

#1-#12 MULT. CHOICE QUESTIONS: CHOOSE THE ONE BEST ANSWER

1. During excitation-contraction coupling in skeletal muscle, where does the majority of the calcium that enters the sarcoplasm come from:

- a) the axonal terminal
- b) the synaptic cleft
- c) the sarcolemma
- d) the T-tubule
- e) the sarcoplasmic reticulum

2. In cardiac muscle, which of the following is NOT associated with intercalated disks:

- a) adherens junctions
- b) desmosomes
- c) integrins
- d) connexons
- e) connexins

3. Which of the following IS part of the contractile apparatus of cardiac muscle:

- a) thick filaments
- b) z-disks
- c) T-tubules
- d) all of the above
- e) none of the above

4. Which of the following is NOT part of the contractile apparatus of smooth muscle:

- a) actin
- b) myosin
- c) gap junctions
- d) T-tubules
- e) dense bodies

5. Regarding specific muscle types, which of the following is CORRECT:

- a) individual skeletal muscle fibers have a single nucleus that is peripherally located in cross-section
- b) individual smooth muscle fibers have a single nucleus that is centrally-located in cross-section
- c) individual cardiac muscle fibers have no nucleus because they are terminally differentiated
- d) all of the above
- e) none of the above

6. Which of the following has the greatest somatotopic representation in the motor region of the cerebral cortex:

- a) big toe
- b) knee
- c) thumb
- d) wrist
- e) ear

7. Which of the following is NOT part of the central nervous system:

- a) spinal nerve
- b) spinal cord
- c) brain
- d) white matter
- e) grey matter

8. Which of the following IS a characteristic of the parasympathetic division of the autonomic nervous system

- a) pre-ganglionic neurons have cell bodies located in the thoracic portion of the spinal cord
- b) pre-ganglionic neurons have cell bodies located in the lumbar portion of the spinal cord
- c) post-ganglionic neurons have cell bodies located in the cervical portion of the spinal cord
- d) post-ganglionic neurons have cell bodies located in the sacral portion of the spinal cord
- e) post-ganglionic neurons have cell bodies located in peripheral ganglia

9. Which of the following is LEAST prominent in dendrites:

- a) microtubules
- b) intermediate filaments
- c) Golgi apparatus
- d) smooth ER
- e) mitochondria

10. Regarding axon terminals of neurons located in the CNS, which of the following is CORRECT:

- a) site where post-synaptic membrane is located
- b) site where anterograde transport is initiated
- c) site where secretory vesicles that contain neurotransmitters are found
- d) all of the above
- e) none of the above

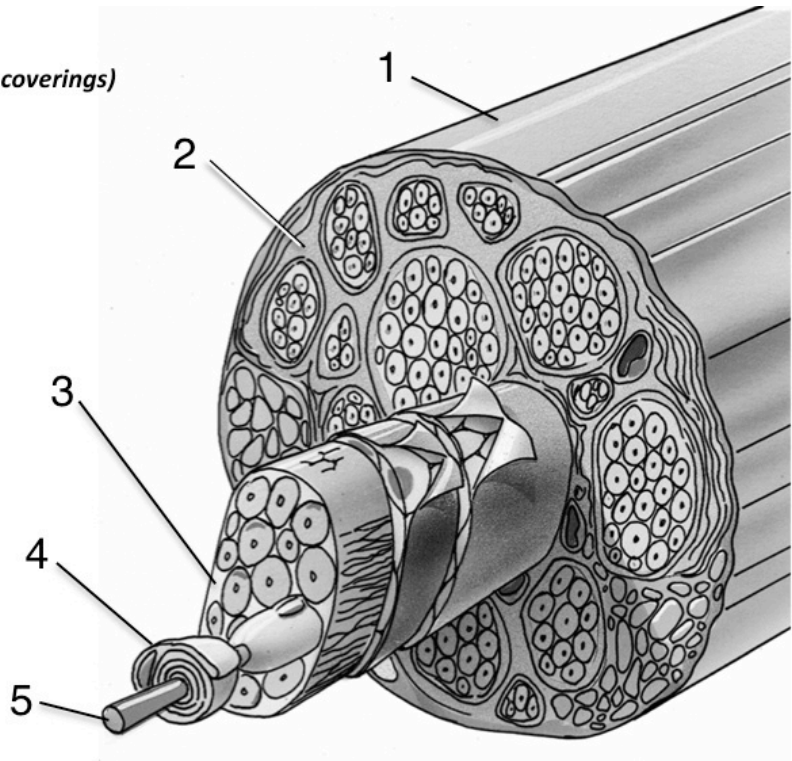
11. Which of the following is NOT derived from ectoderm:

- a) neurons whose cell bodies are present in the brainstem
- b) neurons whose cell bodies are present in peripheral autonomic ganglia
- c) microglial cells
- d) astrocytes
- e) ependymal cells

12. Regarding cerebral spinal fluid, which of the following is CORRECT:

- a) produced by choroid plexus in sub-arachnoid space
- b) flows from subarachnoid space into ventricles
- c) flows from ventricles into sub-arachnoid space
- d) all of the above
- e) none of the above

End of Multiple Choice Questions - Please Proceed to Short Answer Questions

#13-#16 SHORT ANSWER QUESTIONS: ANSWER AS REQUESTED**Fig 01: Peripheral Nerve***(Structures #1-3 represent connective tissue coverings)*

13. In Fig 1, which numbered structure represents the epineurium:

(write the number) _____

14. In Fig 1, which numbered structure contains reticular fibers:

(write the number) _____

15. In Fig 1, what cell type is represented by structure #4:

(write the cell type) _____

16 In Fig 1, what portion of a neuron is represented by structure #5:

(the name of the portion of the neuron) _____

End of 04 SampleSetQuestions

The midterm examination will consist of questions formulated in the two formats above (note, however that it does NOT include information from Lect 15)