

1. **Answer:** D

Explanation: The **enteric division** of the peripheral nervous system (PNS) makes up neurons in the digestive tract, pancreas, and gallbladder. These enteric neurons control secretion and peristalsis.

2. **Answer:** B

Explanation: Glutamate is a neurotransmitter that has a key role in forming long-term memory.

3. **Answer:** C

Explanation: Axons that convey signals rapidly are enclosed along most of their length by a thick insulating material, kind of like the insulation used in many electrical wires, called the **myelin sheath**. This helps speed up the transmission of impulses along a neuron.

4. **Answer:** A

Explanation: A stimulus is any factor that causes a nerve signal to be generated.

5. **Answer:** C

Explanation: The peripheral nervous system (PNS) is made of sensory and motor nerves. Sensory neurons receive information from sensory receptors while motor neurons transmit information from the CNS to effector organs that respond to stimuli. Motor neurons can be subdivided into two functional components. The motor system carries signals from the CNS to skeletal muscles and so can be voluntarily controlled. The other component is the autonomic nervous system which is generally involuntary.

6. **Answer:** D

Explanation: The forebrain in the embryo develops into the diencephalon consisting of the thalamus, hypothalamus, posterior pituitary, and pineal gland. Pons, on the other hand, is a brain structure that arises from the hindbrain of the embryo.

7. **Answer:** D

Explanation: Changes in the brain's physiology can lead to an enormous toll on society. Examples include depression, schizophrenia, bipolar disorder, and Alzheimer's. [Stroke, on the other hand, is the death of brain tissue due to lack of oxygen brought about by the rupture or blockage of arteries supplying blood to the brain.](#)

8. **Answer:** C

Explanation: The limbic system, meanwhile, is made of different parts of the brain that function in human emotion, behavior, motivation, and memory. This functional brain system includes part of the thalamus and hypothalamus and two cerebral structures: the **hippocampus, which is involved in the formation and recollection of memories**, and the amygdala, which lays down emotional memories.

9. **Answer:** B

Explanation: The hypothalamus is known as the homeostatic control center.

10. **Answer:** A

Explanation: A thick band of nerve fibers called the corpus callosum facilitates communication between the left and right hemispheres of the brain.

11. **Answer:** C

Explanation: When sound waves strike the eardrum, the vibration of the eardrum is passed on to three small bones: the hammer (malleus), anvil (incus), and **stirrup (stapes)**.

12. **Answer:** D

Explanation: Thermoreceptors are sensory receptors that detect either heat or cold.

13. **Answer:** D

Explanation: Several vision problems are related to aging. **Cataracts are due to the clouding of the lens** while glaucoma is a group of diseases that result in damage of the optic nerve, the nerve which relays visual stimulus to the brain.

14. **Answer:** A

Explanation: Aside from the four familiar taste perceptions, a fifth one called *umami* is elicited by **glutamate**, an [amino acid](#). Umami is the savory flavor common in meats, cheese, and other protein-rich foods.

15. **Answer:** B

Explanation: **Goblet papillae** are the least abundant but most voluminous taste buds. They are responsible for sensing bitter taste and acid. They also help alert the brain if we may eat a potentially toxic substance.