

1. A researcher stimulates the area of the brain that receives visual information. She is stimulating the
  - A) occipital lobe.
  - B) temporal lobe.
  - C) frontal lobe.
  - D) parietal lobe.
  
2. Which of the following is typically controlled by the left hemisphere?
  - A) making inferences
  - B) word recognition
  - C) the left side of the body
  - D) perceptual skills
  
3. When Sandy scalded her toe in a tub of hot water, the pain message was carried to her spinal cord by the \_\_\_\_\_ nervous system.
  - A) somatic
  - B) sympathetic
  - C) parasympathetic
  - D) central
  
4. Which of the following are governed by the simplest neural pathways?
  - A) emotions
  - B) physiological drives, such as hunger
  - C) reflexes
  - D) movements, such as walking
  
5. Melissa has just completed running a marathon. She is so elated that she feels little fatigue or discomfort. Her lack of pain is probably the result of the release of
  - A) ACh.
  - B) endorphins.
  - C) dopamine.
  - D) norepinephrine.
  
6. If a fraternal twin develops schizophrenia, the likelihood of the other twin developing serious mental illness is much lower than with identical twins. This suggests that
  - A) schizophrenia is caused by genes.
  - B) schizophrenia is influenced by genes.
  - C) environment is unimportant in the development of schizophrenia.
  - D) identical twins are especially vulnerable to mental disorders.

7. The technique that uses magnetic fields and radio waves to produce computer images of structures within the brain is called
- A) the EEG.
  - B) a lesion.
  - C) a PET scan.
  - D) MRI.
8. The myelin sheath that is on some neurons
- A) increases the speed of neural transmission.
  - B) slows neural transmission.
  - C) regulates the release of neurotransmitters.
  - D) prevents positive ions from passing through the membrane.
9. I am a relatively fast-acting chemical messenger that affects mood, hunger, sleep, and arousal. What am I?
- A) acetylcholine
  - B) dopamine
  - C) norepinephrine
  - D) serotonin
10. The neurotransmitter acetylcholine (ACh) is most likely to be found
- A) at the junction between sensory neurons and muscle fibers.
  - B) at the junction between motor neurons and muscle fibers.
  - C) at junctions between interneurons.
  - D) in all of these locations.
11. The gland that regulates body growth is the
- A) adrenal.
  - B) thyroid.
  - C) hypothalamus.
  - D) pituitary.
12. Epinephrine and norepinephrine are \_\_\_\_\_ that are released by the \_\_\_\_\_ gland.
- A) neurotransmitters; pituitary
  - B) hormones; pituitary
  - C) neurotransmitters; thyroid
  - D) hormones; adrenal

13. Jessica experienced difficulty keeping her balance after receiving a blow to the back of her head. It is likely that she injured her
- A) medulla.
  - B) thalamus.
  - C) hypothalamus.
  - D) cerebellum.
14. Moruzzi and Magoun caused a cat to lapse into a coma by severing neural connections between the cortex and the
- A) reticular formation.
  - B) hypothalamus.
  - C) thalamus.
  - D) cerebellum.
15. Research has found that the amount of representation in the motor cortex reflects the
- A) size of the body parts.
  - B) degree of precise control required by each of the parts.
  - C) sensitivity of the body region.
  - D) area of the occipital lobe being stimulated by the environment.
16. The best way to separate the effects of genes and environment in research is to study
- A) fraternal twins.
  - B) identical twins.
  - C) adopted children and their adoptive parents.
  - D) identical twins raised in different environments.
17. The nerve fibers that enable communication between the right and left cerebral hemispheres and that have been severed in split-brain patients form a structure called the
- A) reticular formation.
  - B) association areas.
  - C) corpus callosum.
  - D) parietal lobes.

18. Beginning at the front of the brain and moving toward the back of the head, then down the skull and back around to the front, which of the following is the correct order of the cortical regions?
- A) occipital lobe; temporal lobe; parietal lobe; frontal lobe
  - B) temporal lobe; frontal lobe; parietal lobe; occipital lobe
  - C) frontal lobe; occipital lobe; temporal lobe; parietal lobe
  - D) frontal lobe; parietal lobe; occipital lobe; temporal lobe
19. Following a nail gun wound to his head, Jack became more uninhibited, irritable, dishonest, and profane. It is likely that his personality change was the result of injury to his
- A) parietal lobe.
  - B) temporal lobe.
  - C) occipital lobe.
  - D) frontal lobe.
20. In the nervous system, I outnumber neurons. I also provide nutrients to the neurons and help remove excess neurotransmitters. I am a
- A) hormone.
  - B) myelin sheath.
  - C) glial cell.
  - D) gland.
21. Three-year-old Marco suffered damage to the speech area of the brain's left hemisphere when he fell from a swing. Research suggests that
- A) he may never speak again.
  - B) his motor abilities may improve so that he can easily use sign language.
  - C) his right hemisphere may take over much of the language function.
  - D) his earlier experience with speech may enable him to continue speaking.
22. When evolutionary psychologists use the word *fitness*, they are specifically referring to
- A) an animal's ability to adapt to changing environments.
  - B) the diversity of a species' gene pool.
  - C) the total number of members of the species currently alive.
  - D) our ability to survive and reproduce.

23. Each cell of the human body has a total of
- A) 23 chromosomes.
  - B) 23 genes.
  - C) 46 chromosomes.
  - D) 46 genes.
24. Genes direct our physical development by synthesizing
- A) hormones.
  - B) proteins.
  - C) DNA.
  - D) chromosomes.
25. Mutations are random errors in \_\_\_\_\_ replication.
- A) gene
  - B) chromosome
  - C) DNA
  - D) protein

## Answer Key

1. A
2. B
3. A
4. C
5. B
6. B
7. D
8. A
9. D
10. B
11. D
12. D
13. D
14. A
15. B
16. D
17. C
18. D
19. D
20. C
21. C
22. D
23. C
24. B
25. A

1. Natural, opiate-like neurotransmitters linked to pain control are called
  - A) glial cells.
  - B) dendrites.
  - C) hormones.
  - D) endorphins.
  
2. Drugs that block the reuptake of serotonin will thereby increase the concentration of serotonin molecules in the
  - A) axon terminals.
  - B) synaptic gaps.
  - C) glial cells.
  - D) endocrine glands.
  
3. The vast majority of neurons in the body's information system are
  - A) stem cells.
  - B) interneurons.
  - C) motor neurons.
  - D) sensory neurons.
  
4. The release of epinephrine and norepinephrine \_\_\_\_\_ blood pressure and \_\_\_\_\_ blood sugar levels.
  - A) raises; raises
  - B) lowers; lowers
  - C) raises; lowers
  - D) lowers; raises
  
5. Which hormone enables contractions associated with birthing and milk flow during nursing?
  - A) insulin
  - B) serotonin
  - C) oxytocin
  - D) epinephrine
  
6. Which of the following would be most useful for detecting the brain areas that are most active as a person performs mathematical calculations?
  - A) a brain lesion
  - B) an interneuron
  - C) a PET scan
  - D) a hemispherectomy

7. After suffering an accidental brain injury, Kira has difficulty walking in a smooth and coordinated manner. She has probably suffered damage to her
- A) amygdala.
  - B) hypothalamus.
  - C) cerebellum.
  - D) corpus callosum.
8. The limbic system structure that regulates hunger is called the
- A) thalamus.
  - B) amygdala.
  - C) hippocampus.
  - D) hypothalamus.
9. Research has suggested that a reward deficiency syndrome may contribute to
- A) homeostasis.
  - B) substance use disorder.
  - C) schizophrenia.
  - D) Parkinson's disease.
10. Which portion of the cerebral cortex is most directly involved in making plans and formulating moral judgments?
- A) occipital lobes
  - B) frontal lobes
  - C) temporal lobes
  - D) parietal lobes
11. Research with split-brain patients suggests that the \_\_\_\_\_ typically constructs the theories people offer to explain their own behaviors.
- A) autonomic nervous system
  - B) left cerebral hemisphere
  - C) somatic nervous system
  - D) right cerebral hemisphere



12. Compared with fraternal twins, identical twins are
- A) less similar in their risk of developing Alzheimer's disease and less similar in risk of being emotionally unstable.
  - B) more similar in their risk of developing Alzheimer's disease and more similar in risk of being emotionally unstable.
  - C) equally similar in their risk of developing Alzheimer's disease and more similar in risk of being emotionally unstable.
  - D) more similar in their risk of developing Alzheimer's disease and equally similar in risk of being emotionally unstable.
13. In emphasizing that heredity's effects on behavior depend on a person's home environment, psychologists are highlighting the importance of
- A) tomography.
  - B) neurogenesis.
  - C) lateralization.
  - D) nature–nurture interactions.
14. The prevalence of genetically predisposed traits that have a reproductive advantage is best explained in terms of
- A) epigenetics.
  - B) natural selection.
  - C) behavior genetics.
  - D) brain plasticity.
15. Which of the following is a major source of genetic diversity?
- A) brain plasticity
  - B) lateralization
  - C) mutations
  - D) homeostasis

## **Answer Key**

1. D
2. B
3. B
4. A
5. C
6. C
7. C
8. D
9. B
10. B
11. B
12. B
13. D
14. B
15. C

1. An axon transmits messages \_\_\_\_\_ the cell body and a dendrite transmits messages \_\_\_\_\_ the cell body.
  - A) away from; toward
  - B) away from; away from
  - C) toward; away from
  - D) toward; toward
  
2. To excite or inhibit an action potential in a receiving neuron, a neurotransmitter must cross the
  - A) axon.
  - B) synaptic gap.
  - C) glial cell.
  - D) endocrine glands.
  
3. The release of \_\_\_\_\_ to muscle cell receptors triggers muscle contractions.
  - A) ACh
  - B) serotonin
  - C) dopamine
  - D) adrenaline
  
4. The peripheral nervous system consists of
  - A) association areas.
  - B) the spinal cord.
  - C) the reticular formation.
  - D) sensory and motor neurons.
  
5. Although Ron has no genital sensations, he is capable of an erection if his genitals are stimulated. Ron's experience is most indicative of a
  - A) hemispherectomy.
  - B) severed spinal cord.
  - C) split brain.
  - D) reward deficiency syndrome.
  
6. To monitor the electrical activity in the brain that is triggered by hearing one's own name, researchers would make use of a(n)
  - A) MRI.
  - B) PET scan.
  - C) EEG.
  - D) brain lesion.

7. The visual cortex is located in the
  - A) occipital lobes.
  - B) parietal lobes.
  - C) temporal lobes.
  - D) association areas.
  
8. Following massive damage to his frontal lobes, Phineas Gage was most strikingly debilitated by
  - A) multiple sclerosis.
  - B) brain plasticity.
  - C) auditory hallucinations.
  - D) irritability.
  
9. The regions of the parietal lobes that are involved in mathematical and spatial reasoning are known as
  - A) the amygdala.
  - B) reward centers.
  - C) the reticular formation.
  - D) association areas.
  
10. Brain scans indicate that well-practiced pianists have a larger-than-usual auditory cortex area that encodes piano sounds. This best illustrates
  - A) hemispherectomy.
  - B) tomography.
  - C) neurogenesis.
  - D) plasticity.
  
11. Studies of the relative impact of nature and nurture on human differences in aggressiveness best illustrate the research efforts of
  - A) Freudian psychologists.
  - B) behavior geneticists.
  - C) evolutionary psychologists.
  - D) neurologists.
  
12. Chromosomes are composed of
  - A) epigenetic molecules.
  - B) synapses.
  - C) neurotransmitters.
  - D) deoxyribonucleic acid.

13. Two individuals are most likely to differ in personality if they are
- A) fraternal twins who were raised together.
  - B) identical twins who were raised apart.
  - C) fraternal twins who were raised apart.
  - D) identical twins who were raised together.
14. If chronic child abuse alters a victim's gene expression in such a fashion as to facilitate depression and suicide, this would be said to illustrate
- A) homeostasis.
  - B) an epigenetic
  - C) multiple sclerosis.
  - D) hemispherectomy.
15. Evolutionary psychologists attribute the human tendency to fear snakes and heights to
- A) oxytocin.
  - B) lateralization.
  - C) brain plasticity.
  - D) genetic predispositions.

## **Answer Key**

1. A
2. B
3. A
4. D
5. B
6. C
7. A
8. D
9. D
10. D
11. B
12. D
13. C
14. B
15. D

1. After Lola began using a street drug to enhance her moods, she discovered that she needed larger and larger doses of the drug in order to feel the drug's effect. Use your understanding of the neurotransmission process to explain Lola's experience.
2. The ancient Greek physician Hippocrates believed that four basic body fluids (blood, black bile, yellow bile, and phlegm) influenced human behavior, emotions, and personality. Use your understanding of the body's rapid and slower chemical communication systems to support or refute the general logic of Hippocrates' theory.
3. After suffering a head injury in an auto accident, Theresa says that she remembers what her mother looks like, and she can accurately recall many of her mother's distinctive facial features. However, when she is shown pictures of her mother, Theresa is unable to recognize who it is, even though she can see clearly. Use your understanding of the functioning brain to account for Theresa's strange pattern of experience.
4. Describe how an understanding of both a normally functioning brain and a split brain enables us to better appreciate the fact that most information processing takes place outside of conscious awareness.
5. Describe one of your personality traits that you believe to be highly heritable and another trait that seems to be much less so. Provide reasons for your answer, and explain why you would expect genetics to exert a much greater impact on some personality traits than on others.
6. Mr. Firkin is a shy and reserved person who often feels tense and nervous. In therapy, he recalled that he had an unhappy childhood, feeling that he did not receive enough attention from his mother and resenting the conservative family discipline and lifestyle enforced by his father. He blames both parents for his current anxiety, unhappiness, and loneliness. In light of your understanding of the interactive influences of nature and nurture, explain why Mr. Firkin's complaints about his parents may be somewhat unfair and unhelpful.

## **Answer Key**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.



1. The study of the links between physiology activity and psychological events is called
  - A) neurology.
  - B) cognitive psychology.
  - C) epigenetics.
  - D) biological psychology.
  
2. Dr. Wolski does research on the potential relationship between neurotransmitter deficiencies and mood states. Which psychological specialty does Dr. Wolski's research best represent?
  - A) tomography
  - B) biological psychology
  - C) epigenetics
  - D) cognitive psychology
  
3. A biological psychologist would be most interested in conducting research on the relationship between
  - A) neurotransmitters and depression.
  - B) bone density and body size.
  - C) self-esteem and popularity.
  - D) genetics and eye color.
  
4. Dendrites are branching extensions of
  - A) neurotransmitters.
  - B) endorphins.
  - C) neurons.
  - D) glial cells.
  
5. The function of dendrites is to
  - A) receive incoming signals from other neurons.
  - B) release neurotransmitters into the spatial junctions between neurons.
  - C) coordinate the activation of the parasympathetic and sympathetic nervous systems.
  - D) control pain through the release of opiate-like chemicals into the brain.
  
6. An axon is
  - A) a cell that serves as the basic building block of the nervous system.
  - B) a layer of fatty tissue that encases the fibers of many neurons.
  - C) a molecule that blocks neurotransmitter receptor sites.
  - D) the extension of a neuron that carries messages away from the cell body.

7. In transmitting sensory information to the brain, an electrical signal travels from the \_\_\_\_\_ of a single neuron.
- A) dendrites to the axon to the cell body
  - B) axon to the cell body to the dendrites
  - C) dendrites to the cell body to the axon
  - D) axon to the dendrites to the cell body
8. The speed at which a neural impulse travels is increased when the axon is encased by a(n)
- A) association area.
  - B) myelin sheath.
  - C) glial cell.
  - D) epigenetic molecule.
9. The longest part of a motor neuron is likely to be the
- A) dendrite.
  - B) axon.
  - C) cell body.
  - D) synapse.
10. A myelin sheath is a
- A) nerve network within the brainstem that controls physical arousal.
  - B) large band of neural fibers connecting the two hemispheres of the brain.
  - C) fatty tissue layer encasing the axon of a nerve cell.
  - D) bushy extension of a neuron that conducts impulses toward the cell body.
11. Degeneration of the myelin sheath results in
- A) neurogenesis.
  - B) multiple sclerosis.
  - C) the fight-or-flight response.
  - D) a reward deficiency syndrome.
12. Neurons are surrounded by \_\_\_\_\_, which guide neural connections and clean up after neurons send messages to one another.
- A) endorphins
  - B) glial cells
  - C) hormones
  - D) epigenetic molecules

13. One function of glial cells is to
- A) control heartbeat and breathing.
  - B) mimic the effects of neurotransmitters.
  - C) provide nutrients to neurons.
  - D) inhibit hormone secretions.
14. A brief electrical charge that travels down the axon of a neuron is called the
- A) synapse.
  - B) positron emission.
  - C) action potential.
  - D) neurogenesis.
15. An action potential is generated by the movement of
- A) glial cells.
  - B) hormones.
  - C) epigenetic molecules.
  - D) ions.
16. During a resting pause following depolarization, the sodium/potassium pump transports \_\_\_\_\_ ions \_\_\_\_\_ a neuron.
- A) positively charged; into
  - B) negatively charged; into
  - C) positively charged; out of
  - D) negatively charged; out of
17. The depolarization of a neural membrane can create a(n)
- A) action potential.
  - B) myelin sheath.
  - C) neural network.
  - D) interneuron.
18. The minimum level of stimulation required to trigger a neural impulse is called the
- A) neurogenesis.
  - B) threshold.
  - C) synapse.
  - D) action potential.

19. Neural stimulation that exceeds a threshold triggers
- A) lateralization.
  - B) homeostasis.
  - C) an action potential.
  - D) neurogenesis.
20. Increasing excitatory signals above the threshold for neural activation will not affect the intensity of an action potential. This indicates that a neuron's reaction is
- A) inhibited by the myelin sheath.
  - B) delayed by glial cells.
  - C) an all-or-none response.
  - D) monozygotic.
21. A slap on the back is more painful than a pat on the back because a slap triggers
- A) the release of endorphins.
  - B) more intense neural impulses.
  - C) the release of GABA.
  - D) more neurons to fire, and to fire more often.
22. Sir Charles Sherrington observed that impulses took an unexpectedly long time to travel a neural pathway. His observation provided evidence for the existence of
- A) association areas.
  - B) synaptic gaps.
  - C) interneurons.
  - D) genes.
23. A synapse is a(n)
- A) chemical messenger that triggers muscle contractions.
  - B) automatic response to sensory input.
  - C) junction between a sending neuron and a receiving neuron.
  - D) neural cable containing many axons.
24. The chemical messengers released into the spatial junctions between neurons are called
- A) hormones.
  - B) neurotransmitters.
  - C) synapses.
  - D) genes.

25. Neurotransmitters are released from knob-like terminals at the end of the
- A) dendrites.
  - B) cell body.
  - C) axon.
  - D) myelin sheath.
26. Reuptake refers to the
- A) movement of neurotransmitter molecules across a synaptic gap.
  - B) release of hormones into the bloodstream.
  - C) inflow of positively charged ions through an axon membrane.
  - D) reabsorption of excess neurotransmitter molecules by a sending neuron.
27. Which neurotransmitter plays the most direct role in learning and memory?
- A) dopamine
  - B) acetylcholine
  - C) GABA
  - D) oxytocin
28. Acetylcholine is a neurotransmitter that
- A) causes sleepiness.
  - B) lessens physical pain.
  - C) reduces depressed moods.
  - D) triggers muscle contractions.
29. Endorphins are
- A) neurotransmitters.
  - B) sex hormones.
  - C) endocrine glands.
  - D) glial cells.
30. Opiate drugs occupy the same receptor sites as
- A) serotonin.
  - B) endorphins.
  - C) dopamine.
  - D) epinephrine.

31. José has just played a long, bruising football game but feels little fatigue or discomfort. His lack of pain is most likely caused by the release of
- A) glutamate.
  - B) dopamine.
  - C) acetylcholine.
  - D) endorphins.
32. Alzheimer's disease is most closely linked to the deterioration of neurons that produce
- A) dopamine.
  - B) acetylcholine.
  - C) epinephrine.
  - D) endorphins.
33. Schizophrenia is most closely linked with excess receptor activity for the neurotransmitter
- A) dopamine.
  - B) epinephrine.
  - C) acetylcholine.
  - D) serotonin.
34. An undersupply of serotonin is most closely linked to
- A) Alzheimer's disease.
  - B) schizophrenia.
  - C) Parkinson's disease.
  - D) depression.
35. An undersupply of the major inhibitory neurotransmitter known as \_\_\_\_\_ is linked to seizures.
- A) glutamate
  - B) GABA
  - C) serotonin
  - D) ACh
36. Migraines are most closely linked with an
- A) oversupply of GABA.
  - B) undersupply of serotonin.
  - C) oversupply of glutamate.
  - D) undersupply of acetylcholine.

37. The body's natural production of endorphins is likely to be
- A) increased by heroin use and increased by vigorous exercise.
  - B) decreased by heroin use and decreased by vigorous exercise.
  - C) increased by heroin use and decreased by vigorous exercise.
  - D) decreased by heroin use and increased by vigorous exercise.
38. Jason's intensely uncomfortable withdrawal symptoms following heroin use were probably due in part to a reduction in his body's normal production of
- A) dopamine.
  - B) epinephrine.
  - C) acetylcholine.
  - D) endorphins.
39. The two major divisions of the nervous system are the central and the \_\_\_\_\_ nervous systems.
- A) autonomic
  - B) sympathetic
  - C) somatic
  - D) peripheral
40. The central nervous system consists of
- A) sensory and motor neurons.
  - B) somatic and autonomic systems.
  - C) the brain and the spinal cord.
  - D) sympathetic and parasympathetic branches.
41. Messages are transmitted from your spinal cord to muscles in your hands by the \_\_\_\_\_ nervous system.
- A) peripheral
  - B) parasympathetic
  - C) sympathetic
  - D) autonomic
42. Information travels through axons that are bundled into the cables that we call
- A) interneurons.
  - B) action potentials.
  - C) nerves.
  - D) association areas.

43. You feel the pain of a sprained ankle when \_\_\_\_\_ relay(s) messages from your ankle to your central nervous system.
- A) the limbic system
  - B) glial cells
  - C) motor neurons
  - D) sensory neurons
44. Sensory neurons are located in the
- A) thalamus.
  - B) reticular formation.
  - C) peripheral nervous system.
  - D) sensory cortex.
45. Sensory neurons are also referred to as \_\_\_\_\_ neurons, and motor neurons are referred to as \_\_\_\_\_ neurons.
- A) glia; endorphins
  - B) afferent; efferent
  - C) endorphins; glia
  - D) efferent; afferent
46. Neurons that function within the brain and spinal cord are called
- A) sensory neurons.
  - B) interneurons.
  - C) glial cells.
  - D) motor neurons.
47. Central nervous system neurons that process information between sensory inputs and motor outputs are called
- A) neurotransmitters.
  - B) interneurons.
  - C) synapses.
  - D) dendrites.
48. Information is carried from the central nervous system to the body's tissues by
- A) interneurons.
  - B) sensory neurons.
  - C) motor neurons.
  - D) the limbic system.



49. Some neurons enable you to grasp objects by relaying outgoing messages to the muscles in your arms and hands. These neurons are called
- A) glial cells.
  - B) sensory neurons.
  - C) stem cells.
  - D) motor neurons.
50. Motor neurons transmit signals to
- A) glands.
  - B) interneurons.
  - C) sensory neurons.
  - D) all of these parts.
51. The two divisions of the peripheral nervous system are the
- A) brain and spinal cord.
  - B) cerebrum and cerebellum.
  - C) limbic system and endocrine system.
  - D) somatic nervous system and the autonomic nervous system.
52. The somatic nervous system is a component of the \_\_\_\_\_ nervous system.
- A) peripheral
  - B) central
  - C) sympathetic
  - D) parasympathetic
53. The part of the peripheral nervous system that controls the glands and the muscles of the internal organs is called the
- A) somatic nervous system.
  - B) reticular formation.
  - C) limbic system.
  - D) autonomic nervous system.
54. Messages are transmitted from your spinal cord to your heart muscles by the
- A) limbic system.
  - B) somatic nervous system.
  - C) central nervous system.
  - D) autonomic nervous system.

55. Which division of the autonomic nervous system arouses the body and mobilizes its energy in stressful situations?
- A) the limbic system
  - B) the sympathetic nervous system
  - C) the somatic nervous system
  - D) the central nervous system
56. You come home one night to find a burglar in your house. Your heart starts racing and you begin to perspire. These physical reactions are triggered by the
- A) somatic nervous system.
  - B) sympathetic nervous system.
  - C) parasympathetic nervous system.
  - D) sensory cortex.
57. After discovering that the shadows outside his window were only the trees in the yard, Ralph's blood pressure decreased and his heartbeat slowed. These physical reactions were most directly regulated by his
- A) parasympathetic nervous system.
  - B) sympathetic nervous system.
  - C) somatic nervous system.
  - D) hippocampus.
58. The sympathetic and parasympathetic nervous systems work together to keep you in a steady internal state called
- A) plasticity.
  - B) lateralization.
  - C) homeostasis.
  - D) neurogenesis.
59. The parasympathetic nervous system
- A) stimulates digestion and slows heartbeat.
  - B) inhibits digestion and accelerates heartbeat.
  - C) stimulates digestion and accelerates heartbeat.
  - D) inhibits digestion and slows heartbeat.

60. An accelerated heartbeat is to a slowed heartbeat as the \_\_\_\_\_ nervous system is to the \_\_\_\_\_ nervous system.
- A) somatic; autonomic
  - B) autonomic; somatic
  - C) sympathetic; parasympathetic
  - D) parasympathetic; sympathetic
61. Neural networks refer to
- A) the branching extensions of a neuron.
  - B) interrelated clusters of neurons in the central nervous system.
  - C) neural cables containing many axons.
  - D) junctions between sending and receiving neurons.
62. The strengthening of synaptic connections facilitates the formation of
- A) interneurons.
  - B) endorphins.
  - C) neural networks.
  - D) glial cells.
63. A football quarterback can simultaneously make calculations of receiver distances, player movements, and gravitational forces. This best illustrates the activity of multiple
- A) endocrine glands.
  - B) endorphins.
  - C) neural networks.
  - D) reticular formations.
64. The part of the central nervous system that carries information from your senses to your brain and motor-control information to your body parts is the
- A) pituitary gland.
  - B) pancreas.
  - C) spinal cord.
  - D) reticular formation.
65. A simple, automatic, inborn response to a sensory stimulus is called a(n)
- A) neural network.
  - B) action potential.
  - C) neurotransmitter.
  - D) reflex.

66. The knee-jerk reflex is controlled by interneurons in the
- A) limbic system.
  - B) spinal cord.
  - C) brainstem.
  - D) cerebellum.
67. In a tragic diving accident, Andrew damaged his spinal cord. As a result, his legs were paralyzed. Andrew's injury was located in his
- A) somatic nervous system.
  - B) limbic system.
  - C) sympathetic nervous system.
  - D) central nervous system.
68. Aaron consistently exhibits a knee-jerk response without having any sensations of the taps on his knees. Aaron's experience is most indicative of a
- A) split brain.
  - B) severed spinal cord.
  - C) hemispherectomy.
  - D) reward deficiency syndrome.
69. The endocrine system consists of the
- A) part of the brainstem that controls heartbeat and breathing.
  - B) neural fibres connecting the two cerebral hemispheres.
  - C) hippocampus, amygdala, and hypothalamus.
  - D) set of glands that secrete hormones.
70. Hormones are the chemical messengers of the
- A) autonomic nervous system.
  - B) endocrine system.
  - C) limbic system.
  - D) reticular formation.
71. Endocrine glands secrete hormones directly into
- A) synaptic gaps.
  - B) the bloodstream.
  - C) the limbic system.
  - D) sensory neurons.

72. If a professor accused you of cheating on a test, your adrenal glands would probably release \_\_\_\_\_ into your bloodstream.
- A) endorphins
  - B) acetylcholine
  - C) epinephrine
  - D) oxytocin
73. The release of hormones by the adrenal glands is most likely to trigger
- A) a reduction of blood pressure.
  - B) the “fight-or-flight” response.
  - C) a reward deficiency syndrome.
  - D) neurogenesis.
74. The ovaries in females and the testes in males are part of the
- A) limbic system.
  - B) endocrine system.
  - C) sympathetic nervous system.
  - D) central nervous system.
75. The release of epinephrine into the bloodstream is most likely to
- A) increase blood sugar.
  - B) lower blood pressure.
  - C) stimulate digestion.
  - D) decrease perspiration.
76. At the age of 22, Mrs. LaBlanc was less than 4 feet tall. Her short stature was probably influenced by the lack of a growth hormone produced by the
- A) pancreas.
  - B) thyroid.
  - C) adrenal gland.
  - D) pituitary gland.
77. During a laboratory game, those given a nasal squirt of \_\_\_\_\_ rather than a placebo were more likely to trust strangers with their money.
- A) epinephrine
  - B) oxytocin
  - C) dopamine
  - D) serotonin

78. Oxytocin is secreted by the
- A) pancreas.
  - B) thyroid gland.
  - C) pituitary gland.
  - D) adrenal gland.
79. The hypothalamus influences the \_\_\_\_\_ to send messages to the \_\_\_\_\_.
- A) cerebellum; amygdala
  - B) pituitary; endocrine glands
  - C) motor neurons; sensory neurons
  - D) thalamus; angular gyrus
80. The master gland of the endocrine system is the
- A) thyroid gland.
  - B) adrenal gland.
  - C) pituitary gland.
  - D) pancreas.
81. Surgical destruction of brain tissue is called a(n)
- A) EEG.
  - B) synapse.
  - C) lesion.
  - D) MRI.
82. An amplified recording of the waves of electrical activity that sweep across the surface of the brain is called a(n)
- A) fMRI.
  - B) EEG.
  - C) PET scan.
  - D) MRI.
83. To identify which of Lucy's brain areas was most active when she talked, neuroscientists gave her a temporarily radioactive form of glucose and a(n)
- A) hemispherectomy.
  - B) PET scan.
  - C) EEG.
  - D) MRI scan.

84. The best way to detect enlarged fluid-filled brain regions in some patients who have schizophrenia is to use a(n)
- A) EEG.
  - B) MRI.
  - C) PET scan.
  - D) brain lesion.
85. MRI scans have revealed that some patients with schizophrenia have unusually enlarged
- A) glial cells.
  - B) ventricles.
  - C) sensory neurons.
  - D) association areas.
86. To identify which specific brain areas are most active during a particular mental task, researchers would be most likely to make use of a(n)
- A) fMRI.
  - B) hemispherectomy.
  - C) epigenetic mark.
  - D) brain lesion.
87. The sequence of brain regions from the evolutionarily oldest to newest is
- A) limbic system, brainstem, cerebral cortex.
  - B) brainstem, cerebral cortex, limbic system.
  - C) limbic system, cerebral cortex, brainstem.
  - D) brainstem, limbic system, cerebral cortex.
88. The part of the brainstem that controls heartbeat and breathing is called the
- A) cerebellum.
  - B) medulla.
  - C) amygdala.
  - D) thalamus.
89. If your \_\_\_\_\_ is destroyed, the left side of your brain could not control the movements of your right hand.
- A) brainstem
  - B) hippocampus
  - C) amygdala
  - D) corpus callosum

90. The part of the brainstem that helps to coordinate movements is called the
- A) nucleus accumbens.
  - B) corpus callosum.
  - C) amygdala.
  - D) pons.
91. Which brain structure receives information from all the senses except smell?
- A) hippocampus
  - B) amygdala
  - C) pons
  - D) thalamus
92. Which brain structure relays information from the eyes to the visual cortex?
- A) thalamus
  - B) amygdala
  - C) medulla
  - D) cerebellum
93. Information from higher brain regions is transmitted to the medulla through the
- A) corpus callosum.
  - B) hippocampus.
  - C) amygdala.
  - D) thalamus.
94. The reticular formation is located in the
- A) brainstem.
  - B) limbic system.
  - C) sensory cortex.
  - D) cerebellum.
95. Which region of your brainstem plays a role in arousing you to a state of alertness when someone nearby mentions your name?
- A) reticular formation
  - B) cerebellum
  - C) amygdala
  - D) medulla



96. Severing a cat's reticular formation from higher brain regions causes the cat to
- A) become violently aggressive.
  - B) cower in fear.
  - C) experience convulsive seizures.
  - D) lapse into a coma.
97. In addition to coordinating voluntary movement, the \_\_\_\_\_ enables nonverbal learning and memory.
- A) thalamus
  - B) cerebellum
  - C) pituitary gland
  - D) nucleus accumbens
98. After Kato's serious motorcycle accident, doctors detected damage to his cerebellum. Kato is most likely to have difficulty
- A) reading printed words.
  - B) understanding what others are saying.
  - C) tasting the flavors of foods.
  - D) playing his guitar.
99. Conscious information processing is LEAST likely to be required for the automatic physical survival functions regulated by the
- A) hippocampus.
  - B) sensory cortex.
  - C) brainstem.
  - D) frontal lobes.
100. A neural system at the border of the brainstem and the cerebral hemispheres is known as the
- A) sensory cortex.
  - B) limbic system.
  - C) reticular formation.
  - D) peripheral nervous system.
101. Which part of the limbic system plays an essential role in the processing of new memories?
- A) hypothalamus
  - B) thalamus
  - C) hippocampus
  - D) medulla

102. The amygdala consists of emotion-linked neural clusters in the
- A) frontal lobes.
  - B) reticular formation.
  - C) limbic system.
  - D) association areas.
103. To demonstrate that brain stimulation can make a rat violently aggressive, a neuroscientist should electrically stimulate the rat's
- A) reticular formation.
  - B) cerebellum.
  - C) medulla.
  - D) amygdala.
104. Which limbic system structure regulates thirst and body temperature?
- A) medulla
  - B) amygdala
  - C) hippocampus
  - D) hypothalamus
105. A brain tumor caused extensive damage to Mr. Thorndike's hypothalamus. It is most likely that he may suffer a loss of
- A) visual perception.
  - B) muscular coordination.
  - C) sexual motivation.
  - D) language comprehension.
106. The brain structure that provides a major link between the nervous system and the endocrine system is the
- A) cerebellum.
  - B) amygdala.
  - C) reticular formation.
  - D) hypothalamus.
107. James Olds and Peter Milner located reward centers in the brain structure known as the
- A) hypothalamus.
  - B) cerebellum.
  - C) medulla.
  - D) amygdala.

108. A limbic system reward center located in front of the hypothalamus is called the
- A) cerebellum.
  - B) reticular formation.
  - C) corpus callosum.
  - D) nucleus accumbens.
109. Addictive disorders may stem from malfunctioning reward centers in the
- A) thalamus.
  - B) cerebellum.
  - C) reticular formation.
  - D) limbic system.
110. About 85 percent of human brain weight comes from the
- A) medulla.
  - B) cerebrum.
  - C) thalamus.
  - D) reticular formation.
111. The cerebral cortex is the covering layer of the
- A) brainstem.
  - B) corpus callosum.
  - C) amygdala.
  - D) cerebrum.
112. Your conscious awareness of your own name and self-identity depends primarily on the normal functioning of your
- A) cerebellum.
  - B) amygdala.
  - C) hypothalamus.
  - D) cerebral cortex.
113. Which lobes of the brain receive the input that enables you to feel someone scratching your back?
- A) parietal
  - B) temporal
  - C) occipital
  - D) frontal

114. The surgical removal of a large tumor from Dane's occipital lobe resulted in extensive loss of brain tissue. Dane is most likely to suffer some loss of
- A) muscular coordination.
  - B) visual perception.
  - C) speaking ability.
  - D) pain sensations.
115. Auditory stimulation is first processed in the \_\_\_\_\_ lobes.
- A) occipital
  - B) temporal
  - C) frontal
  - D) parietal
116. The occipital lobes are to \_\_\_\_\_ as the temporal lobes are to \_\_\_\_\_.
- A) hearing; sensing movement
  - B) seeing; sensing touch
  - C) seeing; hearing
  - D) speaking; hearing
117. The motor cortex is located in the \_\_\_\_\_ lobes.
- A) occipital
  - B) temporal
  - C) frontal
  - D) parietal
118. During open brain surgery, Adam's left ankle twitched whenever the surgeon electrically stimulated a specific area within Adam's
- A) left frontal lobe.
  - B) right frontal lobe.
  - C) left parietal lobe.
  - D) right parietal lobe.
119. In a clinical trial of brain-implanted microelectrodes, a paralyzed 25-year-old man constructed shapes on a computer screen by activating neurons in his
- A) hypothalamus.
  - B) cerebellum.
  - C) motor cortex.
  - D) amygdala.

120. Which of the following body parts is associated with the greatest amount of brain tissue in the motor cortex?
- A) arms
  - B) face
  - C) trunk
  - D) knees
121. The sensory cortex is most critical for our sense of
- A) sight.
  - B) hearing.
  - C) touch.
  - D) smell.
122. Which part of your brain receives information that you are moving your legs?
- A) amygdala
  - B) motor cortex
  - C) sensory cortex
  - D) hypothalamus
123. Which of the following body parts is associated with the greatest amount of brain tissue in the sensory cortex?
- A) toes
  - B) knees
  - C) neck
  - D) lips
124. The auditory hallucinations experienced by people with schizophrenia are most closely linked with the activation of areas in their
- A) motor cortex.
  - B) amygdala.
  - C) temporal lobes.
  - D) hypothalamus.
125. The association areas are located in the
- A) brainstem.
  - B) thalamus.
  - C) limbic system.
  - D) cerebral cortex.

126. The most extensive regions of the brain are involved in higher mental functions such as memory and reasoning. These regions are called the
- A) reticular formation.
  - B) medulla.
  - C) cerebellum.
  - D) association areas.
127. The process of anticipating that you will be punished for misbehaving takes place in the
- A) sensory cortex.
  - B) reticular formation.
  - C) association areas.
  - D) sympathetic nervous system.
128. After he suffered a stroke, Mr. Santore's physical coordination skills and responsiveness to sensory stimulation quickly returned to normal. Unfortunately, however, he could no longer figure out how to find his way around his neighborhood. It is most likely that Mr. Santore suffered damage to his
- A) cerebellum.
  - B) thalamus.
  - C) hypothalamus.
  - D) association areas.
129. The classic case of railroad worker Phineas Gage best illustrated that frontal lobe damage can
- A) prevent reward deficiency syndrome.
  - B) enhance moral reasoning skills.
  - C) alter one's personality.
  - D) facilitate neurogenesis.
130. People's moral judgments are most likely to seem unrestrained by normal emotions if they have suffered damage to their
- A) cerebellum.
  - B) sensory cortex.
  - C) corpus callosum.
  - D) frontal cortex.

131. Mathematical and reasoning capacities are especially likely to be linked with association areas in the
- A) parietal lobes.
  - B) temporal lobes.
  - C) occipital lobes.
  - D) frontal lobes.
132. The inability to recognize familiar faces even though one can clearly see and describe features of the faces is associated with damage to the \_\_\_\_\_ lobes.
- A) frontal
  - B) parietal
  - C) occipital
  - D) temporal
133. The capacity of a brain area to reorganize in response to damage is known as brain
- A) tomography.
  - B) lateralization.
  - C) resonance.
  - D) plasticity.
134. The visual cortex is activated when blind people read Braille. This best illustrates
- A) plasticity.
  - B) neurogenesis.
  - C) hemispherectomy.
  - D) tomography.
135. The benefits of brain plasticity are most clearly demonstrated in
- A) children who have had a cerebral hemisphere surgically removed.
  - B) people paralyzed by a severed spinal cord.
  - C) individuals with Alzheimer's disease.
  - D) split-brain patients.
136. A person whose hand had been amputated actually felt sensations on his nonexistent fingers when his arm was stroked. This best illustrates the consequences of
- A) tomography.
  - B) brain plasticity.
  - C) lateralization.
  - D) a reward deficiency syndrome.

137. The process of forming new neurons within the brain is called
- A) lateralization.
  - B) hemispherectomy.
  - C) neurogenesis.
  - D) tomography.
138. Physical exercise and exposure to stimulating environments are most likely to promote
- A) tomography.
  - B) neurogenesis.
  - C) hemispherectomy.
  - D) reward deficiency syndrome.
139. The control of speech production by the left rather than the right hemisphere of the brain best illustrates
- A) neurogenesis.
  - B) lateralization.
  - C) hemispherectomy.
  - D) homeostasis.
140. Damage to the left cerebral hemisphere is most likely to reduce people's ability to
- A) solve arithmetic problems.
  - B) experience anger.
  - C) recognize faces.
  - D) fall asleep at night.
141. The corpus callosum is a wide band of axon fibers that
- A) enables the left hemisphere to control the right side of the body.
  - B) transmits information between the cerebral hemispheres.
  - C) controls the glands and muscles of the internal organs.
  - D) transfers neural impulses from the CNS to the PNS.
142. Those whose corpus callosum is surgically severed are said to be patients with
- A) brain plasticity.
  - B) a reward deficiency syndrome.
  - C) neurogenesis.
  - D) split brains.



143. Neurosurgeons have severed the corpus callosum in human patients in order to reduce
- A) Alzheimer's disease.
  - B) epileptic seizures.
  - C) neural plasticity.
  - D) reward deficiency syndrome.
144. Optic nerves transmit information from the \_\_\_\_\_ visual field of \_\_\_\_\_ to the left cerebral hemisphere.
- A) left; only the left eye
  - B) right; only the right eye
  - C) left; only the right eye
  - D) right; both the right and left eyes
145. A picture of a dog is briefly flashed in the left visual field of a split-brain patient. At the same time a picture of a boy is flashed in the right visual field. In identifying what she saw, the patient would be most likely to
- A) use her left hand to point to a picture of a dog.
  - B) verbally report that she saw a dog.
  - C) use her left hand to point to a picture of a boy.
  - D) verbally report that she saw a boy.
146. The ability to simultaneously copy different figures with the right and left hand is most characteristic of those whose \_\_\_\_\_ has been cut.
- A) nucleus accumbens
  - B) reticular formation
  - C) corpus callosum
  - D) motor cortex
147. When a person speaks, brain waves and bloodflow are especially likely to reveal increased activity in the
- A) hypothalamus.
  - B) left hemisphere.
  - C) amygdala.
  - D) right hemisphere.
148. Deaf people who use sign language typically
- A) demonstrate greater mathematical competence than hearing persons.
  - B) process language in their left cerebral hemisphere.
  - C) have better communication skills than hearing persons.
  - D) have a smaller corpus callosum than hearing persons.

149. People who suffer partial paralysis will sometimes obstinately claim they can move a paralyzed limb if they have suffered damage to the
- A) right cerebral hemisphere.
  - B) parasympathetic nervous system.
  - C) left cerebral hemisphere.
  - D) sympathetic nervous system.
150. At about 8 months of age, people across the world start to \_\_\_\_\_ strangers; as adults, they prefer the company of those whose attributes are \_\_\_\_\_ to their own.
- A) fear; similar
  - B) enjoy; different
  - C) fear; different
  - D) enjoy; similar
151. Every nongenetic influence, from prenatal nutrition to the people and things around us, is an aspect of our
- A) heredity.
  - B) plasticity.
  - C) environment.
  - D) neurogenesis.
152. The impact of our cultural backgrounds on the development of our personal values best illustrates
- A) homeostasis.
  - B) lateralization.
  - C) tomography.
  - D) environmental influences.
153. The study of the relative power and limits of genetic and environmental influences on behavior is known as
- A) natural selection.
  - B) evolutionary psychology.
  - C) behavior genetics.
  - D) tomography.

154. A behavior geneticist would be most interested in studying hereditary influences on
- A) skin color.
  - B) sexual anatomy.
  - C) physical beauty.
  - D) physical aggressiveness.
155. A human sperm cell contains
- A) 23 chromosomes.
  - B) 23 genes.
  - C) 46 chromosomes.
  - D) 46 genes.
156. Chromosomes are contained within
- A) brain cells.
  - B) sperm cells.
  - C) blood cells.
  - D) all of these types of cells.
157. DNA is a complex
- A) sex hormone.
  - B) neural network.
  - C) molecule.
  - D) synapse.
158. The biochemical units of heredity that make up the chromosomes are called
- A) genes.
  - B) dendrites.
  - C) epigenetic molecules.
  - D) neurotransmitters.
159. A segment of DNA capable of synthesizing a specific protein is called a
- A) gene.
  - B) myelin sheath.
  - C) chromosome.
  - D) neurotransmitter.

160. Depending on environmental conditions, specific genes can be either
- A) monozygotic or dizygotic.
  - B) active or inactive.
  - C) hormones or neurotransmitters.
  - D) stem cells or glial cells.
161. The biological code for eye color is transmitted from parents to offspring by
- A) neurotransmitters.
  - B) the optic nerve.
  - C) epigenetic molecules.
  - D) genes.
162. Identical twins originate from the fertilization of
- A) a single egg cell by a single sperm cell.
  - B) two egg cells by a single sperm cell.
  - C) a single egg cell by two sperm cells.
  - D) two egg cells by two sperm cells.
163. Unlike identical twins, fraternal twins are described as
- A) homeostatic.
  - B) dizygotic.
  - C) extraverted.
  - D) epigenetic.
164. Twin studies suggest that Alzheimer's disease is influenced by
- A) hemispherectomy.
  - B) tomography.
  - C) heredity.
  - D) neurogenesis.
165. Compared with identical twins, fraternal twins are \_\_\_\_\_ similar in neuroticism and \_\_\_\_\_ similar in extraversion.
- A) more; less
  - B) less; more
  - C) more; more
  - D) less; less

166. Juan and Alonzo are fraternal twin brothers, whereas Jake and Alex are identical twin brothers. The similarities between Jake and Alex with respect to \_\_\_\_\_ are likely to be greater than the similarities between Juan and Alonzo.
- A) extraversion
  - B) neuroticism
  - C) physical appearance
  - D) all of these characteristics
167. Environmental influences on personality traits are most clearly highlighted by comparing
- A) identical twins raised together with fraternal twins raised apart.
  - B) identical twins raised together with fraternal twins raised together.
  - C) identical twins raised apart with fraternal twins raised together.
  - D) identical twins raised together with identical twins raised apart.
168. Although identical twins have been shown to have some amazing psychological similarities, one should be cautious about attributing these similarities to genetic factors because
- A) the twins may have been raised in completely different environments.
  - B) genetic factors influence physical, not psychological, characteristics.
  - C) any two strangers are likely to share a string of coincidental similarities.
  - D) many fraternal twins have been shown to be psychologically different from each other.
169. Differences between men and women in heritable personality traits cannot necessarily be attributed to genetic differences between the genders because
- A) physical growth proceeds at different rates for males and females.
  - B) natural selection contributes to a species' common genetic endowment.
  - C) heritable traits can be influenced by social environments.
  - D) genes influence the production of sex hormones.
170. The personalities of adopted children
- A) are very similar to the personalities of the other children in their adoptive families.
  - B) are very similar to the personalities of their biologically related siblings.
  - C) are not very similar to the personalities of their adoptive parents.
  - D) are more similar to the personalities of their caregiving adoptive parents than to the personalities of their biological parents.

171. Jason and Alex are biologically unrelated adolescents who were adopted as infants and raised together in the same home. For which of the following are Jason and Alex least likely to resemble each other any more than they resemble a genetically unrelated adolescent from another home in their neighborhood?
- A) extraversion
  - B) religious beliefs
  - C) table manners
  - D) political attitudes
172. We are likely to \_\_\_\_\_ the personality similarities among children in the same family, and we are likely to \_\_\_\_\_ the personality similarities between parents and their children.
- A) overestimate; underestimate
  - B) underestimate; overestimate
  - C) underestimate; underestimate
  - D) overestimate; overestimate
173. An African butterfly that is green in the summer turns brown in the fall thanks to a temperature-controlled genetic switch. This best illustrates that genes are
- A) dizygotic.
  - B) self-regulating.
  - C) interneurons.
  - D) protein molecules.
174. When the effect of one factor depends on the presence of another factor, outcomes are said to reflect a(n)
- A) lateralization.
  - B) interaction.
  - C) plasticity.
  - D) tomography.
175. The unique genetically influenced traits of children evoke predictable responses from their caregivers. This best illustrates the \_\_\_\_\_ of nature and nurture.
- A) evolution
  - B) interaction
  - C) homeostasis
  - D) independence

176. People have always responded so positively to Alyssa's good looks that she has developed a socially confident and outgoing personality. This best illustrates the interaction of
- A) genes and chromosomes.
  - B) neurogenesis and plasticity.
  - C) nature and nurture.
  - D) the CNS and the PNS.
177. The study of influences on gene expression that occur without a DNA change is called
- A) tomography.
  - B) epigenetics.
  - C) behavior genetics.
  - D) evolutionary psychology.
178. An organic methyl molecule attached to part of a DNA strand has been identified as a(n)
- A) endorphin.
  - B) lesion.
  - C) mutation.
  - D) epigenetic mark.
179. Infant rats deprived of their mothers' normal licking had more \_\_\_\_\_ that block access to the "on" switch for developing the brain's stress hormone receptors.
- A) dendrites
  - B) mutations
  - C) glial cells
  - D) epigenetic molecules
180. The principle of natural selection was first advanced by
- A) Thomas Bouchard.
  - B) Sigmund Freud.
  - C) Charles Darwin.
  - D) Roger Sperry.
181. Evolutionary psychology studies the evolution of behavior and the mind using principles of
- A) neurogenesis.
  - B) lateralization.
  - C) neural plasticity.
  - D) natural selection.

182. The reproductive advantage enjoyed by organisms best suited to a particular environment is known as
- A) self-regulation.
  - B) behavior genetics.
  - C) natural selection.
  - D) homeostasis.
183. Several organisms from a strain of bacteria infecting patients in a hospital setting inherited a mutation that increased their resistance to the hospitals' antibacterial drugs. Over time, the drug-resistant bacteria increasingly outnumbered the bacteria without the mutation. This best illustrates
- A) neurogenesis.
  - B) lateralization.
  - C) natural selection.
  - D) neural plasticity.
184. Dmitry Belyaev and Lyudmila Trut successfully domesticated wild foxes by means of
- A) lateralization.
  - B) selective mating.
  - C) epigenetics.
  - D) hormone injections.
185. Evolutionary psychologists are most likely to emphasize that human adaptiveness to a variety of different environments has contributed to human
- A) tomography.
  - B) mutations.
  - C) lateralization.
  - D) reproductive success.
186. A random error in gene replication is known as a(n)
- A) epigenetic mark.
  - B) genome.
  - C) mutation.
  - D) natural selection.
187. The genome is the complete
- A) collection of sexual characteristics regulated by the X and Y chromosomes.
  - B) range of traits that contribute to reproductive success.
  - C) genetic profile common to members of a species.
  - D) set of interactions between genes and environment.



188. If a genetically based attraction to beautiful people contributes to survival, that trait will likely be passed on to subsequent generations. This best illustrates
- A) lateralization.
  - B) natural selection.
  - C) behavior genetics.
  - D) neural plasticity.
189. An evolutionary psychologist would suggest that people are genetically predisposed to
- A) fear dangerous animals.
  - B) love their own children.
  - C) seek healthy-looking mates.
  - D) do all of these things.
190. According to evolutionary psychologists, behaviors that promote reproductive success are likely to be
- A) socially prohibited.
  - B) genetically predisposed.
  - C) ecologically disruptive.
  - D) disease-producing.
191. According to evolutionary psychologists, our predisposition to overconsume fatty junk foods illustrates that we are biologically prepared to behave in ways that promoted the \_\_\_\_\_ of our ancestors.
- A) tomography
  - B) brain plasticity
  - C) reproductive success
  - D) lateralization
192. Evolutionary psychologists would be most likely to predict that
- A) more people are biologically predisposed to fear guns than to fear snakes.
  - B) children are more likely to be safely cared for by their biological fathers than by their stepfathers.
  - C) people are the most romantically attracted to those who are the most genetically dissimilar to themselves.
  - D) genetic predispositions have little effect on our social relationships.

## Answer Key

1. D
2. B
3. A
4. C
5. A
6. D
7. C
8. B
9. B
10. D
11. B
12. B
13. C
14. C
15. D
16. C
17. A
18. B
19. C
20. C
21. D
22. B
23. C
24. B
25. C
26. D
27. B
28. D
29. A
30. B
31. D
32. B
33. A
34. D
35. B
36. C
37. D
38. D
39. D
40. C
41. A
42. C
43. D
44. C

45. B
46. B
47. B
48. C
49. D
50. A
51. D
52. A
53. D
54. D
55. B
56. B
57. A
58. C
59. A
60. C
61. B
62. C
63. C
64. C
65. D
66. B
67. D
68. B
69. D
70. B
71. B
72. C
73. B
74. B
75. A
76. D
77. B
78. C
79. B
80. C
81. C
82. B
83. B
84. B
85. B
86. A
87. D
88. B
89. A
90. D

- 91. D
- 92. A
- 93. D
- 94. A
- 95. A
- 96. D
- 97. B
- 98. D
- 99. C
- 100. B
- 101. C
- 102. C
- 103. D
- 104. D
- 105. C
- 106. D
- 107. A
- 108. D
- 109. D
- 110. B
- 111. D
- 112. D
- 113. A
- 114. B
- 115. B
- 116. C
- 117. C
- 118. B
- 119. C
- 120. B
- 121. C
- 122. C
- 123. D
- 124. C
- 125. D
- 126. D
- 127. C
- 128. D
- 129. C
- 130. D
- 131. A
- 132. D
- 133. D
- 134. A
- 135. A
- 136. B

- 137. C
- 138. B
- 139. B
- 140. A
- 141. B
- 142. D
- 143. B
- 144. D
- 145. D
- 146. C
- 147. B
- 148. B
- 149. A
- 150. A
- 151. C
- 152. D
- 153. C
- 154. D
- 155. A
- 156. D
- 157. C
- 158. A
- 159. A
- 160. B
- 161. D
- 162. A
- 163. B
- 164. C
- 165. D
- 166. D
- 167. D
- 168. C
- 169. C
- 170. C
- 171. A
- 172. D
- 173. B
- 174. B
- 175. B
- 176. C
- 177. B
- 178. D
- 179. D
- 180. C
- 181. D
- 182. C

- 183. C
- 184. B
- 185. D
- 186. C
- 187. C
- 188. B
- 189. D
- 190. B
- 191. C
- 192. B

1. The axons of certain neurons are covered by a layer of fatty tissue that helps speed neural transmission. This tissue is
  - A) dopamine.
  - B) the myelin sheath.
  - C) acetylcholine.
  - D) an endorphin.
  
2. Heartbeat, digestion, and other self-regulating bodily functions are governed by the
  - A) voluntary nervous system.
  - B) autonomic nervous system.
  - C) sympathetic division of the autonomic nervous system.
  - D) somatic nervous system.
  
3. A strong stimulus can increase the
  - A) speed of the impulse the neuron fires.
  - B) intensity of the impulse the neuron fires.
  - C) number of times the neuron fires.
  - D) threshold that must be reached before the neuron fires.
  
4. The pain of heroin withdrawal may be attributable to the fact that
  - A) under the influence of heroin the brain ceases production of endorphins.
  - B) under the influence of heroin the brain ceases production of all neurotransmitters.
  - C) during heroin withdrawal the brain's production of all neurotransmitters is greatly increased.
  - D) heroin destroys endorphin receptors in the brain.
  
5. The brain research technique that involves monitoring the brain's usage of glucose is called (in abbreviated form) the
  - A) PET scan.
  - B) fMRI.
  - C) EEG.
  - D) MRI.
  
6. An evolutionary psychologist would be most interested in studying
  - A) why most parents are so passionately devoted to their children.
  - B) hereditary influences on skin color.
  - C) why certain diseases are more common among certain age groups.
  - D) genetic differences in personality.

7. Though there is no single “control center” for emotions, their regulation is primarily attributed to the brain region known as the
- A) limbic system.
  - B) reticular formation.
  - C) brainstem.
  - D) cerebellum.
8. Which is the correct sequence in the transmission of a simple reflex?
- A) sensory neuron, interneuron, sensory neuron
  - B) interneuron, motor neuron, sensory neuron
  - C) sensory neuron, interneuron, motor neuron
  - D) interneuron, sensory neuron, motor neuron
9. In a resting state, the axon is
- A) depolarized, with mostly negatively charged ions outside and positively charged ions inside.
  - B) depolarized, with mostly positively charged ions outside and negatively charged ions inside.
  - C) polarized, with mostly negatively charged ions outside and positively charged ions inside.
  - D) polarized, with mostly positively charged ions outside and negatively charged ions inside.
10. Which of the following is typically controlled by the right hemisphere?
- A) language
  - B) learned voluntary movements
  - C) arithmetic reasoning
  - D) perceptual tasks
11. Dr. Hernandez is studying neurotransmitter abnormalities in depressed patients. She would most likely consider herself be a \_\_\_\_\_ psychologist.
- A) personality
  - B) psychodynamic
  - C) psychoanalytic
  - D) biological



12. The increasing complexity of animals' behavior is accompanied by an
- A) increase in the size of the brainstem.
  - B) increase in the depth of the corpus callosum.
  - C) increase in the size of the frontal lobes.
  - D) increase in the amount of association area.
13. Voluntary movements, such as writing with a pencil, are directed by the
- A) sympathetic nervous system.
  - B) somatic nervous system.
  - C) parasympathetic nervous system.
  - D) autonomic nervous system.
14. A neuron will generate action potentials when it
- A) remains below its threshold.
  - B) receives an excitatory input.
  - C) receives more excitatory than inhibitory inputs.
  - D) is stimulated by a neurotransmitter.
15. Which is the correct sequence in the transmission of a neural impulse?
- A) axon, dendrite, cell body, synapse
  - B) dendrite, axon, cell body, synapse
  - C) synapse, axon, dendrite, cell body
  - D) dendrite, cell body, axon, synapse
16. Chemical messengers produced by endocrine glands are called
- A) glia.
  - B) neurotransmitters.
  - C) hormones.
  - D) enzymes.
17. Following a head injury, a person has ongoing difficulties staying awake. Most likely, the damage occurred to the
- A) thalamus.
  - B) corpus callosum.
  - C) reticular formation.
  - D) cerebellum.

18. An experimenter flashes the word FLYTRAP onto a screen facing a split-brain patient so that FLY projects to her right hemisphere and TRAP to her left hemisphere. When asked what she saw, the patient will
- A) say she saw FLY.
  - B) say she saw TRAP.
  - C) point to FLY using her right hand.
  - D) point to TRAP using her left hand.
19. Cortical areas that are NOT primarily concerned with sensory, motor, or language functions are
- A) called projection areas.
  - B) called association areas.
  - C) located mostly in the parietal lobe.
  - D) located mostly in the temporal lobe.
20. In the brain, learning occurs as experience strengthens certain connections in cell work groups called
- A) action potentials.
  - B) neural networks.
  - C) endocrine systems.
  - D) dendrites.
21. Unlike \_\_\_\_\_ twins, who develop from a single fertilized egg, \_\_\_\_\_ twins develop from separate fertilized eggs.
- A) fraternal; identical
  - B) identical; fraternal
  - C) placental; nonplacental
  - D) nonplacental; placental
22. Several studies of long-separated identical twins have found that these twins
- A) have little in common because of the different environments in which they were raised.
  - B) have many similarities, in everything from medical histories to personalities.
  - C) have similar personalities, but very different likes, dislikes, and lifestyles.
  - D) are no more similar than are fraternal twins reared apart.

23. Chromosomes are composed of a coiled chain of
- A) DNA molecules that contain genes.
  - B) DNA molecules that contain neurotransmitters.
  - C) DNA molecules that contain endorphins.
  - D) DNA molecules that contain enzymes.
24. When the effect of one factor (such as environment) depends on another (such as heredity), we say there is a(n) \_\_\_\_\_ between the two factors.
- A) norm
  - B) positive correlation
  - C) negative correlation
  - D) interaction
25. Most human traits are
- A) learned.
  - B) determined by a single gene.
  - C) influenced by many genes acting together.
  - D) unpredictable.

## Answer Key

1. B
2. B
3. C
4. A
5. A
6. A
7. A
8. C
9. D
10. D
11. D
12. D
13. B
14. C
15. D
16. C
17. C
18. B
19. B
20. B
21. B
22. B
23. A
24. D
25. C