Regarding the spleen which of the following is INCORRECTELY matched?

Select one:

- a. White pulp ———- Lymphoid nodules
- b. Red pulp ——— Blood sinusoids
- c. Thymus dependent zone ----- Billroth cords
- d. Germinal center ——— Activated B lymphocytes
- e. Central arteriole ------ Periarterioal lymphoid sheath

### Answer: c

Astrocytes are the largest of all glial cells, which of the following forms INCORRECT matc

Select one:

- a. Protoplasmic astrocytes-----gray matter
- b. Protoplasmic astrocytes-----thick cellular processes
- c. Fibrous astrocytes------white matter
- d. Fibrous astrocytes----rounded cell bodies

## Answer:d

Pericytes of capillaries perform the following function\_

## Select one:

- a. Provide smooth surface for blood flow through capillaries
- b. Regulation of blood flow through capillaries
- c. Can differentiate into elastic fibers
  - d. Provide nutrition to capillaries wall
    - e. Inhibit clot formation within capillaries

## Answer: b

### Which pairing is INCORRECT?

#### Select one:

- O a. Beta cells / Insulin
- O b. Alpha cells / Glucagon
- O c. Parotid / Saliva
- O d. Pancreatic acinar cells / Somatostatin
- e. F cells / Pancreatic polypeptide

### Answer:

Which description is TRUE of the muscularis mucosa of the upper esophagus?

Astrocytes are the largest of all glial cells, which of the following forms INCORRECT match?

#### Select one:

- a. Protoplasmic astrocytes-----gray matter
- D. Protoplasmic astrocytes------thick cellular processes
- O c. Fibrous astrocytes------white matter
- O d. Fibrous astrocytes-----rounded cell bodies
- e. Protoplasmic astrocytes----perivascular foot processes

### Answer:d

One of the following is TRUE about myofilaments and sarcomere

Select one:

- O a. Troponin lies in the groove of the spiral within the actin filaments
- O b. The myosin molecule has a head and a tail
- O c. The average length of a sarcomere is about 2.5 µm during contraction
- O d. A band becomes narrower during contraction
- O e. I band stays the same during contraction

### Answer: b



## Key-Retzius sheath refers to-----?

## Select one:

Ο

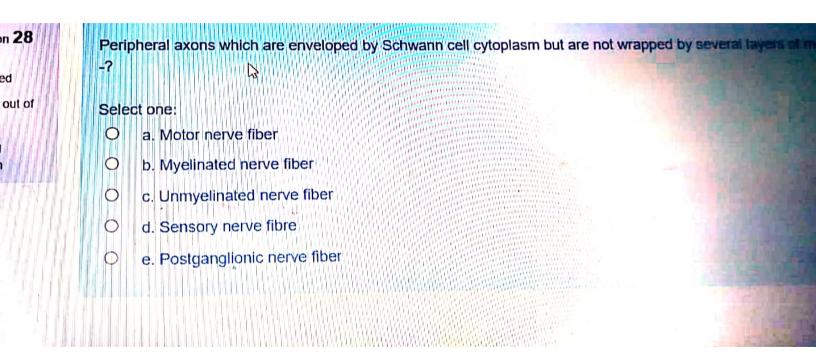
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- a. Internodal segments
  - b. Myelin sheath
  - c. Schmidt-Lantermann clefts
- o d. Endoneurium
  - e. Perikaryon

Which of the following is INCORRECTLY matched?

- Select one:
  - a. Dorsal root ganglia -------no synaptic connections
  - O b. Dorsal root ganglia-----afferent sensory impulses
  - C. Autonomic ganglia-----multipolar neurons
- O d. Autonomic ganglia-----fewer satellite cells
- e. Dorsal root ganglia------unmyelinated nerve fibers

## Answer:e



### **Answer:**

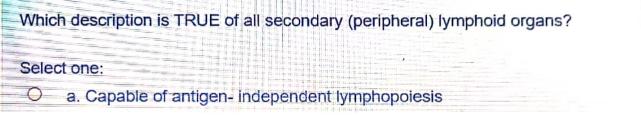
Characteristic of the olfactory epithelium include which of the following?

### Select one:

- O a. Located on the inferior conchae of the nasal cavity
- b. Classified as simple columnar
- c. Has an underlying lamina propria containing mucous glands
- d. Is unable to regenerate
  - e. Has Bipolar neurons with modified cilia

### Answer: e

One of the following is TRUE about myofilaments and sarcomere





Small cells closely associated with neurons in peripheral ganglia may be called?

## Select one:

- a. Postganglionic cells
- b. Pyramidal cells
- c. Preganglionic cells
- d. Autonomic cells
  - e. Satellite cells

### Answer: e

The largest cell bodies in the dorsal (posterior) horn of the spinal cord belong?

#### Select one:

- a. Primary sensory neurons
- b. Lower motor neurons
- c. Secondary motor neurons.
- d. Astrocytes
- O e. Oligodendrocytes

## Which of the following is INCORRECTELY matched?

#### Select one:

- a. Sublingual glands ------ Abundant myoepithelial cells
- O b. Parotid glands ----- Serous demilune
- c. Submandibular glands ---- Mixed salivary glands
- d. Von Ebner glands ----- Circumvallate papillae
- e. Lingual glands ------ Intrinsic salivary glands

### C- Shaped cartilage is characteristic feature of the wall of which structure?

### Select one:

- O a. Alveolar duct
- O b. Bronchus
- O c. Bronchiole
- O d. Trachea
  - e. Terminal bronchiole

## Answer: d

### One of the following is CORRECTLY matched?

### Select one:

- a. Cardiac muscle.....satellite cells
- b. Cardiac muscle.....only one nucleus
  - c. Skeletal muscle.....branched fibers
  - O d. Smooth muscle......caveolae
    - e. Smooth muscle.....no filaments

### Answer: d

One statement is CORRECT regarding the structure of the inferior vena cava?

#### Select one:

- O a. Lined by simple columnar epithelium.
- O b. Several layers of elastic fibres are present in the media
- O c. Vasa vasora cannot be observed in the adventitia
- O d. Circular smooth muscle bundles are present in the intima
- O e. Longitudinal smooth muscle bundles are seen in the adventitia

### Answer: e

Which structural feature distinguishes between terminal and respiratory bronchiole?

### Select one:

- O a. Cilia
- O b. Cuboidal epithelial lining
- c. Mucous glands in the lamina propria
- O d. Alveoli
  - e. Smooth muscle

## Answer: b

One of the followings is INCORRECTLY matched?

### Select one:

- a. Bipolar neurons---- cochlear nerves
- b. Unipolar neurons---- afferent neurons
- O c. Bipolar neurons---- present in the CNS
- d. Bipolar neuror s---- one axon
  - e. Intermediate neurons---- present in the CNS



### Answer:c

### Comparing blood capillaries and sinusoids, choose the INCORRECT statement?

- Select one:
  - a. Capillaries are present all-over the body
  - O b. Sinusoids have wide irregular lumens
  - c. Sinusoids are lined by continuous endothelial cells.
- O d. Capillaries are surrounded by pericytes
  - O e. Sinusoids allow big molecules and cells to pass easily through their walls

## Answer: C

Foam cells are

Select one:

- a. Modified smooth muscles in tunica media of arterioles
- O b. Endothelial cells damaged by atherosclerotic lesions
- C. Macrophages ingesting lipids in the subendotheluim of arteries
  - d. Fibroblasts in tunica adventitia of arteries to prevent over distention
    - e. Methothelial cells lining of the blood sinusoids

Answer: c

### Which of the following is INCORRECTLY matched concerning the axoplasmic transport system (ATS)

#### Select one:

- O a. Anterograde ATS-\_\_\_\_syphilis in the dorsal columns
- O b. Slow ATS growth and regeneration
- O c. Fast ATS-----bidirectional
- O d. Retigrade ATS-----fast
- O e. Retrograde ATS-----toxins

### Answer: a

In general, neurons have-----

Select one:

- a. A small nucleus
  - b. A paucity of rough endoplasmic reticulum
  - c. A poorly organized microtubules network
- d. Few lysosomal elements
- e. A highly ordered cytoskeleton to provide internal support

Answer:

After their maturation in the thymus and release into the circulation, T lymphocytes migrate to which of the following sites?

#### Select one:

- a. Paracortex of lymph nodes
- b. Hilum of lymph nodes
- c. Medullary cords of the tonsils
- O d. Splenic sinuses
- e. MALT of the intestinal tract

### Answer: A

The type of epithelium associated with the vermilion zone of the lip is \_\_\_?

Select one:

- O a. Stratified squamous non-keratinized
- O b. Pseudostratified ciliated columnar
- O c. Stratified squamous keratinized
- O d. Stratified cuboidal
- O e. Stratified columnar

### Answer: c

### Which of the following is MISMATCHED?

- Select one:
  - a. Trachea Hyaline cartilage C-shaped incomplete rings
- D. Trachea -- Respiratory epithelium.
- c. Bronchi -- Hyaline cartilage as irregular plates
  - d. Bronchi -- Simple columnar epithelium with Clara cells.
  - e. Bronchioles -- Lacks hyaline cartilage

Answer: d

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Which of the following statements concerning terminal bronchioles is TRUE?

Select one:

- O a. They are part of the conducting portion of the respiratory system
- O b. They function in gas exchange
- c. They do not contain ciliated cells in their lining epithelium
- d. They have cartilage plates present in their wall
- O e. They do not contain Clara cells

Answer: a

### The epithelial lining of a bronchus is which of the following types?

- Select one:
- O a. Simple columnar
- b. Cillated pseudostratified
- O c. Stratified squamous
- O d. Transitional
  - e. Simple squamous

## Answer: b

Concerning lymphatic capillaries one of these statements is TRUE?

## Select one:

- a. Lymphatic capillaries have narrower diameter than blood capillaries
- D b. Lymphatic capillaries are lined by simple cubical epithelium resting on a clear basen
- c. Lymphatic capillaries are blind ended
- d. Lymphatic capillaries are surrounded by pericytes
- e. Lymphatic capillaries are surrounded by Littoral cells

## Answer: c

Which of the following is found in the white matter of central nervous system?

- Select one:
- O a. Ganglion
- O b. Nerve
- O c. Tract
- O d. Schwann cell
  - e. Nuclei
- Answer:c

Following injury of an axon, the perikaryon undergoes which off the following changes?

#### Select one:

- O a. The soma shrinks
- O b. Nissl bodies are increased
- O c. The nucleus moves to the periphery
  - d. The nucleus becomes smaller
  - e. Nissl bodies appears in axons

## Answer: c

## The axon hillock contains?

### Select one:

- O a. Rough endoplasmic reticulum
- O b. Ribosomes
- O c. Microtubules
  - d. Golgi complex
    - e. Synaptic vesicles

### Answer:c

D

All of the following are components of sensory ganglia EXCEPT?

#### Select one:

- O a. Axons
- O b. Synapses
- O c. Perikarya
- d. Loose connective tissue
- O e. Satellite or Schwann cells

### Answer: b



BALT is commonly found in the wall of which part of the respiratory system?

#### Select one:

- O a. Trachea
- b. Intrapulmonary bronchus
- O c. Bronchioles
- O d. Terminal bronchioles
  - e. Respiratory bronchioles

## Answer: b

O

### Triads in skeletal muscle consist of which of the following?

Select one:

- a. Sarcoplasm, sarcoplasmic reticulum, calcium ions
- b. Sarcoplaunic reticulum, terminal cisterna, sarcoplasm
- C. Two terminal cisternae and a T-tubule.
- O d. Two T-tubules and one terminal cisterna
- O e. T-tubule a terminal cisterna and sarcotubules.

## Answer:c

## Which of the following is INCORRECT regarding myelinated and unmyelinated fibres?

## Select one:

- O a. Myelinated axons do not usually enter gray matter
- b. Unmyelinated axons generally have a smaller diameter than myelinated axons
  - c. Unmyelinated axons conduct more slowly than myelinated axons
  - O d. Action potentials travel along myelinated axons and unmyelinated axons
    - e. Non-myelinated nerves are found in both the CNS and PNS

## Answer:d

matter of central nervous system?

Regarding adaptation of blood vessels to perform their functions, one is NOT CORRECT?

## Select one:

- a. The endothelium provides smooth surface for blood flow
- b. Smooth muscle cells regulate the blood flow by contraction and relaxation
- c. The adventitia connects the vessel to the surrounding tissues
- d. Elastic lamina allow expansion during systole
  - e. Vasa vasora are small vessels that supply the intima of large vessels

### Answer: e

Trieds in skeletal muscle consist of which of the following?

Regarding the Tonsils all are true EXCEPT?

#### Select one:

- O a. Possess epithelial invaginations in the form of crypts
- b. Crypts frequently containing debris
- O c. Produce lymphocytes that assist in fighting antigens entering via the oral and nasal routes
- O d. They have primary and secondary lymphatic negules
- e. Are situated along the course of lymphatic vessels.

### Answer: e

Which two of the following are typically necessary to stimulate B- lymphocyte to divide and differentiate?

#### Select one:

- O a. Plasma cell / antibody
- O b. Helper T lymphocyte / antigen
- O c. Cytokine / immmunoglobulin
- O d. Memory T lymphocyte / cytokine
- e. Cytotoxic T lymphocyte / antigen

## Answer: b

The largest cell bodies in the dorsal (posterior) horn of the spinal cord belong?



# Which of the following is INCORRECTLY matched?

# Select one:

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0

0

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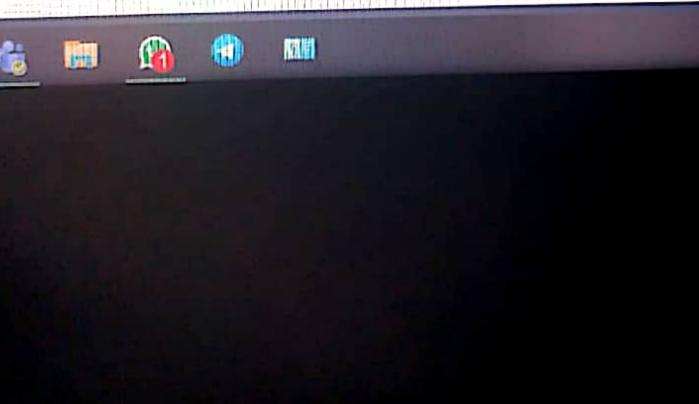
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- a. Dorsal root ganglia-----no synaptic connections
- b. Dorsal root ganglia-----afferent sensory impulses
- c. Autonomic ganglia-----multipolar neurons
- d. Autonomic ganglia-----fewer satellite cells
- e. Dorsal root ganglia-----unmyelinated nerve fibers

## Answer:e

- A typical peripheral mixed herve includes all of the following EXCEPT?
  - Select one: O a. Motor exori
    - O b. Astrocytes
  - C c. Perineurium and of endoneurium
- O. Id. Schwann cells

Answer: b



- O d. Possess valves to regulate the direction of blood flow
- e. Possess a complete layer of smooth muscle cells in their funica media

### Answer: c

Choose the CORRECT statement regarding Metarterioles?

### Select one:

- a. Function to control blood flow into arterioles.
- O b. Receive blood from thoroughfare channels
- c. Possess precapillary sphincters
- d. Possess valves to regulate the direction of blood flow
- e. Possess a complete layer of smooth muscle cells in their tunica media