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| 1. What was the first field of study to emphasize the localization of function?   |  |  |  | | --- | --- | --- | |  | a. | cognitive psychology | |  | b. | phrenology | |  | c. | neuroscience | |  | d. | biological psychology |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 2. Biological psychology is best described as the scientific study of the links between   |  |  |  | | --- | --- | --- | |  | a. | biological processes and psychological processes. | |  | b. | genes and neurotransmitters. | |  | c. | sensory and motor neurons. | |  | d. | the CNS and the PNS. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 3. Dr. Chewing conducts research on the relationship between sympathetic nervous system functioning and arousal due to stressful life events. Her research focus best represents the specialty area known as   |  |  |  | | --- | --- | --- | |  | a. | biological psychology. | |  | b. | psychoanalysis. | |  | c. | cognitive psychology. | |  | d. | endocrinology. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 4. Within little more than the past century, biological psychologists have learned all of the following EXCEPT that   |  |  |  | | --- | --- | --- | |  | a. | our experiences wire our adaptive brain. | |  | b. | humans integrate information processed in different brain systems. | |  | c. | specific brain systems serve specific functions. | |  | d. | nerve cells are unable to communicate with one another. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 5. Which of the following are components of a biopsychosocial system?   |  |  |  | | --- | --- | --- | |  | a. | the cell body, dendrite, and axon | |  | b. | neurotransmitters and the synaptic gaps | |  | c. | biological, psychological, and social-cultural systems | |  | d. | agonist and antagonist molecules |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 6. Professor Azimi studies the influence of biological, psychological, and social-cultural systems on family interactions. He is applying   |  |  |  | | --- | --- | --- | |  | a. | the biopsychosocial approach. | |  | b. | the localization of function. | |  | c. | phrenology. | |  | d. | neuroplasticity. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 7. Neuroplasticity refers to the brain's capacity to   |  |  |  | | --- | --- | --- | |  | a. | automatically regulate heartbeat and breathing. | |  | b. | generate a sense of conscious awareness. | |  | c. | build new neural pathways. | |  | d. | increase a neurotransmitter's action. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 8. The neural change that is strongest in childhood but also continues throughout life is called   |  |  |  | | --- | --- | --- | |  | a. | neuroplasticity. | |  | b. | phrenology. | |  | c. | localization of function. | |  | d. | hippocampal repair. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 9. Stan has spent years exploring prehistoric caves and interpreting the wall and ceiling paintings. His experiences have led to changes in his brain's spatial memory center that support his detailed memories of the many cave pathways. This best illustrates the value of   |  |  |  | | --- | --- | --- | |  | a. | echolocation. | |  | b. | reuptake. | |  | c. | neuroplasticity. | |  | d. | lateralization. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 10. Practicing a new skill for a limited time, such as spending 45 minutes learning to play an instrument, will most likely   |  |  |  | | --- | --- | --- | |  | a. | produce no neural benefits. | |  | b. | produce changes in related brain areas. | |  | c. | increase the proportion of glia to neurons. | |  | d. | enable hippocampal enlargement. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 11. Zack, who drives a taxi in the evenings, has learned all of the different streets and avenues in his large city, as well as numerous shortcuts to avoid traffic. What brain change is likely to be evident?   |  |  |  | | --- | --- | --- | |  | a. | His hippocampus has increased in size. | |  | b. | His auditory cortex has increased. | |  | c. | His adrenal glands are smaller than they were earlier. | |  | d. | His pituitary gland has doubled in size. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 12. Lucia, a 50-year-old concert pianist, has been practicing the piano almost daily since she was 6 years old. If they were to study her brain, researchers would likely find that   |  |  |  | | --- | --- | --- | |  | a. | her hippocampus is larger than average. | |  | b. | her auditory cortex is larger than average. | |  | c. | her adrenal glands are smaller than average. | |  | d. | her pons is roughly double the average size. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 13. The cells that serve as the basic building blocks of the body's nervous system are called   |  |  |  | | --- | --- | --- | |  | a. | neurons. | |  | b. | neurotransmitters. | |  | c. | agonists. | |  | d. | genes. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 14. The cell body is   |  |  |  | | --- | --- | --- | |  | a. | a brief electrical charge that travels down an axon. | |  | b. | the cell's life-support center. | |  | c. | a molecule that increases a neurotransmitter's action. | |  | d. | the neuron extension that passes messages through its branches to other neurons. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 15. The branching extensions of nerve cells that receive incoming signals from sensory receptors or from other neurons are called the   |  |  |  | | --- | --- | --- | |  | a. | axons. | |  | b. | synapses. | |  | c. | dendrites. | |  | d. | neurotransmitters. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 16. The part of a neuron that transmits neural messages to other neurons or to muscles or glands is called the   |  |  |  | | --- | --- | --- | |  | a. | dendrite. | |  | b. | synapse. | |  | c. | axon. | |  | d. | cell body. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 17. Signal reception is to \_\_\_\_\_\_\_\_ as signal transmission is to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | dopamine; serotonin | |  | b. | dendrite; axon | |  | c. | neurotransmitter; hormone | |  | d. | sympathetic nervous system; parasympathetic nervous system |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 18. Which part of a neuron is sometimes encased by a fatty myelin sheath?   |  |  |  | | --- | --- | --- | |  | a. | axon | |  | b. | synaptic gap | |  | c. | cell body | |  | d. | dendrite |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 19. The myelin sheath helps to increase the \_\_\_\_\_\_\_\_ of neural impulses.   |  |  |  | | --- | --- | --- | |  | a. | frequency | |  | b. | intensity | |  | c. | threshold | |  | d. | speed |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 20. The slowdown of neural communication in multiple sclerosis results from the degeneration of the   |  |  |  | | --- | --- | --- | |  | a. | amygdala. | |  | b. | endorphins. | |  | c. | myelin sheath. | |  | d. | pituitary gland. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 21. Sherilyn has multiple sclerosis. This means that   |  |  |  | | --- | --- | --- | |  | a. | her neurotransmitters are overactive. | |  | b. | she has experienced degeneration of the myelin sheath. | |  | c. | she has experienced an increase in glial cells. | |  | d. | the cell bodies of her cells do not contain a nucleus. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 22. Rachel has experienced diminishing muscle control and impaired cognition. After performing a battery of tests, her doctor explains that her condition is due to the deterioration of the myelin sheaths insulating her motor axons. Rachel has likely been diagnosed with   |  |  |  | | --- | --- | --- | |  | a. | epileptic seizures. | |  | b. | Alzheimer's disease. | |  | c. | multiple sclerosis. | |  | d. | depression. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 23. Nerve cells receive life-supporting nutrients and insulating myelin from   |  |  |  | | --- | --- | --- | |  | a. | glial cells. | |  | b. | neurotransmitters. | |  | c. | endorphins. | |  | d. | hormones. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 24. Which brain cells support, nourish, and protect neurons?   |  |  |  | | --- | --- | --- | |  | a. | endorphins | |  | b. | glial cells | |  | c. | synapses | |  | d. | myelin cells |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 25. A postmortem analysis of Einstein's brain revealed a much greater concentration of \_\_\_\_\_\_\_\_ than found in the average adult brain.   |  |  |  | | --- | --- | --- | |  | a. | glutamate | |  | b. | opiate receptors | |  | c. | glial cells | |  | d. | ACh-producing neurons |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 26. An action potential refers to a   |  |  |  | | --- | --- | --- | |  | a. | neural impulse. | |  | b. | synaptic gap. | |  | c. | neurotransmitter. | |  | d. | reflex. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 27. An electrically charged atom is called a(n)   |  |  |  | | --- | --- | --- | |  | a. | antagonist. | |  | b. | ion. | |  | c. | action potential. | |  | d. | radioactive tracer. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 28. Computerized collision avoidance systems allow a vehicle to respond more rapidly to sudden obstructions in its path than a human driver typically could. This is because   |  |  |  | | --- | --- | --- | |  | a. | a neuron's reaction is an all-or-none response. | |  | b. | an axon branches into junctions with many other neurons. | |  | c. | the fatty tissue layer that insulates axons slows the transmission of neural impulses. | |  | d. | the speed of neural impulses is much slower than the speed of electricity through a wire. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 29. The fluid outside a resting axon's membrane has mostly positively charged \_\_\_\_\_\_\_\_ ions.   |  |  |  | | --- | --- | --- | |  | a. | serotonin | |  | b. | sodium | |  | c. | dopamine | |  | d. | protein |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 30. A resting axon's fluid interior contains both large, \_\_\_\_\_\_\_\_ charged protein ions and smaller, \_\_\_\_\_\_\_\_ charged potassium ions.   |  |  |  | | --- | --- | --- | |  | a. | positively; positively | |  | b. | negatively; negatively | |  | c. | positively; negatively | |  | d. | negatively; positively |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 31. The resting potential of a neuron refers to   |  |  |  | | --- | --- | --- | |  | a. | a brief electrical charge that travels down the axon. | |  | b. | the storage of neurotransmitter molecules within synaptic vesicles. | |  | c. | the electrical polarization of the inside and outside of the neural membrane. | |  | d. | a capacity to reabsorb neurotransmitter molecules released into the synaptic gap. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 32. Negatively charged ions are not permitted to enter the neuron when it fires because the   |  |  |  | | --- | --- | --- | |  | a. | myelin sheath is not insulating the neuron. | |  | b. | neuron is selectively permeable. | |  | c. | neural signal is inhibitory. | |  | d. | glial cells are not guiding the neural connection. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 33. The selective permeability of a neural membrane enables the development of a   |  |  |  | | --- | --- | --- | |  | a. | myelin sheath. | |  | b. | resting potential. | |  | c. | neural network. | |  | d. | synaptic gap. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 34. The depolarization of an axon is most likely to occur when   |  |  |  | | --- | --- | --- | |  | a. | positively charged sodium ions rush into the axon. | |  | b. | negatively charged potassium ions rush into the axon. | |  | c. | positively charged sodium ions rush out of the axon. | |  | d. | negatively charged potassium ions rush out of the axon. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 35. The temporary inflow of positive sodium ions through an axon membrane is the   |  |  |  | | --- | --- | --- | |  | a. | resting potential. | |  | b. | refractory period. | |  | c. | action potential. | |  | d. | threshold. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 36. The neuron’s resting potential is to \_\_\_\_\_\_\_\_ as the action potential is to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | selectively permeable; an all-or-none response | |  | b. | negative outside/positive inside state; positive outside/negative inside state | |  | c. | positive outside/negative inside state; negative inside and outside state | |  | d. | an all-or-none response; selectively permeable |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 37. A neural impulse is generated only when excitatory minus inhibitory signals exceed a certain   |  |  |  | | --- | --- | --- | |  | a. | action potential. | |  | b. | synaptic gap. | |  | c. | level of reuptake. | |  | d. | threshold. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 38. In the process of beginning an action potential, the threshold refers to   |  |  |  | | --- | --- | --- | |  | a. | neuron extensions that conduct messages toward the cell body. | |  | b. | the level of stimulation required to trigger a neural impulse. | |  | c. | neuron extensions that send messages to other neurons. | |  | d. | the junction between a sending and receiving neuron. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 39. A brief resting pause that occurs after a neuron has fired is called   |  |  |  | | --- | --- | --- | |  | a. | a synaptic gap. | |  | b. | an action potential. | |  | c. | a refractory period. | |  | d. | reuptake. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 40. A neuron is taking a short break. This is called the   |  |  |  | | --- | --- | --- | |  | a. | communication response. | |  | b. | refractory period. | |  | c. | threshold. | |  | d. | ion.  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 41. Once a neuron has fired, it cannot fire again until after   |  |  |  | | --- | --- | --- | |  | a. | depolarization. | |  | b. | the resting potential has passed. | |  | c. | the refractory period. | |  | d. | activation. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 42. During the \_\_\_\_\_\_\_\_, action potentials cannot occur until the neuron returns to its resting state.   |  |  |  | | --- | --- | --- | |  | a. | communication response | |  | b. | refractory period | |  | c. | threshold | |  | d. | all-or-none state |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 43. An all-or-none response pattern is characteristic of the   |  |  |  | | --- | --- | --- | |  | a. | activation of either the sympathetic or the parasympathetic system. | |  | b. | release of endorphins into the central nervous system. | |  | c. | release of hormones into the bloodstream. | |  | d. | initiation of neural impulses. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 44. The neural impulses sent from your eyes to the visual processing centers of your brain will be no stronger or faster if you glance at a large campfire than if you glance at a burning candle. This best illustrates a characteristic of neural functioning known as   |  |  |  | | --- | --- | --- | |  | a. | reuptake. | |  | b. | depolarization. | |  | c. | selective permeability. | |  | d. | an all-or-none response. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 45. A strong stimulus is experienced as more intense than a weak stimulus because a strong stimulus triggers   |  |  |  | | --- | --- | --- | |  | a. | a speedier action potential. | |  | b. | a higher-voltage action potential. | |  | c. | more neurons to fire, and to fire more often. | |  | d. | the release of epinephrine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 46. Neurotransmitters carry messages to all of the following EXCEPT   |  |  |  | | --- | --- | --- | |  | a. | other neurons. | |  | b. | muscles. | |  | c. | glands. | |  | d. | hormones. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 47. As the action potential moves speedily down the axon, \_\_\_\_\_\_\_\_ in the cell membrane finish restoring the first section of the axon to its resting potential.   |  |  |  | | --- | --- | --- | |  | a. | positively charged ions | |  | b. | sodium/potassium pumps | |  | c. | negatively charged ions | |  | d. | protein ions |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 48. An action potential registers an electrical charge of   |  |  |  | | --- | --- | --- | |  | a. | –70 millivolts. | |  | b. | –55 millivolts. | |  | c. | +40 millivolts. | |  | d. | +70 millivolts. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 49. The British physiologist who discovered that neurons met at what he called the synapse was   |  |  |  | | --- | --- | --- | |  | a. | Candace Pert. | |  | b. | Sir Charles Sherrington. | |  | c. | Solomon Snyder. | |  | d. | Albert Einstein. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 50. The junctions between the axon tips of sending neurons and the dendrites or cell bodies of receiving neurons are called   |  |  |  | | --- | --- | --- | |  | a. | interneurons. | |  | b. | synapses. | |  | c. | neural networks. | |  | d. | thresholds. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 51. Neurons meet other neurons at the   |  |  |  | | --- | --- | --- | |  | a. | synapses. | |  | b. | dendrites. | |  | c. | axons. | |  | d. | glial cells. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 52. Imagine that Bill and Ned are both neurons. They will be separated by   |  |  |  | | --- | --- | --- | |  | a. | glial cells. | |  | b. | a synaptic gap. | |  | c. | a dendrite. | |  | d. | a cell body. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 53. Synaptic gaps separate neurotransmitter receptor sites from   |  |  |  | | --- | --- | --- | |  | a. | glial cells. | |  | b. | axon terminals. | |  | c. | a myelin sheath. | |  | d. | dendrite fibers. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 54. Neurons with the greatest number of dendrites and axon terminals would also be most likely to share the greatest number of \_\_\_\_\_\_\_\_ with other neurons.   |  |  |  | | --- | --- | --- | |  | a. | glial cells | |  | b. | endorphins | |  | c. | refractory periods | |  | d. | synapses |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 55. The electrical impulse of an action potential is converted into a chemical message by the body’s   |  |  |  | | --- | --- | --- | |  | a. | dendrites. | |  | b. | axons. | |  | c. | neural system. | |  | d. | all-or-nothing response. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 56. When an action potential reaches the end of an axon, \_\_\_\_\_\_\_\_ is converted into a chemical message.   |  |  |  | | --- | --- | --- | |  | a. | the myelin sheath | |  | b. | a sodium ion | |  | c. | the electrical impulse | |  | d. | a glial cell |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 57. Neurotransmitters are molecules that travel across the   |  |  |  | | --- | --- | --- | |  | a. | cell body. | |  | b. | synaptic gap. | |  | c. | myelin sheath. | |  | d. | threshold. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 58. Neurotransmitters are best described as   |  |  |  | | --- | --- | --- | |  | a. | electrically charged atoms. | |  | b. | sodium/potassium pumps. | |  | c. | chemical messengers. | |  | d. | action potentials. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 59. The chemical messengers that are passed from one neuron to another during an action potential are called   |  |  |  | | --- | --- | --- | |  | a. | dendrites. | |  | b. | neurotransmitters. | |  | c. | synapses. | |  | d. | hormones. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 60. For a neurotransmitter to pass from one neuron to another, the neurotransmitter must   |  |  |  | | --- | --- | --- | |  | a. | be excitatory. | |  | b. | exhibit an all-or-nothing response. | |  | c. | cross the synaptic gap. | |  | d. | be inhibitory. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 61. Neurotransmitters bind to receptor sites and influence the flow of \_\_\_\_\_\_\_\_ into receiving neurons.   |  |  |  | | --- | --- | --- | |  | a. | ions | |  | b. | glial cells | |  | c. | myelin | |  | d. | hormones |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 62. Neurotransmitter receptor sites are primarily located on the   |  |  |  | | --- | --- | --- | |  | a. | dendrites. | |  | b. | myelin sheath. | |  | c. | glial cells. | |  | d. | axon terminals. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 63. After the neurotransmitters act as excitatory or inhibitory signals, the excess neurotransmitters will do all of the following EXCEPT   |  |  |  | | --- | --- | --- | |  | a. | drift away. | |  | b. | be broken down by enzymes. | |  | c. | be reabsorbed by the sending neuron. | |  | d. | fire again. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 64. The reuptake of a neurotransmitter such as serotonin would involve the reabsorption of serotonin into a(n)   |  |  |  | | --- | --- | --- | |  | a. | axon terminal. | |  | b. | dendrite. | |  | c. | myelin sheath. | |  | d. | glial cell. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 65. The reabsorption of excess neurotransmitter molecules by a sending neuron is called   |  |  |  | | --- | --- | --- | |  | a. | an action potential. | |  | b. | the all-or-none response. | |  | c. | a refractory period. | |  | d. | reuptake. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 66. The neurotransmitter that plays a role in transferring messages from a motor neuron to an arm muscle is known as   |  |  |  | | --- | --- | --- | |  | a. | dopamine. | |  | b. | epinephrine. | |  | c. | acetylcholine. | |  | d. | insulin. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 67. Jordan is undergoing surgery and has been anesthetized, which caused a temporary muscular paralysis. The anesthetic most likely interfered with the normal functioning of the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | serotonin. | |  | b. | dopamine. | |  | c. | acetylcholine. | |  | d. | norepinephrine.  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 68. When the transmission of ACh is blocked, the result is   |  |  |  | | --- | --- | --- | |  | a. | depression. | |  | b. | aggression. | |  | c. | muscular paralysis. | |  | d. | schizophrenia. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 69. After being bitten by a snake, Ben experiences muscle paralysis. The venom most likely interfered with the normal functioning of the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | serotonin. | |  | b. | dopamine. | |  | c. | acetylcholine. | |  | d. | norepinephrine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 70. Which of the following is NOT an opiate?   |  |  |  | | --- | --- | --- | |  | a. | fentanyl | |  | b. | dopamine | |  | c. | morphine | |  | d. | heroin |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 71. Which chemical elevates mood and eases pain?   |  |  |  | | --- | --- | --- | |  | a. | opiate | |  | b. | serotonin | |  | c. | dopamine | |  | d. | GABA |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 72. Travis is addicted to a chemical that elevates mood and eases pain. He is most likely addicted to   |  |  |  | | --- | --- | --- | |  | a. | an opiate. | |  | b. | serotonin. | |  | c. | dopamine. | |  | d. | GABA. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 73. Endorphins are neurotransmitter molecules similar to   |  |  |  | | --- | --- | --- | |  | a. | dopamine. | |  | b. | serotonin. | |  | c. | morphine. | |  | d. | acetylcholine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 74. Endorphins are most directly involved in the control of   |  |  |  | | --- | --- | --- | |  | a. | body temperature. | |  | b. | physical pain. | |  | c. | muscle contraction. | |  | d. | attention. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 75. Bradley jogs more than two miles every day. When asked why, he states that it makes him feel good. This feeling can be explained by the release of   |  |  |  | | --- | --- | --- | |  | a. | norepinephrine. | |  | b. | neurons. | |  | c. | endorphins. | |  | d. | glutamate. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 76. Acupuncture may be effective because of the release of   |  |  |  | | --- | --- | --- | |  | a. | agonists. | |  | b. | neurons. | |  | c. | endorphins. | |  | d. | antagonists. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 77. When Stella is seriously injured in a car accident, she seems barely to notice her pain until hours later. This is likely due in part to the release of \_\_\_\_\_\_\_\_ in her body.   |  |  |  | | --- | --- | --- | |  | a. | acetylcholine | |  | b. | endorphins | |  | c. | dopamine | |  | d. | glutamate |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 78. After three hours of playing an intense game of volleyball, Sherry began to experience feelings of exhilaration and pleasure. It is likely that her feelings were linked to the release of   |  |  |  | | --- | --- | --- | |  | a. | dopamine. | |  | b. | acetylcholine. | |  | c. | endorphins. | |  | d. | growth hormones. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 79. Morphine and heroin are   |  |  |  | | --- | --- | --- | |  | a. | ACh agonists. | |  | b. | hormones. | |  | c. | dendrites. | |  | d. | opiates. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 80. The brain's own natural production of endorphins is likely to be suppressed by   |  |  |  | | --- | --- | --- | |  | a. | physical pain. | |  | b. | physical exercise. | |  | c. | heroin use. | |  | d. | antidepressant drugs. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 81. Agonists are chemical molecules that increase the activity of   |  |  |  | | --- | --- | --- | |  | a. | motor neurons. | |  | b. | genes. | |  | c. | synapses. | |  | d. | neurotransmitters. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 82. Any drug molecule that binds to a neurotransmitter receptor site and mimics the neurotransmitter's excitatory or inhibitory effects is a(n)   |  |  |  | | --- | --- | --- | |  | a. | glutamate. | |  | b. | steroid. | |  | c. | agonist. | |  | d. | antagonist. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 83. Juliette has taken the opiate drug fentanyl, which makes her feel “high” by increasing her normal sensation of arousal. The drug she took was an   |  |  |  | | --- | --- | --- | |  | a. | acetylcholine. | |  | b. | endorphin. | |  | c. | agonist. | |  | d. | antagonist. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 84. An antagonist is a drug molecule that   |  |  |  | | --- | --- | --- | |  | a. | increases a neurotransmitter’s action. | |  | b. | mimics the activity of endorphins. | |  | c. | inhibits or blocks a neurotransmitter's action. | |  | d. | is reabsorbed by a sending neuron.  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 85. Botulin blocks the release of ACh. Botulin is best described as a(n)   |  |  |  | | --- | --- | --- | |  | a. | opiate. | |  | b. | glutamate. | |  | c. | antagonist. | |  | d. | neurotransmitter. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 86. Curare is a paralyzing poison that functions as a(n)   |  |  |  | | --- | --- | --- | |  | a. | ACh agonist. | |  | b. | GABA agonist. | |  | c. | ACh antagonist. | |  | d. | GABA antagonist. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 87. Mr. Diaz, who is experiencing worsening memory loss, has just been diagnosed with Alzheimer's disease. His symptoms are most likely linked with a deterioration of neurons that produce the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | dopamine. | |  | b. | acetylcholine. | |  | c. | epinephrine. | |  | d. | endorphins. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 88. The loss of motor control and tremors that accompany Parkinson's disease result from an undersupply of the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | serotonin. | |  | b. | ACh. | |  | c. | GABA. | |  | d. | dopamine. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 89. Alzheimer’s disease is to \_\_\_\_\_\_\_\_ as Parkinson’s disease is to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | ACh; dopamine | |  | b. | serotonin; GABA | |  | c. | glutamate; endorphins | |  | d. | norepinephrine; GABA |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 90. Which neurotransmitter helps us move, think, and feel?   |  |  |  | | --- | --- | --- | |  | a. | ACh | |  | b. | dopamine | |  | c. | GABA | |  | d. | glutamate |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 91. Michael has recently been diagnosed with schizophrenia. Doctors have found an oversupply of the neurotransmitter \_\_\_\_\_\_\_\_ in his brain.   |  |  |  | | --- | --- | --- | |  | a. | ACh | |  | b. | dopamine | |  | c. | serotonin | |  | d. | GABA  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 92. Mike suffers from Parkinson’s disease and experiences tremors and loss of motor control. This is likely related to   |  |  |  | | --- | --- | --- | |  | a. | too much serotonin. | |  | b. | too little dopamine. | |  | c. | too little ACh. | |  | d. | too much GABA. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 93. At a therapy appointment, Sari describes her depression, lethargy, and difficulty sleeping. Sari’s therapist suggests a prescription drug that may alleviate these symptoms. This drug would most likely increase the availability of the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | GABA. | |  | b. | ACh. | |  | c. | serotonin. | |  | d. | dopamine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 94. An undersupply of GABA is most closely linked to   |  |  |  | | --- | --- | --- | |  | a. | schizophrenia. | |  | b. | paralysis. | |  | c. | insomnia. | |  | d. | Alzheimer's disease. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 95. Seizures are likely to be associated with an   |  |  |  | | --- | --- | --- | |  | a. | undersupply of GABA and an oversupply of glutamate. | |  | b. | oversupply of GABA and an undersupply of glutamate. | |  | c. | undersupply of GABA and an undersupply of glutamate. | |  | d. | oversupply of GABA and an oversupply of glutamate. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 96. The body's speedy electrochemical information network is called the   |  |  |  | | --- | --- | --- | |  | a. | circulatory system. | |  | b. | cognitive system. | |  | c. | nervous system. | |  | d. | endocrine system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 97. Which of the following is a communication network that takes in information from the environment and the body's tissues, makes decisions, and then sends back information and orders to the body's tissues?   |  |  |  | | --- | --- | --- | |  | a. | autonomic nervous system | |  | b. | somatic nervous system | |  | c. | nervous system | |  | d. | parasympathetic nervous system |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 98. The brain and spinal cord form the   |  |  |  | | --- | --- | --- | |  | a. | autonomic nervous system. | |  | b. | somatic nervous system. | |  | c. | central nervous system. | |  | d. | endocrine system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 99. Which of the following is known as the body's decision maker?   |  |  |  | | --- | --- | --- | |  | a. | central nervous system | |  | b. | peripheral nervous system | |  | c. | somatic nervous system | |  | d. | autonomic nervous system |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 100. When Chacko felt the pain from stepping on a large stone, the pain message was transmitted by his peripheral nervous system to his   |  |  |  | | --- | --- | --- | |  | a. | sympathetic nervous system. | |  | b. | parasympathetic nervous system. | |  | c. | spinal cord. | |  | d. | motor neurons. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 101. The peripheral nervous system transfers information from the \_\_\_\_\_\_\_\_ to the rest of the body.   |  |  |  | | --- | --- | --- | |  | a. | brain and spinal cord | |  | b. | sensory neurons | |  | c. | interneurons | |  | d. | glands |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 102. When Derek was bitten by a dog, the pain message was transmitted to his spinal cord by the \_\_\_\_\_\_\_\_ nervous system.   |  |  |  | | --- | --- | --- | |  | a. | sympathetic | |  | b. | parasympathetic | |  | c. | peripheral | |  | d. | central |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 103. Nerves are neural cables formed from bundles of   |  |  |  | | --- | --- | --- | |  | a. | endorphins. | |  | b. | interneurons. | |  | c. | axons. | |  | d. | glial cells. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 104. Information is carried from the body's tissues and sensory receptors to the central nervous system by   |  |  |  | | --- | --- | --- | |  | a. | interneurons. | |  | b. | sensory neurons. | |  | c. | motor neurons. | |  | d. | endocrine glands. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 105. Sensory neurons carry information inward to the brain and spinal cord. This means that sensory neurons are   |  |  |  | | --- | --- | --- | |  | a. | efferent. | |  | b. | afferent. | |  | c. | different. | |  | d. | indifferent. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 106. Sam was just stung by a bee. Which of the following carried messages about the bee sting on his body inward to the brain and spinal cord for processing?   |  |  |  | | --- | --- | --- | |  | a. | sensory neurons | |  | b. | motor neurons | |  | c. | interneurons | |  | d. | spinal neurons |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 107. Efferent is to afferent as \_\_\_\_\_\_\_\_ is to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | sympathetic nervous system; parasympathetic nervous system | |  | b. | sensory neuron; motor neuron | |  | c. | parasympathetic nervous system; sympathetic nervous system | |  | d. | motor neuron; sensory neuron |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 108. Sensory neurons transmit signals to   |  |  |  | | --- | --- | --- | |  | a. | glands. | |  | b. | glial cells. | |  | c. | motor neurons. | |  | d. | interneurons. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 109. For you to be able to run, \_\_\_\_\_\_\_\_ must relay messages from your central nervous system to your leg muscles.   |  |  |  | | --- | --- | --- | |  | a. | interneurons | |  | b. | motor neurons | |  | c. | afferent neurons | |  | d. | the autonomic nervous system |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 110. Motor neurons are an important part of the   |  |  |  | | --- | --- | --- | |  | a. | central nervous system. | |  | b. | circulatory system. | |  | c. | peripheral nervous system. | |  | d. | endocrine system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 111. Motor neurons carry instructions outward, making them   |  |  |  | | --- | --- | --- | |  | a. | efferent. | |  | b. | afferent. | |  | c. | different. | |  | d. | indifferent. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 112. Information travels from the spinal cord to the brain through   |  |  |  | | --- | --- | --- | |  | a. | interneurons. | |  | b. | somatic nervous system. | |  | c. | adrenal glands. | |  | d. | the sympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 113. The peripheral nervous system transfers information from the \_\_\_\_\_\_\_\_ to the rest of the body.   |  |  |  | | --- | --- | --- | |  | a. | brain | |  | b. | sensory neurons | |  | c. | interneurons | |  | d. | glands |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 114. The division of the peripheral nervous system controlling the body's skeletal muscles is the   |  |  |  | | --- | --- | --- | |  | a. | motor nervous system. | |  | b. | sympathetic nervous system. | |  | c. | somatic nervous system. | |  | d. | parasympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 115. The division of the peripheral nervous system that controls the movement of your fingers when you input data on your computer is the   |  |  |  | | --- | --- | --- | |  | a. | autonomic nervous system. | |  | b. | sympathetic nervous system. | |  | c. | somatic nervous system. | |  | d. | parasympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 116. Neural signals from the spinal cord are transmitted to your stomach muscles by the   |  |  |  | | --- | --- | --- | |  | a. | skeletal nervous system. | |  | b. | central nervous system. | |  | c. | autonomic nervous system. | |  | d. | somatic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 117. The autonomic nervous system operates on its own, controlling our glands and internal organ muscles. Thus, it is described as   |  |  |  | | --- | --- | --- | |  | a. | self-regulating. | |  | b. | agonistic. | |  | c. | antagonistic. | |  | d. | somatic. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 118. When Mr. Levitt saw his 2-year-old daughter fall from a swing, his heartbeat accelerated, his blood pressure rose, and he began to perspire. Mr. Levitt’s state of arousal was activated by his \_\_\_\_\_\_\_\_ nervous system.   |  |  |  | | --- | --- | --- | |  | a. | parasympathetic | |  | b. | sympathetic | |  | c. | somatic | |  | d. | central |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 119. The sympathetic 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. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 120. The parasympathetic nervous system is to the sympathetic nervous system as \_\_\_\_\_\_\_\_ is to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | pupil dilation; pupil contraction | |  | b. | raising blood pressure; lowering blood pressure | |  | c. | inhibition of digestion; stimulation of digestion | |  | d. | lowering of blood sugar; raising of blood sugar |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 121. The parasympathetic nervous system is a division of the \_\_\_\_\_\_\_\_ nervous system.   |  |  |  | | --- | --- | --- | |  | a. | autonomic | |  | b. | somatic | |  | c. | central | |  | d. | sympathetic |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 122. Karen, who was out for a walk, spied a large dog barreling around the corner and felt her heart begin to race. When she realized the dog was on a leash and its owner close behind, her heartbeat slowed. The slowing of her heartbeat was most directly regulated by her   |  |  |  | | --- | --- | --- | |  | a. | hypothalamus. | |  | b. | parasympathetic nervous system. | |  | c. | somatic nervous system. | |  | d. | sympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 123. The autonomic nervous system helps to maintain a relatively consistent body temperature despite environmental temperature changes. This best illustrates   |  |  |  | | --- | --- | --- | |  | a. | reuptake. | |  | b. | a refractory period. | |  | c. | depolarization. | |  | d. | homeostasis. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 124. Somatic and autonomic are to the \_\_\_\_\_\_\_\_ as the brain and spinal cord are to the \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | peripheral nervous system; central nervous system | |  | b. | peripheral nervous system; sympathetic nervous system | |  | c. | parasympathetic nervous system; central nervous system | |  | d. | central nervous system; sympathetic nervous system |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 125. The neurons of the central nervous system cluster into work groups known as   |  |  |  | | --- | --- | --- | |  | a. | terminal branches. | |  | b. | dendrites. | |  | c. | motor neurons. | |  | d. | neural networks. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 126. The brain's information-processing capacities are most clearly enhanced by   |  |  |  | | --- | --- | --- | |  | a. | neural networks. | |  | b. | ACh agonists. | |  | c. | endorphins. | |  | d. | reflexes. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 127. The spinal cord is part of the \_\_\_\_\_\_\_\_ nervous system.   |  |  |  | | --- | --- | --- | |  | a. | central | |  | b. | peripheral | |  | c. | autonomic | |  | d. | somatic |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 128. The part of the central nervous system that carries \_\_\_\_\_\_\_\_ information to your brain and \_\_\_\_\_\_\_\_ information to your body parts is the spinal cord.   |  |  |  | | --- | --- | --- | |  | a. | sensory; motor-control | |  | b. | reflex; peripheral | |  | c. | parasympathetic; sympathetic | |  | d. | somatic; autonomic |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 129. The \_\_\_\_\_\_\_\_ is a two-way information highway that is part of the \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | sympathetic nervous system; peripheral nervous system | |  | b. | spinal cord; central nervous system | |  | c. | brain; somatic nervous system | |  | d. | parasympathetic nervous system; peripheral nervous system |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 130. As Marco gets a massage, information from his muscles \_\_\_\_\_\_\_\_ to his brain for processing.   |  |  |  | | --- | --- | --- | |  | a. | passes through his nervous system | |  | b. | travels up his spinal cord | |  | c. | navigates via the sympathetic nervous system | |  | d. | jumps to the parasympathetic nervous system |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 131. When Jordan clicks to a new section of his psychology textbook, the movement of his hand is controlled by neurons connecting through the   |  |  |  | | --- | --- | --- | |  | a. | brain. | |  | b. | spinal cord. | |  | c. | sympathetic nervous system. | |  | d. | parasympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 132. A simple \_\_\_\_\_\_\_\_ is composed of a single sensory neuron and a single motor neuron.   |  |  |  | | --- | --- | --- | |  | a. | agonist molecule | |  | b. | spinal reflex | |  | c. | endocrine pathway | |  | d. | homeostatic response |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 133. The simplest neural pathways are those that govern our   |  |  |  | | --- | --- | --- | |  | a. | thoughts. | |  | b. | emotions. | |  | c. | reflexes. | |  | d. | sexual drives. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 134. The knee-jerk reflex requires the activity of the   |  |  |  | | --- | --- | --- | |  | a. | central nervous system. | |  | b. | autonomic nervous system. | |  | c. | sympathetic nervous system. | |  | d. | parasympathetic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 135. When Francis accidentally touched a hot pan, she was able to jerk her fingers away before sensing any pain because this withdrawal reflex   |  |  |  | | --- | --- | --- | |  | a. | was activated by interneurons in her spinal cord. | |  | b. | did not involve any activity within her central nervous system. | |  | c. | was activated by the rapidly responding endorphins. | |  | d. | was activated by her self-regulating autonomic nervous system. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 136. A person’s hand jerks away from a candle flame even before information about the event reaches the brain because   |  |  |  | | --- | --- | --- | |  | a. | only the spinal cord is involved in the hand-withdrawal reflex. | |  | b. | sensory neurons process the information automatically. | |  | c. | only afferent neurons are involved in the processing of the information. | |  | d. | only interneurons are involved in this reflex. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 137. The body's chemical communication system that is much slower than the nervous system is called the   |  |  |  | | --- | --- | --- | |  | a. | somatic system. | |  | b. | parasympathetic system. | |  | c. | autonomic system. | |  | d. | endocrine system. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 138. The chemical messengers of the endocrine system are called   |  |  |  | | --- | --- | --- | |  | a. | neurotransmitters. | |  | b. | hormones. | |  | c. | agonists. | |  | d. | genes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 139. Which of the following is true regarding hormones and neurotransmitters?   |  |  |  | | --- | --- | --- | |  | a. | They are the same thing. | |  | b. | Some hormones are chemically identical to neurotransmitters. | |  | c. | Only hormones produce molecules that act on receptors elsewhere. | |  | d. | The effect of neurotransmitters lasts longer than that of hormones. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 140. Whereas the endocrine system is \_\_\_\_\_\_\_\_ than the nervous system, its effects \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | faster; are immediate | |  | b. | faster; do not last as long | |  | c. | slower; are ineffective | |  | d. | slower; last longer |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 141. In a moment of danger, an individual's adrenal glands release   |  |  |  | | --- | --- | --- | |  | a. | ACh. | |  | b. | GABA. | |  | c. | epinephrine. | |  | d. | dopamine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 142. When he spotted a large deer while hiking, Desmond experienced a surge of energy triggered by the release of \_\_\_\_\_\_\_\_ into the bloodstream.   |  |  |  | | --- | --- | --- | |  | a. | epinephrine | |  | b. | oxytocin | |  | c. | endorphins | |  | d. | serotonin |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 143. Epinephrine and norepinephrine are released by the   |  |  |  | | --- | --- | --- | |  | a. | thyroid gland. | |  | b. | pituitary gland. | |  | c. | adrenal glands. | |  | d. | pancreas. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 144. The release of epinephrine into the bloodstream is most likely to   |  |  |  | | --- | --- | --- | |  | a. | lower blood sugar. | |  | b. | lower blood pressure. | |  | c. | stimulate digestion. | |  | d. | increase heart rate. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 145. The fight-or-flight response is most clearly associated with the release of \_\_\_\_\_\_\_\_ into the bloodstream.   |  |  |  | | --- | --- | --- | |  | a. | endorphins | |  | b. | serotonin | |  | c. | epinephrine | |  | d. | dopamine |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 146. When threatened by a neighbor, Neil experienced a sudden surge of autonomic nervous system arousal. Neil's reaction best illustrates the nature of   |  |  |  | | --- | --- | --- | |  | a. | the pain reflex. | |  | b. | an all-or-none response. | |  | c. | a refractory period. | |  | d. | the fight-or-flight response. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 147. Simona just got the results of a blood test, which indicated that she had a high level of glucose (sugar) in her blood. Which part of her endocrine system controls the level of sugar in her blood?   |  |  |  | | --- | --- | --- | |  | a. | parathyroids | |  | b. | ovary | |  | c. | thyroid gland | |  | d. | pancreas |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 148. Which endocrine gland regulates body growth?   |  |  |  | | --- | --- | --- | |  | a. | adrenal | |  | b. | thyroid | |  | c. | pituitary | |  | d. | pancreas |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 149. Social bonding is promoted by pituitary gland secretions of   |  |  |  | | --- | --- | --- | |  | a. | cortisol. | |  | b. | epinephrine. | |  | c. | oxytocin. | |  | d. | dopamine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 150. Which hormone generally promotes social bonding?   |  |  |  | | --- | --- | --- | |  | a. | ACh | |  | b. | glutamate | |  | c. | oxytocin | |  | d. | GABA |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 151. Becky is breastfeeding her baby. Which hormone is responsible for milk flow while she is nursing?   |  |  |  | | --- | --- | --- | |  | a. | ACh | |  | b. | glutamate | |  | c. | oxytocin | |  | d. | GABA |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 152. Which hormone encourages communities to act cooperatively against threats?   |  |  |  | | --- | --- | --- | |  | a. | dopamine | |  | b. | oxytocin | |  | c. | GABA | |  | d. | ACh |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 153. Oxytocin strengthens communities by   |  |  |  | | --- | --- | --- | |  | a. | promoting social bonding and facilitating cooperation. | |  | b. | enabling the fight-or-flight response. | |  | c. | facilitating aggression against common enemies. | |  | d. | enabling endocrine messages to outlast the effects of neural messages. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 154. The pituitary has been identified as a(n)   |  |  |  | | --- | --- | --- | |  | a. | antagonist. | |  | b. | myelin sheath. | |  | c. | master gland. | |  | d. | agonist. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 155. The pituitary does not send messages to the sex glands until it receives a signal from the   |  |  |  | | --- | --- | --- | |  | a. | thyroid gland. | |  | b. | parasympathetic nervous system. | |  | c. | somatic nervous system. | |  | d. | hypothalamus. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 156. Under the influence of the \_\_\_\_\_\_\_\_, the \_\_\_\_\_\_\_\_ triggers other glands to release sex hormones, which in turn influence the brain.   |  |  |  | | --- | --- | --- | |  | a. | pancreas; thyroid | |  | b. | thyroid; pancreas | |  | c. | pituitary; hypothalamus | |  | d. | hypothalamus; pituitary |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 157. A brain lesion refers to \_\_\_\_\_\_\_\_ of brain tissue.   |  |  |  | | --- | --- | --- | |  | a. | electrical stimulation | |  | b. | X-ray photography | |  | c. | radioactive bombardment | |  | d. | destruction |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 158. Dr. Stevenson has found that damage to an area of the hypothalamus in a rat’s brain reduces its eating behavior. Most likely, Dr. Stevenson found this information by   |  |  |  | | --- | --- | --- | |  | a. | stimulating the rat’s hypothalamus. | |  | b. | lesioning the rat’s hypothalamus. | |  | c. | using an EEG to examine the rat’s brain. | |  | d. | using an MEG to examine the rat’s limbic system. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 159. Recording electrodes are placed directly on the scalp during a(n)   |  |  |  | | --- | --- | --- | |  | a. | EEG. | |  | b. | PET scan. | |  | c. | MRI. | |  | d. | fMRI. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 160. After falling down the stairs and hitting her head, Mandi was taken to the hospital’s emergency room, where recording electrodes were placed directly on Mandi’s scalp to monitor the brain waves. The clinic was making use of a(n)   |  |  |  | | --- | --- | --- | |  | a. | EEG. | |  | b. | PET scan. | |  | c. | MRI. | |  | d. | fMRI. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 161. An MEG is a(n)   |  |  |  | | --- | --- | --- | |  | a. | amplified recording of the waves of electrical activity sweeping across the brain's surface. | |  | b. | technique that uses magnetic fields and radio waves to produce computer-generated images of soft tissue. | |  | c. | brain-imaging technique that measures magnetic fields from the brain's natural electrical activity. | |  | d. | visual display of brain activity that detects where a radioactive form of glucose goes while the brain performs a given task. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 162. The \_\_\_\_\_\_\_\_ measures magnetic fields from the brain's natural electrical activity.   |  |  |  | | --- | --- | --- | |  | a. | EEG | |  | b. | MEG | |  | c. | PET | |  | d. | MRI |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 163. Adam is participating in a study in which he sits underneath a head coil, similar to a salon hairdryer. What technique are the researchers using?   |  |  |  | | --- | --- | --- | |  | a. | EEG | |  | b. | MEG | |  | c. | PET | |  | d. | MRI |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 164. The technique that detects how a temporarily radioactive form of glucose is distributed in different regions of the brain is a(n)   |  |  |  | | --- | --- | --- | |  | a. | MRI. | |  | b. | brain lesion. | |  | c. | EEG. | |  | d. | PET scan. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 165. The brain-imaging technique that involves the use of magnetic fields and radio waves to produce computer-generated images of the brain's soft tissues is the   |  |  |  | | --- | --- | --- | |  | a. | MRI. | |  | b. | EEG. | |  | c. | brain lesion. | |  | d. | PET scan. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 166. Researchers who concluded that those with a history of violence tend to have smaller frontal lobes used the \_\_\_\_\_\_\_\_ in their research.   |  |  |  | | --- | --- | --- | |  | a. | EEG | |  | b. | MEG | |  | c. | PET | |  | d. | MRI |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 167. MRI scans have revealed that some patients with schizophrenia have unusually enlarged   |  |  |  | | --- | --- | --- | |  | a. | brainstems. | |  | b. | ventricles. | |  | c. | limbic systems. | |  | d. | cerebellums. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 168. To monitor the sequence in which blood flows to different regions of the brain, researchers are most likely to make use of a(n)   |  |  |  | | --- | --- | --- | |  | a. | brain lesion. | |  | b. | fMRI. | |  | c. | electroencephalogram. | |  | d. | MRI. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 169. Equipment for which brain imaging technique is so small that it can fit in a backpack, enabling researchers to study hard-to-reach populations?   |  |  |  | | --- | --- | --- | |  | a. | MRI | |  | b. | EEG | |  | c. | PET | |  | d. | fNIRS |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 170. Compared with soldiers who do not have PTSD, soldiers with PTSD show stronger magnetic fields in the visual cortex when viewing trauma-related images. What neural measure did researchers use to study this difference?   |  |  |  | | --- | --- | --- | |  | a. | EEG | |  | b. | MEG | |  | c. | PET | |  | d. | MRI |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 171. The structures in the \_\_\_\_\_\_\_\_ direct essential survival functions such as arousal, coordination, and balance.   |  |  |  | | --- | --- | --- | |  | a. | forebrain | |  | b. | midbrain | |  | c. | hindbrain | |  | d. | thalamus |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 172. A brain structure that is NOT part of the hindbrain is the   |  |  |  | | --- | --- | --- | |  | a. | medulla. | |  | b. | pons. | |  | c. | cerebellum. | |  | d. | hypothalamus. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 173. Following a stroke, Linda is seeing a physical therapist to address ongoing problems with coordination and balance. The stroke most likely affected Linda’s   |  |  |  | | --- | --- | --- | |  | a. | forebrain. | |  | b. | midbrain. | |  | c. | hindbrain. | |  | d. | spinal cord. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 174. The hindbrain and the forebrain are connected by the   |  |  |  | | --- | --- | --- | |  | a. | forebrain. | |  | b. | midbrain. | |  | c. | hindbrain. | |  | d. | thalamus. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 175. Our seeing and hearing are enabled by the   |  |  |  | | --- | --- | --- | |  | a. | medulla. | |  | b. | forebrain. | |  | c. | midbrain. | |  | d. | hindbrain. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 176. Josh enjoys relaxing with a crossword puzzle every evening. The thinking required when he works on these puzzles is enabled by the   |  |  |  | | --- | --- | --- | |  | a. | pons. | |  | b. | forebrain. | |  | c. | midbrain. | |  | d. | hindbrain. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 177. The ability of Jillian, a hairstylist, to wash and style her clients’ hair is facilitated by the   |  |  |  | | --- | --- | --- | |  | a. | pons. | |  | b. | forebrain. | |  | c. | midbrain. | |  | d. | hindbrain. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 178. Aruni, an economist, recently underwent surgery to remove a brain tumor and some surrounding tissue. She is now having difficulty analyzing data at work. The tissue was most likely removed from Aruni’s   |  |  |  | | --- | --- | --- | |  | a. | forebrain. | |  | b. | midbrain. | |  | c. | hindbrain. | |  | d. | spinal cord. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 179. The innermost regions of the brain are those that regulate   |  |  |  | | --- | --- | --- | |  | a. | memory. | |  | b. | emotion. | |  | c. | breathing. | |  | d. | foresight. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 180. The medulla is the part of the brain that most directly regulates   |  |  |  | | --- | --- | --- | |  | a. | language comprehension. | |  | b. | face recognition. | |  | c. | sexual motivation. | |  | d. | heartbeat and breathing. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 181. Zachary is studying his own heartbeat and breathing rate. Interestingly, both of these functions are controlled by the   |  |  |  | | --- | --- | --- | |  | a. | medulla. | |  | b. | pons. | |  | c. | cerebellum. | |  | d. | thalamus. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 182. During a football game, Melvin suffered damage to a section of his brain. As a result, he had to be placed on a ventilator in order to maintain his breathing. The damage most likely occurred in Melvin’s   |  |  |  | | --- | --- | --- | |  | a. | hippocampus. | |  | b. | amygdala. | |  | c. | brainstem. | |  | d. | hypothalamus. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 183. The brainstem structure located above the medulla that helps to control sleep is called the   |  |  |  | | --- | --- | --- | |  | a. | nucleus accumbens. | |  | b. | hippocampus. | |  | c. | amygdala. | |  | d. | pons. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 184. Shelley has difficulty sleeping, a function that is regulated by the   |  |  |  | | --- | --- | --- | |  | a. | hypothalamus. | |  | b. | hippocampus. | |  | c. | amygdala. | |  | d. | pons.  ​ |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 185. In which brain structure are nerves from the right side of the brain routed to the left side of the body?   |  |  |  | | --- | --- | --- | |  | a. | thalamus | |  | b. | cerebellum | |  | c. | amygdala | |  | d. | brainstem |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 186. The \_\_\_\_\_\_\_\_ is a pair of egg-shaped structures that sits on top of the brainstem.   |  |  |  | | --- | --- | --- | |  | a. | thalamus | |  | b. | hippocampus | |  | c. | amygdala | |  | d. | pons  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 187. The thalamus serves as a   |  |  |  | | --- | --- | --- | |  | a. | memory bank. | |  | b. | reward center. | |  | c. | sensory control center. | |  | d. | master gland. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 188. Francisco’s ability to experience the physical pleasure of a warm bath might be disrupted by damage to the   |  |  |  | | --- | --- | --- | |  | a. | cerebellum. | |  | b. | hippocampus. | |  | c. | amygdala. | |  | d. | thalamus. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 189. The reticular formation extends from the spinal cord up through the   |  |  |  | | --- | --- | --- | |  | a. | thalamus. | |  | b. | hypothalamus. | |  | c. | amygdala. | |  | d. | hippocampus. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 190. The nerve network extending from the spinal cord right up through the thalamus that plays an important role in controlling arousal is called the   |  |  |  | | --- | --- | --- | |  | a. | reticular formation. | |  | b. | hypothalamus. | |  | c. | cerebellum. | |  | d. | medulla.  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 191. Trina was aroused when bitten by a snake thanks to the activation of her   |  |  |  | | --- | --- | --- | |  | a. | cerebellum. | |  | b. | hypothalamus. | |  | c. | reticular formation. | |  | d. | nucleus accumbens. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 192. Juan is listening to music while doing his homework. His ability to multitask in this way is a function of his   |  |  |  | | --- | --- | --- | |  | a. | hippocampus. | |  | b. | reticular formation. | |  | c. | hypothalamus. | |  | d. | limbic system. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 193. Electrically stimulating a cat's reticular formation   |  |  |  | | --- | --- | --- | |  | a. | makes the cat violently aggressive. | |  | b. | produces an awake, alert animal. | |  | c. | causes the cat to experience convulsive seizures. | |  | d. | causes the cat to lapse into a coma. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 194. The “little brain” attached to the rear of the brainstem is called the   |  |  |  | | --- | --- | --- | |  | a. | amygdala. | |  | b. | thalamus. | |  | c. | cerebellum. | |  | d. | hippocampus. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 195. Which brain structure plays an important role in much of what takes place outside of our awareness?   |  |  |  | | --- | --- | --- | |  | a. | hypothalamus | |  | b. | hippocampus | |  | c. | amygdala | |  | d. | cerebellum  ​ |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 196. A loss of physical coordination and balance is most likely to result from damage to the   |  |  |  | | --- | --- | --- | |  | a. | hypothalamus. | |  | b. | cerebellum. | |  | c. | hippocampus. | |  | d. | amygdala. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 197. Judy tends to feel dizzy and unbalanced when she tries to get up after sitting for a long time. Which brain structure is associated with this function?   |  |  |  | | --- | --- | --- | |  | a. | cerebral cortex | |  | b. | cerebellum | |  | c. | amygdala | |  | d. | pons |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 198. Mackey, who is an excellent soccer player, can control the ball so well that it goes right into the net with practically every kick. This skill is related to the functioning of his   |  |  |  | | --- | --- | --- | |  | a. | cerebellum. | |  | b. | medulla. | |  | c. | thalamus. | |  | d. | reticular formation. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 199. Which part of your brain contains more than half of your brain’s neurons?   |  |  |  | | --- | --- | --- | |  | a. | hippocampus | |  | b. | reticular formation | |  | c. | basal ganglia | |  | d. | cerebellum |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 200. The medulla is to the control of \_\_\_\_\_\_\_\_ as the cerebellum is to the control of \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | eating; sleeping | |  | b. | heartbeat; skill memory | |  | c. | emotion; motivation | |  | d. | memory; attention  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 201. The amygdala, hypothalamus, and hippocampus are part of the   |  |  |  | | --- | --- | --- | |  | a. | brainstem. | |  | b. | limbic system. | |  | c. | reticular formation. | |  | d. | cerebral hemispheres. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 202. The limbic system structure that enables aggression and fear is the   |  |  |  | | --- | --- | --- | |  | a. | amygdala. | |  | b. | hypothalamus. | |  | c. | hippocampus. | |  | d. | medulla. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 203. When he feels even slightly provoked, Matt quickly becomes angry and aggressive. Which limbic structure is associated with this attribute?   |  |  |  | | --- | --- | --- | |  | a. | amygdala | |  | b. | hypothalamus | |  | c. | hippocampus | |  | d. | medulla |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 204. Virginia felt no fear when a robber with a gun entered her home. Her lack of fear may be related to a(n)   |  |  |  | | --- | --- | --- | |  | a. | smaller-than-average amygdala. | |  | b. | large hypothalamus. | |  | c. | underactive limbic system. | |  | d. | smaller-than-average frontal lobe. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 205. When Klüver and Bucy (1939) removed the amygdala of a rhesus monkey, the animal   |  |  |  | | --- | --- | --- | |  | a. | became more aggressive. | |  | b. | became less social. | |  | c. | became violent. | |  | d. | became mellow. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 206. If Dr. Sims were to surgically remove the amygdala of a laboratory monkey, the monkey would most likely become   |  |  |  | | --- | --- | --- | |  | a. | hungry. | |  | b. | sexually aroused. | |  | c. | physically uncoordinated. | |  | d. | less aggressive. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 207. Fear of public speaking may be associated with hyperactivity in the   |  |  |  | | --- | --- | --- | |  | a. | hippocampus. | |  | b. | hypothalamus. | |  | c. | amygdala. | |  | d. | cerebellum. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 208. Sam is antisocial and has a criminal record. Researchers might find that a(n) \_\_\_\_\_\_\_\_ is related to his behavior.   |  |  |  | | --- | --- | --- | |  | a. | small hypothalamus | |  | b. | enlarged hippocampus | |  | c. | dysfunctional amygdala | |  | d. | small pons |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 209. Which of the following best describes how the brain operates?   |  |  |  | | --- | --- | --- | |  | a. | It is nicely organized into structures that correspond to specific behavior categories. | |  | b. | Researchers are not able to determine exactly how the brain operates. | |  | c. | It is not an integrated system. | |  | d. | While some brain structures are involved in specific behaviors, they are also involved in other mental phenomena as well. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 210. The activity of the hypothalamus most directly influences   |  |  |  | | --- | --- | --- | |  | a. | thirst. | |  | b. | muscular coordination. | |  | c. | memory. | |  | d. | vision. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 211. The secretions of the pituitary gland are most directly regulated by the   |  |  |  | | --- | --- | --- | |  | a. | reticular formation. | |  | b. | hypothalamus. | |  | c. | amygdala. | |  | d. | cerebellum. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 212. Which limbic system structure regulates sexual behavior?   |  |  |  | | --- | --- | --- | |  | a. | amygdala | |  | b. | hypothalamus | |  | c. | hippocampus | |  | d. | medulla |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 213. Olds and Milner found that a rat kept returning to a location where it had been stimulated by an electrode placed within its   |  |  |  | | --- | --- | --- | |  | a. | reticular formation. | |  | b. | cerebellum. | |  | c. | hypothalamus. | |  | d. | pons. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 214. A brain region in front of the hypothalamus, the nucleus accumbens, has been identified as a   |  |  |  | | --- | --- | --- | |  | a. | sensory control center. | |  | b. | memory bank. | |  | c. | reward center. | |  | d. | source of aggression. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 215. Animal research has revealed a general reward system related to the release of the neurotransmitter   |  |  |  | | --- | --- | --- | |  | a. | ACh. | |  | b. | GABA. | |  | c. | dopamine. | |  | d. | epinephrine. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 216. Studies reveal that, in humans, stimulation of the brain's reward circuits produces more \_\_\_\_\_\_\_\_ than pure enjoyment.   |  |  |  | | --- | --- | --- | |  | a. | desire | |  | b. | fatigue | |  | c. | agitation | |  | d. | pain relief |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 217. Jennifer has just met Meg and thinks she is a very likable person. What would researchers conclude regarding Jennifer’s brain activity when she met Meg?   |  |  |  | | --- | --- | --- | |  | a. | Her brain’s reward center was activated. | |  | b. | It showed decreased activity in the frontal lobe. | |  | c. | It was stimulated by natural endorphins. | |  | d. | Nothing can be concluded about Jennifer’s brain activity. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 218. Ali posts some photos of a recent hiking trip online. An hour later, when he sees that several friends have left positive comments, he feels a rush of pleasure. This feeling is facilitated by   |  |  |  | | --- | --- | --- | |  | a. | amygdala suppression. | |  | b. | reward center activity. | |  | c. | hippocampal processing. | |  | d. | frontal lobe stimulation. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 219. Which limbic system structure decreases in size and function as we age?   |  |  |  | | --- | --- | --- | |  | a. | amygdala | |  | b. | hypothalamus | |  | c. | hippocampus | |  | d. | medulla |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 220. As Georgina is growing older she finds that her cognitive abilities are declining. This may be related to a(n)   |  |  |  | | --- | --- | --- | |  | a. | shrinking hippocampus. | |  | b. | enlarged amygdala. | |  | c. | dysfunctional pons. | |  | d. | enlarging hypothalamus. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 221. Vanessa was in a car accident in which a specific part of her limbic system was damaged. Although she remembers all her experiences prior to the accident, she is unable to form new memories. Vanessa has most likely suffered damage to the   |  |  |  | | --- | --- | --- | |  | a. | thalamus. | |  | b. | hippocampus. | |  | c. | hypothalamus. | |  | d. | amygdala. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 222. The two cerebral hemispheres that enable our perceiving, thinking, and speaking are referred to as the   |  |  |  | | --- | --- | --- | |  | a. | cerebrum. | |  | b. | frontal lobe. | |  | c. | motor cortex. | |  | d. | somatosensory cortex. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 223. The cerebral cortex is   |  |  |  | | --- | --- | --- | |  | a. | the two cerebral hemispheres that contribute 85 percent of the brain’s weight. | |  | b. | an area of the brain that controls voluntary movement. | |  | c. | an area of the brain that registers and processes body touch and movement sensations. | |  | d. | the thin surface layer of interconnected neural cells that covers the cerebrum. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 224. Human brains are distinct from other mammalian brains due to the size and interconnectivity of their   |  |  |  | | --- | --- | --- | |  | a. | corpus callosum. | |  | b. | cerebral cortex. | |  | c. | hippocampus. | |  | d. | amygdala. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 225. The portions of the cerebral cortex that are located closest to our eyes and that are involved in speaking and muscle movements are the   |  |  |  | | --- | --- | --- | |  | a. | temporal lobes. | |  | b. | frontal lobes. | |  | c. | parietal lobes. | |  | d. | occipital lobes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 226. JJ is giving a speech in front of her psychology class. Which lobe of her brain is involved in her speech?   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes | |  | b. | temporal lobes | |  | c. | parietal lobes | |  | d. | occipital lobes |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 227. Shawn is an excellent math student. His great math skills may be associated with which brain structure?   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes | |  | b. | temporal lobes | |  | c. | parietal lobes | |  | d. | occipital lobes |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 228. Which portions of the cerebral cortex lie at the back of the head and receive visual information?   |  |  |  | | --- | --- | --- | |  | a. | occipital lobes | |  | b. | corpus callosum | |  | c. | temporal lobes | |  | d. | somatosensory cortex |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 229. The frontal lobes are to \_\_\_\_\_\_\_\_ as the occipital lobes are to \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | speaking; vision | |  | b. | seeing; sensing touch | |  | c. | sensory input; hearing | |  | d. | speaking; hearing |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 230. As Dianna is driving, which area of her brain is responsible for processing information from her visual fields?   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes | |  | b. | temporal lobes | |  | c. | parietal lobes | |  | d. | occipital lobes |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 231. Auditory information is processed in the   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes. | |  | b. | temporal lobes. | |  | c. | parietal lobes. | |  | d. | occipital lobes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 232. Erin was in an automobile accident in which major portions of her temporal lobes were damaged. Erin is most likely to suffer some loss of   |  |  |  | | --- | --- | --- | |  | a. | auditory perception. | |  | b. | hunger and thirst. | |  | c. | pain sensations. | |  | d. | muscular coordination. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 233. Who discovered what is now called the motor cortex?   |  |  |  | | --- | --- | --- | |  | a. | Fritsch and Hitzig | |  | b. | Foerster and Penfield | |  | c. | Delgado | |  | d. | Gage |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 234. An area at the rear of the frontal lobes that controls voluntary movements is called the   |  |  |  | | --- | --- | --- | |  | a. | somatosensory cortex. | |  | b. | motor cortex. | |  | c. | corpus callosum. | |  | d. | frontal association area. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 235. Direct stimulation of areas within the motor cortex would most likely result in   |  |  |  | | --- | --- | --- | |  | a. | feelings of anger. | |  | b. | acceleration of heartbeat. | |  | c. | a sensation of being touched on the arm. | |  | d. | movement of the mouth and lips. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 236. To trigger a person's arm to move during brain surgery, a neurosurgeon should apply mild electrical stimulation to an area in the individual's   |  |  |  | | --- | --- | --- | |  | a. | motor cortex. | |  | b. | hippocampus. | |  | c. | somatosensory cortex. | |  | d. | corpus callosum. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 237. Stimulating the left side of the brain will cause movement on the right side of the body. This indicates that the   |  |  |  | | --- | --- | --- | |  | a. | somatosensory cortex is responsible for limb movements. | |  | b. | motor cortex on the right side of the brain controls movements of specific body parts on the right side of the body. | |  | c. | association areas of the brain control the movements of all body parts. | |  | d. | motor cortex on the left side of the brain controls movements of specific body parts on the opposite side of the body. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 238. Who discovered that body areas requiring precise control occupy the greatest amount of cortical space?   |  |  |  | | --- | --- | --- | |  | a. | Livi | |  | b. | Burkhart | |  | c. | Chein and Schneider | |  | d. | Foerster and Penfield |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 239. Which of the following body parts is associated with the greatest amount of brain tissue in the motor cortex?   |  |  |  | | --- | --- | --- | |  | a. | hands | |  | b. | mouth | |  | c. | feet | |  | d. | legs |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 240. To trigger a person's hand to make a fist, José Delgado stimulated the individual's   |  |  |  | | --- | --- | --- | |  | a. | motor cortex. | |  | b. | hippocampus. | |  | c. | somatosensory cortex. | |  | d. | corpus callosum. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 241. A 25-year-old man with paralysis was able to mentally control a TV, draw shapes on a computer screen, and play video games as a result of a small chip with 100 microelectrodes being implanted into his   |  |  |  | | --- | --- | --- | |  | a. | motor cortex. | |  | b. | somatosensory cortex. | |  | c. | parietal lobes. | |  | d. | association areas. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 242. Some people with paralysis who have received implants in their \_\_\_\_\_\_\_\_ have learned to direct robotic arms with their thoughts.   |  |  |  | | --- | --- | --- | |  | a. | motor cortex | |  | b. | somatosensory cortex | |  | c. | association areas | |  | d. | hippocampus |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 243. The somatosensory cortex is located in the \_\_\_\_\_\_\_\_ lobes.   |  |  |  | | --- | --- | --- | |  | a. | parietal | |  | b. | temporal | |  | c. | frontal | |  | d. | occipital |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 244. The brain devotes more tissue within the \_\_\_\_\_\_\_\_ for body areas that are highly sensitive to touch such as the lips.   |  |  |  | | --- | --- | --- | |  | a. | corpus callosum | |  | b. | temporal lobes | |  | c. | somatosensory cortex | |  | d. | hippocampus |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 245. The \_\_\_\_\_\_\_\_ the body region, the \_\_\_\_\_\_\_\_ the somatosensory cortex area devoted to it.   |  |  |  | | --- | --- | --- | |  | a. | more sensitive; smaller | |  | b. | less sensitive; larger | |  | c. | less sensitive; smaller | |  | d. | more sensitive; larger |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 246. If a neurosurgeon directly stimulated parts of your somatosensory cortex, which of the following would you most likely experience?   |  |  |  | | --- | --- | --- | |  | a. | indistinct odors | |  | b. | flashes of light | |  | c. | repetitive sounds | |  | d. | touches on the face |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 247. Which of the following is located in the occipital lobes?   |  |  |  | | --- | --- | --- | |  | a. | somatosensory cortex | |  | b. | auditory cortex | |  | c. | motor cortex | |  | d. | visual cortex |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 248. If you are reading this question visually, the information you are receiving is going to the visual cortex in your   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes. | |  | b. | occipital lobes. | |  | c. | parietal lobes. | |  | d. | temporal lobes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 249. Which of the following is located in the temporal lobes?   |  |  |  | | --- | --- | --- | |  | a. | visual cortex | |  | b. | auditory cortex | |  | c. | motor cortex | |  | d. | the somatosensory cortex |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 250. Jana has a brain disorder that has destroyed significant portions of her temporal lobes. Jana is most likely to experience some loss of   |  |  |  | | --- | --- | --- | |  | a. | auditory perception. | |  | b. | hunger and thirst. | |  | c. | pain sensations. | |  | d. | muscular coordination. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 251. As you walk down the street, a car passes you blasting music. The sound is processed by your auditory cortex in your   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes. | |  | b. | occipital lobes. | |  | c. | parietal lobes. | |  | d. | temporal lobes. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 252. People with schizophrenia often have auditory hallucinations, which are   |  |  |  | | --- | --- | --- | |  | a. | false sensory experiences. | |  | b. | uncontrollable voluntary movements. | |  | c. | incoming sensory information related to touch and body position. | |  | d. | incoming sensory information from the ears. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 253. Alicia has taken LSD. Based on research related to the LSD and the brain, Alicia will experience   |  |  |  | | --- | --- | --- | |  | a. | increased activation in her parietal lobes. | |  | b. | decreased activation between her temporal lobes and other brain regions. | |  | c. | increased communication between the visual cortex and other brain regions. | |  | d. | decreased communication between brain regions. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 254. Regions of the cerebral cortex involved primarily in higher mental functions such as learning are called   |  |  |  | | --- | --- | --- | |  | a. | the motor cortex. | |  | b. | the corpus callosum. | |  | c. | association areas. | |  | d. | the somatosensory cortex. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 255. The brain’s association areas are the   |  |  |  | | --- | --- | --- | |  | a. | largest regions of the brain, involved in higher mental functions such as learning, remembering, thinking, and speaking. | |  | b. | areas of the cerebral cortex at the front of the parietal lobes that register and process body touch and movement sensations. | |  | c. | areas of the cerebral cortex at the rear of the frontal lobes that control voluntary movements. | |  | d. | regions of the brain that are involved in speaking and muscle movements. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 256. The cortical regions that are NOT directly involved in sensory or motor functions are known as   |  |  |  | | --- | --- | --- | |  | a. | the hippocampus. | |  | b. | frontal lobes. | |  | c. | association areas. | |  | d. | parietal lobes. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 257. The process of linking sensory information with stored memories takes place in   |  |  |  | | --- | --- | --- | |  | a. | the thalamus. | |  | b. | the cerebellum. | |  | c. | association areas. | |  | d. | the corpus callosum. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 258. Association areas are located   |  |  |  | | --- | --- | --- | |  | a. | only in the frontal lobes. | |  | b. | only in the frontal lobes and temporal lobes. | |  | c. | only in the frontal, temporal, and parietal lobes. | |  | d. | in the frontal, temporal, occipital, and parietal lobes. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 259. Damage to the association areas in the prefrontal cortex is most likely to interfere with the ability to   |  |  |  | | --- | --- | --- | |  | a. | formulate plans. | |  | b. | recognize familiar faces. | |  | c. | understand word meanings. | |  | d. | recognize familiar voices. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 260. Marleen is trying to decide which college courses to take. The decision-making process is regulated by association areas in the   |  |  |  | | --- | --- | --- | |  | a. | frontal lobes. | |  | b. | occipital lobes. | |  | c. | parietal lobes. | |  | d. | temporal lobes. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 261. Which of the following does NOT challenge the myth that humans use only 10 percent of our brains?   |  |  |  | | --- | --- | --- | |  | a. | Scientists who electrically probe the association areas receive no observable response. | |  | b. | More intelligent animals have larger association areas. | |  | c. | Association areas link sensory information with stored memories. | |  | d. | Association areas are involved in higher mental functions, such as thinking and learning. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 262. The most amount of the brain devoted to association areas is found in a   |  |  |  | | --- | --- | --- | |  | a. | rat. | |  | b. | chimpanzee. | |  | c. | dog. | |  | d. | human. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 263. Which of the following is NOT a function of the brain's association areas?   |  |  |  | | --- | --- | --- | |  | a. | They link information with stored memories. | |  | b. | They interpret sensory information. | |  | c. | They are inactive brain tissue in most species. | |  | d. | They act on incoming sensory information. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 264. Phineas Gage underwent a dramatic personality change after a tamping iron inflicted massive damage to his \_\_\_\_\_\_\_\_ lobes.   |  |  |  | | --- | --- | --- | |  | a. | parietal | |  | b. | temporal | |  | c. | occipital | |  | d. | frontal |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 265. Trevor was in an accident that resulted in damage to his frontal lobe. All of the following should be expected EXCEPT that   |  |  |  | | --- | --- | --- | |  | a. | he may become less inhibited. | |  | b. | his moral judgments may seem unrestrained. | |  | c. | his personality may be altered. | |  | d. | he may experience reduced arousal to threats. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 266. John enjoys playing video games with his friends, and he is very good at games that require high levels of spatial reasoning. Which brain area is associated with this skill?   |  |  |  | | --- | --- | --- | |  | a. | temporal lobes | |  | b. | frontal lobes | |  | c. | parietal lobes | |  | d. | occipital lobes |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 267. The region of your cerebral cortex that allows you instantly to recognize your best friend’s face is   |  |  |  | | --- | --- | --- | |  | a. | the cerebellum. | |  | b. | the somatosensory cortex. | |  | c. | the corpus callosum. | |  | d. | an association area. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 268. Memory, language, attention, and social skills result from   |  |  |  | | --- | --- | --- | |  | a. | functional connectivity. | |  | b. | brain-machine interface. | |  | c. | cortical mapping. | |  | d. | the temporal lobes. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 269. A loss of functional connectivity may result in all of the following EXCEPT   |  |  |  | | --- | --- | --- | |  | a. | increased risk for mental disorders. | |  | b. | difficulty in breathing and swallowing. | |  | c. | impaired memory and language skills. | |  | d. | diminished social skills. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 270. The brain’s ability to change that continues throughout the life span is referred to as   |  |  |  | | --- | --- | --- | |  | a. | neuroplasticity. | |  | b. | the neural impulse. | |  | c. | the action potential. | |  | d. | neuro-communication. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 271. When Lynn was only 3, her life-threatening seizures required the surgical removal of her right cerebral hemisphere. Lynn is now a successful college student who lives a normal life. Her success best illustrates the importance of   |  |  |  | | --- | --- | --- | |  | a. | brain fissures. | |  | b. | neurogenesis. | |  | c. | MRI scans. | |  | d. | neuroplasticity. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 272. Deaf people who learned sign language before any other language may have enhanced peripheral and motion-detection vision. This has been attributed in part to   |  |  |  | | --- | --- | --- | |  | a. | auditory hallucinations. | |  | b. | lateralization. | |  | c. | neuroplasticity. | |  | d. | neurogenesis. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 273. After Warren’s left hand was paralyzed, the somatosensory cortex area that had processed sensations of touch from that hand gradually began to process touch sensations from his lower left arm. This best illustrates the consequences of   |  |  |  | | --- | --- | --- | |  | a. | neurogenesis. | |  | b. | neuroplasticity. | |  | c. | lateralization. | |  | d. | the split brain. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 274. Neurogenesis refers to   |  |  |  | | --- | --- | --- | |  | a. | severing of the corpus callosum. | |  | b. | the formation of new neurons. | |  | c. | rewiring the brain. | |  | d. | stimulating the parietal lobe to produce a feeling of wanting to move an upper limb. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 275. The brain is most likely to compensate for a loss of neurons by   |  |  |  | | --- | --- | --- | |  | a. | generating new neural cells in the brain. | |  | b. | increasing the speed of neural impulses. | |  | c. | inhibiting activity in the association areas. | |  | d. | decreasing the production of stem cells. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 276. Special cells that can develop into different types of cells are called   |  |  |  | | --- | --- | --- | |  | a. | neurons. | |  | b. | stem cells. | |  | c. | association areas. | |  | d. | hemispherectomies. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 277. What do neuroplasticity and neurogenesis have in common?   |  |  |  | | --- | --- | --- | |  | a. | Both abilities are ongoing processes in development. | |  | b. | Both abilities result from functional connectivity. | |  | c. | Both abilities help the brain modify itself after experiencing damage. | |  | d. | Both abilities are controlled by the hypothalamus. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 278. The ability to recognize faces with the right hemisphere but not with the left hemisphere best illustrates   |  |  |  | | --- | --- | --- | |  | a. | brain fissures. | |  | b. | neurogenesis. | |  | c. | neuroplasticity. | |  | d. | lateralization. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 279. The large band of neural fibers connecting the two brain hemispheres is called the   |  |  |  | | --- | --- | --- | |  | a. | somatosensory cortex. | |  | b. | temporal lobe. | |  | c. | hippocampus. | |  | d. | corpus callosum. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 280. Information is most quickly transmitted from one cerebral hemisphere to the other by the   |  |  |  | | --- | --- | --- | |  | a. | corpus callosum. | |  | b. | motor cortex. | |  | c. | association areas. | |  | d. | somatosensory cortex. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 281. Split-brain patients have had their \_\_\_\_\_\_\_\_ surgically cut.   |  |  |  | | --- | --- | --- | |  | a. | hippocampus | |  | b. | corpus callosum | |  | c. | somatosensory cortex | |  | d. | frontal lobes |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 282. The left cerebral hemisphere is typically superior to the right in   |  |  |  | | --- | --- | --- | |  | a. | spatial reasoning. | |  | b. | speech production. | |  | c. | visual perception. | |  | d. | musical abilities. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 283. If a person's left cerebral hemisphere is destroyed by disease, that individual will be unable to see anything   |  |  |  | | --- | --- | --- | |  | a. | with the left eye. | |  | b. | with the right eye. | |  | c. | in the left field of vision. | |  | d. | in the right field of vision. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 284. A picture of a cat is briefly flashed in the left visual field and a picture of a mouse is briefly flashed in the right visual field of a split-brain patient. The individual will be able to use their   |  |  |  | | --- | --- | --- | |  | a. | right hand to indicate they saw a cat. | |  | b. | left hand to indicate they saw a mouse. | |  | c. | right hand to indicate they saw a mouse. | |  | d. | left or right hand to indicate they saw a cat. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 285. Gazzaniga (2006) concluded that \_\_\_\_\_\_\_\_ resembles an interpreter that instantly constructs explanations for why events occur.   |  |  |  | | --- | --- | --- | |  | a. | the spinal cord | |  | b. | the conscious left hemisphere | |  | c. | the corpus callosum | |  | d. | the perceptive right hemisphere |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 286. Alfonso is an electrical engineer, and Magnus is a museum curator. When at work, it is likely that Alfonso’s \_\_\_\_\_\_\_\_ is more active, and Magnus’ \_\_\_\_\_\_\_\_ is more active.   |  |  |  | | --- | --- | --- | |  | a. | left hemisphere; right hemisphere | |  | b. | right hemisphere; left hemisphere | |  | c. | association area; somatosensory cortex | |  | d. | somatosensory cortex; association area |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 287. When Julia solves algebra problems, which area of Julia’s brain is most active?   |  |  |  | | --- | --- | --- | |  | a. | her amygdala | |  | b. | her left hemisphere | |  | c. | her temporal lobe | |  | d. | her right hemisphere |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 288. What will most likely happen as a neurosurgeon sedates the entire right cerebral hemisphere of a right-handed patient who is asked to count aloud with both arms extended upward?   |  |  |  | | --- | --- | --- | |  | a. | The patient's left arm will fall limp, and the patient will become speechless. | |  | b. | The patient's right arm will fall limp, and the patient will become speechless. | |  | c. | The patient's left arm will fall limp, but the patient will continue counting aloud. | |  | d. | The patient's right arm will fall limp, but the patient will continue counting aloud. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 289. People who can hear usually process their speaking with the \_\_\_\_\_\_\_\_ hemisphere. Deaf people usually process their language signing with the \_\_\_\_\_\_\_\_ hemisphere.   |  |  |  | | --- | --- | --- | |  | a. | right; left | |  | b. | left; right | |  | c. | right; right | |  | d. | left; left |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 290. When we say “Let’s eat, Grandpa” instead of “Let’s eat Grandpa,” the \_\_\_\_\_\_\_\_ hemisphere helps us modulate our speech. When given a problem requiring insight—“What word goes with *boot, summer,* and *ground?*”—the \_\_\_\_\_\_\_\_ hemisphere will be quick to recognize the word *camp*.   |  |  |  | | --- | --- | --- | |  | a. | right; left | |  | b. | left; right | |  | c. | right; right | |  | d. | left; left  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 291. A failure to recognize the inability to move a paralyzed limb is most likely to be associated with damage to an individual’s   |  |  |  | | --- | --- | --- | |  | a. | corpus callosum. | |  | b. | cerebellum. | |  | c. | right hemisphere. | |  | d. | motor cortex. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 292. Heredity refers to   |  |  |  | | --- | --- | --- | |  | a. | prenatal influences. | |  | b. | the genetic transfer of characteristics from parents to offspring. | |  | c. | characteristics that result from adaptation. | |  | d. | the complete instructions for making an organism.  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 293. Paola has brown hair; her brother Cesar’s hair is blond. This difference can best be attributed to   |  |  |  | | --- | --- | --- | |  | a. | behavior genetics. | |  | b. | heredity. | |  | c. | epigenetic molecules. | |  | d. | shared family environments. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 294. Carolyn’s daughter looks almost just like her! This is a direct result of   |  |  |  | | --- | --- | --- | |  | a. | the environment. | |  | b. | heredity. | |  | c. | adaptation. | |  | d. | the genome. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 295. Outside influences on development, such as parental attachment, are said to constitute our   |  |  |  | | --- | --- | --- | |  | a. | epigenetic marks. | |  | b. | environment. | |  | c. | genome. | |  | d. | natural selection. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 296. External influences on development such as social support are said to constitute our   |  |  |  | | --- | --- | --- | |  | a. | genome. | |  | b. | epigenetic marks. | |  | c. | environment. | |  | d. | natural selection. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 297. The impact of maternal nutrition on the prenatal development best illustrates   |  |  |  | | --- | --- | --- | |  | a. | dizygotic development. | |  | b. | natural selection. | |  | c. | environmental influence. | |  | d. | an epigenetic mark. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 298. Behavior geneticists are most interested in assessing the extent to which heredity and environment contribute to our   |  |  |  | | --- | --- | --- | |  | a. | shared human genome. | |  | b. | epigenetic marks. | |  | c. | reproductive capacities. | |  | d. | individual differences. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 299. Assessing the relative effects of nature and nurture on individual differences in personality would be of most direct interest to   |  |  |  | | --- | --- | --- | |  | a. | evolutionary psychologists. | |  | b. | genome researchers. | |  | c. | behavior geneticists. | |  | d. | epigeneticists. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 300. Professor Paulson is studying the influence of heredity and environment on intellectual development in children. He is most likely a(n)   |  |  |  | | --- | --- | --- | |  | a. | evolutionary psychologist. | |  | b. | behavior geneticist. | |  | c. | social psychologist. | |  | d. | clinical psychologist. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 301. Anton’s little boy Ivan looks just like him. As Anton pushes Ivan in his stroller, a neighbor exclaims, “He’s your mini-me! I guess he got most of his genes from you.” How should Anton respond?   |  |  |  | | --- | --- | --- | |  | a. | “Yes, you’re right. Boys usually inherit more genes from their father.” | |  | b. | “No, you’re wrong. Boys usually inherit more genes from their mother.” | |  | c. | “Yes, you’re right. There are more genes on a Y chromosome than on an X chromosome.” | |  | d. | “No, you’re wrong. Children inherit half their genes from their father and half from their mother.” |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 302. How many chromosomes are contained within your mother’s egg?   |  |  |  | | --- | --- | --- | |  | a. | 1 | |  | b. | 12 | |  | c. | 23 | |  | d. | 46 |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 303. The threadlike structures that contain genes are called   |  |  |  | | --- | --- | --- | |  | a. | organic methyl molecules. | |  | b. | epigenetic marks. | |  | c. | chromosomes. | |  | d. | genomes. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 304. Chromosomes are located within human   |  |  |  | | --- | --- | --- | |  | a. | bone cells. | |  | b. | genes. | |  | c. | neurotransmitters. | |  | d. | DNA. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 305. A gene is a small segment of a(n)   |  |  |  | | --- | --- | --- | |  | a. | synapse. | |  | b. | neurotransmitter. | |  | c. | DNA molecule. | |  | d. | epigenetic mark. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 306. You, like every other human, have about \_\_\_\_\_\_\_\_ genes.   |  |  |  | | --- | --- | --- | |  | a. | 5000 | |  | b. | 10,000 | |  | c. | 15,000 | |  | d. | 20,000 |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 307. \_\_\_\_\_\_\_\_, when expressed, direct(s) the development of protein molecules that influence individual development.   |  |  |  | | --- | --- | --- | |  | a. | Genes | |  | b. | Chromosomes | |  | c. | Cells | |  | d. | The nucleus |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 308. What does it mean when a gene is said to be active?   |  |  |  | | --- | --- | --- | |  | a. | That gene is expressed. | |  | b. | The gene contains DNA. | |  | c. | The gene is hereditary. | |  | d. | The gene is based on environmental influences. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 309. When turned on, genes provide the code for creating   |  |  |  | | --- | --- | --- | |  | a. | shared family environments. | |  | b. | protein molecules. | |  | c. | epigenetic molecules. | |  | d. | genomes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 310. The nucleus of each cell of your body contains   |  |  |  | | --- | --- | --- | |  | a. | DNA molecules. | |  | b. | chromosomes. | |  | c. | genes. | |  | d. | all of these elements. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 311. The complete set of genetic instructions in an organism's chromosomes is called the   |  |  |  | | --- | --- | --- | |  | a. | double helix. | |  | b. | DNA molecule. | |  | c. | genome. | |  | d. | epigenetic mark. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 312. Our differing traits are influenced by   |  |  |  | | --- | --- | --- | |  | a. | many genes. | |  | b. | dominant genes. | |  | c. | the majority of genes. | |  | d. | recessive traits. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 313. A person’s level of education can be attributed to \_\_\_\_\_\_\_\_ gene variations   |  |  |  | | --- | --- | --- | |  | a. | 900 | |  | b. | 1000 | |  | c. | more than 1200 | |  | d. | almost 15,000 |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 314. Which of the following does NOT accurately represent the findings from today’s behavior genetics research?   |  |  |  | | --- | --- | --- | |  | a. | Qualities such as intelligence and personality can generally be traced to a single gene. | |  | b. | Happiness and aggressiveness are influenced by many genes working together. | |  | c. | Researchers have found hundreds of genes associated with depression. | |  | d. | There is no single gene that predicts sexual orientation. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 315. To say that traits are polygenetic means that they are   |  |  |  | | --- | --- | --- | |  | a. | inherited from both parents. | |  | b. | influenced by many genes of small effect. | |  | c. | influenced minimally by the environment. | |  | d. | limited by the environment. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 316. Our genetic predispositions help to explain   |  |  |  | | --- | --- | --- | |  | a. | our shared human nature but not our human diversity. | |  | b. | our human diversity but not our shared human nature. | |  | c. | neither our shared human nature nor our human diversity. | |  | d. | both our shared human nature and our human diversity. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 317. Unlike fraternal twins, identical twins are described as   |  |  |  | | --- | --- | --- | |  | a. | extraverted. | |  | b. | dizygotic. | |  | c. | epigenetic. | |  | d. | monozygotic. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 318. Twin brothers or twin sisters who develop from a single fertilized egg that splits in two are called \_\_\_\_\_\_\_\_ twins.   |  |  |  | | --- | --- | --- | |  | a. | fraternal | |  | b. | identical | |  | c. | epigenetic | |  | d. | dizygotic |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 319. Jerry and James are identical twins who regularly smoke marijuana. Compared with fraternal twins, it is more likely that they   |  |  |  | | --- | --- | --- | |  | a. | began using marijuana at the same age. | |  | b. | began using marijuana at different ages. | |  | c. | will receive similar reactions from their parents regarding their marijuana use. | |  | d. | will experience lower academic performance as a result of marijuana use. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 320. Fraternal 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. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 321. Among marijuana users, \_\_\_\_\_\_\_\_ begin using at a more similar age than \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | identical twins; fraternal twins | |  | b. | brothers; sisters | |  | c. | sisters; brothers | |  | d. | fraternal twins; identical twins |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 322. Genetic influences on personality traits are most clearly highlighted by comparing \_\_\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | identical twins raised together; identical twins raised apart | |  | b. | fraternal twins raised together; identical twins raised apart | |  | c. | identical twins raised together; fraternal twins raised together | |  | d. | fraternal twins raised apart; identical twins raised together |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 323. Studies of identical twins who have been raised apart have most clearly increased scientific appreciation for the impact of \_\_\_\_\_\_\_\_ on personality development.   |  |  |  | | --- | --- | --- | |  | a. | natural selection | |  | b. | epigenetic marks | |  | c. | free-floating stress hormones | |  | d. | genetic influences |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 324. Identical twins Giulia and Alice were separated at birth and raised by different families. Which of the following statements is true about Giulia and Alice?   |  |  |  | | --- | --- | --- | |  | a. | They are more likely than ordinary siblings to have similar personalities and interests. | |  | b. | They are no more likely than ordinary siblings to have similar personalities and interests. | |  | c. | They are likely to resemble their birth parents more than each other in personality and interests. | |  | d. | They are likely to resemble their adoptive parents more than each other in personality and interests. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 325. Which of the following is NOT a reason to question the idea that personality similarities between separated identical twins are the result of shared genes?   |  |  |  | | --- | --- | --- | |  | a. | Even strangers share many coincidental personality similarities. | |  | b. | Many separately raised identical twins were reunited prior to assessing their personalities. | |  | c. | When adoption agencies are involved, separated twins tend to be placed in similar homes. | |  | d. | Separated fraternal twins do not exhibit personality similarities comparable to those of separated identical twins. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 326. Identical twins separated at birth and raised apart would be most likely to have similar   |  |  |  | | --- | --- | --- | |  | a. | epigenetic marks. | |  | b. | religious beliefs. | |  | c. | personality traits. | |  | d. | political views. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 327. People who have been adopted have personality traits that are \_\_\_\_\_\_\_\_ similar to their adoptive parents and \_\_\_\_\_\_\_\_ similar to their biological parents.   |  |  |  | | --- | --- | --- | |  | a. | more; more | |  | b. | less; less | |  | c. | more; less | |  | d. | less; more |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 328. Paul and Jeff are identical twins raised in the same home environment by adoptive parents. Susan and Cathy are nontwin siblings raised in the same home environment by their biological parents. People are likely to \_\_\_\_\_\_\_\_ the personality similarities of Paul and Jeff and \_\_\_\_\_\_\_\_ the personality similarities of Susan and Cathy.   |  |  |  | | --- | --- | --- | |  | a. | overestimate; underestimate | |  | b. | underestimate; overestimate | |  | c. | underestimate; underestimate | |  | d. | overestimate; overestimate |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 329. In personality traits such as agreeableness, people who have been adopted are   |  |  |  | | --- | --- | --- | |  | a. | more similar to their biological parents than to their adoptive parents. | |  | b. | more similar to their adoptive parents than to their biological parents. | |  | c. | very similar to their biologically unrelated siblings who grew up in the same home. | |  | d. | very similar to their biologically related non-twin siblings who grew up in the same home. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 330. Adoptive parents are most likely to influence the \_\_\_\_\_\_\_\_ of their adopted children.   |  |  |  | | --- | --- | --- | |  | a. | political attitudes | |  | b. | genome | |  | c. | extraversion | |  | d. | personality traits |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 331. Truman was adopted as an infant and is likely to feel strongly attached to   |  |  |  | | --- | --- | --- | |  | a. | his biological mother. | |  | b. | his biological father. | |  | c. | his maternal grandparents. | |  | d. | one or both adoptive parents. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 332. Adopted children grow up to be   |  |  |  | | --- | --- | --- | |  | a. | more self-giving than average. | |  | b. | less psychologically disordered than average. | |  | c. | more extraverted than average. | |  | d. | less aware of their unique personality traits than average. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 333. The diversity of human traits is most clearly enabled by our shared   |  |  |  | | --- | --- | --- | |  | a. | moral values. | |  | b. | dizygotic development. | |  | c. | epigenetic molecules. | |  | d. | adaptive capacity. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 334. The impact of genes on observable traits can vary in different environments. Thus, genes are said to be   |  |  |  | | --- | --- | --- | |  | a. | free-floating. | |  | b. | dizygotic. | |  | c. | self-regulating. | |  | d. | epigenetic. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 335. In the study of genes and environment, *interaction* is defined as   |  |  |  | | --- | --- | --- | |  | a. | a random error in gene replication that leads to a change. | |  | b. | the interplay that occurs when the effect of one factor depends on another factor. | |  | c. | the principle that inherited traits that better enable an organism to survive and reproduce in an environment will be passed on to the next generation. | |  | d. | the study of the molecular mechanisms by which environments can influence genetic expression.  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 336. Some genetically influenced traits are expressed in some environments but not in others. This best illustrates the \_\_\_\_\_\_\_\_ of genes and environments.   |  |  |  | | --- | --- | --- | |  | a. | heritability | |  | b. | natural selection | |  | c. | dizygotic impact | |  | d. | interaction |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 337. Our selective exposure to those life experiences that are best suited to our unique personality traits best illustrates the interaction of   |  |  |  | | --- | --- | --- | |  | a. | evolution and natural selection. | |  | b. | nature and nurture. | |  | c. | heredity and epigenetics. | |  | d. | genes and chromosomes. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 338. Antonia is naturally easygoing and sociable, which makes those around her feel relaxed and interested in getting to know her. As a result, she has a large, supportive, close-knit group of friends. Antonia's social success results from the interaction of   |  |  |  | | --- | --- | --- | |  | a. | dizygotic development and epigenetic marks. | |  | b. | evolution and natural selection. | |  | c. | genes and chromosomes. | |  | d. | nature and nurture. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 339. Epigenetics is the study of environmental influences on \_\_\_\_\_\_\_\_ that occur without a DNA change.   |  |  |  | | --- | --- | --- | |  | a. | natural selection | |  | b. | personality traits | |  | c. | gene expression | |  | d. | stress hormones |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 340. Diet and stress can affect the \_\_\_\_\_\_\_\_ that regulate gene expression.   |  |  |  | | --- | --- | --- | |  | a. | neurotransmitters | |  | b. | mutations | |  | c. | epigenetic molecules | |  | d. | nerve cells |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 341. Which of the following would likely prevent DNA from producing the proteins coded by a gene?   |  |  |  | | --- | --- | --- | |  | a. | an epigenetic mark | |  | b. | neurotransmitters | |  | c. | the human genome | |  | d. | sex chromosomes |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 342. In studies, Holocaust survivors have been shown to share epigenetic alterations with their offspring. This suggests to some psychologists that   |  |  |  | | --- | --- | --- | |  | a. | sharing stories of past traumas with one’s offspring may yield epigenetic changes. | |  | b. | environmental influences have a greater impact on human development than genetic influences. | |  | c. | chance variations make some parents and their offspring more vulnerable to trauma. | |  | d. | inheritance may occur not only through gene transmission, but through environmental influences. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 343. Dr. Costa studies how people’s intelligence enables them to survive in a particular environment. Dr. Costa is a(n)   |  |  |  | | --- | --- | --- | |  | a. | evolutionary psychologist. | |  | b. | behavior geneticist. | |  | c. | social psychologist. | |  | d. | clinical psychologist. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 344. The study of how behavior and mind change in adaptive ways over time due to natural selection is called   |  |  |  | | --- | --- | --- | |  | a. | epigenetics. | |  | b. | evolutionary psychology. | |  | c. | behavior genetics. | |  | d. | genome research. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 345. Charles Darwin advanced the principle of   |  |  |  | | --- | --- | --- | |  | a. | the double helix. | |  | b. | the Big Bang theory. | |  | c. | epigenetics. | |  | d. | natural selection. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 346. Who was interested in how our human ancestors had domesticated dogs from their wolf ancestors?   |  |  |  | | --- | --- | --- | |  | a. | Dmitry Belyaev | |  | b. | Richard Dawkins | |  | c. | Susan Pinker | |  | d. | Charles Darwin |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 347. Evolutionary psychologists emphasize that environmentally adaptive behaviors are those that have promoted   |  |  |  | | --- | --- | --- | |  | a. | reproductive success. | |  | b. | personal happiness. | |  | c. | cultural diversity. | |  | d. | epigenetic marks. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 348. Bassem has been raising geckos for several years and has noticed that lately, the baby geckos have much longer tails than the previous ones. This is most likely an example of   |  |  |  | | --- | --- | --- | |  | a. | natural selection. | |  | b. | epigenetics. | |  | c. | behavior genetics. | |  | d. | self-regulation.  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 349. If a person’s genetic predisposition to be wary of wild animals contributes to reproductive success, that trait will likely be passed on to subsequent generations. This best illustrates   |  |  |  | | --- | --- | --- | |  | a. | an epigenetic mark. | |  | b. | a mutation. | |  | c. | behavior genetics. | |  | d. | natural selection. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 350. Evolutionary psychologists emphasize that population characteristics may change as a result of the reproductive success of those whose behaviors are   |  |  |  | | --- | --- | --- | |  | a. | environmentally adaptive. | |  | b. | genetically unique. | |  | c. | culturally diverse. | |  | d. | epigenetic. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 351. Evolutionary psychologists are most directly concerned with the impact of \_\_\_\_\_\_\_\_ on behavior.   |  |  |  | | --- | --- | --- | |  | a. | population characteristics | |  | b. | environmental influences | |  | c. | genetic variations | |  | d. | domestication |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 352. Evolutionary psychology would be most helpful for understanding the \_\_\_\_\_\_\_\_ of human aggression.   |  |  |  | | --- | --- | --- | |  | a. | social causes | |  | b. | reproductive advantages | |  | c. | cross-cultural variations | |  | d. | remedial treatments |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 353. To produce sheepdogs that become very adept at sheepherding, dog breeders are most likely to make use of   |  |  |  | | --- | --- | --- | |  | a. | gene splicing. | |  | b. | cloning. | |  | c. | selective mating. | |  | d. | epigenetic marks. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 354. Mutations result from random errors in   |  |  |  | | --- | --- | --- | |  | a. | brain development. | |  | b. | gene replication. | |  | c. | natural selection. | |  | d. | neural transmission. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 355. From an evolutionary perspective, which of the following is the clearest contributor to human fitness?   |  |  |  | | --- | --- | --- | |  | a. | neuroticism | |  | b. | epigenetic marks | |  | c. | adaptive flexibility | |  | d. | free-floating stress hormones |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 356. Our adaptive flexibility in responding to different environments contributes to our ability to survive and reproduce, that is, to our   |  |  |  | | --- | --- | --- | |  | a. | epigenetics. | |  | b. | neuroticism. | |  | c. | fitness. | |  | d. | domestication. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 357. Among early humans, women who experienced nausea during the first three months of pregnancy and were genetically predisposed to avoid bitter, strongly flavored, and novel foods were most likely to survive and contribute their genes to later generations. This best illustrates   |  |  |  | | --- | --- | --- | |  | a. | domestication. | |  | b. | natural selection. | |  | c. | epigenetics. | |  | d. | neuroticism. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 358. If a genetically based mating preference for people who are physically attractive contributes to reproductive success, that trait will be passed on to subsequent generations. This best illustrates   |  |  |  | | --- | --- | --- | |  | a. | domestication. | |  | b. | natural selection. | |  | c. | an epigenetic mark. | |  | d. | behavior genetics. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 359. Evolutionary psychology would be most likely to suggest that human preferences for sweets and fats   |  |  |  | | --- | --- | --- | |  | a. | have hindered sexual reproduction. | |  | b. | are genetically predisposed. | |  | c. | vary widely across cultures. | |  | d. | are epigenetic marks. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 360. Over generations, the genes of those who never mated are   |  |  |  | | --- | --- | --- | |  | a. | included in the shared human genome. | |  | b. | lost from the human gene pool. | |  | c. | enhanced into behavioral tendencies. | |  | d. | incorporated into cultural differences. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 361. Dr. Fromuth generally applies evolutionary principles in her psychological research. As such, she is a part of   |  |  |  | | --- | --- | --- | |  | a. | the second Darwinian revolution. | |  | b. | genetic determinism. | |  | c. | epigenetics. | |  | d. | natural selection. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 362. An example of the second Darwinian revolution is the   |  |  |  | | --- | --- | --- | |  | a. | application of epigenetics to psychology. | |  | b. | application of evolutionary principles to psychology. | |  | c. | application of behavior genetics to psychology. | |  | d. | investigation of the interaction of genetics and environment to psychology. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 363. Which of the following statements does NOT accurately represent humans’ genetic kinship?   |  |  |  | | --- | --- | --- | |  | a. | Humans are genetically predisposed to think and act in ways that aided our early ancestors’ survival and reproduction. | |  | b. | Humans’ genetic predispositions often are mismatched with the conditions of the modern world. | |  | c. | Modern humans have many of the same genetic predispositions as our early ancestors. | |  | d. | Modern humans are “blank slates” whose intelligence allows us to override our genetic predispositions. |  |  |  | | --- | --- | | *ANSWER:* | d | |