Practice Questions Ch 4, part 3:

1. The dorsal horn of the spinal cord handles neural information about motor control of muscles and glands.
   A. TRUE  
   B. FALSE

2. Which nerve pair is involved in parasympathetic regulation of heart rate and breathing?
   A. Vagus nerves  
   B. Sacral nerves  
   C. Lumbar nerves  
   D. Thoracic nerves

3. Which nerve pair is involved in sympathetic decrease of urination and bowel movement?
   A. Vagus nerves  
   B. Sacral nerves  
   C. Lumbar nerves  
   D. Thoracic nerves

4. What nerves are involved in parasympathetic increase in GI tract activity and decrease in heart rate?
   A. Thoracic  
   B. Sacral  
   C. Vagus  
   D. Lumbar

5. What nerves are involved in parasympathetic increase in urination and defecation?
   A. Thoracic  
   B. Sacral  
   C. Vagus  
   D. Lumbar

6. What nerves are involved in a sympathetic increase in heart and respiratory rate and a decrease in GI tract activity?
   A. Thoracic  
   B. Sacral  
   C. Vagus  
   D. Lumbar

Match the description on the left with answer choices on the right for questions 8 -12. It is possible for answer choices to be used more than once.

7. Will increase heart rate.  
   A. ACh binding to muscarinic cholinergic receptors.  
   B. ACh binding to nicotinic cholinergic receptors.  
   C. Epinephrine binding to nicotinic cholinergic receptors.  
   D. Epinephrine binding to β2-adrenergic receptors.  
   E. Epinephrine binding to α-adrenergic receptors.  
   F. Epinephrine binding to β1-adrenergic receptors.

8. Will cause bronchodilation.  


10. Will speed up activity of GI tract smooth muscle.  

11. Will decrease heart rate.  

12. Which spinal nerve plexus gives rise to the phrenic nerve, for motor control of the diaphragm?
   A. Lumbar plexus  
   B. Sacral plexus  
   C. Cervical plexus  
   D. Brachial plexus

13. Which spinal nerve plexus gives rise to the radial, musculocutaneous, and median nerves?
   A. Lumbar plexus  
   B. Sacral plexus  
   C. Cervical plexus  
   D. Brachial plexus

14. Which spinal nerve plexus gives rise to the fibular and tibial nerves?
   A. Lumbar plexus  
   B. Sacral plexus  
   C. Cervical plexus  
   D. Brachial plexus

15. Which of the following statements is false regarding differences between the dorsal spinal root and ventral spinal root (where spinal cord meets the spinal nerves)?
   A. Dorsal roots contain a ganglion, or enlarged collection of neuron cell bodies.  
   B. Dorsal roots enter the dorsal section of the spinal cord.  
   C. Ventral roots enter the ventral section of the spinal cord.  
   D. Dorsal roots carry efferent (motor) information from the body to the spinal cord.  
   E. Ventral roots carry efferent (motor) information from the spinal cord to the body.
Ch 6. Answers:
1. B
2. A
3. C
4. C
5. B
6. A
7. F
8. D
9. E
10. A
11. A
12. C
13. D
14. B
15. D

How did you do?