1. Regarding neurons, which of the following is NOT true?
   a. Each is a single cell.
   b. They transmit electrical impulses.
   c. They contain genetic material.
   d. They are the only cells found in the nervous system.
   e. They come in three types – motor, sensory, and interneuron.

   ANSWER: d
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Evaluate/Explain

2. The fundamental building block of the nervous system is the _____.
   a. nerve
   b. brain
   c. neuron
   d. spinal cord
   e. pituitary gland

   ANSWER: c
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Identify

3. All of the following are components of a neuron EXCEPT the
   a. soma.
   b. axon.
   c. medulla.
   d. dendrite.
   e. cell body.

   ANSWER: c
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Identify

4. In a neuron, the cell's metabolic functions are performed by the
   a. soma.
   b. axon.
   c. terminal button.
   d. synapse.
   e. dendrite.

   ANSWER: a
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Identify

5. Regarding a neuron's soma, all but which of the following are TRUE?
   a. The soma conducts outgoing messages to other neurons.
   b. The soma is the neuron's cell body.
   c. The soma conducts life-sustaining functions of the cell.
   d. The soma contains the cell's genetic material.
   e. The soma houses the cell's nucleus.

   ANSWER: a
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Evaluate/Explain

6. Chemical messengers that transport nerve impulses from one nerve cell to another are called
   a. hormones.
   b. glials.
   c. synapses.
   d. neurotransmitters.
   e. interneurons.

   ANSWER: d
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Identify

7. Which part of a neuron could best be described as a “docking station”?
   a. myelin sheath
   b. axon
   c. soma
   d. synapse
   e. dendrite

   ANSWER: e
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Define/Describe

8. Which of the following best describes a synapse?
   a. A tiny gap separating one neuron from another through which messages are carried
   b. The tubelike part of a neuron that carries messages to other neurons
   c. Rootlike structures that receive neural impulses from other neurons
   d. Body organs or structures that produce secretions
   e. A bundle of axons from different neurons that transmit nerve impulses

   ANSWER: a
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Define/Describe | Identify

9. Which part of a neuron may range in size from a few thousandths of an inch to several feet long?
   a. axon
   b. synapse
   c. myelin
   d. soma
   e. There are no parts of a neuron that are this size.

   ANSWER: a
   REFERENCES: Module 2-1 Neurons:The Body's Wiring
   The Structure of the Neuron
   LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
   KEYWORDS: Identify

10. What is the job of a dendrite?
    a. to send signals to other neurons
    b. to receive signals from other neurons
    c. to synthesize neurotransmitters
    d. to control metabolic functions
    e. to generate action potentials

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

11. Which of these best identifies the soma's function?
    a. Sending signals to other neurons
    b. Controlling metabolic processes
    c. Producing myelin
    d. Receiving signals from other neurons
    e. Releasing neurotransmitters to other neurons

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

12. In a neuron, _____ is to sending as _____ is to receiving.
    a. soma; synapse
    b. terminal button; synapse
    c. axon; dendrite
    d. terminal button; soma
    e. dendrite; axon

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

13. The knoblike swellings at the ends of axons are called
    a. terminal buttons.
    b. synapses.
    c. soma.
    d. dendrites.
    e. nodes of Ranvier.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

14. Regarding terminal buttons, which of the following is FALSE?
    a. The terminal buttons release neurotransmitters.
    b. Terminal buttons store and release chemicals that carry neural messages to other nearby neurons.
    c. Terminal buttons are the most common type of neuron in the nervous system.
    d. Terminal buttons look like knobby swellings.
    e. The terminal buttons are found at the end of axons.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Define/Describe

15. Regarding the nervous system, which of the following statements is FALSE?
    a. Nerves are not the same as neurons and can be visible to the human eye.
    b. The nervous system has more than one type of neuron.
    c. There are more neurons than glial cells in the nervous system.
    d. A nerve is best defined as a bundle of axons from different neurons.
    e. Glial cells serve to support neurons, as well as to form the myelin sheath on axons.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

16. What best identifies the job of a synapse?
    a. to produce neurotransmitters
    b. to provide a place in which neurons can communicate with one another
    c. to house the neuron’s genetic material
    d. to allow an attachment between the axon and the cell body
    e. to release neurotransmitters

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

17. There are _____ types of neurons in the human nervous system and these are called _____.
    a. 2; axons and dendrites
    b. 2; interneurons and glial cells
    c. 3; afferent, efferent, and associative cells
    d. 3; glial cells, nerves, and myelin cells
    e. 3; nodes of Ranvier, glial cells, and myelin cells

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

18. What is the most common type of neuron found in your nervous system?
    a. sensory
    b. motor
    c. somatic
    d. afferent
    e. interneuron

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

19. In neurons, efferent is to _____ as afferent is to _____.
    a. sensory; motor
    b. motor; sensory
    c. motor; interneuron
    d. interneuron; sensory
    e. sensory; interneuron

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain | Identify

20. Afferent neurons
    a. transmit information about the outside world to the spinal cord and brain.
    b. convey messages from the brain and spinal cord to the muscles of the body controlling movement.
    c. convey messages to glands for the release of hormones.
    d. connect neurons to other neurons.
    e. are also known as motor neurons.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Define/Describe

21. Associative neuron is another name for
    a. sensory neuron.
    b. motor neuron.
    c. interneuron.
    d. efferent neuron.
    e. somatic neuron.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Define/Describe | Identify

22. Besides the neuron, the other main type of cell in the nervous system is the _____ cell.
    a. glial
    b. synaptic
    c. nerve
    d. somatic
    e. myelin

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

23. During his first three years of life, Jason has developed many motor skills like crawling, walking, and running that require his muscles to move efficiently and smoothly. In terms of brain function, Jason's motor development is the result of which process?
    a. Stripping of the nodes of Ranvier
    b. Development of the myelin sheath
    c. Depolarization
    d. Development of action potentials
    e. Regulation of hormones

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Apply

24. White matter refers to
    a. clusters of glial cells.
    b. myelinated axons.
    c. clusters of synapses.
    d. nodes of Ranvier.
    e. unmyelinated axons.

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Define/Describe

25. Shalanda’s daughter touches her hand. Sensory receptors in Shalanda’s skin transmit information about this sensation to Shalanda’s spinal cord and brain. Which type of neuron is responsible for this process?
    a. Motor
    b. Glial
    c. Associative
    d. Efferent
    e. Afferent

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Apply

26. The fatty layer of cells that is wrapped around many axons is called the
    a. myelin sheath.
    b. synaptic cover.
    c. dendritic wrap.
    d. terminal button.
    e. nerve.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

27. Glial cells function most like which of the following?
    a. staples
    b. tape
    c. paper clips
    d. fasteners
    e. glue

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

28. Glial cells do all but which of the following?
    a. form the myelin sheath
    b. assist neurons in communicating with each other
    c. remove waste products from neurons
    d. nourish neurons
    e. produce neurotransmitters

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

29. Gaps in myelin that create non-insulated areas along an axon are called
    a. nodes of Ranvier.
    b. terminal buttons.
    c. synapses.
    d. receptors.
    e. interneurons.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    The Structure of the Neuron
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

30. The resting potential of a neuron is a result of the
    a. high concentration of sodium ions outside the cell.
    b. high concentration of sodium ions inside the cell.
    c. low concentration of potassium ions outside the cell.
    d. high concentration of potassium ions inside the cell.
    e. balanced concentration of sodium ions and potassium ions inside the cell.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

31. What is the approximate resting potential of a neuron?
    a. –50 mV
    b. –70 mV
    c. +50 mV
    d. +70 mV
    e. 0 mV

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Identify

32. _____ are also called neural impulses.
    a. Enzymes
    b. Refractory periods
    c. Action potentials
    d. Resting potentials
    e. Neuromodulators

    ANSWER: c
    REFERENCES: How Neurons Communicate
    Module 2-1 Neurons:The Body's Wiring
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Define/Describe

33. Depolarization occurs when the neuron becomes
    a. less negative due to the influx of sodium ions.
    b. more negative due to the influx of sodium ions.
    c. more negative due to the influx of potassium.
    d. less negative due to the outflow of sodium ions.
    e. more negative due to the outflow of sodium ions.

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

34. Which of the following is NOT true of action potentials?
    a. They are generated according to an all-or-none principle.
    b. They all travel at the same speed.
    c. They are electrical charges that shoot down the axon.
    d. They are initiated when the axon is depolarized sufficiently.
    e. They are followed by a refractory period.

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

35. Which of the following does NOT occur during the refractory period?
    a. Sodium gates close.
    b. Positively charged ions are pumped out.
    c. Electrochemical balance is restored.
    d. Neurotransmitters are pumped in.
    e. The neuron cannot fire.

    ANSWER: d
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.
    KEYWORDS: Evaluate/Explain

36. After a neuron fires, about how long is its refractory period?
    a. one-thousandth of a second
    b. one-hundredth of a second
    c. one-tenth of a second
    d. one second
    e. one-thousandth of a minute

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    How Neurons Communicate
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Identify

37. In neural communication, _____ is to key as _____ is to lock.
    a. axon; dendrite
    b. neuron; glial cell
    c. neurotransmitter; receptor site
    d. synapse; soma
    e. action potential; resting potential

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

38. Prolonged neurotransmitter activity is prevented by all of the following functions EXCEPT
    a. reuptake.
    b. release of excitatory neurotransmitters.
    c. breakdown of neurotransmitters by enzymes.
    d. regulation of sensitivity to neurotransmitters.
    e. release of neuromodulators.

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

39. Psychologists believe that irregularities in _____ transmission may help explain symptoms of schizophrenia.
    a. glutamate
    b. dopamine
    c. norepinephrine
    d. epinephrine
    e. gamma-amniobutyric acid

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain | Identify

40. Actor Michael J. Fox and boxing great Muhammad Ali have a disease that leads to progressive loss of their motor functioning. This condition results from a shortage of
    a. epinephrine.
    b. norepinephrine.
    c. dopamine.
    d. gamma-amniobutyric acid (GABA).
    e. serotonin.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Apply | Identify

41. Regarding Parkinson's disease, which of the following statements is FALSE?
    a. Scientists believe that genetic factors are involved.
    b. It is a degenerative brain disease.
    c. Symptoms include tremors, muscle rigidity, and difficulty controlling finger and hand movements.
    d. It affects about 1.5 million Americans.
    e. It involves an excess of the neurotransmitter glutamate.

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

42. Regarding neurotransmission, which of the following statements is FALSE?
    a. The nervous system depends on a balance between neural excitation and inhibition to function effectively.
    b. Excitatory effects make an action potential more likely to occur, whereas inhibitory effects make action potentials less likely to occur.
    c. All neurotransmitters have both excitatory and inhibitory effects.
    d. Neurotransmitters that do not dock at receptor sites are decomposed in the synaptic gap or are reabsorbed by the transmitting neuron.
    e. Neurotransmitters carry messages controlling all aspects of human activity, from the biological to the mental to the emotional.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Describe | Evaluate/Explain

43. Agonists do all of the following EXCEPT
    a. increase the availability of neurotransmitters.
    b. increase the effectiveness of neurotransmitters.
    c. block reuptake of neurotransmitters.
    d. mimic the action of neurotransmitters.
    e. block receptor sites.

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

44. In contrast to agonists, antagonists are drugs that
    a. increase the availability of neurotransmitters.
    b. increase the effectiveness of neurotransmitters.
    c. block receptor sites.
    d. mimic the action of neurotransmitters.
    e. speed up the transmission of neural impulses.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

45. Shelley drinks two caffeinated grande lattes every morning. In terms of neurotransmission, what is happening in Shelley's body?
    a. Caffeine in the coffee serves as an agonist that suppresses the actions of glutamate and enhances the actions of dopamine.
    b. Caffeine in the coffee serves as an agonist that suppresses the actions of dopamine.
    c. Caffeine in the coffee serves as an antagonist that enhances the actions of glutamate.
    d. Caffeine in the coffee serves as an agonist that increases the availability of glutamate.
    e. Caffeine in the coffee serves as an antagonist that suppresses the actions of dopamine.

    ANSWER: d
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Apply | Evaluate/Explain

46. Which of the following is an antagonist that blocks the actions of a particular neurotransmitter?
    a. Amphetamines that produce states of pleasure.
    b. Caffeine that keeps the central nervous system stimulated.
    c. Antipsychotic drugs that help control hallucinations and delusional thinking.
    d. Alcohol that produces a relaxed feeling.
    e. A tranquilizer like Valium that reduces anxiety in people with panic disorder.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain | Identify

47. Cocaine and amphetamines increase the availability of which neurotransmitter?
    a. Glutamate
    b. Serotonin
    c. Norepinephrine
    d. Dopamine
    e. Gamma-amniobutyric acid (GABA)

    ANSWER: d
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

48. Endorphins are similar in chemical structure to which drug?
    a. Cocaine
    b. Amphetamines
    c. Caffeine
    d. Alcohol
    e. Heroin

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Identify

49. Which of the following neurotransmitters prevents neurons from overly exciting adjacent nerve cells?
    a. Gamma-amniobutyric acid (GABA)
    b. Glutamate
    c. Dopamine
    d. Norepinephrine
    e. Serotonin

    ANSWER: a
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Identify

50. Delta Epsilon fraternity sponsors a Beer Fest every October, where party-goers consume large amounts of alcohol. At the neurotransmitter level, what is happening to the party-goers?
    a. Alcohol decreases sensitivity of receptor sites for serotonin.
    b. Alcohol increases sensitivity of receptor sites for gamma-amniobutyric acid (GABA).
    c. Alcohol increases sensitivity of receptor sites for serotonin.
    d. Alcohol mimics the effects of endorphins.
    e. Alcohol decreases sensitivity of receptor sites for gamma-amniobutyric acid (GABA).

    ANSWER: b
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Apply

51. Anxiety disorders such as panic disorder may be due to reduced levels of
    a. dopamine.
    b. glutamate.
    c. serotonin.
    d. gamma-amniobutyric acid (GABA).
    e. fluoxetine.

    ANSWER: d
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Evaluate/Explain

52. Fourteen-year-old Anton takes Prozac for his depression. Chemically speaking, Prozac works for Anton primarily by increasing the availability of _____ in his brain.
    a. dopamine
    b. gamma-amniobutyric acid (GABA)
    c. norepinephrine
    d. glutamate
    e. serotonin

    ANSWER: e
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Apply

53. Sharon is a long-distance runner. After a certain point in her workout, she begins to feel a natural "high" instead of pain. This feeling is likely the result of chemicals in her brain called
    a. stimulants.
    b. enzymes.
    c. endorphins.
    d. adrenalines.
    e. hormones.

    ANSWER: c
    REFERENCES: Module 2-1 Neurons:The Body's Wiring
    Neurotransmitters: The Nervous System's Chemical Messengers
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.
    KEYWORDS: Apply | Identify

54. Your anatomy professor states that today's lecture will be about the central nervous system. Which parts of the body do you expect to learn about?
    a. the brain
    b. the spinal cord
    c. the brain and spinal cord
    d. the brain, spinal cord, and all other nerves
    e. the brain, spinal cord, and the sensory organs

    ANSWER: c
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

55. The brain and the spinal cord make up the
    a. nervous system.
    b. somatic nervous system.
    c. peripheral nervous system.
    d. autonomic nervous system.
    e. central nervous system.

    ANSWER: e
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

56. The peripheral nervous system connects the spinal cord and brain with the
    a. sensory organs and muscles.
    b. sensory organs and glands.
    c. muscles and glands.
    d. the sensory organs, glands, and muscles.
    e. muscles.

    ANSWER: d
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

57. Which portion of the central nervous system serves as the link between the brain and the peripheral nervous system?
    a. The forebrain
    b. The lower brain
    c. The midbrain
    d. The hindbrain
    e. The spinal cord

    ANSWER: e
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

58. A _____ is an automatic, unlearned response to a stimulus.
    a. phenotype
    b. reticular formation
    c. nerve
    d. synapse
    e. reflex

    ANSWER: e
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe

59. Which of the following statements about spinal reflexes is FALSE?
    a. They are unlearned reactions.
    b. They bypass the brain.
    c. They allow very quick responses.
    d. They always involve three neurons.
    e. They are automatic.

    ANSWER: d
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Evaluate/Explain

60. On a camping trip, Eleni accidentally steps on a hot coal from the campfire. Upon touching the coal, her foot reflexively withdraws from the coal. What is the sequence of response in Eleni's neurons?
    a. Sensory neuron – interneuron – motor neuron
    b. Sensory neuron – motor neuron – interneuron
    c. Motor neuron – interneuron – sensory neuron
    d. Motor neuron – sensory neuron – interneuron
    e. Interneuron – sensory neuron – motor neuron

    ANSWER: a
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Apply

61. The body's master control unit describes
    a. the autonomic nervous system.
    b. the somatic nervous system.
    c. the central nervous system.
    d. the sympathetic nervous systems.
    e. the central processing system.

    ANSWER: c
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

62. The part of the nervous system that enables you to make sense of the world around you is the
    a. the autonomic nervous system.
    b. the perceptual nervous system.
    c. the sympathetic nervous system.
    d. the central nervous system.
    e. the central processing system.

    ANSWER: d
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Central Nervous System: Your Body's Master Control Unit
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

63. The peripheral nervous system is described as comprising
    a. the autonomic nervous system and the central nervous system.
    b. the somatic nervous system and the autonomic nervous system.
    c. the parasympathetic and sympathetic nervous systems.
    d. the parasympathetic and the somatic nervous systems.
    e. the sympathetic and the somatic nervous systems.

    ANSWER: b
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

64. Which of the following DOES NOT describe functions of the autonomic nervous system?
    a. It operates without conscious direction.
    b. It transmits messages between the central nervous system and sensory organs and muscles.
    c. It consists of the parasympathetic and sympathetic nervous systems.
    d. It regulates involuntary bodily processes.
    e. It regulates respiration.

    ANSWER: b
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Evaluate/Explain

65. Your heartbeat, digestion, and pupil contractions are _____ processes regulated by the _____ nervous system.
    a. involuntary; somatic
    b. involuntary; autonomic
    c. controllable; somatic
    d. voluntary; somatic
    e. voluntary; autonomic

    ANSWER: b
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

66. The two subdivisions of the autonomic nervous system are
    a. the peripheral nervous system and the central nervous system.
    b. the somatic nervous system and the peripheral nervous system.
    c. the parasympathetic and sympathetic nervous systems.
    d. the involuntary and the voluntary nervous systems.
    e. the sympathetic and the somatic nervous systems.

    ANSWER: c
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Identify

67. Which of the following situations is the type of physical functioning primarily influenced by the parasympathetic nervous system?
    a. Aaron's body releases glucose when he stands up to the bully at school.
    b. Betty meditates and visualizes positive outcomes every morning upon awakening.
    c. Chan's pupils dilate when he tells a lie to his father.
    d. Dawn's heart beats faster as she prepares to take her first psychology exam.
    e. Evan's breathing rate increases while giving a speech.

    ANSWER: b
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Apply

68. In the autonomic nervous system, _____ is to release, as _____ is to replenish.
    a. peripheral; central
    b. sympathetic; parasympathetic
    c. spinal cord; brain
    d. central; peripheral
    e. parasympathetic; sympathetic

    ANSWER: b
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Evaluate/Explain

69. The sympathetic nervous system does each of the following EXCEPT _____
    a. increase heart rate.
    b. release glucose.
    c. increase respiration.
    d. draw stored energy from bodily reserves.
    e. promote digestion.

    ANSWER: e
    REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
    The Peripheral Nervous System: Your Body's Link to the Outside World
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe | Evaluate/Explain

70. The brain has _____ major parts and they are called the _____.
    a. 4; frontal, parietal, occipital, and temporal lobes
    b. 2; sympathetic and parasympathetic regions
    c. 3; amygdala, hippocampus, and thalamus
    d. 3; hindbrain, midbrain, and forebrain
    e. 3; medulla, pons, and cerebellum

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe | Identify

71. Which of the following is NOT part of the hindbrain?
    a. cerebellum
    b. reticular formation
    c. medulla
    d. pons
    e. brainstem core

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Identify

72. During the past hour, nine-month-old Heather has engaged in each of the following actions. Which action was NOT controlled by her medulla?
    a. She had an accelerated heart beat when her older brother frightened her.
    b. She coughed after breathing in some dust particles.
    c. She swallowed formula from her bottle.
    d. Wind caused her mobile to move, and she smiled.
    e. Developing allergies caused her to sneeze.

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Apply

73. Trina has recently been having trouble staying awake throughout the day. Which area of Trina's brain is related to her difficulty?
    a. cerebellum
    b. pons
    c. medulla
    d. cerebrum
    e. hippocampus

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Apply

74. Which part of the brain controls balance and coordination?
    a. cerebrum
    b. cerebellum
    c. pons
    d. medulla
    e. thalamus

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe | Identify

75. The fact that alcohol often causes problems with balance and coordination suggests that it may have an effect on the
    a. cerebrum.
    b. corpus callosum.
    c. cerebellum.
    d. thalamus.
    e. reticular formation.

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Explain

76. All but which of the following describe the reticular formation?
    a. contains nerve pathways that connect the hindbrain with the forebrain
    b. regulates attention
    c. regulates arousal
    d. controls heartbeat
    e. screens irrelevant visual and auditory information

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Hindbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe

77. The forebrain contains all of the following structures EXCEPT the
    a. thalamus.
    b. basal ganglia.
    c. hypothalamus.
    d. amygdala.
    e. cerebellum.

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Midbrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe | Identify

78. Which is a cluster of nerve cells that can be described as playing a key role in regulating voluntary movement such as walking?
    a. Basal ganglia
    b. Medulla
    c. Reticular formation
    d. Limbic system
    e. Thalamus

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.04 - Explain the difference between antagonists and agonists.
    KEYWORDS: Define/Describe | Identify

79. Which brain structure is best described as a “relay station”?
    a. Hypothalamus
    b. Thalamus
    c. Basal ganglia
    d. Limbic system
    e. Cerebellum

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

80. All of the following senses are routed through the thalamus EXCEPT
    a. touch.
    b. taste.
    c. smell.
    d. vision.
    e. hearing.

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

81. If you were to look at the structures in the forebrain, you would find that the hippocampus can be described as being shaped like a(n)
    a. pea.
    b. almond.
    c. egg.
    d. web.
    e. seahorse.

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe

82. Which brain structure regulates such bodily functions as thirst and hunger, fluid concentrations, and body temperature?
    a. reticular formation
    b. hippocampus
    c. thalamus
    d. medulla
    e. hypothalamus

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

83. Dr. Williamson conducts research examining the effects of electrical stimulation in certain parts of the brain. Dr. Williamson has found that stimulation of this part of the brain in laboratory rats will result in changes to the rats' mating, eating, and socialization behaviors. Based on this description, which part of the brain is Dr. Williamson most likely to be studying?
    a. hypothalamus
    b. medulla
    c. pons
    d. cerebrum
    e. amygdala

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Identify

84. Regarding the limbic system, which of the following statements is FALSE?
    a. The limbic system is located in the forebrain.
    b. The limbic system is more evolved in mammals than in lower animals.
    c. The limbic system includes the amygdala, hippocampus, and basal ganglia.
    d. The limbic system plays a role in emotional processing.
    e. The limbic system is involved in the regulation of memory.

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Evaluate/Explain

85. The limbic system includes all but which of the following?
    a. amygdala
    b. hippocampus
    c. pons
    d. parts of the hypothalamus
    e. parts of the thalamus

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

86. Regarding the organization of the brain and its function, which of the following statements is FALSE?
    a. The midbrain plays an important role in the regulation of memory and emotions.
    b. The brain is divided into three major parts.
    c. The hindbrain contains structures that control basic bodily functions like breathing.
    d. The midbrain contains nerve pathways for relaying messages between the hindbrain and forebrain.
    e. The forebrain is the largest part of the brain.

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Evaluate/Explain

87. After a motorcycle accident in which she wasn't wearing a helmet, Vanessa has difficulty responding emotionally to unpleasant stimuli. Vanessa most likely experienced damage to which brain structure?
    a. medulla
    b. amygdala
    c. thalamus
    d. hippocampus
    e. cerebellum

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Apply

88. The _____ is located just behind the amygdala and can be described as playing an important role in the formation of memories.
    a. hypothalamus
    b. thalamus
    c. hippocampus
    d. cerebellum
    e. pons

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

89. The cerebral cortex accounts for approximately what percentage of the brain's total mass?
    a. 25%
    b. 40%
    c. 50%
    d. 80%
    e. 90%

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Identify

90. Approximately how thick is your cerebral cortex?
    a. one-tenth inch
    b. one-eighth inch
    c. one-quarter inch
    d. one-half inch
    e. one inch

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Forebrain
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Identify

91. Regarding the organization of the cerebral cortex and cerebrum, which of the following statements is FALSE?
    a. The cerebral cortex is divided into four parts, with the occipital and parietal lobes in the right hemisphere and the frontal and temporal lobes in the left hemisphere.
    b. In general, each of the cerebral hemispheres controls feeling and movement on the opposite side of the body.
    c. The cerebral hemispheres are connected by the corpus callosum.
    d. The cerebrum consists of two large masses, called the left and right hemispheres.
    e. The cerebral cortex forms the thin, outer layer of the largest part of the forebrain, the cerebrum.

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Evaluate/Explain

92. In the cerebral cortex, _____ is to vision as _____ is to hearing.
    a. occipital; parietal
    b. temporal; frontal
    c. frontal; parietal
    d. parietal; temporal
    e. occipital; temporal

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Evaluate/Explain

93. Which lobe processes information related to touch and body movement?
    a. occipital
    b. temporal
    c. parietal
    d. frontal
    e. reticulartal

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

94. Damage to which portion of the cerebral cortex would most likely interfere with a person's hearing?
    a. temporal lobe
    b. occipital lobe
    c. parietal lobe
    d. frontal lobe
    e. somatosensory lobe

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Define/Describe | Identify

95. After a car accident, Brandon lost some of his visual abilities. Based on this description of his injuries, which portion of Brandon's cerebral cortex was probably damaged in the accident?
    a. Somatosensory lobe
    b. Temporal lobe
    c. Parietal lobe
    d. Frontal lobe
    e. Occipital lobe

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.03 - Identify key neurotransmitters, and describe their functions.
    KEYWORDS: Apply

96. Somatosensory information is processed by which lobe?
    a. occipital
    b. frontal
    c. temporal
    d. parietal
    e. reticulartal

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

97. Which brain structure is described as the connection between the two cerebral hemispheres?
    a. cerebrum
    b. basal ganglia
    c. hippocampus
    d. brain stem
    e. corpus callosum

    ANSWER: e
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

98. Following brain trauma, Takami has difficulty processing auditory stimuli. Based on this description, Takami probably suffered damage to which portion of her brain?
    a. frontal lobe
    b. parietal lobe
    c. temporal lobe
    d. occipital lobe
    e. somatosensory lobe

    ANSWER: c
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Apply | Define/Describe

99. Simon "sees stars" after being hit on the head. Based on this description, Simon's experience is the result of actions in his
    a. frontal lobe.
    b. somatosensory lobe.
    c. temporal lobe.
    d. occipital lobe.
    e. parietal lobe.

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Apply

100. Regarding the frontal cortex, which of the following statements is FALSE?
    a. The frontal lobes control voluntary movements of specific parts of the body.
    b. The frontal lobes contain the motor cortex and the somatosensory cortex.
    c. The frontal lobes enable humans to suppress impulses.
    d. Of the brain lobes, the frontal lobes are the ones best described as containing "you."
    e. The frontal lobes are involved in processing emotional states.

    ANSWER: b
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

101. Which parts of the forebrain are sometimes described as the "executive center" and can be likened to the central processing unit of a computer?
    a. frontal lobes
    b. temporal lobes
    c. reticulartal lobes
    d. parietal lobes
    e. occipital lobes

    ANSWER: a
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

102. The majority of the cerebral cortex is made up of the
    a. frontal lobes.
    b. parietal lobes.
    c. corpus callosum.
    d. association areas.
    e. occipital lobes.

    ANSWER: d
    REFERENCES: Module 2-3 The Brain: Your Crowning Glory
    The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

103. Which part of the brain is best described as responsible for piecing together sensory input to form meaningful perceptions of the world?

a. frontal lobe

b. association areas

c. temporal lobe

d. parietal lobe

e. occipital lobe

ANSWER: b

REFERENCES: Module 2-3 The Brain: Your Crowning Glory
The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.

KEYWORDS: Define/Describe | Identify

104. Sonal is at a brain research center, participating in a study. She is hooked up to a machine that measures electrical activity in her brain through the use of electrodes attached to her scalp. This description best characterizes which of the following techniques?

a. computed tomography

b. electroencephalography

c. positron emission tomography

d. magnetic resonance imaging

e. lesioning

ANSWER: b

REFERENCES: Module 2-4 Methods of Studying the Brain
Recording and Imaging Techniques

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.

KEYWORDS: Apply

105. Which technique can best be described as taking snapshots of the brain in action?

a. computed tomography

b. electroencephalography

c. CT scan

d. magnetic resonance imagery

e. functional magnetic resonance imaging

ANSWER: e

REFERENCES: Module 2-4 Methods of Studying the Brain
Recording and Imaging Techniques

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.

KEYWORDS: Define/Describe | Identify

106. Positron emission tomography (PET) scans work by
    a. measuring the reflection of a narrow X-ray beam as it passes through the brain.
    b. tracing the amount of glucose used in different parts of the brain.
    c. measuring the signals emitted by the brain when placed in a strong magnetic field.
    d. destroying parts of the brain to observe the effects on behavior.
    e. using mild electrical currents to observe the effects of stimulating parts of the brain.

    ANSWER: b
    REFERENCES: Module 2-4 Methods of Studying the Brain
    Recording and Imaging Techniques
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

107. Which technique can best be described as using the measurement of radioactive isotopes to evaluate the activity of the brain?
    a. electroencephalography
    b. computed tomography
    c. lesioning
    d. magnetic resonance imaging
    e. positron emission tomography

    ANSWER: e
    REFERENCES: Module 2-4 Methods of Studying the Brain
    Recording and Imaging Techniques
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

108. All but which of the following techniques are used for recording and/or imaging the brain?
    a. EEG
    b. lesioning
    c. MRI
    d. PET scan
    e. computed tomography scanning

    ANSWER: b
    REFERENCES: Module 2-4 Methods of Studying the Brain
    Recording and Imaging Techniques
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe | Identify

109. Which technique helps scientists understand why people cannot tickle themselves?
    a. functional MRI
    b. MRI
    c. PET scan
    d. EEG
    e. lesioning

    ANSWER: a
    REFERENCES: Module 2-4 Methods of Studying the Brain
    Recording and Imaging Techniques
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

110. A lesion is
    a. an electrode that is placed in the brain to stimulate neurons.
    b. an electrode that is placed in the brain to record neural activity.
    c. a portion of the brain that has been purposefully damaged.
    d. a doughnut-shaped device used to produce an image of the brain.
    e. an image generated by a PET scan.

    ANSWER: c
    REFERENCES: Module 2-4 Methods of Studying the Brain
    Experimental Methods
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe

111. Of the following people, which is most likely to be relying primarily on the use of the right hemisphere?
    a. Anthony is giving a speech.
    b. Becca is reading a book.
    c. Clarita is writing a story.
    d. Dominic is performing math computations.
    e. Eduardo is listening to music.

    ANSWER: e
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    The Brain at Work: Lateralization and Integration
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Apply | Evaluate/Explain

112. Scientists use the term _____ to describe the division of functions between the right and left hemispheres of the brain.
    a. all-or-none principle
    b. plasticity
    c. split-brain
    d. handedness
    e. lateralization

    ANSWER: e
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    The Brain at Work: Lateralization and Integration
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe

113. Regarding language dominance and handedness, which of the following statements is TRUE?
    a. Among the majority of right-handed people, the right hemisphere is dominant for language.
    b. Among the majority of left-handed people, the right hemisphere is dominant for language.
    c. The right hemisphere is dominant for language among right-handed people, and the left hemisphere is dominant for language among left-handed people.
    d. About 15% of left-handed people show a pattern of mixed dominance.
    e. Compared to right-handed people, left-handed people are more likely to be left-hemisphere dominant.

    ANSWER: d
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    The Brain at Work: Lateralization and Integration
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

114. Who was a pioneer in the discovery of the language areas of the brain?
    a. Roger Sperry
    b. Michael Gazzaniga
    c. Phineas Gage
    d. Oliver Sacks
    e. Paul Broca

    ANSWER: e
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    The Brain at Work: Lateralization and Integration
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

115. Broca's area is located in the _____ lobe, while Wernicke's area is located in the _____ lobe.
a. left frontal; left temporal
b. left frontal; right frontal
c. right frontal; left temporal
d. right frontal; right temporal
e. right temporal; left temporal

ANSWER: a
REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
The Brain at Work: Lateralization and Integration
LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
KEYWORDS: Identify

116. Damage to Broca's area can lead to
a. Alzheimer's disease.
b. paralysis.
c. schizophrenia.
d. Parkinson's disease.
e. aphasia.

ANSWER: e
REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
The Brain at Work: Lateralization and Integration
LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
KEYWORDS: Identify

117. Wernicke's area is associated with _____, whereas Broca's area is associated with _____.
a. language production; language comprehension
b. left-handedness; right-handedness
c. hemispheric specialization; lateralization
d. language comprehension; language production
e. speech aphasia; visual aphasia

ANSWER: d
REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
The Brain at Work: Lateralization and Integration
LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
KEYWORDS: Evaluate/Explain | Identify

118. Recent research suggests that hand preference begins to develop
    a. before birth.
    b. during the first six months of life.
    c. between ages 1 and 2.
    d. between ages 3 and 4.
    e. around ages 5 or 6.

    ANSWER: a
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Handedness: Why Are People Not More Even-Handed?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

119. Among five sets of identical twins, how many pairs are predicted to share the same hand preference?
    a. one pair
    b. two pair
    c. three pair
    d. four pair
    e. All of the pairs will share the same hand preference.

    ANSWER: d
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Handedness: Why Are People Not More Even-Handed?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

120. Regarding handedness, which of the following statements is FALSE?
    a. Prenatal hormones, genetics, and social factors all influence the development of handedness.
    b. Males are more likely than females to be left-handed.
    c. About 95% of fetuses suck their right thumbs.
    d. When one parent is left-handed and one parent is right-handed, the chances of their offspring being left-handed are 1 in 2.
    e. Around 5% of the population is left-handed.

    ANSWER: d
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Handedness: Why Are People Not More Even-Handed?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

121. The term lateralization refers to
    a. divisions of the brain into hindbrain, midbrain, and forebrain.
    b. the division of functions between the right and left hemispheres.
    c. the cross-wiring of the brain.
    d. the connections between Broca's area and Wernicke's area.
    e. the observation that split-brain patients have trouble naming objects that they touch but do not see.

    ANSWER: b
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    The Brain at Work: Lateralization and Integration
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe

122. Split-brain patients are the result of an operation that severs the
    a. cerebrum.
    b. cerebellum.
    c. corpus callosum.
    d. cerebral cortex.
    e. reticular formation.

    ANSWER: c
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Split-Brain Research: Can the Hemispheres Go It Alone?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

123. Jackson had an operation in which his corpus callosum was severed. It is most likely that Jackson had which disease?
    a. Epilepsy
    b. Parkinson's disease
    c. Huntington's disease
    d. Alzheimer's disease
    e. Multiple sclerosis

    ANSWER: a
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Split-Brain Research: Can the Hemispheres Go It Alone?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Apply

124. In a split-brain research study, what will happen when a pencil is presented in the patient's visual field?
    a. The patient will be able to pick out the pencil from a group of objects, but not be able to say "pencil" regardless of which visual field the pencil is presented to.
    b. The patient will be able to say "pencil," but will not be able to pick out pencil from a group of objects regardless of which visual field the pencil is presented to.
    c. The patient will be able to say "pencil" when the pencil is presented to the right visual field, but not when presented to the left visual field.
    d. The patient will be able to say "pencil" when the pencil is presented to the left visual field, but not when presented to the right visual field.
    e. The patient will be able to pick out the pencil from a group of objects, but not be able to say "pencil" when the pencil is presented to the right visual field.

    ANSWER: c
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Split-Brain Research: Can the Hemispheres Go It Alone?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

125. Phineas Gage showed severe personality changes following an accident that damaged his
    a. temporal cortex.
    b. hypothalamus.
    c. hippocampus.
    d. prefrontal cortex.
    e. cerebellum.

    ANSWER: d
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Brain Damage and Psychological Functioning
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

126. _____ is the brain's ability to adapt and reorganize itself following trauma or surgical alteration.
    a. Aphasia
    b. Plasticity
    c. Lateralization
    d. Concordance
    e. Depolarization

    ANSWER: b
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Brain Damage and Psychological Functioning
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Define/Describe

127. Scientists consider the _____ to be the “seat of intelligence.”
    a. somatosensory cortex
    b. corpus callosum
    c. prefrontal cortex
    d. motor cortex
    e. hippocampus

    ANSWER: c
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Brain Damage and Psychological Functioning
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Identify

128. When split-brain patients are shown pictures of objects presented on the left side of the visual field, they can frequently identify the object by touch, even though they cannot name the object verbally. This illustrates
    a. the importance of the right hemisphere in producing language.
    b. the importance of the left hemisphere in processing tactile stimulation.
    c. the importance of the left hemisphere in producing language.
    d. the normalcy of information processing in split-brain patients.
    e. the hemispheric divisions of the eye and brain connections.

    ANSWER: c
    REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
    Split-Brain Research: Can the Hemispheres Go It Alone?
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.06 - Describe the functions of the central nervous system and the divisions of the peripheral nervous system.
    KEYWORDS: Evaluate/Explain

129. Regarding the relationship between the nervous system and the endocrine system, which of the following statements is best described as FALSE?
    a. The systems are integrated, in that the brain regulates the activity of the endocrine system.
    b. Both are considered communication systems.
    c. The nervous system uses neurotransmitters as messengers, whereas the endocrine system uses hormones.
    d. The endocrine system functions at a slower pace than the nervous system.
    e. Both convey their messages through a network of nerves.

    ANSWER: e
    REFERENCES: Endocrine Glands: The Body’s Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.07 - Explain the differences in functions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
    KEYWORDS: Evaluate/Explain

130. Which hormone is involved in regulating blood sugar levels?
    a. noradrenaline
    b. insulin
    c. adrenaline
    d. glucose
    e. oxytocin

    ANSWER: b
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.07 - Explain the differences in functions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
    KEYWORDS: Identify

131. Releasing factors are secreted by the
    a. hypothalamus.
    b. hippocampus.
    c. pituitary gland.
    d. pineal gland.
    e. pancreas.

    ANSWER: a
    REFERENCES: Endocrine Glands: The Body’s Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.07 - Explain the differences in functions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
    KEYWORDS: Identify

132. Melatonin, which is secreted by the pineal gland, plays a role in regulating
    a. glucose.
    b. releasing factors.
    c. growth hormones.
    d. coping mechanisms.
    e. sleep.

    ANSWER: e
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.07 - Explain the differences in functions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
    KEYWORDS: Define/Describe

133. Which hormone stimulates the adrenal cortex to secrete other hormones that promote muscle development?
    a. melatonin
    b. epinephrine
    c. norepinephrine
    d. ACTH
    e. progesterone

    ANSWER: d
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.07 - Explain the differences in functions of the sympathetic and parasympathetic divisions of the autonomic nervous system.
    KEYWORDS: Identify

134. In the endocrine system, _____ is to the pineal gland as _____ is to the pancreas.
    a. ACTH; oxytocin
    b. melatonin; insulin
    c. epinephrine; norepinephrine
    d. melatonin; oxytocin
    e. insulin; melatonin

    ANSWER: b
    REFERENCES: Endocrine Glands: The Body’s Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe | Identify

135. Which gland is best described as the “master gland”?
    a. the pineal
    b. the pituitary
    c. the adrenals
    d. the thyroid
    e. the hypothalamus

    ANSWER: b
    REFERENCES: Endocrine Glands: The Body’s Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe | Identify

136. Which of the following is NOT released by the adrenal glands?
    a. norepinephrine
    b. epinephrine
    c. cortical steroids
    d. adrenaline
    e. melatonin

    ANSWER: e
    REFERENCES: Endocrine Glands: The Body's Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Identify

137. The male sex hormones are produced by the _____, and female sex hormones are produced by the _____. Collectively, these glands are called the _____.
    a. testes; ovaries; gonads
    b. ovaries; testes; gonads
    c. testes; ovaries; adrenals
    d. adrenals; ovaries; testes
    e. adrenals; gonads; testes

    ANSWER: a
    REFERENCES: Endocrine Glands: The Body's Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe | Identify

138. Juan eats a meal full of sugar and starches. In response, his pancreas releases insulin into the bloodstream which stimulates his cells to draw more glucose from his blood. This decreases the level of glucose in Juan's body and, eventually, the pancreas reduces its insulin secretion. Juan's endocrine system is engaging in which process?
    a. plasticity
    b. homeostasis
    c. aphasia
    d. concordance
    e. lateralization

    ANSWER: b
    REFERENCES: Endocrine Glands: The Body's Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe

139. Which chemicals are described as both neurotransmitters and hormones?
    a. estrogen and progesterone
    b. insulin and melatonin
    c. norepinephrine and epinephrine
    d. ACTH and cortical steroids
    e. oxytocin and testosterone

    ANSWER: c
    REFERENCES: Endocrine Glands: The Body's Pumping Stations
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe | Identify

140. Of the following hormones, which can we describe as most likely to be related to aggressive behavior?
    a. insulin
    b. melatonin
    c. testosterone
    d. progesterone
    e. estrogen

    ANSWER: c
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Define/Describe | Identify

141. Charlize is excessively anxious and irritable. Charlize probably has an excess of which type of hormone?
    a. thyroid
    b. melatonin
    c. ACTH
    d. insulin
    e. cortical steroids

    ANSWER: a
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Apply

142. Regarding premenstrual syndrome (PMS), which of the following statements is FALSE?
    a. About 75% of women experience some form of premenstrual syndrome.
    b. PMS involves physical as well as psychological symptoms.
    c. PMS is caused by an imbalance of hormones—too much or too little estrogen or progesterone.
    d. PMS can be influenced by sociocultural factors.
    e. Some research has linked PMS to disturbances in the functioning of serotonin.

    ANSWER: c
    REFERENCES: Hormones and Behavior
    Module 2-6 The Endocrine System: The Body's Other Communication System
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.
    KEYWORDS: Evaluate/Explain

143. Which of the following is the best definition of genotype?
    a. structures in a cell's nucleus that house a person's genes
    b. observable physical and behavioral characteristics
    c. a trait influenced by multiple genes interacting in complex ways
    d. basic unit of heredity that contains a person's genetic code
    e. an organism's genetic code

    ANSWER: e
    REFERENCES: Genetic Influences on Behavior
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.09 - Describe methods scientists use to study the workings of the brain.
    KEYWORDS: Define/Describe

144. Humans have _____ chromosomes.
    a. 23 pairs of
    b. 23
    c. 2
    d. 30,000 to 40,000
    e. more than 3 billion

    ANSWER: a
    REFERENCES: Genetic Influences on Behavior
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.12 - Evaluate the role of genetics in behavior.
    KEYWORDS: Identify

145. Regarding the human genome, which of the following statements is FALSE?
    a. Scientists have decoded the human genome.
    b. The focus today in gene research is understanding how genes work and identifying specific genes involved in various disorders.
    c. Most psychologists today agree that both heredity and environment interact to shape human behavior and mental processes.
    d. Each cell in the human body contains the full complement of human genes.
    e. Genes are composed of deoxyribonucleic acid, and they are linked together on long strands called chromosomes.

    ANSWER: d
    REFERENCES: Genetic Influences on Behavior
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.11 - Describe how the endocrine system is organized and the roles that hormones play in behavior.
    KEYWORDS: Evaluate/Explain

146. Two psychologists debate the nature-nurture problem. What is the topic of their debate?
    a. The relative role of the endocrine system and the central nervous system in reflexive responses
    b. The ethical concerns of using invasive experimental techniques in studying the brain
    c. The pros and cons of the sympathetic versus parasympathetic nervous systems
    d. The role of hemispheric lateralization in the development of handedness
    e. The influence of genetics versus environment in human behavior

    ANSWER: e
    REFERENCES: Genetic Influences on Behavior
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.10 - Explain how the two halves of the brain differ in their functions.
    KEYWORDS: Evaluate/Explain

147. Which type of study provides the clearest way to address the nature-nurture question?
    a. twin study
    b. adoptee study
    c. split-brain study
    d. familial association study
    e. human genome study

    ANSWER: b
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Define/Describe | Evaluate/Explain

148. In twin studies, the _____describes the percentages of cases in which both members of twin pairs share the same trait or disorder.
    a. genotype
    b. concordance rate
    c. phenotype
    d. polygenic trait rate
    e. plasticity percentage

    ANSWER: b
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Define/Describe

149. A familial association study is used to determine
    a. the degree of environmental similarity between twins raised apart.
    b. the extent to which adopted children share the same characteristics as their adoptive parents.
    c. the extent to which the same disorders or traits are shared among family members.
    d. the extent to which family members have different traits or characteristics.
    e. the extent to which family members participate in shared activities.

    ANSWER: c
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Define/Describe

150. In a twin study, an investigator compares concordance rates of fraternal and identical twins. A concordance rate is best described as
    a. the degree of genetic similarity between the twins.
    b. the degree of environmental similarity between the twins.
    c. the degree to which twins resemble their parents.
    d. the percentage of shared traits or disorders.
    e. the percentage of genetic overlap.

    ANSWER: d
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Define/Describe

151. Adoptee studies describe efforts to
    a. examine similarities between adopted children and non-adopted children.
    b. examine similarities between adopted children and their biological or adoptive parents.
    c. measure the genetic similarity between adopted children.
    d. assess the extent to which adopted children share similar characteristics as non-adopted children raised in the same household.
    e. examine similarities between adopted children and the general population.

    ANSWER: b
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Define/Describe

152. Twenty-three-year-old Thomas has schizophrenia. Familial association studies suggest that which of Thomas's relatives is most likely to also have schizophrenia?
    a. one of his parents
    b. one of his grandparents
    c. his sibling
    d. his dizygotic twin
    e. his monozygotic twin

    ANSWER: e
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Apply | Evaluate/Explain

153. According to research examining the relationship between genetics and shyness (Reiss et al., 2000), parents who are overprotective of a shy child
    a. may accentuate the child's shyness.
    b. may minimize the child's shyness.
    c. may see the child outgrow his/her natural shyness over time.
    d. may also have outgoing children who tend to dominate the shy child.
    e. may have relatively little influence on the child's genetically determined shyness.

    ANSWER: a
    REFERENCES: Kinship Studies: Untangling the Roles of Heredity and Environment
    Module 2-7 Genes and Behavior: A Case of Nature and Nurture
    LEARNING OBJECTIVES: EPCA.NEVI.2015.2.13 - Discuss methods psychologists use to study the roles of genetics and environment in behavior.
    KEYWORDS: Apply | Evaluate/Explain

154. Describe the main components of a neuron and explain how it transmits information.

ANSWER: There are four main components to a neuron: dendrites, which receive information from other neurons; a soma (cell body), which handles basic metabolic functioning of the neuron and contains the neuron's genetic instructions; an axon, which conveys information towards other neurons; and terminal buttons, which release neurotransmitters to adjacent neurons. Normally, the inside of the neuron is negatively charged (–70 mV) with respect to the outside because of the unequal distribution of ions. Information is conducted along the axon by means of an action potential, a rapid change in electric potential from –70 mV to +50 mV and back again. This occurs when the neuron receives adequate stimulation from the neurons communicating with it.

REFERENCES: How Neurons Communicate
Module 2-1 Neurons: The Body's Wiring
The Structure of the Neuron

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.01 - Define what a neuron is, identify the parts of the neuron, and explain how neurons communicate with each other.

155. Explain how information is communicated between neurons.

ANSWER: When the action potential reaches the end of the axon, chemicals called neurotransmitters are released. These chemicals travel across the synapse, the tiny space between neurons. They attach to receptors on the dendrites of adjacent neurons. The neurotransmitters create a slight change in the charge of the receiving neuron (making it slightly more positive and increasing the likelihood that it will generate an action potential, or making it slightly more negative and reducing the likelihood that it will generate an action potential).

REFERENCES: How Neurons Communicate
Module 2-1 Neurons: The Body's Wiring

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.02 - Explain how an action potential is generated.

156. Summarize the basic structure of the nervous system.

ANSWER: The nervous system is composed of the central nervous system (CNS) and the peripheral nervous system (PNS). The CNS contains the brain and spinal cord. The PNS consists of the somatic nervous system and the autonomic nervous system. The somatic system conveys information between the CNS and sense organs and muscles. The autonomic nervous system (ANS) controls internal bodily processes such as the heartbeat and respiration. The ANS contains two divisions, the sympathetic and parasympathetic nervous system. The sympathetic division speeds up most bodily processes and releases energy. The parasympathetic division helps the body replenish stores of energy.

REFERENCES: Module 2-2 The Nervous System: Your Body's Information Superhighway
The Central Nervous System: Your Body's Master Control Unit
The Peripheral Nervous System: Your Body's Link to the Outside World

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.05 - Describe how the nervous system is organized.

157. Outline the structure and functions of the cerebral cortex.

ANSWER: The cerebral cortex has a left and right hemisphere, each of which contains four primary divisions, or lobes. The two hemispheres are connected by a broad band of fibers called the corpus callosum. The frontal lobe is at the front. It is the central executive that involves higher functions such as problem solving and decision making. At the very rear is a thin slice called the motor cortex. This contains neurons that control voluntary muscle movement. Behind the frontal lobe is the parietal lobe. At the front of the parietal lobe is the somatosensory cortex. This is where sensations from the parts of the body are received. At the rear of the brain is the occipital lobe. It is the primary station for initial processing of visual information. At the side of the brain is the temporal lobe, where initial processing of auditory information occurs.

REFERENCES: Module 2-3 The Brain: Your Crowning Glory
The Cerebral Cortex: The Brain's Thinking, Calculating, Organizing, and Creative Center

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.08 - Describe how the brain is organized and the roles that particular brain structures play in behavior.

158. Summarize the major recording and imaging techniques used to study the brain.

ANSWER: An electroencephalograph (EEG) records the electrical activity of the brain using electrodes attached to the scalp. This provides a rather general measure of the brain's activity. A computed tomography (CT) scan uses a computer to measure X-rays that are passed through the brain at various angles. This provides a 3-dimensional view of the structures within the brain and can identify any irregularities. A positron emission tomography (PET) scan measures accumulation of radioactively labeled substances in the brain. The pattern of accumulation provides insight into which part of the brain is most active under certain conditions. Magnetic resonance imaging (MRI) can provide detailed images of brain structures by examining signals emitted by atoms in the brain that have been disturbed by a strong magnetic force. A new type of MRI, functional MRI, provides information about the functions of brain structures.

REFERENCES: Module 2-4 Methods of Studying the Brain
Recording and Imaging Techniques

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.09 - Describe methods scientists use to study the workings of the brain.

159. Discuss what scientists know about hemispheric lateralization.

ANSWER: The brain consists of a left and right hemisphere. The major connection between the two hemispheres is the corpus callosum. One general principle is that the right half of the brain receives information from and sends information to the left half of the body. The left half of the brain receives information from and sends information to the right half of the body. Additionally, it appears that there is some hemispheric specialization of function. For example, the left hemisphere, in most people, is responsible for language functions (speaking, reading, and writing). It is also the left hemisphere that is primarily involved in logic, problem solving, and mathematical calculations. The right hemisphere is specialized for nonverbal functions. This includes spatial processing, facial and emotional recognition, and artistic/creative processes.

REFERENCES: Module 2-5 The Divided Brain: Specialization of Function
The Brain at Work: Lateralization and Integration

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.10 - Explain how the two halves of the brain differ in their functions.

160. Describe the major functions of at least three of the endocrine system glands discussed in your textbook.

ANSWER: The pancreas produces insulin, which regulates blood glucose levels. The hypothalamus secretes a variety of hormones known as releasing factors, which causes the pituitary and other glands to release their hormones. The pituitary gland produces growth hormone, which promotes growth in the body. It produces oxytocin, which is involved in regulating contractions during childbirth and the release of milk during nursing. It also releases hormones that regulate the functioning of other glands. The pineal gland releases melatonin, which regulates sleep-wake cycles. The adrenal glands produce cortical steroids, promoting muscle development and stimulating the liver to release stored sugar when we experience stress. The adrenal gland also releases epinephrine and norepinephrine, which help the body to prepare with stressful situations. The gonads produce estrogen, progesterone, and testosterone, which serve a variety of purposes, such as promoting the development of secondary sex characteristics and regulating the menstrual cycle. Testosterone, in particular, also seems to influence aggressive behavior in humans and sexual responsiveness. The thyroid gland produces hormones that help regulate metabolism.

REFERENCES: Endocrine Glands: The Body's Pumping Stations
Module 2-6 The Endocrine System: The Body's Other Communication System

LEARNING OBJECTIVES: EPCA.NEVI.2015.2.11 - Describe how the endocrine system is organized and the roles that hormones play in behavior.

161. Describe 3 types of kinship studies.

ANSWER: Familial association studies involve an analysis of shared traits or disorders among family members based on their degree of kinship, or relation. For example, in examining a family tree, one might discover that the more closely related people are, the more likely they are to have a particular trait. These studies provide supportive evidence of genetic contributions to traits or disorders. Twin studies involve the analysis of difference in the rates of overlap (or concordance) for a given trait or disorder between identical and fraternal twins. These studies provide strong evidence of genetic factors when concordance rates are higher among identical than fraternal twins. Adoptee studies involve the analysis of similarity in traits or disorders between adoptees and their biological and adoptive parents or between identical twins raised apart versus together. This is the clearest way to establish the role of heredity versus environment. If concordance is greater with traits or disorders exhibited by the adoptive parents, environmental influences are indicated. If concordance is greater with traits or disorders exhibited by the biological parents, genetic factors are indicated. These studies may not control for the effects of common environmental factors, such as shared environments shortly after birth or ongoing relationships between the twins.

REFERENCES: Module 2-7 Genes and Behavior: A Case of Nature and Nurture
Kinship Studies: Untangling the Roles of Heredity and Environment