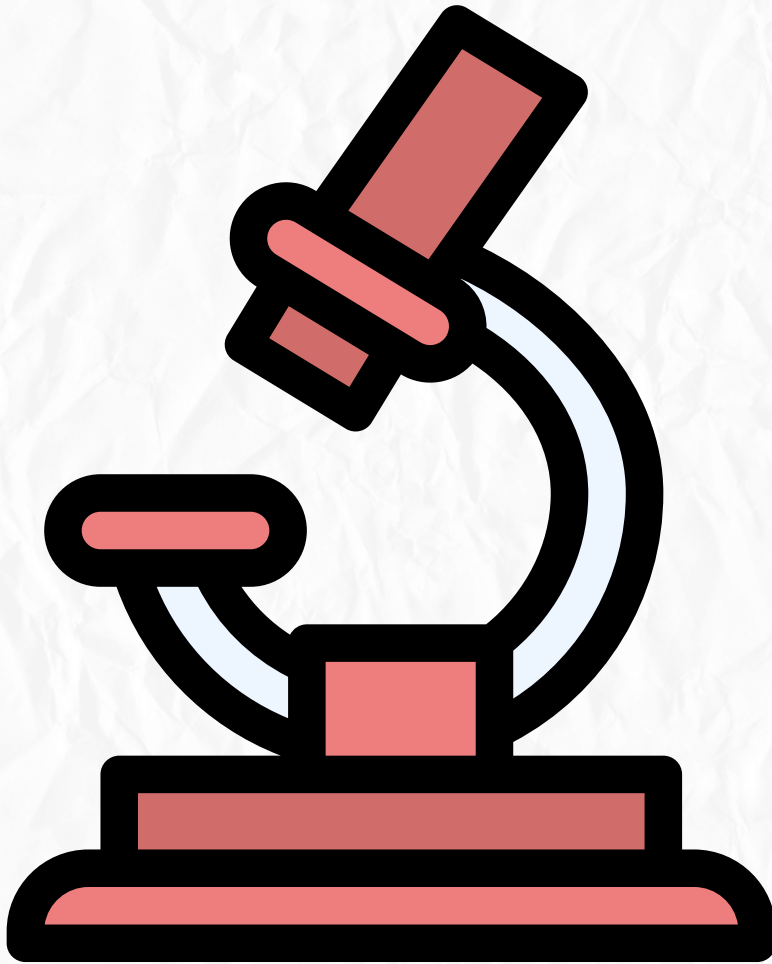


Histology

Quiz time



Connective tissue

Done by : Enas Al Refai

1. Which of the following is the embryonic origin of most connective tissue cells?

- A) Ectoderm
- B) Undifferentiated Mesenchymal Cells (UMCs)
- C) Endoderm
- D) Stratified Squamous Epithelium

Answer: B

2. The Extracellular Matrix (ECM) of connective tissue is primarily composed of:

- A) Closely packed cells and minimal fluid.
- B) Ground substance and fibers.
- C) Nerve endings and muscle fascicles.
- D) Keratinocytes and desmosomes.

Answer: B

3. Which cell type is responsible for the synthesis of collagen, elastic fibers, and glycosaminoglycans?

- A) Macrophages
- B) Plasma cells
- C) Fibroblasts
- D) Mast cells

Answer: C

4. A "Clock-face" or "Cartwheel" appearance of the nucleus is a diagnostic feature of:

- A) Adipocytes
- B) Plasma cells
- C) Mast cells
- D) Myofibroblasts

Answer: B

5. Mast cells contain metachromatic granules that release which of the following substances during an allergic reaction?

- A) Antibodies (IgG)
- B) Collagenase
- C) Histamine and Heparin
- D) Hemoglobin

Answer: C

6. The process by which Macrophages engulf foreign particles and cell debris is called:

- A) Pinocytosis
- B) Phagocytosis
- C) Exocytosis
- D) Mitosis

Answer: B

7. "Wharton's Jelly" is a classic example of which type of connective tissue?

- A) Adipose C.T.
- B) Mucoïd C.T.
- C) Reticular C.T.
- D) Elastic C.T.

Answer: B

8. Which type of connective tissue is characterized by a parallel arrangement of collagen fibers and is found in tendons and ligaments?

- A) Dense Irregular C.T.
- B) Loose (Areolar) C.T.
- C) Dense Regular C.T.
- D) Reticular C.T.

Answer: C

9. Multi-locular adipose tissue (Brown Fat) is primarily specialized for:

- A) Long-term energy storage.
- B) Heat production (Thermogenesis).
- C) Providing structural support to the skin.
- D) Synthesis of Vitamin D.

Answer: B

10. Which fibers form a delicate, net-like framework (Stroma) for parenchymal organs like the liver and spleen?

- A) Elastic fibers
- B) Collagen type I fibers
- C) Reticular fibers
- D) Myofibrils

Answer: C

11. The cell that acts as a precursor/stem cell for other connective tissue cells is the:

- A) Fibrocyte
- B) Undifferentiated Mesenchymal Cell (UMC)
- C) Pericyte
- D) Lymphocyte

Answer: B

12. Dense Irregular Connective Tissue is specifically designed to:

- A) Resist tension from a single known direction.
- B) Provide a site for nutrient exchange.
- C) Resist multidirectional tension (stress) in organs like the dermis.
- D) Store large amounts of triglycerides.

Answer: C

13. Which of the following is a characteristic of White Adipose Tissue (Unilocular)?

- A) It contains many small lipid droplets.
- B) The nucleus is peripheral and flattened (Signet ring appearance).
- C) It is highly abundant in hibernating animals.
- D) It contains a high density of mitochondria with cytochromes.

Answer: B

14. Plasma cells are derived from which type of blood cell?

- A) T-Lymphocytes
- B) B-Lymphocytes
- C) Monocytes
- D) Neutrophils

Answer: B

15. What is the main functional difference between a Fibroblast and a Fibrocyte?

- A) The Fibroblast is the active, synthetic state; the Fibrocyte is the quiescent, inactive state.
- B) The Fibroblast is found in blood; the Fibrocyte is found in bone.
- C) The Fibroblast destroys fibers; the Fibrocyte builds them.
- D) There is no difference; the names are interchangeable.

Answer: A

سُبْحَانَكَ اللَّهُمَّ وَبِحَمْدِكَ ، أَشْهَدُ أَنْ لَا
إِلَهَ إِلَّا أَنْتَ ، أَسْتَغْفِرُكَ وَأَتُوبُ إِلَيْكَ .