

AP Psychology: Unit - 2 - Biological Bases of Behavior

Question 1

**As you are reading this question, the cells in your eyes are firing in response to the light coming from this screen. Which type of neuron is carrying this message to the brain?**

- A. sensory
- B. presynaptic
- C. motor
- D. efferent

Question 2

**Some opiate drugs have molecular structures so similar to endorphins that they mimic endorphin's euphoric effects in the brain, making these opiate drugs which kind of molecule?**

- A. endocrines
- B. endorphins
- C. antagonists
- D. agonists

Question 3

**Which of the following triggers the “fight-or-flight” response, increasing your heart rate and blood pressure, as you run away?**

- A. sensory
- B. motor cortex
- C. sympathetic nervous system
- D. somatic nervous system

Question 4

**Which of the following is the component of the limbic system that plays an essential role in the processing of new memories?**

- A. medulla
- B. hippocampus
- C. thalamus
- D. hypothalamus

Question 5

**Which lobes of the brain receive the input that enables you to feel someone scratching your back?**

- A. parietal
- B. temporal
- C. occipital
- D. frontal

Question 6

**Xzasia has been suffering from severe bouts of depression for the past several years. Her doctor suggests that some medications designed to impact a specific neurotransmitter might be helpful for her. Which neurotransmitter would be the most likely target of this medication?**

- A. GABA
- B. Dopamine
- C. Serotonin
- D. Acetylcholine

Question 7

**Melissa is walking around barefoot and suddenly steps on a sharp nail. She feels the pain and immediately pulls her foot off the ground away from the nail. Which neurons were involved in her response?**

- A. interneurons in SPINAL CORD and motor neurons only
- B. sensory neurons only
- C. sensory and motor neurons only
- D. sensory neurons, motor neurons, and interneurons in SPINAL CORD

Question 8

**As a result of a surgical procedure, Hakim's career as a violinist is over. He finds that he can no longer compose music. When he tries to play, he gets confused because he can't retain what he hears. What part of the brain is likely implicated?**

- A. Occipital lobes
- B. Temporal lobes
- C. Reticular lobes
- D. Parietal lobes
- E. Frontal lobes

Question 9

**Dr. Ramachandran needs to examine a patient's brain to find out if there is a tumor and, if so, where it is. Which method should he use?**

- A. PET Scan
- B. EEG
- C. CT Scan
- D. Deep Brain Stimulation
- E. fMRI

Question 10

**What is the brief electrical charge that travels down an axon called?**

- A. Action potential
- B. Resting potential
- C. All-or-none Impulse
- D. Refractory period
- E. Myelination response

Question 11

**What are the three parts of the brain stem?**

- A. Midbrain, pons, medulla
- B. Pons, somatosensory, midbrain
- C. Amygdala, thalamus, medulla
- D. Cerebellum, hypothalamus, midbrain

Question 12

**What is the difference between the Somatic Nervous System and the Autonomic Nervous System?**

- A. Somatic controls involuntary muscle movements while Autonomic controls voluntary movements.
- B. Somatic controls voluntary muscle movements while Autonomic controls involuntary movements.
- C. The Somatic can be further subdivided into the sympathetic and parasympathetic nervous system.
- D. Somatic controls breathing, heartbeat, and blinking while Autonomic controls running, jumping, and walking.

Question 13

**What does the cerebellum help maintain?**

- A. body temperature
- B. emotions
- C. motor output
- D. balance

Question 14

**The left hemisphere of the brain specializes in which of the following?**

- A. visual-spatial perception
- B. language
- C. emotional thought and recognition
- D. pattern recognition

Question 15

**Which neurotransmitter affects moods such as hunger, sleep, and arousal?**

- A. Acetylcholine
- B. Norepinephrine
- C. Glutamate
- D. Serotonin

Question 16

**What are the human body's natural "morphine" producers?**

- A. Serotonin
- B. Glutamate
- C. Endorphins
- D. Acetylcholine (ACh)

Question 17

**Which of the following enables voluntary control of our skeletal muscles?**

- A. Autonomic nervous system
- B. Somatic nervous system
- C. Sympathetic nervous system
- D. Parasympathetic nervous system

Question 18

**What brain structure provides the major link between the nervous system and the endocrine system?**

- A. Amygdala
- B. Cerebellum
- C. Corpus callosum
- D. Hypothalamus
- E. Reticular formation

Question 19

**Which part of the cerebral cortex directs the muscle movements involved in producing speech?**

- A. Amygdala
- B. Angular gyrus
- C. Broca's area
- D. Reticular formation
- E. Wernicke's area

Answer Key

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