1. The day following traumatic, total transection of the upper thoracic spinal cord, a patient would typically exhibit:

A.) automatic bladder emptying, based on spinal reflexes  
B.) diminished stretch reflexes in the legs but not the arms  
C.) diminished stretch reflexes in the legs and the arms  
D.) hyperactive stretch reflexes in the legs but not the arms  
E.) increased muscle tone in the legs but not the arms

2. A patient with spasticity in one leg typically exhibits all of the following EXCEPT _______ in that leg.

A.) hyperactive stretch reflexes  
B.) increased muscle tone  
C.) resistance to extension that increases as the speed of extension decreases  
D.) resistance to extension that increases as the speed of extension increases  
E.) weakness

3. Ipsilateral spasticity would be the typical result of damage at which of these sites?

A.) A  
B.) B  
C.) C  
D.) D  
E.) E

4. Sensory neurons located entirely outside the CNS are a prominent component of the:

A.) enteric division of the ANS  
B.) parasympathetic division of the ANS  
C.) sympathetic division of the ANS
5. Norepinephrine is the major neurotransmitter typically used by _____ neurons.

A.) postganglionic parasympathetic
B.) postganglionic sympathetic
C.) preganglionic parasympathetic
D.) preganglionic sympathetic

6. Preganglionic sympathetic neurons are located in the:

A.) brainstem and thoracic and lumbar spinal cord
B.) brainstem and sacral spinal cord
C.) lumbar and sacral spinal cord only
D.) thoracic and lumbar spinal cord only
E.) sacral spinal cord only

7. Normal micturition involves ______ parasympathetic and ______ sympathetic activity.

A.) decreased, decreased
B.) decreased, increased
C.) increased, decreased
D.) increased, increased

8. Three months after an automobile accident, a patient had a bladder that, if left untreated, would fill under low pressure until it reached an abnormally large size, at which point a small amount of urine would be voided. The most likely site of damage was the:

A.) medial frontal lobes
B.) pons
C.) sacral spinal cord
D.) thoracic spinal cord

9. Increased activity of the pontine micturition center directly or indirectly causes

A.) contraction of the external urethral sphincter
B.) excitation of lower thoracic preganglionic sympathetic neurons
C.) excitation of a vagal nucleus in the brainstem
D.) excitation of postganglionic autonomic neurons in the bladder wall
E.) relaxation of the bladder detrusor

10. Six months following a T1 spinal cord injury, a patient's urinary catheter became obstructed and shortly thereafter her blood pressure rose dramatically. All of the following probably played a role in this blood pressure change EXCEPT:
A.) diminished parasympathetic input to the heart
B.) hyperactive sympathetic cardiovascular reflexes
C.) hyperactive vesicovesical reflex
D.) loss of descending inhibitory inputs to preganglionic sympathetic neurons