



Multiple Choice Answer Key & Explanations

Biological Bases of Behavior

1. Which of the following would the autonomic nervous system control?	
A. Regulating your oxygen intake	This is the correct answer. The autonomic nervous system controls internal involuntary processes.
B. Playing a video game	This is not the correct answer. This is controlled by the central nervous system
C. Experiencing a burn on your hand	This is not the correct answer. This is controlled by the central nervous system
D. Driving to Chipotle	This is not the correct answer. This is controlled by the central nervous system
E. Running a marathon	This is not the correct answer. This is controlled by the central nervous system

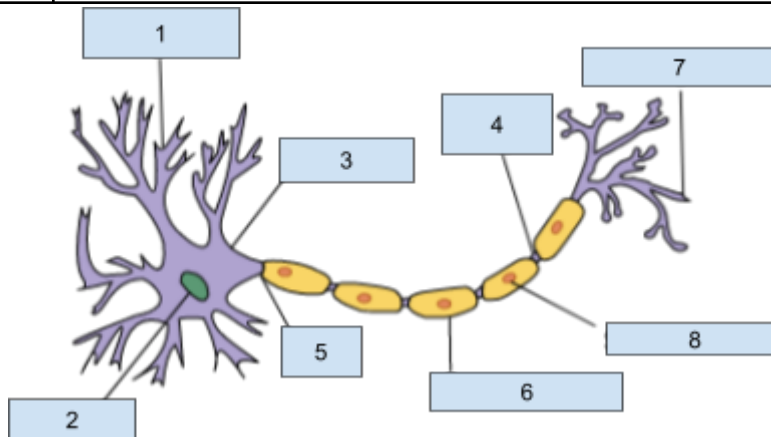
2. Which of the following would be an example of an antagonist?	
A. Xanax, which increases GABA	This is not the correct answer. This would be an example of an agonist
B. Prozac, which prevents the reuptake of serotonin	This is not the correct answer. This would be an example of an agonist
C. Opioids, which mimic endorphins	This is not the correct answer. This would be an example of an agonist
D. Alcohol, which blocks dopamine receptors	This is the correct answer. Antagonists block receptors, and decrease the effectiveness of neurotransmission
E. Cocaine, increases dopamine	This is not the correct answer. This would be an example of an agonist



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3. While riding Splash Mountain Sophia experienced a rush of excitement, but when it came to the large drop that excitement quickly turned into fear and panic. Which brain structure would most likely be associated with Sophia's excitement changing to fear?	
A. Wernicke's area	This is not the correct answer. This area helps with creating meaningful speech.
B. Amygdala	This is the correct answer. This structure deals with emotional reactions
C. Corpus Callosum	This is not the correct answer. This structure connects the two cerebral hemispheres. Which allows the hemispheres to communicate
D. Parietal lobe	This is not the correct answer. This structure receives sensory information, which allows you to understand different senses such as touch, pain, temperature, and spatial orientation
E. Medulla Oblongata	This is not the correct answer. This structure helps with autonomic functions.



4. Which of the following structures is number 3?	
A. Dendrites	This is not the correct answer. This is number 1
B. Axon	This is not the correct answer. This is number 5
C. Soma	This is the correct answer. This is the cell body that contains the nucleus
D. Myelin Sheath	This is not the correct answer. This is number 6
E. Axon Terminal	This is not the correct answer. This is number 7



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5. Which of the following answers would best describe the hippocampus?	
A. A structure in the brain that allows an individual to create and form memories	This is the correct answer. The hippocampus helps with memory creation but does not store the memories
B. A structure in the brain that allows an individual to remain balanced	This is not the correct answer. This would better connect with the hypothalamus, semicircular canals, or cerebellum
C. A structure in the brain that stores memories after they have been created	This is not the correct answer. The hippocampus helps with memory creation, but does not store memories
D. A structure which allows an individual to have voluntary movement	This is not the correct answer. This answer would better connect with the motor cortex, or cerebellum
E. An area in the brain that helps an individual be able to speak	This is not the correct answer. This answer would better connect with Broca's area.

6. Nick was playing Clash Royale and noticed that every time he started to open a loot box he got excited anticipating what might be in the box. Identify the neurotransmitter that is most likely impacting Nick in this situation.	
A. Dopamine	This is the correct answer. This is known as a natural drug because of how it impacts a person's feelings and emotions. Also helps with movement, learning, and attention
B. Endorphins	This is not the correct answer. This neurotransmitter helps with pain control
C. GABA	This is not the correct answer. This neurotransmitter helps with sleep and movement, it slows down a person's nervous system
D. Acetylcholine	This is not the correct answer. This neurotransmitter helps with muscle action, learning, and memory
E. Glutamate	This is not the correct answer. This neurotransmitters helps with long term memory and learning



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7. Which of the following psychological perspectives would <u>most</u> likely favor nurture over nature?	
A. Biological	This is not the correct answer. This perspective would favor nature
B. Cognitive	This is not the correct answer. This perspective would favor nature
C. Evolutionary	This is not the correct answer. This perspective would favor nature
D. Behaviorism	This is the correct answer. This perspective would favor nurture
E. All of the above	This is not the correct answer. Behaviorism would most likely favor nurture

8. Which of the following would best describe the pituitary gland?	
A. Located above the brainstem in the middle of the brain. It helps regulate sleep cycles	This is not the correct answer. This would better describe the pineal gland
B. Located in the throat. It helps control calcium and phosphate levels in the blood	This is not the correct answer. This would better describe the thyroid and parathyroid gland
C. Helps regulate a person's sugar levels and is located by the stomach	This is not the correct answer. This would better describe the pancreas
D. Located above a person's kidneys. This helps regulate salt, blood pressure, and oxygen intake	This is not the correct answer. This would better describe the adrenal glands
E. Helps regulate all other glands in the body and is located at the base of your brain	This is the correct answer. This answer best describes the pituitary gland



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9. Which of the following is most likely to occur during NREM Stage 1?	
A. Hypnagogic sensations	This is the correct answer. These are sensations that feel very real. They happen when you are in a light sleep and are easily woken
B. K-complexes and sleep spindles	This is not the correct answer. This happens when a person is no longer easily woken and their brain starts to admit theta waves.
C. Production of growth hormones may increase	This is not the correct answer. This is more likely to occur during NREM Stage 3
D. Muscles become paralyzed	This is not the correct answer. This happens when a person enters REM
E. Sleepwalking	This is not the correct answer. This is most likely to occur during NREM Stage 3

10. Throughout Noelle's day she will randomly fall asleep uncontrollably. This is most likely an example of which of the following sleep disorders?	
A. Sleep Apnea	This is not the correct answer. This is when a person struggles with their breathing while sleeping
B. Insomnia	This is not the correct answer. This is when a person has trouble falling asleep or staying asleep
C. Somnambulism	This is not the correct answer. This is sleepwalking
D. Narcolepsy	This is the correct answer. This is when a person will uncontrollably fall asleep
E. Sleep terrors	This is not the correct answer. This is when an individual will experience intense fear while asleep