1. As a result of a viral infection, a patient has suffered destruction to the anterior gray horns in the lumbar region. What manifestations would you expect from this neurologic damage:
   a. Numbness in the feet
   b. Intense leg pain
   c. **Deterioration of motor activity in the legs and feet**
   d. Inability to move the fingers
   e. Numbness in the fingers

2. The spinal cord:
   a. Contains only sensory neurons
   b. Contains only motor neurons
   c. Contains only interneurons
   d. Is exactly as long as the vertebral canal
   e. **None of the above**

3. ____________ are found within the dorsal root ganglion.
   a. Cell bodies of motor neurons
   b. **Cell bodies of sensory neurons**
   c. Cell bodies of cortical neurons
   d. Cell bodies of smooth muscle cells
   e. Cell bodies of skeletal muscle cells

4. The tapered end of the spinal cord is called the filum terminale. It is anchored to the coccyx by an extension of the pia mater called the conus medullaris.
   a. True
   b. False

5. A spinal nerve branches into a dorsal ramus and a ventral ramus. Both the dorsal ramus and the ventral ramus are mixed.
   a. True
   b. False

6. Which of the following is a function of the spinal cord?
   I. Transmit sensory information to the cerebral cortex
   II. Transmit motor commands from the cerebral cortex
   III. Serve as an integration center for reflexes
   a. I, II, and III
   b. I and II
   c. I and III
   d. II and III
   e. II

7. The spinal cord runs from the foramen magnum to the level of the ____________ vertebra.
   a. 10th thoracic
   b. 2nd sacral
   c. 1st lumbar
   d. 4th lumbar
   e. 22nd cervical
8. There are ___________ pairs of cervical spinal nerves and ___________ pairs of thoracic spinal nerves.
   a. 7 – 12
   b. 8 – 11
   c. 7 – 11
d. 8 – 12
e. None of the above

9. There are _________ pairs of lumbar spinal nerves and __________ pairs of sacral spinal nerves.
   a. 5 – 5
   b. 5 – 1
   c. 5 – 3
d. 3 – 5
e. None of the above

10. The spinal cord is enlarged at the ___________ and ______________ regions.
    a. Cervical – thoracic
    b. Thoracic – lumbar
c. Cervical – lumbar
d. Thoracic – sacral
e. None of the above

11. The epidural space is found between the dura mater and the __________.
    a. Arachnoid mater
    b. Pia mater
c. Spinal cord
d. Meninx
e. Vertebra

12. Which of the following would be the LEAST likely to be found within gray matter?
    a. Neuron somata
    b. Glial cells
c. Dendrites
d. Axons
e. Myelin

13. Which of the following encloses the MOST axons?
    a. Perineurium
    b. Endoneurium
c. Epineurium

14. Which of the following is NOT TRUE?
    a. CSF is produced at choroid plexuses
    b. The cleft on the ventral spinal cord is the anterior median fissure
c. The groove on the dorsal spinal cord is the posterior median sulcus
d. The central canal is larger than the gray commissure
e. The ventral horn contains cell bodies of motor neurons
15. A collection of axons in the CNS is referred to as a _____________.
   a. Nucleus
   b. Ganglion
   c. Nerve
   d. Tract
   e. None of the above

16. Cutting all the right ventral rootlets in the cervical and thoracic spinal cord would cause a decrease in the ability to:
   a. Move the right arm
   b. Move the left arm
   c. Feel hot/cold in the right hand
   d. Feel hot/cold in the left hand
   e. All of the above

17. Cutting all the right dorsal rootlets in the cervical and thoracic spinal cord would cause a decrease in the ability to:
   a. Move the right arm
   b. Move the left arm
   c. Feel hot/cold in the right hand
   d. Feel hot/cold in the left hand
   e. All of the above

18. Sensory neuron somata are found in the _____________.
   a. Lateral horn of the spinal cord
   b. Ventral horn of the spinal cord
   c. Dorsal horn of the spinal cord
   d. Ventral root ganglion
   e. Dorsal root ganglion

19. A spinal nerve will exit the vertebral canal via a _____________ foramen.
   a. Magnum
   b. Interventricular
   c. Intervertebral
   d. Transverse
   e. Vertebral

20. Which of the following is NOT an example of a nerve plexus?
   a. Coccygeal
   b. Thoracic
   c. Brachial
   d. Sacral
   e. 2 of the above
21. The cervical plexus derives from the ventral rami of which spinal nerves?
   a. C1-C8  
   b. C1-C3  
   c. C1-C4  
   d. C5-T1  
   e. C1-C57  

22. Which of the following does NOT belong?
   a. Axillary nerve  
   b. Pudendal nerve  
   c. Radial nerve  
   d. Median nerve  
   e. Ulnar nerve  

23. Damage to the phrenic nerve would impair an individual's ability to:
   a. Jump  
   b. Run  
   c. Dance  
   d. Ride a bike  
   e. All of the above  

24. The lumbar plexus is found within the psoas major muscle and gives rise to the sciatic and femoral nerves.
   a. True  
   b. False  

25. Which of the following encloses the FEWEST axons?
   a. Perineurium  
   b. Endoneurium  
   c. Epineurium  

26. A bundle of axons within a nerve is called a fascicle.
   a. True  
   b. False