Question)

447. The association area for the understanding of language for 95 percent of all people is located in the _____ lobe.

a. left frontal
b. right frontal
c. left temporal
d. right temporal

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Fact

448. Wernicke's area is located in the _____ lobe.
a. right frontal
b. right temporal
c. left frontal
d. left temporal

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Fact

449. Receptive or fluent aphasia is caused by damage to
a. the amygdala.
b. Broca's area.
c. the cerebellum.
d. Wernicke's area.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Concept

450. Damage to Wernicke's area causes great difficulty in
a. speaking and writing.
b. walking.
c. understanding the meaning of words.
d. feeling pain.

ANSWER: c

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Concept

451. Damage to Wernicke's area would lead to
a. motor aphasia.
b. fluent aphasia.
c. expressive aphasia.
d. facial agnosia.
ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Concept

452. Marjorie is still able to speak, although she has great difficulty comprehending language. Damage was most likely to
a. the somatosensory area.
b. Broca's area.
c. Wernicke's area.
d. the limbic system.
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application

453. When the speech therapist shows Jess a spoon, he calls it a "cup." The stroke most likely damaged which part of Jess' brain?
a. amygdala
b. Broca's area
c. Wernicke's area
d. hypothalamus
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes,

including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Application

454. When asked to point to the picture of "what we drive," the stroke patient points to the picture of the apple rather than the car, illustrating that the stroke damaged

a. the somatosensory cortex.
b. Broca's area.
c. Wernicke's area.
d. the corpus callosum.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application

455. When shown a picture of a bed, Tim calls the picture a "table." The brain damage he experienced has resulted in _____ aphasia.

a. receptive or fluent
b. motor or expressive
c. Broca's
d. Gage's

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application

456. The primary visual area of the brain is located in the _____ lobe.

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

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Fact

457. Using an electrode, an experimenter produces flashes of colored light and simple visual experiences in a patient undergoing brain surgery. Most likely, the experimenter has activated the _____ lobes.

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

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

458. Zelda is experiencing more and more blind spots in her vision as her inoperable brain tumor increases. The brain tumor would be in her _____ lobe.

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

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

459. You are sitting on a stool when suddenly you lean back and fall off the stool, hitting the back of your head on the floor. You "see stars" as you try to sit back up. This sensation of "seeing stars" occurs because

a. neurons in your occipital lobe are stimulated.
b. your eyes are jarred to the extent stars are seen.
c. neurons in your retina are stimulated.
d. neurons in your hypothalamus are stimulated.

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

460. An elderly acquaintance of yours has suffered from partial blindness in one eye since she had a stroke. Apparently the stroke damaged her

a. occipital lobe.
b. parietal lobe.
c. temporal lobe.

d. reticular formation.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

461. Regarding visual images, which of the following statements is TRUE?

a. Visual images are accurately represented in miniature in the occipital lobes like a "little TV screen" in your brain.
b. Visual images create patterns of activity in nerve cells in the occipital lobes which we interpret as images.
c. Visual images are the exact opposite in color and form as real world images.
d. Visual images are processed primarily by the parietal lobes.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

462. Regarding agnosia, which of the following statements is TRUE?

a. Agnosia is the inability to identify visually-presented objects.
b. Agnosia involves damage to the speech centers.
c. Agnosia is a thought disturbance related to a mental disorder.
d. Agnosia results from damage to the thalamus and midbrain.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

463. The inability to identify visually-presented objects is referred to as visual

a. agnosia.
b. aphasia.
c. lateralization.
d. sclerosis.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.

KEYWORDS: Fact
OTHER: * (New Question)

464. Visual agnosia is caused by damage to the
a. prefrontal cortex.
b. somatosensory areas of the parietal lobes.
c. primary sensory areas of the temporal lobes.
d. association areas of the occipital lobes.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Fact
OTHER: * (New Question)

465. Visual agnosia may sometimes be helped by
a. cues of touch.
b. additional visual cues, such as color, size, and shape.
c. waiting long enough to think through an answer.
d. hypnosis.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

466. Another term for “mindblindness” is
a. aphasia.
b. spatial neglect.
c. dyslexia.
d. visual agnosia.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Fact

467. Alice is shown a candle. She can see it, describe it, and even draw it; but she cannot name it. Alice is suffering from
a. expressive aphasia.
b. spatial neglect.

c. dyslexia.
d. visual agnosia.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

468. People with facial agnosia cannot
a. speak in a coherent manner.
b. recognize familiar faces.
c. move their facial muscles.
d. feel sensations in their faces.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

469. Areas devoted to recognizing faces and the emotions they convey lie in association areas in the
a. limbic system.
b. reticular activating system.
c. occipital and frontal lobes.
d. temporal and parietal lobes.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Fact
OTHER: * (New Question)

470. Margarita had a stroke and is in the hospital. When her family members visit her there, Margarita is unable to recognize any of their faces until she hears their voices. Margarita has facial
a. aphasia.
b. agnosia.
c. dyslexia.
d. neglect.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application
OTHER: * (New Question)

471. Juanita had a stroke and is in the hospital. When her family members visit her in the hospital, Juanita is unable to recognize any of their faces until she hears their voices. Juanita most likely has damage to the association areas of the

a. limbic system.
b. reticular activating system.
c. occipital and frontal lobes.
d. temporal and parietal lobes.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application
OTHER: * (New Question)

472. The evolutionary specialization of the association areas of the occipital and frontal lobes for facial recognition may be due to this skill being important in

a. self-preservation from potential dangers.
b. leadership among tribe members.
c. sound localization through lip movement.
d. socialization.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

473. The importance of socialization may have played a large role in the evolutionary specialization of the association areas in the occipital and frontal lobes for

a. facial recognition.
b. tactile sensitivity.
c. motor functions.
d. auditory reception.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.

KEYWORDS: Concept
OTHER: * (New Question)

474. The brainstem, midbrain, and parts of the forebrain are referred to as the
a. reticular formation.
b. subcortex.
c. gray matter.
d. cerebral cortex.
ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

475. The three main areas of the subcortex are the
a. brainstem, cerebellum, and corpus callosum.
b. forebrain, brainstem, and the upper parts of the hindbrain.
c. brainstem, midbrain, and cerebral cortex.
d. brainstem, midbrain, and the lower parts of the forebrain.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

476. The subcortex areas include all of the following brain areas EXCEPT the
a. hypothalamus.
b. hippocampus.
c. cerebral cortex.
d. medulla.
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

477. Hunger, thirst, sleep, attention, sex, breathing, and many other vital functions are controlled by parts of the
a. subcortex.

b. corpus callosum.
c. cerebral cortex.
d. prefrontal cortex.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered "subcortex."
KEYWORDS: Fact
OTHER: * (New Question)

478. Which of the following parts of the brain can be viewed as a link between the forebrain and the brainstem?
a. corpus callosum
b. midbrain
c. hypothalamus
d. limbic system

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered "subcortex."
KEYWORDS: Fact

479. One of the main roles of the midbrain is to
a. help in storing skill memories.
b. control motives, such as hunger and thirst.
c. serve as a link between the forebrain and the brainstem.
d. keep the brain aroused and alert.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered "subcortex."
KEYWORDS: Concept
OTHER: * (New Question)

480. Which of the following structures is part of the hindbrain?
a. hypothalamus
b. hippocampus
c. cerebellum
d. amygdala

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

481. Which of the following structures is part of the forebrain?
a. hypothalamus
b. medulla
c. cerebellum
d. reticular formation
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

482. The thalamus and hypothalamus are considered parts of the
a. forebrain.
b. hindbrain.
c. midbrain.
d. brainstem.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact

483. As the spinal cord joins the brain, it widens into the
a. brainstem.
b. cerebrum.
c. limbic system.
d. corpus callosum.
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain,

midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”

KEYWORDS: Fact

484. The cerebellum, medulla, pons, and reticular formation make up the

a. forebrain.
b. brainstem.
c. midbrain.
d. limbic system.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact
OTHER: * (New Question)

485. The brainstem consists mainly of the

a. hippocampus and amygdala.
b. thalamus and hypothalamus.
c. medulla and the cerebellum.
d. cerebral cortex and the corpus callosum.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.1 - Identify the parts of the brain that make up the forebrain, midbrain, and hindbrain and the general functions of these subdivisions; and explain which regions of the brain would be considered “subcortex.”
KEYWORDS: Fact
OTHER: * (New Question)

486. The reflex control centers for vital life functions like heart rate and breathing are found in the

a. forebrain.
b. medulla.
c. hippocampus.
d. thalamus.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Fact

487. Severe damage to which of the following parts of the brain would most likely result in death?

a. amygdala
b. medulla
c. hippocampus
d. cerebellum

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Concept

488. A karate chop to an area at the top of the neck could stop a person's heart and breathing by damaging the

a. hippocampus.
b. thalamus.
c. medulla.
d. amygdala.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Application

489. At age 33, Kate Adamson had a stroke that resulted in a locked-in syndrome, in which one moment she was fine and the next totally paralyzed and barely able to breathe. The stroke had damaged which part of Kate Adamson’s brain?

a. amygdala
b. brainstem
c. hippocampus
d. thalamus

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Application

490. At age 33, Kate Adamson had a stroke that caused catastrophic damage to her brainstem. She was totally paralyzed and barely able to breathe but was still fully awake and aware. Kate Adamson was experiencing what is known as

a. Broca’s aphasia.

b. spatial neglect.
c. locked-in syndrome.
d. neurogenic agnosia.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Application

491. Coma researchers used fMRI to reexamine 54 patients previously diagnosed as being in a persistent vegetative state, or brain-dead. Patients were repeatedly asked to imagine swinging a tennis racquet or walking down a familiar street. Five of the patients showed clearly different brain activity to the two tasks despite being unable to communicate with doctors in any other way. These results suggest that not all patients who are non-responsive are brain dead, but instead some may have

a. Broca's aphasia.
b. spatial neglect.
c. locked-in syndrome.
d. neurogenic agnosia.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Concept

492. The pons acts as a bridge between the medulla and other brain areas and influences

a. memory.
b. sleep and arousal.
c. motor behavior.
d. higher reasoning.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.3 - Identify the location and functions of the pons.
KEYWORDS: Fact

493. Which of the following parts of the brain looks like a small bump on the brainstem and acts as a bridge between the medulla and other brain areas?

a. pons
b. hippocampus
c. hypothalamus

d. limbic system

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.3 - Identify the location and functions of the pons.
KEYWORDS: Fact

494. Through his use of stimulants and hallucinogens, Martin caused damage to his pons. Now doctors have to inject him with medication that will help

a. him store new memories.
b. him to move his legs in a coordinating way.
c. him to sleep.
d. control his aggressiveness.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.3 - Identify the location and functions of the pons.
KEYWORDS: Application

495. Although there is growing evidence of its role in cognition and emotion, which part of the brain primarily regulates posture, muscle tone, and muscular coordination?

a. hypothalamus
b. cerebellum
c. hippocampus
d. limbic system

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
KEYWORDS: Fact
OTHER: * (New Question)

496. Christina enviously watches her tennis rival practice. She admires Sarina's control of the racket and finely coordinated movement. Having just covered the section on the brain in her psychology class, Christina states that Sarina must have a highly developed

a. cerebellum.
b. medulla.
c. hippocampus.
d. pons.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.

KEYWORDS: Application

497. Damage to the cerebellum would most likely result in

a. heart stoppage or respiratory failure.

b. a loss of hearing ability.

c. a loss of muscular coordination.

d. having blind spots in one's vision.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.

KEYWORDS: Concept

498. Weeks after an automobile accident, a friend continues to have difficulty maintaining balance and coordinating movements. You should suspect that damage may have occurred to the

a. corpus callosum.

b. cerebellum.

c. medulla.

d. thalamus.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.

KEYWORDS: Application

499. The cerebellum stores which type of memory?

a. the names of persons and other personal information

b. skill memories, such as riding a bicycle

c. knowledge of information heard or spoken

d. knowledge of information seen or read

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.

KEYWORDS: Concept

500. Which part of the brain stores memories related to skills and habits?

a. amygdala
b. thalamus
c. cerebellum
d. reticular formation

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
KEYWORDS: Fact
OTHER: * (New Question)

501. Musicians, who practice special motor skills throughout their lives, have a larger than average

a. pons.
b. limbic system.
c. cerebellum.
d. thalamus.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
KEYWORDS: Concept

502. The first symptom(s) of a crippling disease called spinocerebellar degeneration

a. are hyperactivity and a lack of attention.
b. are tremor, dizziness, and muscular weakness.
c. is an inability to recognize faces and familiar surroundings by sight alone.
d. is an inability to store new long-term verbal memories.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
KEYWORDS: Concept

503. Jordan has developed a noticeable tremor and is experiencing dizziness and muscular weakness. Her doctor tells her that she has a crippling disease that will eventual progress to the point that she will have difficulty standing, walking, or

feeding herself. Jordan most likely has

a. spinocerebellar degeneration.

b. degenerative agnosia.

c. motor aphasia.

d. progressive virilism.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.

KEYWORDS: Application

504. The reticular formation (RF) is associated with

a. hunger and thirst.

b. attention and wakefulness.

c. sex, rage, and emotion.

d. pleasure and punishment.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Fact

505. Which of the following is a network of fibers and cell bodies that lie inside the medulla and brainstem and is associated with attention, alertness, and some reflexes, such as sneezing and coughing?

a. reticular formation

b. amygdala

c. hippocampus

d. thalamus

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Fact

506. Which of the following does not fully mature until adolescence, which may be the reason that children have such short attention spans?

a. thalamus

b. hypothalamus

c. reticular formation

d. amygdala

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Concept

507. Regarding the reticular formation, which of the following statements is FALSE?

a. Destruction of the reticular formation causes constant wakefulness.

b. The reticular formation lies inside the brainstem and medulla.

c. The reticular formation is important in the control of attention and arousal.

d. The reticular formation acts as a clearinghouse for incoming information, giving some messages priority while turning others aside.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Concept

508. Which part of the hindbrain prioritizes incoming messages and modifies outgoing commands to the body, which affects muscle tone, posture, and movements of the eyes, face, head, body, and limbs?

a. pons

b. hypothalamus

c. amygdala

d. reticular formation

ANSWER: d

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Concept

509. Which brain area receives incoming messages from the sense organs and bombards the cortex with stimulation, keeping the brain active and alert?

a. thalamus

b. medulla

c. reticular activating system

d. limbic system

ANSWER: c
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.
KEYWORDS: Fact

510. You begin to doze off in class but suddenly come to awareness when your name is called. The part of the brain responsible for your sudden arousal is the

a. somatic nervous system (SNS).
b. reticular activating system (RAS).
c. thalamus.
d. pineal gland.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.
KEYWORDS: Application
OTHER: * (New Question)

511. A sleepy driver rounds a bend and sees a deer standing in the road. The driver snaps to attention and applies the brakes, averting the accident, because his brain was aroused by the

a. parasympathetic nervous system.
b. reticular activating system (RAS).
c. thalamus.
d. pineal gland.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.
KEYWORDS: Application

512. Which of the following is a small, football-shaped structure in the forebrain that acts as a final switching station for most incoming sensory information on their way to the cortex?

a. cerebellum
b. reticular formation
c. hippocampus
d. thalamus

ANSWER: d

POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.
KEYWORDS: Fact

513. The thalamus is a football-shaped structure in the forebrain that
a. controls posture, muscle tone, and coordination.
b. acts as a final switching station for most incoming sensory information on their way to the cortex.
c. is associated with attention, alertness, and some reflexes, such as coughing, sneezing, and vomiting.
d. regulates emotions and motives, such as hunger and thirst.
ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.
KEYWORDS: Concept
OTHER: * (New Question)

514. Damage to the thalamus may affect any of the senses listed below EXCEPT
a. vision.
b. hearing.
c. touch.
d. smell.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.
KEYWORDS: Fact

515. Injury to even small areas of which brain part can cause deafness, blindness, or loss of any other sense, except smell?
a. thalamus
b. hypothalamus
c. hippocampus
d. amygdala
ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.
KEYWORDS: Concept

516. After a stroke, Jarmaine began having periodic trouble with his hearing, then he began experiencing visual problems, and sometimes even numbness in different parts of his body. Most recently, he is able to smell his wife's cooking and anticipate the flavor of his favorite foods, but alas, the food often does not have any taste. Which part of his brain is malfunctioning?

a. hypothalamus
b. reticular formation
c. hippocampus
d. thalamus

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.
KEYWORDS: Application

517. Which part of the forebrain is the size of a grape but is considered the master control center for emotion and many basic motives?

a. thalamus
b. hypothalamus
c. corpus callosum
d. cerebellum

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Fact

518. The hypothalamus is a grape-sized structure in the forebrain that

a. controls posture, muscle tone, and coordination and stores skill memories.
b. acts as a final switching station for most incoming sensory information on their way to the cortex.
c. is associated with attention, alertness, and some reflexes, such as coughing, sneezing, and vomiting.
d. is involved in temperature control, hormone release, emotions, and motives, such as hunger and thirst.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Concept
OTHER: * (New Question)

519. Which of the following is NOT controlled by the hypothalamus?

a. sex
b. eating and drinking

c. temperature control
d. posture

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Fact

520. Which part of the brain is responsible for hunger, thirst, sex, body temperature, and hormone secretion?
a. reticular formation
b. pons
c. hypothalamus
d. hippocampus

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Fact

521. Which part of the forebrain is basically a “crossroads” that connects many areas of the brain and is the last place where many behaviors are organized or "decided on" before these messages leave the brain and cause the body to react?
a. amygdala
b. pons
c. hypothalamus
d. hippocampus

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Concept

522. A medical student destroys part of a rat's brain so that it later develops a tremendous appetite and continues to eat long after it has acquired ample nutrition. What part of the brain has been damaged?
a. thalamus
b. hypothalamus
c. hippocampus
d. amygdala

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.
KEYWORDS: Application

523. The limbic system includes the
a. medulla, hypothalamus, and thalamus.
b. medulla, cerebellum, pons, and reticular formation.
c. reticular formation, hypothalamus, thalamus, and parts of the cerebellum.
d. hypothalamus, amygdala, hippocampus, and parts of the thalamus.
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Fact

524. The hypothalamus, the hippocampus, the amygdala, and parts of the thalamus make up the _____ system.
a. somatosensory
b. endocrine
c. limbic
d. reticular activating
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Fact

525. Two structures that are part of the limbic system are the
a. medulla and pons.
b. reticular formation and cerebellum.
c. amygdala and hippocampus.
d. corpus callosum and brainstem.
ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as

part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Fact

526. Which brain area was the earliest layer of the forebrain to develop during evolution and helps organize basic survival responses in lower animals, such as feeding, fleeing, fighting, and reproduction?

a. somatosensory cortex
b. endocrine
c. limbic system
d. reticular activating system

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

527. The limbic system is responsible for

a. the control of rage, fear, sex, and laughter.
b. language function.
c. heartbeat and breathing regulation.
d. auditory and visual processing.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Fact

528. Which brain area within the forebrain has a major role in producing emotions and motivating behaviors, including rage, fear, sexual response, and laughter?

a. somatosensory cortex
b. endocrine system
c. limbic system
d. reticular activating system

ANSWER: c

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Fact

529. A researcher places an electrode in a cat's limbic system, which he activates. The cat suddenly jumps up and runs to the corner, showing clear indications of fear. What part of the limbic system was most likely stimulated?

a. hippocampus
b. thalamus
c. hypothalamus
d. amygdala

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Application

530. Which part of the limbic system provides a primitive "quick pathway" to the cortex when we are startled, so that we are able to react to dangerous stimuli before we fully know what is going on?

a. hippocampus
b. amygdala
c. hypothalamus
d. thalamus

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept
OTHER: * (New Question)

531. In situations in which true danger exists, such as in military combat, the rapid response of which part of the limbic

system may aid survival?

a. hippocampus
b. hypothalamus
c. thalamus
d. amygdala

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept
OTHER: * (New Question)

532. You are walking down a dark alley with several packages. Behind you, you hear a door open and close suddenly, and you immediately dive behind the nearest trash container. The part of the forebrain mainly responsible for your reaction is the

a. hippocampus.
b. medulla.
c. cerebrum.
d. amygdala.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Application

533. Which part of the limbic system explains why people who suffer from phobias and disabling anxiety often feel afraid without knowing why?

a. amygdala
b. hippocampus
c. thalamus
d. hypothalamus

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in

humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

OTHER: * (New Question)

534. Megan suffers from a phobia of kittens and cats. Even though she consciously understands that she does not have to be afraid of such small creatures, she still exhibits nervousness as she watches her daughter petting a neighbor's gentle cat. Which part of the limbic system causes this fear response that Megan does not understand?

a. hippocampus
b. thalamus
c. hypothalamus
d. amygdala

ANSWER: d

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Application

535. Unconscious fear produced by which part of the brain seems to explain why people who survive horrible experiences, such as a plane crash or combat during war, can have debilitating fears years later?

a. amygdala
b. hypothalamus
c. reticular activating system
d. somatosensory cortex

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

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KEYWORDS: Concept

536. Which part of the brain stores lasting verbal memories and helps us navigate through space?

a. amygdala
b. hypothalamus
c. pons
d. hippocampus

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
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KEYWORDS: Fact

537. Which area of the limbic system will become more active, if you mentally plan a drive across town?
a. the bottom part of the amygdala
b. the left side of the hypothalamus
c. the top part of the thalamus
d. the right side of the hippocampus
ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Fact
OTHER: * (New Question)

538. Which part of the brain lies within the temporal lobes and produces memory-like or dream-like experiences when the temporal lobes are stimulated?
a. amygdala
b. hippocampus
c. thalamus
d. pons
ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

539. Regarding the hippocampus, which of the following statements is FALSE?

a. The hippocampus lies inside the temporal lobes.
b. The hippocampus is associated with forming lasting memories.
c. The hippocampus tells us when to fear dangerous stimuli.
d. The hippocampus helps us navigate through space.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

540. Damage to which part of the limbic system would most likely impair memory?
a. thalamus
b. hypothalamus
c. amygdala
d. hippocampus

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

541. A detective is shot and suffers brain damage. He is unable to store new memories, so he must relearn information each day from photographs and notes as he tries to find the criminal who shot him. The part of his brain that was most likely damaged was the
a. hypothalamus.
b. hippocampus.
c. somatosensory cortex.
d. amygdala.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a

whole.

KEYWORDS: Application

542. Although Marcie remembers all aspects of her life before she experienced brain damage in a terrible fall, each morning she must reread details of her present life that are written in a diary because she is unable to adequately store new memories. The brain damage Marcie experienced was most likely to her

a. amygdala.
b. pons.
c. hypothalamus.
d. hippocampus.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
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KEYWORDS: Application

543. By using electrical stimulation, reward (or pleasure centers) and punishment (or "aversive" areas) can be shown to exist in the

a. cerebellum.
b. limbic system.
c. occipital lobe.
d. medulla.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
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KEYWORDS: Concept

544. Several areas of the limbic system act as reward, or “pleasure,” pathways with many overlapping with the areas that control thirst, sex, and hunger in the

a. cerebellum.
b. reticular formation.
c. hippocampus.
d. hypothalamus.

ANSWER: d
POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

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KEYWORDS: Concept

545. Many of the addictive drugs activate the same pleasure centers as are activated by food and sex. Many of these pleasure centers are located in the

a. hypothalamus.
b. medulla.
c. cerebellum.
d. corpus callosum.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

546. Commonly abused drugs, such as cocaine, amphetamine, heroin, nicotine, marijuana, and alcohol, activate pleasure pathways within the _____ system.

a. endocrine
b. reticular activating
c. limbic
d. somatosensory

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

OTHER: * (New Question)

547. Listening to certain pieces of music can send shivers down your spine because it activates which area of the brain?

a. reticular activating system

b. limbic system

c. midbrain

d. corpus callosum

ANSWER: b

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

548. Regarding the limbic system, which of the following statements is TRUE?

a. Many of the "pleasure pathways" in the limbic system are found within the pons.

b. When punishment areas in the limbic system are activated, animals actually show pleasure rather than discomfort and work actively to keep the stimulation turned on.

c. Commonly abused drugs, such as nicotine and alcohol, activate the same pleasure pathways as sex and food.

d. The limbic system is made up of the medulla, cerebellum, pons, and reticular formation.

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

549. Regarding the limbic system, which of the following statements is FALSE?

a. Many of the "pleasure pathways" in the limbic system are found within the reticular formation.

b. When punishment areas in the limbic system are activated, animals show discomfort and will work hard to turn off the stimulation.

c. Commonly abused drugs, such as nicotine and alcohol, activate the same pleasure pathways as sex and food.

d. Music that would be described as "thrilling" can activate pleasure systems in your brain.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

550. Which of the following is NOT considered a basic function of the brain?

a. maintaining bodily functions
b. directing muscles and glands
c. creating the magic of consciousness
d. reordering the genetic code during organogenesis

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

551. Basic functions of the brain include which of the following?

a. maintaining vital bodily functions and controlling muscles
b. creating consciousness and regulating itself
c. keeping track of the external world and responding to current needs
d. all of these

ANSWER: d
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.
KEYWORDS: Concept

552. Regarding the brain, which of the following statements is FALSE?

a. Scientists typically use introspection to clarify how your eyes send information to your primary visual area and how other brain structures cooperate to interpret that information as written language.
b. Scientists have found that incoming information scatters all over the brain and converges again as it goes out through the spinal cord, to muscles and glands.
c. The brain is a vast information-processing system, keeping track of the external world and responding to current needs.
d. Understanding just how the brain lets you read, love someone, or even play catch may hold the key to improving ourselves and helping those who are experiencing difficulties.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

OTHER: * (New Question)

553. Hormones are poured into the bloodstream and lymph system by the glands of the _____ system.

a. limbic
b. reticular activating
c. endocrine
d. somatic

ANSWER: c

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Fact

554. Which system is considered a parallel communication system to the nervous system in the body with its secretions passing directly into the bloodstream or lymph system?

a. endocrine
b. reticular activating
c. limbic
d. somatosensory

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Concept

555. A glandular secretion that affects body functions and behavior is known as

a. a neurotransmitter.
b. neurilemma.
c. enkephalin.
d. a hormone.

ANSWER: d

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the

actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Fact

556. Regarding the endocrine system, which of the following statements is FALSE?

a. Like neurotransmitters, hormones activate cells in the body, and the cells must have receptor sites for the hormones.
b. Different hormones prevail when you are angry than when you are fearful.
c. Androgens ("male hormones") are related to the sex drive in both males and females.
d. Hormones secreted during times of high emotion tend to decrease memory formation.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.
KEYWORDS: Fact

557. Regarding the action of hormones, which of the following statements is FALSE?

a. Hormones secreted during times of high emotion intensify memory formation.
b. The same hormones prevail when you are angry as when you are fearful.
c. Some of the emotional turmoil of adolescence is due to elevated hormone levels.
d. Some disturbing personality patterns may be linked to hormonal irregularities.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.
KEYWORDS: Fact

558. Regarding the action of hormones, which of the following statements is FALSE?

a. Unlike neurotransmitters, hormones do not require receptor sites.
b. Hormones secreted during times of high emotion intensify memory formation.
c. Androgens ("male" hormones) are related to the sex drive in both males and females.
d. Pregnancy and motherhood cause the release of hormones that lead to the dramatic changes involved in maternal behavior.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.
KEYWORDS: Fact
OTHER: * (New Question)

559. Which of the following is the pea-sized structure hanging from the base of the brain that regulates growth as well as influencing all of the other endocrine glands?

a. pituitary gland
b. pineal gland
c. thyroid gland
d. adrenal gland

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact
OTHER: * (New Question)

560. Which gland is considered the master gland and regulates the functioning of the other glands?
a. pituitary
b. pineal
c. thyroid
d. adrenal

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact

561. Which part of the brain is located directly above the pituitary gland and is able to affect all of the other glands in the body by influencing the pituitary gland?
a. pons
b. reticular formation
c. hypothalamus
d. midbrain

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept

562. A critical link between the chemical and neural information systems in humans is the link between the

a. thalamus and thyroid gland.

b. reticular formation and adrenal gland.

c. cerebellum and sex glands.

d. hypothalamus and pituitary gland.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

563. All of the following are problems associated with oversecretion or undersecretion of hormones from the pituitary gland, EXCEPT for

a. acromegaly.

b. virilism.

c. dwarfism.

d. giantism.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

564. People with hypopituitary dwarfism have

a. normal-size bodies but smaller than average arms, hands, feet, and facial bones.

b. perfectly proportioned body and limbs, but are smaller than average.

c. smaller than average bodies but enlarged arms, hands, feet, and facial bones.

d. unusually large heads in proportion to their limbs.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

565. If too little growth hormone is released from the pituitary gland, a person may develop
a. giantism.
b. dwarfism.
c. virilism.
d. acromegaly.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact

566. If too much growth hormone is secreted at the beginning of the growth period, it can cause
a. giantism.
b. achondroplasia.
c. virilism.
d. acromegaly.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact

567. The condition in which too much growth hormone is secreted toward the end of the growth period is called
a. achondroplasia.
b. virilism.
c. hypopituitary dwarfism.
d. acromegaly.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

568. Arnold received too much growth hormone during puberty (late in the growth cycle). His hands, feet, and face show an overgrowth. He has the condition known as

a. acromegaly.
b. giantism.
c. achondroplasia.
d. virilism.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Application

569. Enlarged hands, feet, and facial bones that create prominent facial features may be the result of

a. acromegaly.
b. giantism.
c. dwarfism.
d. hypopituitary dwarfism.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Concept

570. Regarding growth problems, which of the following statements is FALSE?

a. Growth disorders, such as giantism and acromegaly, result from oversecretion of the pineal gland.
b. Individuals with hypopituitary dwarfism are perfectly proportioned, but smaller than average.
c. Regular injections of growth hormone can raise a hypopituitary child's height by several inches, usually to the short side of average.
d. Acromegaly produces prominent facial features, which some people have used as a basis for careers as character actors and wrestlers.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on

	the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS:	Fact
OTHER:	* (New Question)

571. Oxytocin plays a broad role in regulating many behaviors generally involved in happiness, including pregnancy, parenthood, sexual activity, social bonding, trust, and the reduction of stress reactions, and is released by the _____ gland.

a. pituitary
b. pineal
c. thyroid
d. adrenal

ANSWER:	a
POINTS:	1
DIFFICULTY:	Moderate
REFERENCES:	2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS:	Fact

572. Which of the following hormones is released from the pituitary gland and plays a broad role in regulating many behaviors generally involved in happiness, including pregnancy, parenthood, sexual activity, social bonding, trust, and the reduction of stress reactions?

a. melatonin
b. oxytocin
c. corticoids
d. androgens

ANSWER:	b
POINTS:	1
DIFFICULTY:	Moderate
REFERENCES:	2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS:	Fact

573. Which of the following is known as the "cuddle" hormone, is released by the pituitary gland, and plays an important role in deepening the mother/child bond during the all-important early years?

a. androgens
b. melatonin
c. oxytocin
d. corticoids

ANSWER:	c

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept
OTHER: * (New Question)

574. Which gland is associated with a well-developed light-sensitive organ, or "third eye" found in certain fishes, frogs, and lizards and was once considered a useless remnant of evolution in humans?

a. pineal
b. thyroid
c. adrenal
d. pituitary

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

575. Melatonin is released by the _____ gland.

a. pituitary
b. pineal
c. thyroid
d. adrenal

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

576. Which gland is associated with body rhythms and sleep cycles and secretes the hormone melatonin?

a. pituitary
b. pineal
c. thyroid

d. adrenal

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

577. The pineal gland releases a hormone called

a. endorphin.
b. thyroxin.
c. testosterone.
d. melatonin.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

578. The hormone melatonin regulates

a. growth.
b. male and female sex drives.
c. salt balance in the body.
d. sleep cycles.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept

579. Which hormone is released in response to daily variations in light and tends to rise as night falls, peaks at midnight, and falls again as the sun rises?

a. adrenaline
b. thyroxin

c. melatonin

d. androgen

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Concept

580. Which of the following is the correct endocrine gland and hormone pairing?

a. pineal gland-----melatonin

b. pituitary---------epinephrine

c. adrenal gland---human growth hormone

d. thyroid----------norepinephrine

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Fact

581. Jasmine is experiencing jet lag after a long flight, that is, her body had difficulty adjusting to the time difference so that she felt sleepy when she should be awake and vice versa. Which gland and hormone are responsible for Jasmine's condition?

a. thyroid gland-----thyroxin

b. adrenal gland----epinephrine

c. adrenal gland----norepinephrine

d. pineal gland------melatonin

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Application

582. Which gland located in the neck regulates the rate at which energy is produced and expended in the body?

a. pineal
b. thyroid
c. adrenal
d. pituitary

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

583. By altering metabolism, which gland can have a sizable effect on personality with overactivity of this gland causing excitability and nervousness and underactivity of this gland causing lethargy and sleepiness?

a. pineal
b. pituitary
c. adrenal
d. thyroid

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept

584. The function of the thyroid gland is to regulate

a. sleep cycles.
b. metabolism.
c. blood sugar and hunger by releasing insulin.
d. salt balance in the body.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept
OTHER: * (New Question)

585. Overactivity of which endocrine gland or brain structure leads to tenseness, nervousness, and excitability?

a. pineal gland
b. thyroid gland
c. hippocampus
d. cerebellum

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept

586. A person suffering from hyperthyroidism will tend to

a. be thin, tense, excitable, and nervous.
b. exhibit inactivity, sleepiness, slowness, obesity, and depression.
c. have a powerful craving for the taste of salt.
d. have enlarged arms, hands, feet, and facial bones.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept
OTHER: * (New Question)

587. Underactivity of which endocrine gland or brain structure causes inactivity, sleepiness, slowness, obesity, and depression?

a. thyroid gland
b. thymus
c. pineal gland
d. hippocampus

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

588. A person suffering from hypothyroidism will tend to

a. be thin, tense, excitable, and nervous.

b. exhibit inactivity, sleepiness, slowness, obesity, and depression.

c. have a powerful craving for the taste of salt.

d. have enlarged arms, hands, feet, and facial bones.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Concept

OTHER: * (New Question)

589. Darlene experienced an increase in blood pressure, was extremely irritable, and her eyeballs appeared to be bulging out on several occasions. Her doctor found that one of her endocrine glands was producing too much of its hormone. Darlene most likely has a(n)

a. overactive thyroid gland.

b. underactive thyroid gland.

c. adrenal gland virilism.

d. complication of anabolic steroids.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Application

590. Terri shows inactivity, sleepiness, slowness, and has gained weight. A problem was found in her endocrine system. She most likely has a(n)

a. overactive thyroid gland.

b. underactive thyroid gland.

c. adrenal gland virilism.

d. complication of anabolic steroids.

ANSWER: b

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Application

591. Which branch of the autonomic nervous system causes epinephrine and norepinephrine to be released by the adrenal glands?

a. somatic

b. sympathetic

c. central

d. parasympathetic

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Concept

592. When you are angry or afraid, the sympathetic branch of the autonomic nervous system causes epinephrine and norepinephrine to be released from the

a. adrenal glands.

b. thyroid gland.

c. pineal gland.

d. gonads.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Fact

OTHER: * (New Question)

593. When you are frightened or angry, your heart rate and blood pressure rise; stored sugar is released into the bloodstream for quick energy; your muscles tense and receive more blood; and your blood is prepared to clot more quickly in case of injury. These changes are controlled by the autonomic nervous system (ANS), specifically, the sympathetic branch, which causes the adrenal glands to release the hormones

a. androgen and estrogen.

b. melatonin and oxytocin.

c. insulin and serotonin.

d. epinephrine and norepinephrine.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact
OTHER: * (New Question)

594. Which hormone tends to arouse the body and is associated with fear?

a. melatonin
b. epinephrine
c. norepinephrine
d. estrogen

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

595. Which hormone also functions as a neurotransmitter in the brain, tends to arouse the body, and is linked with anger?

a. melatonin
b. epinephrine
c. norepinephrine
d. thyroxin

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

596. Which endocrine glands arouse the body, regulate salt balance, adjust the body to stress, and affect sexual functioning?

a. pineal glands

b. thyroid glands
c. adrenal glands
d. parathyroids

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Concept

597. Which gland is located just under the back of the rib cage, atop the kidneys?
a. adrenal
b. thyroid
c. pineal
d. parathyroid

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

598. Epinephrine and norepinephrine are produced by the
a. adrenal medulla.
b. adrenal cortex.
c. thyroid gland.
d. pineal gland.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

599. The inner core of the adrenal glands that secretes epinephrine and norepinephrine is called the adrenal
a. medulla.

b. cortex.
c. nucleus.
d. ventricle.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

600. The adrenal medulla secretes
a. corticoids.
b. epinephrine and norepinephrine.
c. melatonin.
d. oxytocin.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

601. The outer portion of the adrenal glands that secretes corticoids is called the adrenal
a. medulla.
b. dorsal.
c. cortex.
d. ventricle.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

602. The adrenal cortex secretes
a. corticoids.

b. epinephrine and norepinephrine.

c. insulin.

d. oxytocin.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Fact

603. Which of the following is NOT a correct match between endocrine gland and hormone?

a. pineal gland--------melatonin

b. pituitary gland-----growth hormone

c. adrenal gland------epinephrine

d. pancreas----------corticoids

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Fact

604. Hormones secreted by the adrenal cortex are associated with

a. sleep and wake cycles.

b. the rate of energy production and expenditure in the body.

c. bodily growth rates.

d. salt balance and the body's ability to resist stress.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

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KEYWORDS: Concept

605. Which of the following hormones regulates the salt balance in the body, helps the body adjust to stress, and serves as a secondary source of sex hormones?

a. adrenaline
b. thyroxin
c. corticoids
d. melatonin

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Fact

606. Fernado has developed a powerful craving for the taste of salt. The doctor finds that he has a deficiency in
a. thyroxin.
b. epinephrine.
c. corticoids.
d. norepinephrine.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
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KEYWORDS: Application

607. An oversecretion of the corticoids can cause a condition in which a woman may grow a beard or a man's voice may become so low it is difficult to understand. This condition is known as
a. acromegaly.
b. virilism.
c. cretinism.
d. agnosia.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Concept

608. Margaret has problems with virilism. Which gland or part of a gland is malfunctioning?

a. pineal gland
b. thyroid gland
c. adrenal cortex
d. adrenal medulla

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Application

609. An oversecretion of the corticoids early in one's life can cause

a. acromegaly.
b. agnosia.
c. cretinism.
d. premature puberty.

ANSWER: d
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Concept

610. Children who exhibit premature puberty resulting in full sexual development have

a. given birth as early as five years of age.
b. an oversecretion of pituitary growth hormones.
c. an undersecretion of adrenal sex hormones.
d. a thyroid disorder.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Concept

611. Which of the following is NOT a correct match between endocrine gland and hormone?

a. pineal gland--------norepinephrine

b. pancreas----------insulin

c. ovaries----------estrogen

d. testes----------testosterone

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

OTHER: * (New Question)

612. One of the principal androgens, or "male" hormones, is testosterone, which is supplied in small amounts by which gland?

a. pineal

b. pituitary

c. adrenal

d. thyroid

ANSWER: c

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

613. The main source of testosterone in males is supplied by which gland?

a. pineal

b. pituitary

c. adrenal

d. testes

ANSWER: d

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

614. Anabolic steroids are a synthetic version of which hormone?

a. epinephrine
b. norepinephrine
c. testosterone
d. melatonin

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact

615. Which of the following drugs are synthetic versions of testosterone and have been used by athletes who want to "bulk up" or promote muscle growth?

a. anabolic steroids
b. GHB
c. serotonin
d. melatonin

ANSWER: a
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Concept

616. Which of the following statements best describes how anabolic steroids affect young adolescents?

a. Anabolic steroids elevate mood.
b. Anabolic steroids increase the risk of heart attack and stroke.
c. Anabolic steroids are often used to promote weight loss.
d. Anabolic steroids have no adverse health effects.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the

hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

617. The side effects of anabolic steroids include

a. a woman’s voice having a higher pitch.

b. a woman's hair becoming thicker, longer, and curlier.

c. increased testicle size in men.

d. breast enlargement in men.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

618. Which of the following is NOT a side effect of anabolic steroids?

a. voice deepening and baldness in women

b. liver damage and stunted growth in young adolescents

c. increased testicle size in men

d. dangerous increases in hostility and aggression

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

619. Regarding anabolic steroid use, which of the following statements is FALSE?

a. Anabolic steroids can result in sexual impotence and breast enlargement in men.

b. Almost all of the major sports organizations have banned the use of anabolic steroids by athletes.

c. Young adolescents who use anabolic steroids have an increased risk of heart attack, stroke, liver damage, and stunted growth.

d. Anabolic steroids are a synthetic version of epinephrine.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function

of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Concept

620. The Latin word for “left” means

a. unlucky.
b. inferior.
c. sinister.
d. clumsy.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

621. The Latin word for “right” means

a. lucky.
b. dominant.
c. dexterous.
d. skillful.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

622. Left-handed people, or “lefties,” have often been characterized as

a. clumsy and unlucky.
b. skillful and just.
c. caring and sincere.
d. emotionally stable and friendly.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Concept

623. Right-handed people, or “righties,” are more likely to be referred to as

a. skillful and just.

b. average and emotionally stable.

c. crafty and selfish.

d. unlucky and awkward.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

624. A preference for using the right or left hand for most activities is referred to as

a. brain lateralization.

b. hand lateralization.

c. handedness.

d. preferential dominance.

ANSWER: c

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Fact

625. If you are right-handed, which of the following statements is TRUE?

a. Your right hand has more strength and dexterity than your left hand.

b. You have more area on the left side of your brain devoted to controlling your right hand.

c. You have more area on the right side of your brain devoted to controlling your right hand.

d. You have a larger corpus callosum than if you were left-handed.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

626. Damon always picks up objects with his left hand, throws a ball with his left hand, and writes with his left hand. Thus, it can be concluded that

a. Damon’s left hand has more strength and dexterity than his right hand.
b. Damon has more area on the left side of his brain devoted to controlling his left hand.
c. Damon has more area on the right side of his brain devoted to controlling his left hand.
d. Damon has a larger corpus callosum than if he were right-handed.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Application

627. To assess the degree to which one is right-handed or left-handed, you would most likely use the
a. Ishihara Test of Hand Preference.
b. Waterloo Handedness Questionnaire.
c. 16 PF.
d. MMPI-2.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

628. Although handedness is a matter of degree, what percent of Americans are right-handed?
a. 70 percent
b. 80 percent
c. 90 percent
d. 98 percent

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

629. Although handedness is a matter of degree, what percent of Americans are left-handed?
a. 30 percent
b. 20 percent

c. 10 percent
d. two percent

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

630. What percent of Americans are strongly right-handed or strongly left-handed with the rest showing some inconsistency in hand preference?

a. 60 percent
b. 75 percent
c. 88 percent
d. 98 percent

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

631. A combination of preference for using hand, foot, eye, and ear is referred to as

a. sidedness.
b. neuroplasticity.
c. hemispherization.
d. preferential lateralization.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

632. Lynn tends to almost always lean her head to the right when she is kissing her boyfriend Mike. When using a microscope at work, Lynn tends to use her right eye and even breathes better through her right nostril. Lynn’s right preference illustrates

a. sidedness.
b. neuroplasticity.

c. acquired hemispherization.

d. preferential lateralization.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Application

633. Jeff throws the football with his left hand, kicks the ball with his left foot, listens best with his left ear, and aims his hunting rifle using his left eye. Jeff's left preference illustrates

a. neuroplasticity.

b. acquired hemispherization.

c. preferential lateralization.

d. sidedness.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Application

OTHER: * (New Question)

634. What is considered the single most important behavioral indicator of sidedness?

a. eye preference

b. ear preference

c. leg movement

d. handedness

ANSWER: d

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

635. One’s dominant hemisphere is considered the side of a person’s brain that

a. controls hand movement.

b. controls eye movement.

c. organizes and plans activities.

d. produces language.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Concept

636. The left hemisphere is dominant for language function in

a. no one.
b. about 95 percent of right-handers and 70 percent of left-handers.
c. about 19 percent of left-handers and three percent of right-handers.
d. all left-handed persons.

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

637. The right hemisphere is dominant for language function in

a. no one.
b. about 95 percent of right-handers and 70 percent of left-handers.
c. about 19 percent of left-handers and three percent of right-handers.
d. all left-handed persons.

ANSWER: c
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

638. Regarding speech and language processing by left-handers, which of the following statements is TRUE?

a. All left-handers produce speech from the right hemisphere.
b. All left-handers produce speech from the left hemisphere.
c. About 70 percent of left-handers use the right hemisphere for language processing.
d. About 12 percent of left-handers use both sides of the brain for language processing.

ANSWER: d

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

639. In all, what percent of the population uses the left hemisphere for language?
a. 50 percent
b. 70 percent
c. 80 percent
d. 90 percent
ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact

640. Which of the following is most likely to indicate hemispheric dominance?
a. writing with a hooked hand
b. eye movement
c. handedness
d. where the hair parts most naturally
ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Concept

641. Right-handed individuals who write with a straight hand and lefties who write with a hooked hand are usually
a. more intelligent than those who do not use this hand position.
b. less intelligent than those who do not use this hand position.
c. left-brain dominant for language.
d. right-brain dominant for language.
ANSWER: c
POINTS: 1
DIFFICULTY: Difficult

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

642. Left-handed individuals who write with their hand below the writing line, and righties who use a hooked position in writing are usually

a. more intelligent than those who do not use this hand position.

b. less intelligent than those who do not use this hand position.

c. left-brain dominant for language.

d. right-brain dominant for language.

ANSWER: d

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

643. If you gesture more with your left hand, you probably process language

a. in your right hemisphere.

b. in your left hemisphere.

c. more inefficiently than if you gestured with your right hand.

d. in both hemispheres, since you do not have a dominant hemisphere for language processing.

ANSWER: a

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

644. Nic tends to gesture more with his right hand when he talks. Nic probably processes language

a. in his right hemisphere.

b. in his left hemisphere.

c. more inefficiently than if he gestured with his left hand.

d. in both hemispheres, since a majority of people do not have a dominant hemisphere for language processing.

ANSWER: b

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history;

explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Application

645. The only sure way to check brain dominance is to perform a medical test that involves

a. deep lesioning within each hemisphere.

b. assessing one cerebral hemisphere at a time.

c. spatial ablation.

d. karyotyping and DNA analysis for lateralization.

ANSWER: b

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Concept

646. Clear hand preferences can be determined

a. in fetal ultrasound images.

b. by age six months.

c. by age 18 months.

d. by age 36 months.

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.

KEYWORDS: Fact

647. Regarding handedness, which of the following statements is FALSE?

a. Prenatal hand preferences persist for at least ten years after birth.

b. Handedness appears to be influenced by a single gene on the Y chromosome.

c. Forcing a left-handed child to use the right hand may create speech or reading problems.

d. Two left-handed parents are more likely to have a left-handed child than two right-handed parents are.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.

KEYWORDS: Concept

648. Parents should not try to force a left-handed child to use his or her right hand. To do so may create

a. visual agnosia.

b. spatial neglect.

c. allergies or immune-related diseases.

d. speech or reading problems.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Concept
OTHER: * (New Question)

649. Regarding handedness, which of the following statements is FALSE?

a. Studies of identical twins show that hand preferences are not directly inherited like eye color or skin color.

b. Left-handedness is likely a trait carried by multiple genes.

c. Learning, birth traumas, and social pressure to use the right hand can affect which hand one ends up favoring.

d. Left-handedness is more common in females than in males.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Concept
OTHER: * (New Question)

650. Regarding handedness, which of the following statements is FALSE?

a. Studies of identical twins show that hand preference is directly inherited like eye color or skin color.

b. Clear hand preferences are apparent before birth and persist for at least 10 years after birth.

c. Two left-handed parents are more likely to have a left-handed child than two right-handed parents are.

d. Left-handedness is more common in males than in females.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Concept
OTHER: * (New Question)

651. Handedness is likely a trait carried by

a. recessive genes on the 15th pair of chromosomes.

b. recessive genes on the 21st pair of chromosomes.

c. multiple genes.

d. a dominant gene on the Y chromosome.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Fact
OTHER: * (New Question)

652. Regarding the proportion of left-handed people, collectivist countries tend to have

a. twice as many lefties as individualist countries.

b. only slightly more lefties than individualist countries.

c. the same number of lefties as individualist countries.

d. half as many lefties as individualist countries.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Fact
OTHER: * (New Question)

653. Regarding the proportion of left-handed people, individualist countries tend to have

a. significantly more lefties than collectivist countries.

b. the same number of lefties as collectivist countries.

c. slightly fewer lefties than collectivist countries.

d. significantly fewer lefties than collectivist countries.

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Fact

654. Which country would have the highest number of left-handers?

a. Japan

b. India

c. Canada

d. All countries have the same number of left-handers.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Concept

655. Regarding handedness, which of the following statements is FALSE?

a. A small minority of lefties owe their hand preferences to birth traumas, such as prematurity, low birth weight, and breech birth.
b. Left-handed persons have a significantly lower incidence of allergies and learning disorders than right-handed persons.
c. People with mixed handedness may be at risk for more immune-related diseases than persons who are consistently left-handed.
d. Collectivist cultures where left-handedness is viewed as especially negative have about half the proportion of left-handed persons as individualist cultures.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
KEYWORDS: Fact

656. Rick does some activities better using his right hand, while he performs better on other tasks using his left hand. Rick would be described as

a. being moderately right-handed.
b. being moderately left-handed.
c. being ambidextrous.
d. having mixed handedness.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
KEYWORDS: Application
OTHER: * (New Question)

657. From an early age, Daniel's parents noticed that Daniel could perform all tasks, including writing and sports activities, equally well with either of his hands. In fact, Daniel really does not prefer the use of one hand over the other in doing any task. Daniel would be described as

a. being moderately right-handed.

b. being moderately left-handed.

c. being ambidextrous.

d. having mixed handedness.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
KEYWORDS: Application

658. Terrence, who is left-handed, was born premature with a very low birth weight. According to research, Terrence will have a higher risk of developing which of the following?

a. immune-related diseases

b. allergies and learning disorders

c. spatial neglect

d. facial agnosia

ANSWER: b
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
KEYWORDS: Application
OTHER: * (New Question)

659. Janine usually uses her right hand when she writes, but she may throw a ball or reach for something with either hand. According to research, people, like Janine, who show a mixed handedness are at higher risk for developing which of the following?

a. immune-related diseases

b. allergies and learning disorders

c. spatial neglect

d. facial agnosia

ANSWER: a
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.

KEYWORDS: Application

OTHER: * (New Question)

660. Regarding handedness, which of the following statements is FALSE?

a. Left-handed locomotive engineers have higher accident rates with a possible cause being that locomotive controls are designed for right-handed persons.

b. People who owe their left-handedness to a birth trauma have a higher incidence of allergies and learning disorders.

c. Consistent left-handers are more at risk for immune-related diseases than those people with mixed handedness.

d. The shortage of very old lefties may reflect that more left-handed children were forced to become right-handed, so the lefties are masquerading as righties.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Fact

OTHER: * (New Question)

661. The supposed clumsiness of left-handed people is a consequence of their

a. living in a right-handed world.

b. lack of dexterity in the left hand.

c. poor motor control.

d. lack of brain dominance.

ANSWER: a

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Concept

662. Gordon, who is left-handed, tends to be more accident-prone than his right-handed brother. This is most likely due to Gordon

a. being more lateralized.

b. lacking dexterity in the left hand.

c. having poor motor control.

d. living in a right-handed world.

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Application

OTHER: * (New Question)

663. Regarding handedness, which of the following statements is FALSE?

a. Left-handed persons are better at visualizing three-dimensional objects than right-handed persons.

b. There are more left-handed architects, artists, and chess players than would be expected in the population.

c. The physical size and shape of the two cerebral hemispheres of right-handed persons is more alike than that of left-handed persons.

d. Individuals who are moderately left-handed or ambidextrous seem to have better than average pitch memory.

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Fact

664. Throughout history, a notable number of artists have been lefties. This advantage of using the left hand for drawing or painting occurs because the right hemisphere is superior in

a. focusing on details.

b. imagery and visual abilities.

c. sequential processing.

d. all of these skills.

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Concept

OTHER: * (New Question)

665. There are more left-handed architects, artists, and chess players than would be expected because lefties are better at

a. focusing on details.

b. visualizing three-dimensional objects.

c. sequential processing.

d. all of these skills.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Concept
OTHER: * (New Question)

666. Regarding handedness, which of the following statements is TRUE?

a. Right-handed persons are better at visualizing three-dimensional objects than left-handed persons.
b. More musicians are ambidextrous than would normally be expected.
c. Left-handed persons have more difficulty recovering from brain injury and language loss than do right-handed persons.
d. Right-handed persons have a clear advantage in the sports of boxing, tennis, handball, and fencing.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Fact

667. Left-handers have an advantage in sports, such as fencing and tennis. This occurs most likely because

a. the movement of left-handers is quicker than those of right-handers.
b. left-handers can judge distances and space more accurately than right-handers.
c. the movements of left-handers are less familiar to opponents, who usually face right-handers.
d. left-handers have better visual-motor coordination skills than right-handers.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Concept
OTHER: * (New Question)

668. Regarding handedness, which of the following statements is FALSE?

a. Left-handers have performed well in a variety of professional sports including boxing, fencing, handball, and tennis.
b. Those who are extremely gifted in math are much more likely to be left-handed or ambidextrous with lefties even excelling at ordinary arithmetic skills.
c. Five of the last seven United States Presidents have been lefties.

d. Individuals who are consistently right-handed seem to have better than average pitch memory as compared to left-handed persons.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Fact
OTHER: * (New Question)

669. Regarding handedness, which of the following is FALSE?

a. Students who are extremely gifted in math are much more likely to be left-handed or ambidextrous.
b. Left-handed persons typically experience more language loss after damage to the brain and recover more slowly than right-handed persons.
c. Left-handers are more symmetrical in eye dominance, fingerprints, and foot size than right-handers.
d. The physical size and shape of the two cerebral hemispheres are more alike in left-handed persons than in right-handed persons.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Fact

670. Generally, lefties show less specialization in the abilities of their brain hemispheres, that is, they show less

a. ablation.
b. corticalization.
c. lateralization.
d. ambidextrous functionality.

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Concept
OTHER: * (New Question)

671. Regarding handedness, which of the following statements is TRUE?

a. Left-handed persons are generally more lateralized than those who are right-handed.
b. Left-handed persons recover more quickly from brain injury than do right-handed persons.
c. Right-handed persons seem to have better than average pitch memory as compared to left-handed persons.

d. Right-handed persons tend to outperform left-handed persons on average arithmetic skills as well as higher forms of mathematics.

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Fact

672. Compared to right-handed people, left-handed people, in general,

a. have more difficulty learning math and in visualizing three-dimensional objects.

b. experience more language loss and recover more slowly from brain injuries.

c. perform poorer in the sports of boxing, fencing, handball, and tennis.

d. have milder lateralization and are more symmetrical in their brain size and shape.

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS: Fact

673. The central nervous system is composed of the autonomic and somatic systems.

a. True

b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
KEYWORDS: Fact

674. A neuron can be seen without the aid of a microscope.

a. True

b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.

KEYWORDS: Fact
OTHER: * (New Question)

675. When the sympathetic nervous system is activated, one's salivation, digestion, and production of tears are inhibited.
a. True
b. False
ANSWER: True
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.1 The Nervous System-Wired for Action
LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.
KEYWORDS: Concept

676. The part of the neuron that specializes in receiving messages from other neurons is the axon.
a. True
b. False
ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.
KEYWORDS: Fact

677. During an action potential, the axon's ion channels pop open to allow chlorine ions to rush into the axon.
a. True
b. False
ANSWER: False
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.2 Neurons-Building a Biocomputer
LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.
KEYWORDS: Fact

678. The paralyzing effect of curare is caused by its ability to attach to receptor sites on muscles and block the action of acetylcholine.
a. True
b. False
ANSWER: True
POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

679. The painkilling effect of placebos and acupuncture as well as the "runner's high" and the euphoria associated with childbirth are explained by the release of endorphins.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.

KEYWORDS: Concept

680. When a barefoot child steps on a bee and jerks his or her foot back in response to the sting, this initial response involved all parts of the nervous system EXCEPT the brain.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Application

681. Studies in which patients underwent cognitive behavioral therapy for depression produced improvements in their behaviors and also changed the patients' brain activity.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Fact
OTHER: * (New Question)

682. A healthy 75-year-old brain has just as many neurons as it did when it was a healthy 25-year-old brain.

a. True
b. False

ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself
LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.
KEYWORDS: Fact

683. In order to determine if Marta had a stroke, the doctors used a computer-enhanced X-ray image of her brain, a technique known as an fMRI.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Application
OTHER: * (New Question)

684. When Caleb fell out of his tree house and hit his head, the doctors placed Caleb in a magnetic field to get a three-dimensional image of any structural damage to his brain with this technique being known as electroencephalography.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.
KEYWORDS: Application

685. The research strategy of linking specific structures in the brain with specific psychological or behavioral functions is known as neurocortical induction.

a. True
b. False

ANSWER: False
POINTS: 1

DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
KEYWORDS: Fact
OTHER: * (New Question)

686. Electrical stimulation of the brain (ESB) can be done during brain surgery with the patient being awake and able to describe what effect the stimulation had.

a. True
b. False

ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Concept
OTHER: * (New Question)

687. Dr. Kahn is able to detect the electrical activity of a single neuron by using the tip of an extremely thin glass tube filled with a salty fluid, which is known as an ablation tube.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.
KEYWORDS: Application

688. Superior human intelligence is related to the fact that humans have brains with larger cerebellums.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower

animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Concept

689. The “split-brain” operation involves cutting the connections within the midbrain in order to control severe spatial neglect.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.

KEYWORDS: Concept

690. Concerning information processing, the left hemisphere utilizes simultaneous processing and tends to focus on the overall pattern.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.

KEYWORDS: Concept

691. If the right side of the brain is damaged, people lose their ability to understand jokes, irony, sarcasm, implications, and other nuances of language.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.

KEYWORDS: Concept

OTHER: * (New Question)

692. Unlike men, some women are able to use the right side of their brains to compensate for damage to Broca's area in the left hemisphere and resume speaking following a stroke.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.

KEYWORDS: Fact

OTHER: * (New Question)

693. Autism may arise in infants whose mirror neuron system has been damaged by genetic defects or environmental risk factors.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

694. An arch of tissue at the rear of the temporal lobes, called the primary somatosensory area, directs the body's muscles.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.

KEYWORDS: Fact

695. If an individual calls a "sofa" a "table" or a "stool," she or he may have experienced damage to Wernicke's area.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.

KEYWORDS: Application

696. Visual images are accurately represented in miniature in the occipital lobes much like a "little TV screen" in the brain.

a. True

b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Concept

697. Areas devoted to recognizing faces and the emotions they convey lie in association areas in the parietal and temporal lobes.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Fact
OTHER: * (New Question)

698. A person with locked-in syndrome is in a persistent vegetative state or brain dead.

a. True
b. False

ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Concept
OTHER: * (New Question)

699. Musicians, who practice special motor skills throughout their lives, have larger than average cerebellums.

a. True
b. False

ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
KEYWORDS: Concept

700. The reticular formation does not fully mature until adolescence, which may be why children have such short attention spans.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Concept

701. Damage to the thalamus will disrupt all of the senses EXCEPT for the sense of touch.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.6 - Describe the appearance, location, and functions of the thalamus and the effects of damage to this brain area.

KEYWORDS: Fact

702. The master control center for hunger, thirst, and other basic motives is the hippocampus.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the hypothalamus and the effects of damage to this brain area.

KEYWORDS: Fact

OTHER: * (New Question)

703. As you are walking down a dark street, you hear a noise directly behind you, and you immediately dart off the sidewalk because of the activation of your amygdala.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and

"aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Application

704. Hormones secreted during times of high emotion decrease memory formation.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Fact

705. A critical link between the chemical and neural information systems in humans is the link between the reticular formation and the pituitary gland.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

706. The adrenal medulla secretes corticoids, while the adrenal cortex secretes epinephrine and norepinephrine.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

707. Side effects of anabolic steroids include voice deepening or baldness in women and shrinkage of the testicles, sexual impotence, or breast enlargement in men.

a. True

b. False

ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It
LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.
KEYWORDS: Fact
OTHER: * (New Question)

708. If you are right-handed, you have more area on the left side of your brain devoted to controlling your right hand.
a. True
b. False
ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Fact
OTHER: * (New Question)

709. Clear hand preferences have been shown in fetal ultrasound images.
a. True
b. False
ANSWER: True
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-handed, left-handed, or ambidextrous.
KEYWORDS: Fact

710. The proportion of left-handers in individualist societies, such as the United States and Canada, is only about half that found in collectivist societies, such as Japan and India.
a. True
b. False
ANSWER: False
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.2 - Explain when clear hand preference becomes apparent; and discuss the genetic and environmental factors that influence whether one will be right-

handed, left-handed, or ambidextrous.

KEYWORDS: Fact

711. A small minority of lefties owe their hand preference to birth traumas, such as prematurity, low birth weight, and breech birth.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.

KEYWORDS: Fact

OTHER: * (New Question)

712. The physical size and shape of the two cerebral hemispheres of right-handed persons is more alike than that of left-handed persons.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

KEYWORDS: Fact

713. The brain and spinal cord make up the _____ nervous system.

ANSWER: central

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.

KEYWORDS: Fact

OTHER: * (New Question)

714. When you give directions and point down the street, the part of the peripheral nervous system that controls this voluntary movement of your finger is the _____ nervous system.

ANSWER: somatic

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Application

715. The branch of the autonomic nervous system that is called the "fight-or-flight" system because of its importance in responding to emotional events is the _____ branch.

ANSWER: sympathetic

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Fact

716. The cell body of a neuron is also called the _____.

ANSWER: soma

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.1 - Explain the functions of neurons and glial cells within the nervous system; and list and describe the four parts of a neuron and the specific function of each part in producing a nerve impulse.

KEYWORDS: Fact

717. The process by which nerve impulses conducted down the axons of neurons coated with myelin jump from gap to gap in the myelin layer is called a(n) _____ conduction.

ANSWER: saltatory

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Fact

718. An excess of dopamine has been linked to the development of the psychotic mental disorder called _____.

ANSWER: schizophrenia

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are

carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Fact

719. Brain chemicals, such as enkephalins and endorphins, which regulate the activity of neurons are called _____.

ANSWER: neuropeptides

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.4 - Describe the function of the chemicals called neuropeptides in regulating the activities of other neurons as well as the pain-killing effects of the neuropeptide chemicals known as enkephalins and endorphins.

KEYWORDS: Fact

720. A nerve cell carrying information from your eyes, ears, fingers, etc. toward the central nervous system is called a(n) _____neuron.

ANSWER: sensory

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Fact

721. The capacity of our brains to change in response to experience is referred to as _____.

ANSWER: neuroplasticity

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.1 - Explain why the brain's circuitry is not static by discussing the process of neuroplasticity, including Hebb's rule and the effects of cognitive behavior therapy and self-directed neuroplasticity.

KEYWORDS: Fact

OTHER: * (New Question)

722. Most nerve cell fibers outside the brain and spinal cord are wrapped by a thin layer of cells that form a "tunnel" that damaged fibers can follow as they repair themselves. This thin layer of cells is known as _____.

ANSWER: neurilemma

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how

the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Fact

723. Doctors confirmed that Mrs. Armand had suffered a stroke by placing her in a chamber in which sound waves were utilized to obtain a three-dimensional picture of her brain, a technique referred to as a(n) _____.

ANSWER: MRI
MRI scan
magnetic resonance imaging

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.1 - Describe how the techniques of dissection and the less intrusive CT scans and MRI scans have been used to investigate brain structure.

KEYWORDS: Application

724. Dr. Montel is a psychologist who studies how the biological processes, brain, and nervous system are related to a person's behavior. Dr. Montel would be referred to as a(n) _____.

ANSWER: biopsychologist

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.

KEYWORDS: Application

725. Subtle behavioral signs of nervous system dysfunction, including clumsiness, an awkward gait, poor hand-eye coordination, and other perceptual and motor problems, are referred to as _____.

ANSWER: neurological soft signs

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Concept

OTHER: * (New Question)

726. Megan has experienced what appears to be a seizure. So, the doctor affixes electrodes to Megan's scalp in order to obtain a recording of her brain waves and determine whether her brain waves are showing a seizure pattern. The doctor is using a technique known as a(n) _____.

ANSWER: EEG
electroencephalograph

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions,

including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Application

727. The amount of radioactive glucose used by the brain cells is recorded by the brain scan technique known as a(n) _____.

ANSWER: PET scan
positron emission tomography scan
PET

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

728. Research by Daniel Langleben has shown that more activity will occur in the front of the brain when a person is lying than when telling the truth with the brain scan technique utilized in this research being the _____.

ANSWER: fMRI
functional MRI

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Fact

OTHER: * (New Question)

729. The increased size and wrinkling of the cerebral cortex in higher animals is referred to as _____.

ANSWER: corticalization

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.

KEYWORDS: Fact

730. The differences between the two sides of the body, especially differences in the abilities of the brain hemispheres are referred to as _____.

ANSWER: lateralization
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.4 Research Methods-How to Look Under Your Skull
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Fact

731. Patients with right hemisphere damage may not eat food on the left side of a plate or may even refuse to acknowledge a paralyzed left arm as their own, which illustrates the condition known as _____.

ANSWER: spatial neglect
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.1 - Explain the main differences between the brains of lower animals and humans, including the feature of corticalization; and provide a description of the cerebral cortex, including the two hemispheres and their lateralization, the lobes, the gray matter, the corpus callosum, and the curious problem known as spatial neglect.
KEYWORDS: Application
OTHER: * (New Question)

732. Perry is undergoing a surgical procedure in which the bridge of nerve tissue between his right and left hemispheres will be severed. This bridge of nerve tissue is called the _____.

ANSWER: corpus callosum
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.
KEYWORDS: Application

733. The hemisphere that is superior at math, judging time and rhythm, and coordinating the order of complex movements, such as those needed for speech, is the _____ hemisphere.

ANSWER: left
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.3 - Describe the functions of the left cerebral hemisphere.
KEYWORDS: Concept
OTHER: * (New Question)

734. Perceptual skills involved in putting puzzles together or recognizing musical melodies are special skills of the _____ hemisphere.

ANSWER: right
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.4 - Describe the functions of the right cerebral hemisphere.
KEYWORDS: Concept

735. Compared to men, it is theorized that women tend to exhibit a connection pattern of the hemispheres that would best be described as a(n) _____ connection pattern.
ANSWER: left-to-right
left to right
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.
KEYWORDS: Fact
OTHER: * (New Question)

736. A person with brain damage who mispronounces the word “cross” by saying “srot” would most likely have damage to an association area in the left frontal lobe known as _____ area.
ANSWER: Broca’s
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca’s area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one’s sense of self.
KEYWORDS: Application

737. As you reach into your bag, you can tell the shape and texture of the different articles and are able to select the item you need just by touch, which illustrates the sensitivity of the primary somatosensory area located in your _____ lobes.
ANSWER: parietal
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.7 - Describe the location and functions of the parietal lobes, including the primary somatosensory area.
KEYWORDS: Application
OTHER: * (New Question)

738. If a PET scan were done of your brain while you listened to your favorite song, your primary auditory area would be the first to light up, followed by association areas in your _____ lobes.
ANSWER: temporal

POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.8 - Describe the location and functions of the temporal lobes, including the primary auditory area; and explain how damage to one association area, Wernicke's area, results in receptive or fluent aphasia.
KEYWORDS: Application
OTHER: * (New Question)

739. Clark was skateboarding and fell backwards hitting his head. He told his friends that he "saw stars" because he hit the brain lobes called the _____ lobes.
ANSWER: occipital
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star
LEARNING OBJECTIVES: PGAT_COON_2016_2.5.9 - Describe the location and functions of the occipital lobes, including the primary visual area; and explain the effects of damage to these lobes.
KEYWORDS: Application

740. The control of vital bodily functions, such as heart rate and breathing, is carried out primarily by the part of the hindbrain known as the _____.
ANSWER: medulla
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
KEYWORDS: Fact

741. The part of the hindbrain that is associated with attention, alertness, and some reflexes, such as sneezing and coughing, is the _____.
ANSWER: reticular formation
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.
KEYWORDS: Fact

742. The part of the forebrain that serves as a crossroads that connects many areas of the brain as well as being the master control center for emotions and many basic motives is the _____.
ANSWER: hypothalamus
POINTS: 1
DIFFICULTY: Difficult
REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter
LEARNING OBJECTIVES: PGAT_COON_2016_2.6.7 - Describe the appearance, location, and functions of the

hypothalamus and the effects of damage to this brain area.

KEYWORDS: Fact

743. The hypothalamus, the hippocampus, the amygdala, and parts of the thalamus make up the _____system.

ANSWER: limbic

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Fact

744. After a car accident, which causes brain damage, Santos is experiencing a great deal of difficulty storing new memories about events in his life and verbal information. Santos most likely had damage to a subcortical part of the forebrain known as the _____.

ANSWER: hippocampus

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the “pleasure” and “aversive” areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Application

745. The glandular secretions that affect bodily functions or behavior are collectively known as _____.

ANSWER: hormones

POINTS: 1

DIFFICULTY: Easy

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Fact

746. Sam has enlarged hands and feet with his larger facial bones creating very prominent facial features. Sam most likely has a condition known as _____.

ANSWER: acromegaly

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function

of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Application

747. The gland that releases melatonin in response to daily variations in light is the _____ gland.

ANSWER: pineal

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

748. Karen has experienced an increase in her blood pressure, has lost weight, and is extremely irritable. Her doctor found that one of her endocrine glands was producing too much of its hormone. Karen’s condition is most likely caused by an overactive gland that regulates metabolism called the _____ gland.

ANSWER: thyroid

POINTS: 1

DIFFICULTY: Difficult

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Application

749. Anabolic steroids that are used by athletes to increase muscle growth are synthetic versions of the hormone _____.

ANSWER: testosterone

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the “master gland” and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Fact

OTHER: * (New Question)

750. Gina was asked to throw a ball, to kick a ball, to look through a telescope, to listen to a phone, and to write her name. The examiner observed which hand, foot, eye, and ear Gina used to perform these tasks. Gina was being assessed for _____.

ANSWER: sidedness

POINTS: 1

DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Application
OTHER: * (New Question)

751. If you gesture more with your left hand, you probably process language in your _____ hemisphere.
ANSWER: right
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.
KEYWORDS: Concept

752. The risk for developing more immune-related diseases is highest in individuals with _____ handedness.
ANSWER: mixed
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES: PGAT_COON_2016_2.8.3 - Explain how handedness is not a simple either/or trait with most people being strongly right-handed, a minority being strongly left-handed, and a few having moderate or mixed hand preferences or being ambidextrous; and describe the effects that birth traumas have on handedness and the problems that may be shown by those whose handedness is mixed.
KEYWORDS: Fact
OTHER: * (New Question)

753. List the divisions and subdivisions of the nervous system, and describe the general functions of each division and subdivision.
ANSWER: Answer will include that the nervous system is divided into two main divisions: the central nervous system and the peripheral system. The central nervous system is made up of the brain and spinal cord with the brain being the control center and communicating with the rest of the body through a large cable called the spinal cord. All the neurons outside the central nervous system are part of the peripheral system. The peripheral system is made up of the somatic system and the autonomic system. The somatic system carries messages to and from the sense organs and skeletal muscles. It controls voluntary behavior. The autonomic system serves the internal organs and glands of the body and controls all of the “automatic” functions within the body, such as heart rate, digestion, or perspiration. The autonomic system is divided into the sympathetic and parasympathetic branches. Both are related to emotional responses, such as crying, sweating, heart rate, and other involuntary behavior. The sympathetic branch is an “emergency” system, preparing the body for “flight or fight.” The parasympathetic branch quiets the body and returns it to a lower level of arousal as well as keeping vital processes, such as heart rate, breathing, and digestion at moderate levels.
POINTS: 12

DIFFICULTY: Moderate

REFERENCES: 2.1 The Nervous System-Wired for Action

LEARNING OBJECTIVES: PGAT_COON_2016_2.1.2 - List and describe the two major divisions of the nervous system.
PGAT_COON_2016_2.1.3 - Describe the structure and functions of the central nervous system (CNS); list the number of pairs of cranial and spinal nerves and their functions; and explain the differences in a neuron and a nerve.
PGAT_COON_2016_2.1.4 - Discuss the structure and functions of the peripheral nervous system (PNS), including its subdivisions: the somatic nervous system (SNS) and the autonomic nervous system (ANS); identify the automatic bodily processes controlled by the sympathetic and parasympathetic branches of the ANS; and explain how the combined activity of both branches determines the degree to which the body is relaxed or aroused.

KEYWORDS: Fact

OTHER: * (New Question)

754. Describe how an action potential occurs, including the role of ions and ion channels; why an action potential is considered an all-or-nothing event; why the negative after-potential occurs; and the importance of myelin during a saltatory conduction.

ANSWER: Answer will include that electrically charged molecules called ions are found inside and outside each neuron. When a neuron is inactive (in a resting potential), more of these “plus” charges exist outside the neuron and more “minus” charges exist inside the neuron. If the electrical charge rises to about -50 millivolts, the neuron will reach its threshold, or trigger point for firing. When a neuron reaches threshold, an action potential, or nerve impulse, sweeps down the axon at up to 200 miles per hour. The axon membrane is pierced by tiny tunnels or “holes,” called ion channels, which pop open during the action potential. This allows sodium ions to rush into the axon first near the soma. then, gate after gate opens down the length of the axon. Each action potential is an all-or-nothing event, meaning a nerve impulse occurs completely or not at all. After each nerve impulse, the cell briefly dips below its resting level, and becomes less willing or ready to fire. This negative after-potential occurs because potassium ions flow out of the neuron while the membrane gates are open. The axons of some neurons are coated with a fatty layer called myelin. Small gaps in the myelin help nerve impulses move faster. Instead of passing down the entire length of the axon, the action potential leaps from gap to gap, a process called saltatory conduction. Without the added speed of saltatory action potentials, it would probably be impossible to brake in time to avoid many automobile accidents or hit a tennis serve.

POINTS: 10

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.2 - Describe an action potential, including why an action potential is considered both an electrical event and an all-or-nothing event; explain the function of the myelin layer within the process of saltatory conduction; and define the following terms: ions, resting potential, threshold, ion channels, and negative after-potential.

KEYWORDS: Concept

755. Select three of the six neurotransmitters listed below, and describe the functions of these neurotransmitters, whether the neurotransmitter is an excitatory or inhibitory neurotransmitter, and what effect(s) would occur from having a deficiency and/or excess of each chemical.

acetylcholine, serotonin, dopamine, norepinephrine, GABA, glutamate

ANSWER: Answer will include a description of three of the following six neurotransmitters. Acetylcholine is an excitatory neurotransmitter that participates in movement, autonomic function, learning, and memory with a deficiency of acetylcholine being linked with the development of Alzheimer’s disease. Serotonin is an inhibitory neurotransmitter that participates in mood, appetite, and sleep with a deficiency leading to anxiety and/or

depression. Dopamine is an excitatory neurotransmitter that participates in motivation, reward, and planning of behavior. A deficiency of dopamine may lead to Parkinson's disease or to reduced feelings of pleasure, while an excess of dopamine may lead to schizophrenia. Norepinephrine is considered to be both an excitatory neurotransmitter and a hormone. It is involved in arousal, vigilance, and mood with an excess leading to anxiety. GABA has a major inhibitory effect in the central nervous system and participates in moods with a deficiency in GABA leading to anxiety. Glutamate has a major excitatory effect in the central nervous system and is involved in learning and memory. An excess of glutamate may lead to neuron death and autism, while a deficiency may lead to tiredness.

POINTS: 9

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.3 - Explain the chemical process involved when nerve impulses are carried from one neuron to another; identify the locations and function of the receptor sites; provide examples of neurotransmitter chemicals found in the brain; and describe how the different neurotransmitters excite or inhibit the receiving cell, how disturbances of these neurotransmitters can have serious consequences, and how various drugs can mimic, duplicate, or block the neurotransmitters.

KEYWORDS: Concept

756. You have just touched a hot stove. Describe the sequence of events that occurred within your nervous system from the point you touched the hot stove with your hand to the point you jerked your hand away from the stove. Your answer should include the name of this simple network, the types of neurons involved at each step in the sequence, and why this action would be considered a "no-brainer."

ANSWER: Answer will include that the simplest network is the reflex arc, which occurs when a stimulus, such as touching a hot stove, provokes an automatic response. Such reflexes occur within the spinal cord, without any help from the brain. Pain is detected in your finger by a sensory neuron (a nerve cell that carries messages from the senses toward the central nervous system). Instantly, the sensory neuron fires off a message to your spinal cord. Inside the spinal cord, the sensory neuron synapses with an interneuron, or connector, neuron (a nerve cell that links two others). The connector neuron activates a motor neuron (a cell that carries commands from the central nervous system to muscle and glands). The muscle fibers are made of effector cells, which are cells capable of producing a response. The muscle cells contract and cause your finger to withdraw. No brain activity is required for a reflex arc to occur, although information regarding this painful event will go to the brain to be stored after your body has already reacted to protect itself.

POINTS: 8

DIFFICULTY: Difficult

REFERENCES: 2.2 Neurons-Building a Biocomputer

LEARNING OBJECTIVES: PGAT_COON_2016_2.2.5 - Explain how neural networks interlink collections of neurons and process information within the nervous system; and describe the simplest network called the reflex arc, including where it is processed and the functions of the sensory and motor neurons, interneurons, and the effector cells within this simple network.

KEYWORDS: Application

757. How has the discovery of neurogenesis changed our view of the aging of the brain, the feasibility of repairing the brain, and our understanding of schizophrenia?

ANSWER: Answer will include that until only a few years ago, it was widely believed that we were born with all the brain cells we would ever have. This led to the depressing idea that we would all slowly go downhill, as the brain lost thousands of neurons a day. However, we now know that a healthy 75-year-old brain has just as many neurons as it did when it was a 25-year-old brain. Although it is true that the brain does lose cells daily, it simultaneously grows new neurons to replace them. This process is called neurogenesis. Each day, thousands of new

cells originate deep within the brain, move to the surface, and link up with other neurons to become part of the brain's circuitry. Most likely these new cells are involved in learning, memory, and our ability to adapt to changing circumstances. The discovery of neurogenesis in adult brains has raised new hope that some types of brain damage can be repaired. One approach is the constraint-induced movement therapy, in which the arm not affected by the stroke is immobilized, forcing the impaired arm to become more active to increase the rate of neurogenesis in the damaged part of the brain and speed recovery. Drugs have also been identified that can enhance neurogenesis in the affected areas. Such techniques are beginning to offer new hope for people suffering from a variety of other disabilities, such as depression and addiction. It is also quite possible that other brain disorders are caused by impaired neurogenesis. Neuroscientists Carla Toro and Bill Deakin have proposed such a theory to explain the serious mental disorder schizophrenia. The brains of schizophrenic persons are usually smaller than normal, indicating that they have fewer neurons. Toro and Deakin's idea is that the schizophrenic brain may be unable to continually create new neurons to replace old ones that have died. If they are right, new therapies to promote neurogenesis may hold the key to treating schizophrenia.

POINTS: 10

DIFFICULTY: Difficult

REFERENCES: 2.3 Neuroplasticity and Neurogenesis-Nervous System, Heal Thyself

LEARNING OBJECTIVES: PGAT_COON_2016_2.3.2 - Explain the function of neurilemma in the regeneration of neurons within the peripheral nervous system (PNS); identify the various techniques scientists are now using to repair damaged neurons within the spinal cord; and describe how the discovery of neurogenesis in adult brains is leading to new treatments and therapies.

KEYWORDS: Concept

758. Explain what is meant by localization of function; and describe four ways that scientists have been able to "localize function."

ANSWER: Answer will include localization of function is the research strategy of linking specific structures in the brain to specific psychological or behavioral functions. Students will describe four of the following methods for localizing function. (1) Natural clinical tests, or clinical case studies, examine changes in personality, behavior, or sensory capacity caused by brain diseases or injuries. If damage to a particular part of the brain consistently leads to a particular loss of function, then we say that the function is localized in that structure. Presumably, that part of the brain controls the same function in all of us. (2) Neurological soft signs are more subtle signs that the brain is not working properly, such as clumsiness, an awkward gait, poor eye-hand coordination, and other problems with perception or fine muscle control. (3) Electrical stimulation of the brain (ESB) involves the surface of the brain being "turned on" by stimulating it with a mild electrical current delivered through a thin insulated wire called an electrode. When this is done during brain surgery, the patient can describe the effect of the stimulation. (4) Ablation is surgical removal of parts of the surface of the brain. When ablation causes changes in behavior or sensory capacity, we also gain insight into the purpose of the missing "part." (5) Using the technique of deep lesioning, structures below the surface of the brain also can be removed. In this case, an electrode is lowered into a target area inside the brain and a strong electric current is used to destroy a small amount of brain tissue. Again, changes in behavior give clues about the function of the affected area. (6) Microelectrode recording is used to find out what individual neurons are doing. A microelectrode is an extremely thin glass tube filled with a salty fluid. The tip of a microelectrode is small enough to detect the electrical activity of a single neuron. Watching the action potentials of just one neuron provides a fascinating glimpse into the true origins of behavior. (7) Electroencephalography measures the waves of electrical activity produced near the surface of the brain. Small electrodes (disk-shaped metal plates) are placed on a person's scalp. Electrical impulses from the brain are detected and sent to an electroencephalograph (EEG). The EEG amplifies these weak signals (brain waves) and records them on a moving sheet of paper or a computer screen. Various brain-wave patterns can identify the presence of

tumors, epilepsy, and other diseases. The EEG also reveals changes in brain activity during sleep, daydreaming, hypnosis, and other mental states. (8) Positron emission tomography (PET) provides much more detailed images of activity both near the surface and below the surface of the brain. A PET scan detects positrons (subatomic particles) emitted by weakly radioactive glucose (sugar) as it is consumed by the brain. Because the brain runs on glucose, a PET scan shows which areas are using more energy. Higher energy use corresponds with higher activity. Thus, by placing positron detectors around the head and sending data to a computer, it is possible to create a moving, color video of changes in brain activity. (9) A functional MRI (fMRI) uses MRI technology to make brain activity visible. If scientists scanned your brain while you are reading this textbook, areas of your brain involved in understanding what you read would be highlighted in an fMRI image.

POINTS: 10

DIFFICULTY: Moderate

REFERENCES: 2.4 Research Methods-How to Look Under Your Skull

LEARNING OBJECTIVES: PGAT_COON_2016_2.4.2 - Define biopsychology; and describe the topics studied by biopsychologists, including the brain research strategy referred to as localization of function.
PGAT_COON_2016_2.4.3 - Describe the techniques that are used to map brain functions, including clinical case studies and the observations of neurological soft signs, electrical stimulation, ablation, deep lesioning, electrical recording, and microelectrode recording, and the less intrusive EEG recording, PET scans, and fMRI scans; and discuss how these techniques have been used to detect and understand brain disorders and even behaviors, such as lying.

KEYWORDS: Concept

OTHER: * (New Question)

759. Describe split-brain surgery, why it is conducted, the effects of this surgery, and why split-brain patients rarely have major problems in everyday functioning after surgery.

ANSWER: Answer will include that in the split-brain surgery, the corpus callosum is cut to control severe epilepsy. The result is essentially a person with two brains in one body. After the surgery, it is possible to send information to one hemisphere or the other. However, after the right and left brain are separated, each hemisphere will have its own separate perceptions, concepts, and impulses to act. Split-brain effects are easiest to see in specialized testing in which a visual image is presented to only one hemisphere. Without the corpus callosum, the brain is unable to transfer information. So, a visual image presented to the left hemisphere through the right eye could be described, while one presented to the right hemisphere through the left eye could not, since the left hemisphere is verbal and the right is not. However, the right hemisphere could direct the left hand to point or draw the object that was presented to it. In everyday life, conflicts between the two hemispheres are rare after the “split-brain” operation because both hemispheres have similar experiences so that if there is a conflict, one hemisphere will usually override the other. Unlike the specialized testing, the “split-brain” patient can avert any conflict by choosing to look at the object with both eyes and use whichever hand they want to in order to complete the real-life activity.

POINTS: 6

DIFFICULTY: Moderate

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.2 - Explain how and why the brain is “split” and the resulting behavioral effects experienced by individuals who have undergone this type of brain surgery.

KEYWORDS: Concept

OTHER: * (New Question)

760. Describe the structural and functional differences in the brains of men and women; and explain how these differences affect intellectual and language capabilities and the ability to compensate for brain damage.

ANSWER: Answer will include that many physical differences between male and female brains have been found, although their implications remain to be better understood. One generalization that may stand the test of time is that the two hemispheres appear to be more interconnected in women than in men. This structural difference may underlie many observed functional differences between men's and women's brains. For example, in one classic series of studies, researchers observed brain activity as people did language tasks. Both men and women showed increased activity in Broca's area, on the left side of the brain, exactly as expected. Surprisingly, however, the left and the right brain were activated in more than half the women tested. Despite this difference, the two sexes performed equally well on a task that involved sounding out words. Another study, this time focused on intelligence, also found that women are more likely than men to use both sides of their brains. It is tempting to conclude that the front-to-back connection pattern of the male hemispheres explains men's readiness to quickly go from perception to action. Similarly, the left-to-right connection pattern in females seems to explain women's greater willingness to combine rational and intuitive judgments. For now, these are just hypotheses that await further research. Regardless, using both sides of the brain for language and other forms of intelligence may be advantageous. For example, when Broca's area is damaged, some women can use the right side of their brains to compensate for the loss, which allows them to resume speaking. A man with similar damage might be permanently impaired.

POINTS: 8

DIFFICULTY: Difficult

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.5 - Discuss the structural differences in the brains of men and women and the differences in how their brains are specialized to deal with intellectual and language capabilities.

KEYWORDS: Concept

OTHER: * (New Question)

761. Discuss mirror neurons, including where they are located, how they were discovered, what their functions are in humans and primates, and how a particular childhood disorder may be caused by damages to these neurons.

ANSWER: Answer will include that mirror neurons become active when we perform an action and when we merely observe someone else carrying out the same action. The motor cortex is one brain area that contains mirror neurons. Regarding the discovery of mirror neurons, Italian researchers had just recorded an increase in the activity of a single neuron in the motor cortex of a monkey as it reached for food. A few seconds later, one of the researchers happened to reach for a snack of his own. The same neuron again responded as if the monkey had reached for the food itself. Thus, the observation that a neuron involved in controlling a particular motor movement was also activated when the monkey merely observed that same motor movement in someone else led to the discovery of mirror neurons. Because they mirror actions performed by others, such neurons may explain how we can intuitively understand other people's behavior. They may also underlie our ability to learn new skills by imitation. Neuroscientists speculate that newborn humans (and monkeys) are able to imitate others because networks of mirror neurons are activated when an infant watches someone perform an action. Then, the same mirror network can be used to perform that action. Similarly, human empathy (the ability to identify with another person's experiences and feelings) may arise from activation of mirror neurons. Mirror neurons may even partially explain autism spectrum disorders. In early childhood, children with autism begin to suffer from an impaired ability to interact and communicate with other people. Restricted and repetitive behavior, such as head banging, is also common. According to the broken mirrors hypothesis, autism may arise in infants whose mirror neuron system has been damaged by genetic defects or environmental risk factors. This explanation is attractive because autism's primary features of impaired communication and social interaction appear to be related to the role that mirror neurons play in reflecting the actions and words of others. To date, these are just hypotheses that await empirical confirmation. More importantly, such possibilities are only just now

leading to proposals for new therapies for autism.

POINTS: 10

DIFFICULTY: Difficult

REFERENCES: 2.5 The Cerebral Cortex-Wrinkle, Wrinkle, Little Star

LEARNING OBJECTIVES: PGAT_COON_2016_2.5.6 - Discuss the location and functions of the frontal lobes of the brain, including the primary motor area and its mirror neurons and the association areas, which combine and process information; and explain how damage to one association area, Broca's area, results in motor or expressive aphasia and how the prefrontal cortex is related to abstract thought and one's sense of self.

KEYWORDS: Concept

762. Damage to which of the following brain structures listed below would result in lethal or severely disabling consequences for the person and which would cause difficulties but would not be life threatening? Explain your reasons.

hippocampus, pons, Wernicke's area, reticular formation, corpus callosum, medulla, Broca's area, cerebellum

ANSWER: Answer will include that one would not want to lose functioning of the areas of the brainstem, such as the medulla, pons, reticular formation, and cerebellum, since damage to them could be fatal or severely disabling as in the case of locked-in syndrome. The medulla controls vital life functions, such as heart rate and breathing, while the pons is the bridge that connects the medulla to other structures and controls sleep and arousal. The reticular formation is involved with attention and alertness and controls several important reflexes, while damage to the cerebellum would result in spinocerebellar degeneration, involving tremors, dizziness, and muscular weakness with victims eventually having difficulty merely standing, walking, or feeding themselves. However, damage to Broca's and Wernicke's areas would cause problems with language and damage to the hippocampus would affect memory storage, but none of these would be fatal. As shown by the split-brain studies, damage to the corpus callosum would have the least effect of all the structures with the person showing little impairment, except under specialized testing.

POINTS: 8

DIFFICULTY: Moderate

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.2 - Identify the location and functions of the medulla; explain the effects of damage to the medulla; and describe the research on locked-in syndrome that results from severe damage to the brainstem.
PGAT_COON_2016_2.6.3 - Identify the location and functions of the pons.
PGAT_COON_2016_2.6.4 - Describe the appearance, location, and functions of the cerebellum; and identify the name of the condition and the symptoms that would result from damage to this brain area.
PGAT_COON_2016_2.6.5 - Describe the location and functions of the reticular formation (RF); and explain how the part of the RF called the reticular activating system (RAS) keeps the brain active and alert.

KEYWORDS: Application

OTHER: * (New Question)

763. Using your knowledge of the limbic system, explain why people who suffer from phobias and disabling anxiety often feel afraid without knowing why.

ANSWER: Answer will include that a part of the limbic system known as the amygdala provides a primitive, "quick pathway" to the cortex. Like lower animals, we can be startled and, as such, are able to react to dangerous stimuli before we fully know what is going on. In situations where true danger exists, such as in military combat, the amygdala's rapid response may aid survival. However, disorders of the brain's fear system can be very disruptive. An example is the war veteran who involuntarily dives into the bushes when he hears a car backfire. The

role of the amygdala in emotion may also explain why people who suffer from phobias and disabling anxiety often feel afraid without knowing why. Unconscious fear produced by the amygdala seems to explain why people who survive horrible experiences, such as plane crashes can have debilitating fear years later.

POINTS: 5

DIFFICULTY: Difficult

REFERENCES: 2.6 The Subcortex-At the Core of the (Brain) Matter

LEARNING OBJECTIVES: PGAT_COON_2016_2.6.8 - Discuss the evolutionary development of the limbic system as part of the forebrain and the overall functions of this system in both lower animals and in humans; identify the specific structures that comprise the limbic system and their functions, including the amygdala and hippocampus; explain the significance of the "pleasure" and "aversive" areas within the limbic system; and describe the basic functions of the brain, as a whole.

KEYWORDS: Concept

764. Explain five ways that various hormones can affect behavior, moods, and personality.

ANSWER: Answers will include descriptions of any five of the following examples: (1) Hormone output from the adrenal glands rises during stressful situations. (2) Androgens ("male" hormones) are related to the sex drive in both males and females. (3) Hormones secreted during times of high emotion intensify memory formation. (4) At least some of the emotional turmoil of adolescence is due to elevated hormone levels. (5) Different hormones prevail when you are angry rather than fearful, for example norepinephrine is linked with anger, while epinephrine is associated with fear. (6) Pregnancy and motherhood cause the release of hormones that lead to the changes involved in maternal behavior. (7) Oxytocin, an important hormone released by the pituitary, plays a broad role in regulating many behaviors generally involved in happiness. These include pregnancy, parenthood, sexual activity, social bonding, trust, and even reducing stress reactions. (8) A person suffering from hyperthyroidism (an overactive thyroid) tends to be tense, excitable, and nervous, while an underactive thyroid (hypothyroidism) in an adult can cause inactivity, sleepiness, slowness, and depression. (9) Even disturbing personality patterns may be linked to hormonal irregularities.

POINTS: 5

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.1 - Explain the purpose of the endocrine system and how the actions of the hormones affect behavior, moods, and personality.

KEYWORDS: Concept

OTHER: * (New Question)

765. One of your college friends who is an athlete tells you that he is thinking about using anabolic steroids in order to "bulk up" his muscle growth and improve his athletic performance. After reading the section on the endocrine system, what would you tell him regarding the effectiveness and side effects of using steroids?

ANSWER: Answer will include that almost all major sports organizations ban the use of anabolic steroids. In addition, there is disagreement about whether steroids actually can improve athletic performance. However, it is widely accepted that anabolic steroids may cause serious side effects. Problems include voice deepening or baldness in women and shrinkage of the testicles, sexual impotence, and breast enlargement in men. Dangerous increases in hostility and aggression ("roid rage") have also been linked to steroid use. Young adolescents are also at increased risk for heart attack, stroke, liver damage, and stunted growth.

POINTS: 5

DIFFICULTY: Moderate

REFERENCES: 2.7 The Endocrine System-My Hormones Made Me Do It

LEARNING OBJECTIVES: PGAT_COON_2016_2.7.2 - Describe the location of the pituitary, pineal, thyroid, and adrenal glands, the hormones produced by each gland, and the effects of these hormones on the body and behavior when produced in normal or abnormal amounts; explain the function of the pituitary gland as the "master gland" and how this gland is, in turn, influenced by the hypothalamus; and discuss the problems with anabolic steroid use.

KEYWORDS: Application

766. A friend tells you that "all left-handed people are right-brain dominant." Explain why your friend is mistaken regarding brain dominance and what brain dominance involves, and describe some behavioral clues that may indicate a person's brain dominance.

ANSWER: Answer will include that although the right hemisphere controls the left hand, a left-handed person's language-producing, dominant hemisphere may be on the opposite side of the brain. Approximately 95 percent of right-handers process speech in the left hemisphere and are left-brain dominant. About 70 percent of left-handers also produce speech from the left hemisphere, just as right-handed people do. In addition, approximately 19 percent of all lefties and 3 percent of righties use their right brain for language. Some left-handers (approximately 12 percent) use both sides of the brain for language processing. All told, 90 percent of the population uses the left brain for language. Right-handed individuals who write with a straight hand, and lefties who write with a hooked hand, are usually left-brain dominant for language. Left-handed people who write with their hand below the line, and righties who use a hooked position, are usually right-brain dominant. If people gesture mostly with their right hand as they talk, they probably process language in the left hemisphere. Gesturing with the left hand is associated with right-brain language processing. The only sure way to check brain dominance is to do a medical test that involves assessing one hemisphere at a time.

POINTS: 10

DIFFICULTY: Moderate

REFERENCES: 2.8 Handedness-Are You Sinister or Dexterous?

LEARNING OBJECTIVES: PGAT_COON_2016_2.8.1 - Discuss the characterization of handedness throughout history; explain how handedness, sidedness, and brain dominance can be determined; and list the proportion of individuals who are right-handed, left-handed, or inconsistent regarding the hemisphere they use for motor skills and the production of speech.

KEYWORDS: Application

767. Discuss five advantages of being left-handed or ambidextrous, including the effects of left-handed persons being less strongly lateralized.

ANSWER: Answer will include that there are some clear advantages to being left-handed. Throughout history, a notable number of artists have been lefties, from Leonardo da Vinci and Michelangelo to Pablo Picasso and M. C. Escher. Since the right hemisphere tends to be superior at imagery and visual abilities, there is some advantage to using the left hand for drawing or painting. At the least, lefties are definitely better at visualizing three-dimensional objects. This may be why there are more left-handed architects, artists, and chess players than would be expected. Similarly, being right-handed does not guarantee sports superiority. Left-handers have done well in a variety of professional sports including boxing, fencing, handball, and tennis. One striking feature of lefties is that they are generally less lateralized than the right-handed. (Lateralization refers to specialization in the abilities of the brain hemispheres.) Even the physical size and shape of lefties' cerebral hemispheres are more alike. In general, left-handers are more symmetrical on almost everything, including eye dominance, fingerprints, and even foot size. In some situations, less lateralization may be a real advantage. For instance, individuals who are moderately left-handed or are ambidextrous (can do things equally well with both hands) seem to have better than average pitch memory, which is a basic musical skill. Correspondingly, more musicians are ambidextrous than would normally be expected. Math abilities may also benefit from fuller use of the right hemisphere. Students who are extremely gifted in math are much more likely to be left-

	handed or ambidextrous. Even when ordinary arithmetic skills are concerned, lefties seem to excel. The clearest advantage of being left-handed shows up when there is a brain injury. Because of their milder lateralization, left-handed individuals typically experience less language loss after damage to either brain hemisphere, and they recover more easily.
POINTS:	10
DIFFICULTY:	Moderate
REFERENCES:	2.8 Handedness-Are You Sinister or Dexterous?
LEARNING OBJECTIVES:	PGAT_COON_2016_2.8.4 - Discuss the advantages and disadvantages of being right- or left-handed, or ambidextrous, including the effects of left-handed persons being less strongly lateralized.
KEYWORDS:	Concept
OTHER:	* (New Question)