

For each question, select the best answer from the four alternatives.

- Which type of neuron transmits electric impulses to muscle fibres? (11.1) **K/U**
 - sensory
 - motor
 - association
 - secretory
- What is the correct order for the transmission of an impulse in a motor neuron? (11.1) **K/U**
 - axon, dendrite, axon
 - Schwann cell, cell body, dendrite
 - axon, cell body, dendrite
 - dendrite, cell body, axon
- Where in the neuron are neurotransmitters released? (11.2) **K/U**
 - in the mitochondria of the cell body
 - at the terminal knobs of dendrites
 - at the synaptic knobs of axon terminals
 - in Golgi bodies of the cell body
- Which ions cause a neuron to repolarize after a nerve impulse passes? (11.2) **K/U**
 - carbon ions
 - hydrogen ions
 - potassium ions
 - oxygen ions
- The brain and spinal cord are components of which system? (11.3) **K/U**
 - peripheral nervous system
 - central nervous system
 - sensory nervous system
 - autonomic nervous system
- What is the peripheral nervous system composed of? (11.4) **K/U**
 - brain and cranial nerves
 - sensory receptors and nerves
 - brain and spinal cord
 - spinal nerves and sensory receptors
- What are the two subsystems of the peripheral nervous system? (11.4) **K/U**
 - cervical and spinal
 - efferent and afferent
 - dorsal and ventral
 - vision and hearing
- Which receptors detect changes in body position or acceleration? (11.5) **K/U**
 - mechanoreceptors
 - photoreceptors
 - thermoreceptors
 - nociceptors
- Which human sense(s) can be considered the most complex? (11.5) **K/U**
 - hearing
 - touch
 - taste and smell
 - vision

Indicate whether each statement is true or false. If you think the statement is false, rewrite it to make it true.

- The most complex neural circuit is the reflex arc. (11.1) **K/U**
- Glial cells provide structural and functional support to neurons. (11.1) **K/U**
- An action potential is an unequal distribution of positive and negative charges on either side of a neuron's cell membrane when the neuron is not conducting an impulse. (11.2) **K/U**
- The cerebellum receives, filters, and relays sensory and motor information. (11.3) **K/U**
- Some functions, such as long-term memory and consciousness, are equally distributed between the two cerebral hemispheres. (11.3) **K/U**
- The somatic system of the peripheral nervous system controls the skeletal muscles that produce voluntary body movements. (11.4) **K/U**
- Naturally produced painkillers block or reduce the binding of pain neurotransmitters to the substantia gelatinosa, but synthetic painkillers do not. (11.4) **K/U**
- Sensory adaptation occurs when a stimulus continues at a constant level. (11.5) **K/U**
- Sensory processing disorder occurs when stimuli are received abnormally but perceived normally. (11.5) **K/U**
- Stress is the body's response to stimuli that cause a disruption in homeostasis. (11.6) **K/U**
- The symptoms of shock include a slow heart rate and high blood pressure. (11.6) **K/U**

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