1. The ________ are part of the Central Nervous System, but the ______ are part of the Peripheral Nervous System.
a) brain and spinal cord; cranial and spinal nerves  
b) brain and cranial nerves; spinal cord and spinal nerves  
c) cranial tracts and motor nerves; sensory receptors  
d) spinal nerves and tracts; sensory and motor neurons

2. The motor division of the Peripheral Nervous System has two pathways. Which effector is correctly paired to the pathway?
a) cardiac muscle - somatic  
b) skeletal muscle - autonomic  
c) visceral muscle - somatic  
d) involuntary - autonomic

3. The sympathetic and parasympathetic are subdivisions of the __________.
a) Voluntary nervous system  
b) Autonomic nervous system  
c) Central nervous system  
d) Somatic nervous system

4. Place the following items in order from simple to most complex.
1. Sodium  2. voltage gated channel  3. axolemma  4. action potential  5. axon
   a) 3.5.2.4.1.  b) 5.3.1.2.4.  c) 2.3.1.5.4.  d) 1.2.4.3.5.

5. Choose the grouping that correctly describes spinal cord anatomy with regard to the filum terminale, conus medullaris and cauda equina.
a) filum terminale = end; conus medullaris = end; cauda equina = anchors  
b) filum terminale = separation; conus medullaris = end; cauda equina = anchors  
c) filum terminale = anchors; conus medullaris = end; cauda equina = separation  
d) filum terminale = anchors; conus medullaris = anchors; cauda equina = end

6. Damage to the dorsal root of a thoracic spinal nerve would have what result?
a) A complete loss of descending cerebrospinal tracts  
b) A complete loss of sensation and sensory input to CNS  
c) A complete loss of movement and motor output to CNS  
d) A complete loss of movement from PNS

7. While watching a documentary on primary care, you see a properly administered patellar reflex. You turn to your spouse and correctly describe the scenario.
a) That stress reflex is stimulated by somatic organs, and carried out by smooth muscles  
b) That stretch reflex is stimulated by a muscle spindle organ, and carried out by skeletal muscles.  
c) That extensor thrust reflex is stimulated by a tendon organ, and carried out by smooth muscles  
d) That crossed-extensor reflex is stimulated by a golgi organ, and carried out by skeletal muscles

8. You thought those words sounded familiar! During lab and lecture we discussed the components of a Reflex Arc, and you realized that there is a theme running through our class! Since reflexes are to maintain homeostasis, it makes sense that the structures would correctly occur in the order listed below.
a) receptor, afferent neuron, integration center, efferent neuron, effector  
b) effector, afferent neuron, integration center, efferent neuron, receptor  
c) effector, efferent neuron, integration center, afferent neuron, receptor  
d) receptor, efferent neuron, integration center, afferent neuron, effector
9. Choose the correct grouping.
   a) rami communicates = parasympathetic division; root = spinal nerve; horn = spinal gray matter
   b) rami communicates = sympathetic division; root = spinal tract; horn = spinal gray matter
   c) rami communicates = sympathetic division; root = spinal nerve; horn = spinal gray matter
   d) rami communicates = parasympathetic division; root = spinal tract; horn = spinal gray matter

10. The cerebrospinal fluid ________.
    a) is secreted mostly by the astrocytes lining the central canal
    b) is formed mostly by the choroid plexus and modified by ependymal cells
    c) enters the four ventricles after filling and circulating through the epidural space
    d) is secreted by the arachnoid villi for exchange with venous blood only

11. The muscles of the thigh are innervated by which nerve and plexus?
    a) obturator nerve - cervical plexus
    b) femoral nerve - brachial plexus
    c) tibial nerve - lumbar plexus
    d) sciatic nerve - sacral plexus

The Key

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