VOCABULARY

GANGLION: In neurological contexts, ganglia are composed mainly of somata and dendritic structures which are bundled or connected together. Ganglia often interconnect with other ganglia to form a complex system of ganglia known as a plexus. Ganglia provide relay points and intermediary connections between different neurological structures in the body, such as the peripheral and central nervous systems.

There are two major groups of ganglia:

- dorsal root ganglia (also known as the spinal ganglia) - contain the cell bodies of sensory (afferent) nerves
- autonomic ganglia - contain the cell bodies of autonomic nerves.

In the autonomic nervous system, fibers from the central nervous system to the ganglia are known as preganglionic fibers, while those from the ganglia to the effector organ are called postganglionic fibers.

SPLANCHNIC NERVES (*greater, lesser, lumbar*, and *sacral*)
The **splanchnic nerves** are paired nerves that contribute to the innervation of the viscera, carrying fibers of the autonomic nervous system (visceral efferent fibers) as well as sensory fibers from the organs (which are also known as visceral afferent fibers). All carry sympathetic fibers except for the pelvic splanchnic nerves, which carry parasympathetic fibers.

The term *splanchnic nerves* can refer to:

- Cardiopulmonary nerves
- Thoracic splanchnic nerves (greater, lesser and least)
- Lumbar splanchnic nerves
- Sacral splanchnic nerves
- Pelvic splanchnic nerves

PREVERTEBRAL/COLLATERAL GANGLIA.
Any of the sympathetic ganglions lying in front of the vertebral column, including the celiac, aorticorenal, and the superior and inferior mesenteric ganglions.
prevertebral ganglia, collections of postgangionic sympathetic neuronal cell bodies in recognizable aggregations along the abdominal prevertebral plexus. They include the celiac, superior mesenteric, aorticorenal, and inferior mesenteric ganglia and play a critical role in the innervations of the abdominal viscera.

Prevertebral ganglia (or **collateral ganglia** or **preaortic ganglia**) are sympathetic ganglia which lie between the sympathetic chain and the organ of supply.

CILIARY GANGLION
The ciliary ganglion is a parasympathetic ganglion located in the posterior orbit. It measures 1–2 millimeters in diameter and contains approximately 2,500 neurons. *Preganglionic* axons from the Edinger-Westphal nucleus form synapses with these cells. The *postganglionic* axons run in the short ciliary nerves and innervate two eye muscles:
the sphincter pupillae constricts the pupil, know as Miosis. The opposite, Mydriasis, is the dilation of the pupil.
the ciliaris muscle contracts, releasing tension on the Zonular Fibers, making the lens more convex, also known as accommodation.

c. Constriction of the blood vessels of the skin and viscera
d. Increased activity of the digestive system

9. Components of a neuron include all of the following except:
   a. soma
   b. one or more dendrite
   c. axon
   d. one or more synaptic terminal
   e. no exceptions; all of the above are included

10. The peripheral nervous system includes the following
   a. somatic and autonomic nervous system
   b. somatic nervous system and spinal cord
   c. spinal cord and brain
   d. brain, spinal cord, somatic and autonomic nervous system

11. In the ANS:
   a. Preganglionic fibers innervate the peripheral organs
   b. Preganglionic fibers are unmyelinated
   c. Both are true
   d. Neither are true

12. Postganglionic neurons from which part of the sympathetic division will affect target organs only in the abdominopelvic cavity:
   a. Collateral ganglia
   b. Chain ganglia
   c. Ciliary ganglion
   d. Adrenal medullae
   e. All of the above will affect target organs in the abdominopelvic cavity

MULTIPLE-CHOICE PRACTICE **ANSWERS**

1. c
2. c
3. c
4. a
5. e
6. a
7. a
8. d
9. e
10. a
11. d
12. a