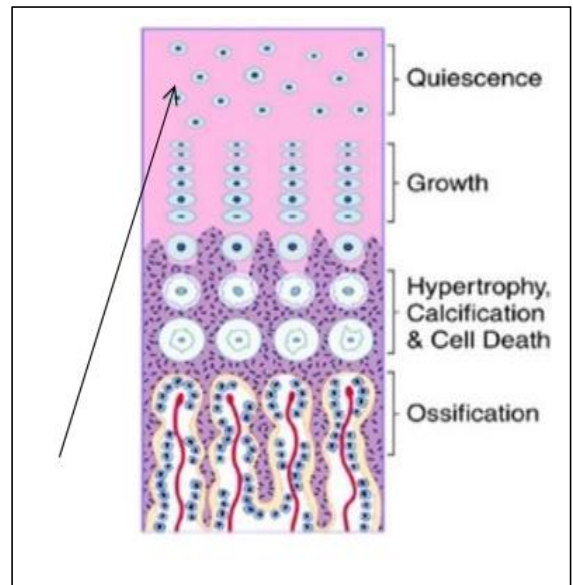


# Histology Lab Past Papers

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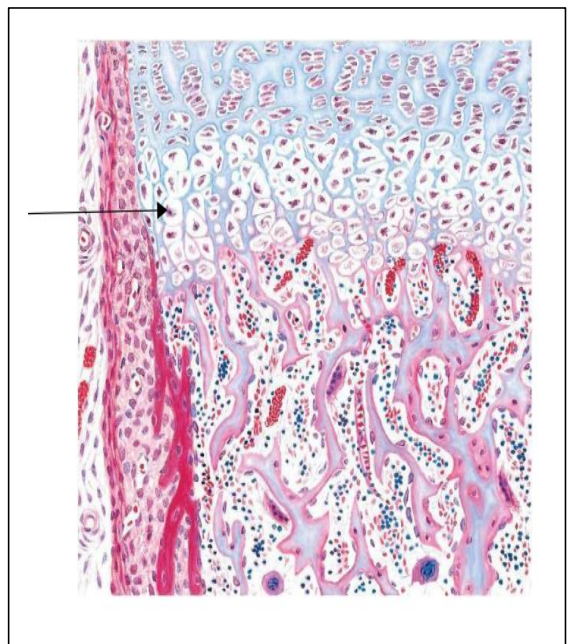
1) Distal zone in a distal epiphyseal growth plate:

Answer : Resting zone. (pay attention and don't mix up with the ossification zone)



2) Identify the pointed zone:

Answer: Hypertrophy zone



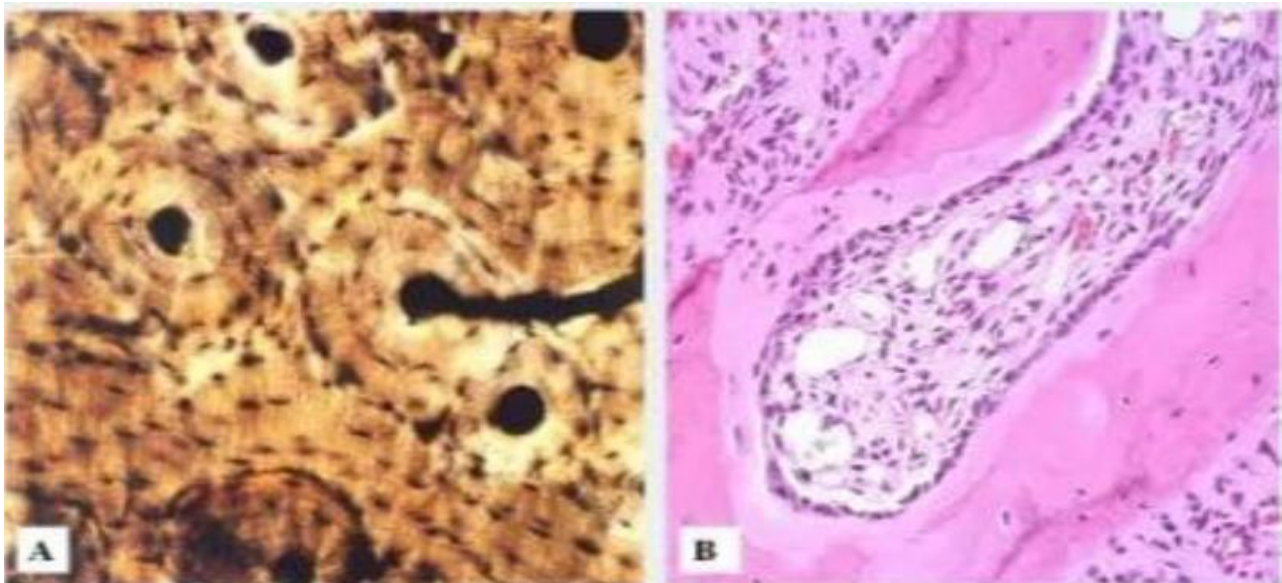
3) Which of the following you can't find in this section?

Answer : Secondary ossification center.



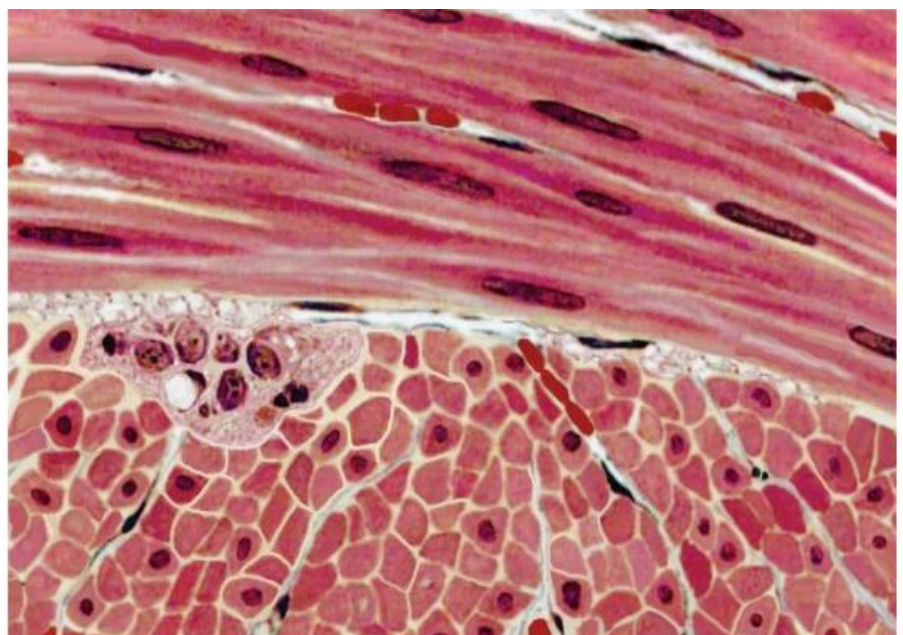
4) Choose the WRONG regarding sections these ?

- a) Canalliculi can be identified in section B
- b) B)Osteoid matrix, red bone marrow and endosteum can be identified in section B
- c) Interstitial lamellae can be identified in section A
- d) Volkmann's canal can be identified in section A
- e) Section A is a ground bone section, while section B is a decalcified section.



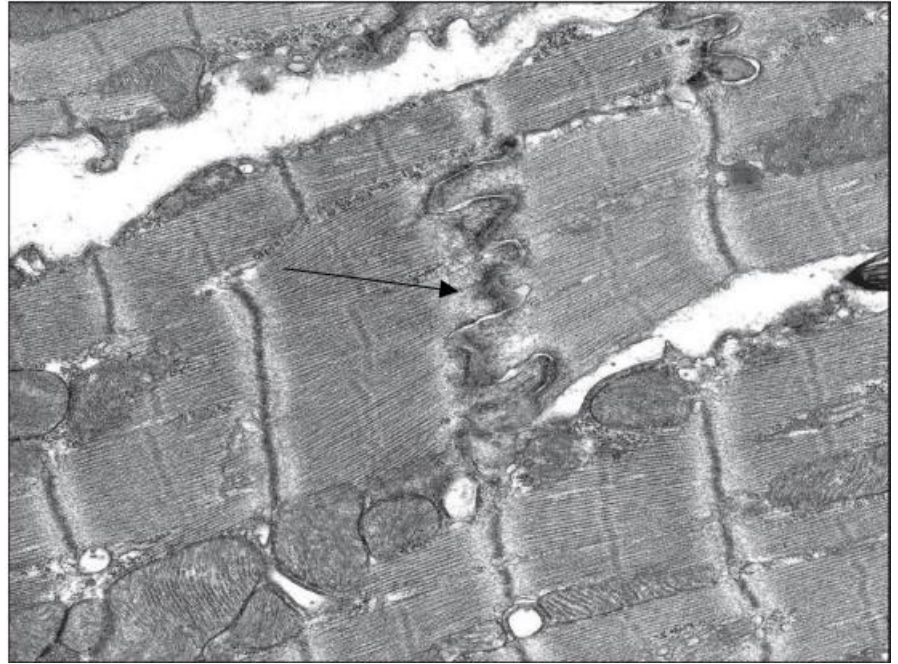
Answer: A

5) Which if the following is wrong about this type of muscles?



Answer: Innervated by somatic PNS:

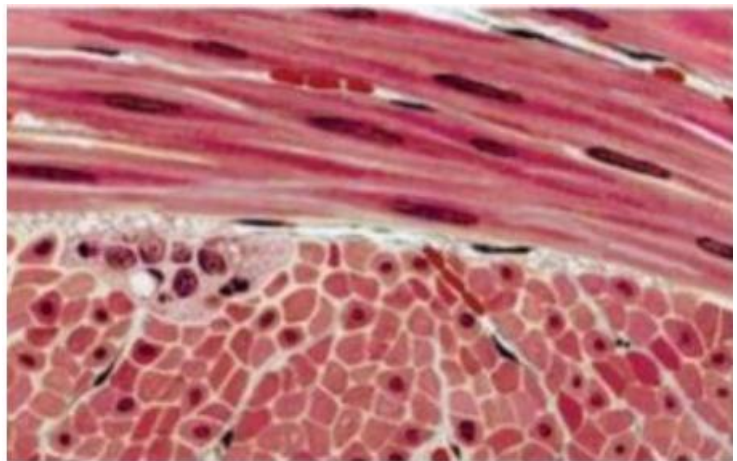
6) Identify the pointed structure, and where can you find it?



Answer: intercalated discs found in cardiac muscle fibers.

7) Choose the CORRECT regarding the cells in this tissue

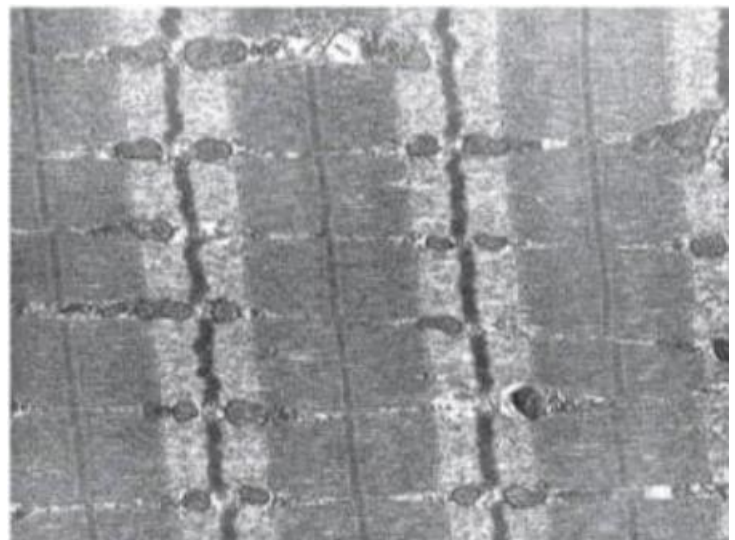
- A) Are cylindrical in shape.
- B) Are multinucleated cells.
- C) Their plasma membranes lack caveolae.
- D) have peripherally located nucleus.
- E) Can undergo hyperplasia and hypertrophy.



Answer: D

8) Choose the correct statement

- A) Electron microscopy of a slow multinucleated striated muscle fiber.
- B) Electron microscopy of an involuntary muscle fiber with sarcomeres
- C) Electron microscopy of a mononucleated striated muscle

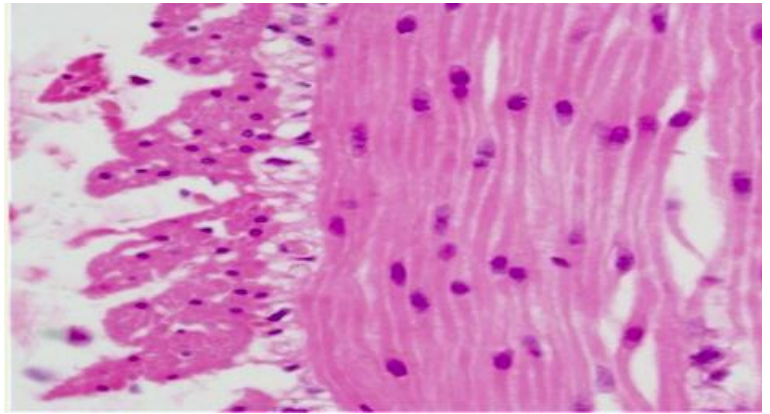


Answer: A

fiber.

d) Electron microscopy of a fast multinucleated striated muscle fiber

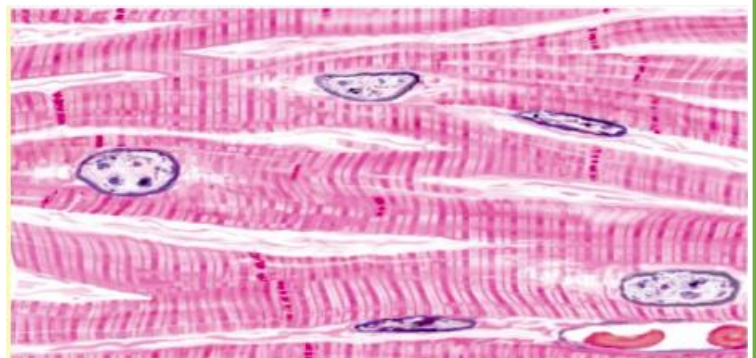
9) Practical: Choose the CORRECT statement regarding the cells in this histological section:



- a) Can undergo hyperplasia and hypertrophy
- b) Are multinucleated cells
- c) Have peripherally located nuclei
- d) Are branching cells
- e) Have striated cytoplasm

Answer: a

10) Practical: Identify this histological section:

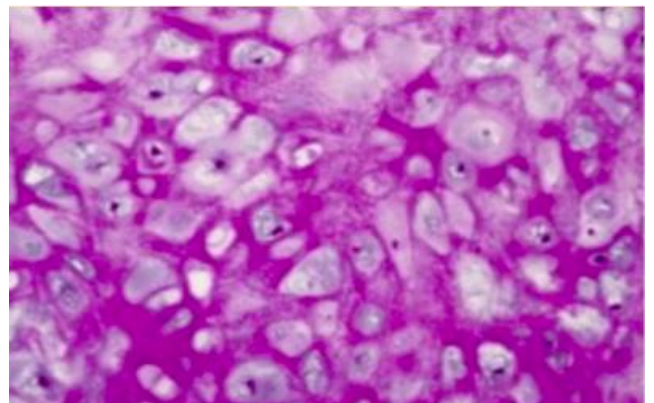


- a) Longitudinal section of skeletal muscle cells.
- b) Longitudinal section of smooth muscle cells.
- c) Cross section of skeletal muscle cells.
- d) Longitudinal section of cardiac muscle cells.
- e) Cross section of cardiac muscle cells.

Answer: d

11) Practical: Identify this tissue:

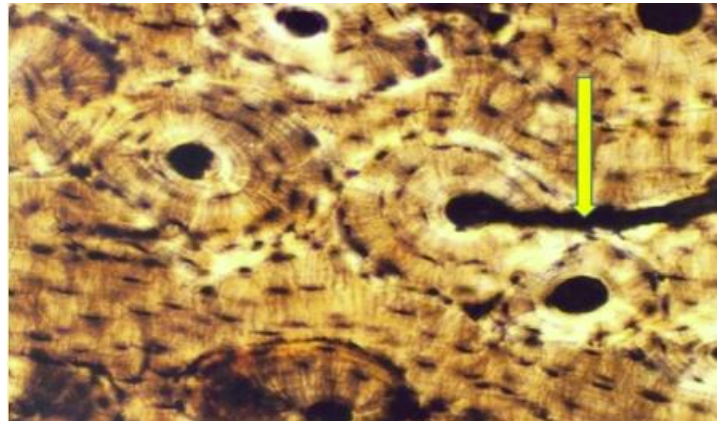
- a) Elastic cartilage.
- b) Hyaline cartilage.
- c) Fibrocartilage.
- d) Brown adipose tissue.



Answer: a

12) Practical: Identify the yellow labeled structure:

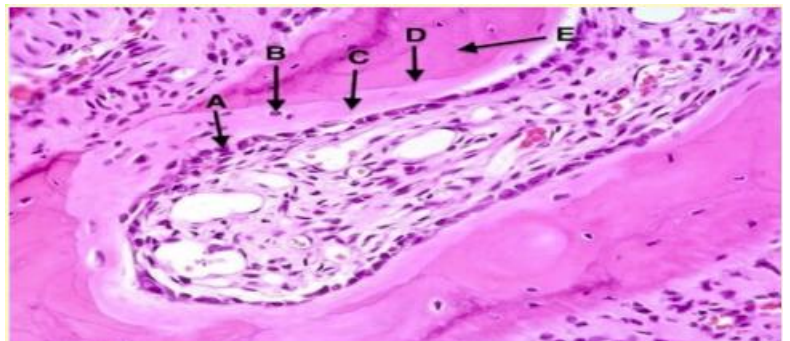
- a) Lamella
- b) Central canal
- c) Lacuna
- d) Volkmann's canal
- e) Osteon



Answer: d

13) Practical: Choose the WRONG statement regarding this section:

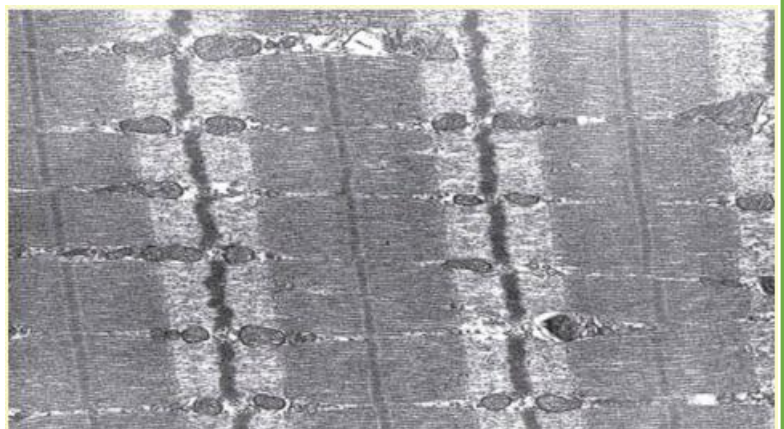
- a) It is a trabecular bone
- b) Arrow A points at a bone forming cell
- c) It is a decalcified bone section
- d) Arrow B points at a cell located within lacuna
- e) Arrow C points at the mineralized bony matrix



Answer: e

14) Practical: All the followings can be labeled in this section EXCEPT:

- a) M and Z lines
- b) Sarcoplasmic reticulum
- c) A, I and H bands
- d) Mitochondria
- e) Dense bodies

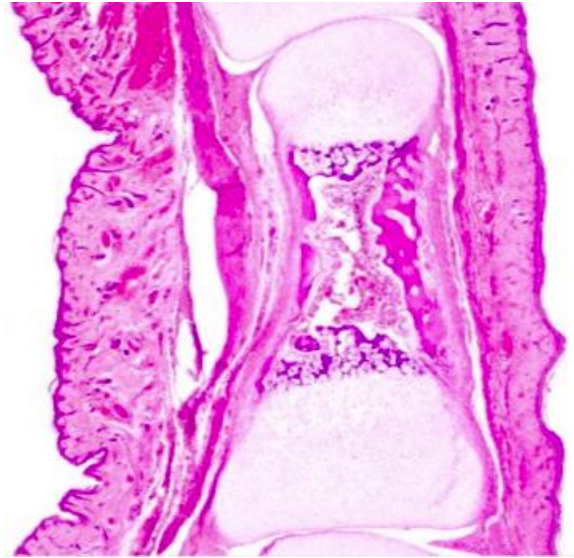


Answer: e

15) Practical: What type of bone formation is taking place?

- a) Endochondral ossification
- b) Intramembranous ossification

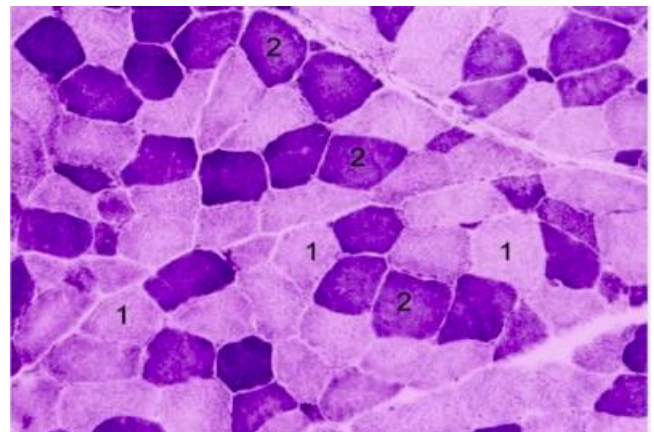
Answer: a



16) Practical: This histological section is stained with a specific mitochondrial stain. Which fiber type is more resistant to fatigue?

- a) Fiber 2
- b) Fiber 1

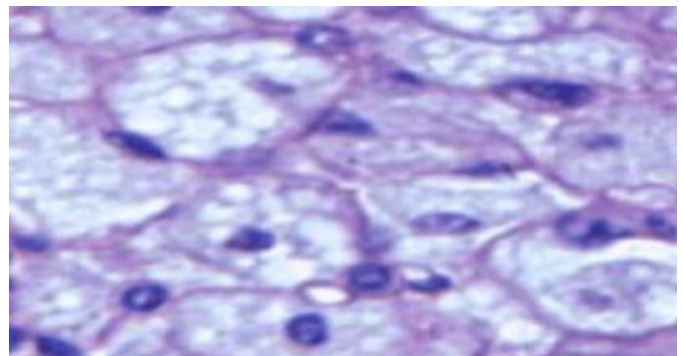
Answer: a



17) Practical: People in colder regions have more of this tissue:

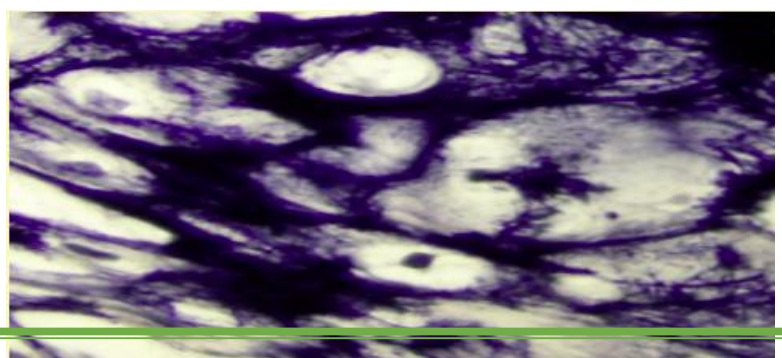
- a) True.
- b) False.

Answer: a



18) Practical: The black structure in this image is/are

- a) Collagen fibers.
- b) Reticular fibers.
- c) Chondroitin sulfate.

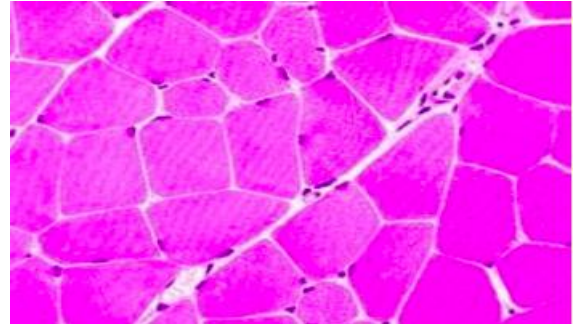


d) Elastic fibers.

Answer: d

19) Practical: Identify this histological section:

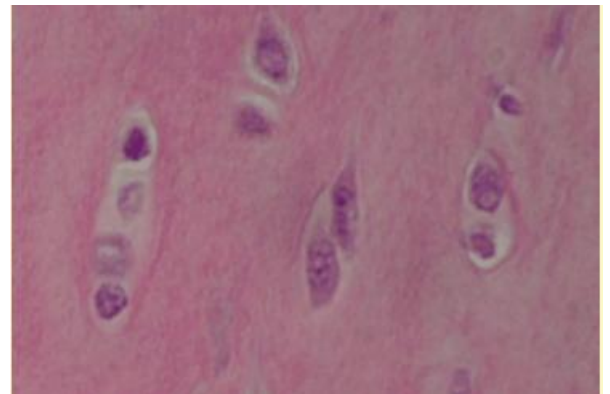
- a) Cross section of multinucleated striated muscle cells.
- b) Longitudinal section of multinucleated striated muscle cells.
- c) Cross section of non-striated smooth muscle cells.
- d) Longitudinal section of mononucleated striated muscle cells.
- e) Cross section of mononucleated striated muscle cells.



Answer: a

20) Practical: Choose the CORRECT statement about this tissue:

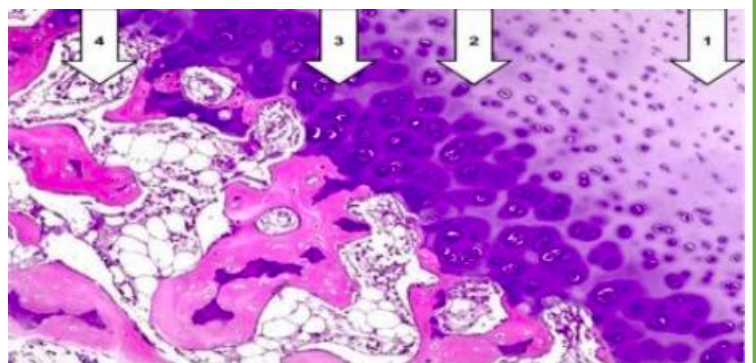
- a) Rich with collagen type III.
- b) It is a strong type of tissue.
- c) Stained with H&E.
- d) There is more than one correct statement.
- e) None of the mentioned.



Answer: d

21) Practical: Choose the CORRECT match:

- a) Resting zone: 2
- b) Growth zone: 4
- c) Hypertrophy and calcification zone: 3
- d) Ossification zone: 1



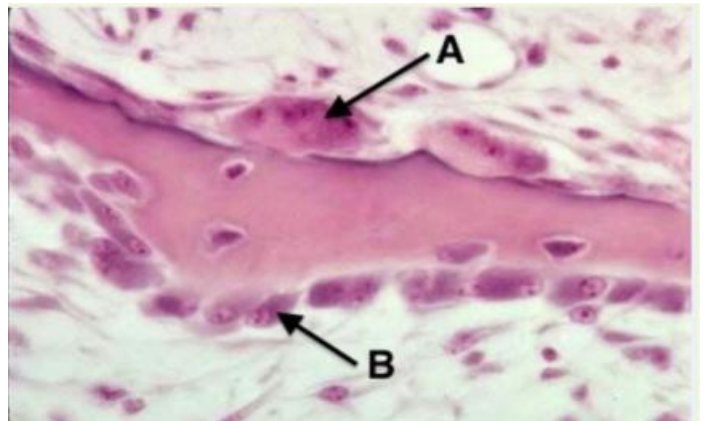
Answer: c



22) Practical: Identify A:

- a) Osteoblast
- b) Chondrocyte
- c) Osteoclast
- d) Fibrocyte
- e) Osteocyte

Answer: c



Practical: The blue and black arrows point to, respectively:

- a) The territorial matrix and the interterritorial matrix.
- b) A lacuna and the territorial matrix.
- c) A chondrogenic cell and interterritorial matrix.
- d) A lacuna and a chondrocyte.

Answer: b

