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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Central Nervous System

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|  |  |  |  | 2L |  I |  M |  B |  I |  C |  S |  Y |  S |  T |  E |  M |  |  |  |  |  | 3C |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  N |  |  |  |  |  |  |  E |  |  |  |  |  |  | 4E |  |
|  |  |  |  |  |  |  |  |  | 5P |  |  | 6B |  |  I |  |  |  |  | 7N |  |  N |  |  |  |  |  |  |  L |  |
|  |  |  |  |  |  |  |  | 8M |  E |  M |  B |  R |  A |  N |  E |  P |  O |  T |  E |  N |  T |  I |  A |  L |  |  |  |  E |  |
|  |  |  |  |  |  |  |  |  |  R |  |  |  A |  |  G |  |  |  |  |  R |  |  R |  |  |  |  |  |  |  C |  |
|  |  |  |  |  |  |  |  |  |  I |  |  |  I |  |  E |  | 9D |  |  |  V |  |  A |  |  |  |  |  |  |  T |  |
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|  |  |  |  |  |  | 13C |  |  |  R |  |  |  E |  |  |  |  C |  |  |  |  |  R |  |  |  |  |  E |  |  N |  |
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|  |  |  |  | 15M |  Y |  E |  L |  I |  N |  | 16H |  Y |  P |  O |  T |  H |  A |  L |  A |  M |  U |  S |  |  |  |  O |  |  P |  |
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|  |  |  |  |  | 17V |  E |  N |  T |  R |  I |  C |  L |  E |  | 18G |  L |  I |  A |  |  |  S |  |  |  |  |  P |  |  A |  |
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| **Across****2.** parts of the brain involved in emotions and sense of smell; plays key role in coupling sensory inputs to short- and long-term memory; consists of the hippocampus, the hypothalamus and several other structures**8.** difference in electrical charge between inside and outside of the plasma membrane**10.** impulse conduction route to and from the central nervous system; smallest portion of nervous system that can receive a stimulus and generate a response**12.** branching or tree-like nerve cell process that receives input from other neurons and transmits impulses toward the cell body (or toward the axon in unipolar neurons)**15.** lipoprotein substance in the myelin sheath around many nerve fibers that contribute to high speed conductivity of impulses**16.**  important autonomic and neuroendocrine control center located inferior to the thalamus in the brain**17.**  a cavity, such as the large, fluid-filled spaces within the brain or the chambers of the heart**18.** nonexciteable supporting cells of nervous tissue; formerly called neruoglia**19.** nerve cell, including its processes (axons and dendrites)**20.** nerve impulse, membrane potential of an active neuron**22.**  membrane-to-membrane junction between a neuron and another neuron, effector cell, or sensory cell; function to propagate action potential**23.**  located in the medulla where bits of gray and white matter mix intricately, this structure is involved in regulating input from sensory neurons, arousal, and motor control**24.** largest and uppermost part of the human brain that controls consciousness, memory, sensations, emotions, and voluntary movements | **Down****1.**  fluid-containing membranes surrounding the brain and spinal cord**3.** division of the nervous system composed of the brain and spinal cord**4.** graphic representation of voltage changes in the brain tissue used to evaluate nerve tissue function**5.** nerves connecting the brain and spinal cord to other parts of the body**6.** part of the brain containing the midbrain, pons, and medulla oblongata**7.** bundle nerve fibers, plus surrounding connective tissue, located outside the brain and spinal cord**9.** “between” brain; parts of the brain between cerebral hemispheres and the mesencephalon, or midbrain**11.**  plasma-like fluid that fills the subarachnoid space in the brain and spinal cord and in the cerebral ventricles**13.** second largest part of the human brain; plays an essential role in the production of normal movements**14.** in a neuron, the single process that extends from the axon hillock and transmits impulses away from the cell body**21.**  mass of gray matter located in diencephalon just above the hypothalamus; helps produce sensations, associates sensations with emotions, and plays a part in the arousal mechanism |