

Test bank for L1 pathology

Q1) Which of the following statements best describes woven bone compared to lamellar bone?

A) Woven bone has a highly organized collagen fiber arrangement

B) Woven bone is found in mature skeletons under normal conditions

C) Woven bone is more cellular and disorganized than lamellar bone

D) Woven bone replaces lamellar bone during normal remodeling

Q2) Which of the following factors inhibits osteoclast differentiation?

- A) Parathyroid hormone (PTH)
- B) Interleukin-1 (IL-1)
- C) Bone morphogenic proteins (BMPs)
- D) Steroids
- E) C and D

Q3) Which of the following statements is INCORRECT regarding the difference between osteoblasts and osteoclasts?

- A) Osteoblasts are responsible for bone formation, while osteoclasts are responsible for bone resorption.
- B) Osteoblasts originate from mesenchymal stem cells, whereas osteoclasts originate from hematopoietic stem cells.
- C) Osteoclasts are multinucleated, whereas osteoblasts are typically mononucleated.
- D) Osteoblasts are multinucleated cells that break down bone matrix.
- E) non of the above

Q4) Which of the following is responsible for blocking the interaction between RANK ligand and RANK receptor?

A) M-CSF

B) Osteoprotegrin

C) NF- κ B

D) Osteoclast

Q5) What is the function of RANK ligand in bone remodeling?

A) It inhibits osteoclast activity

B) It activates the RANK receptor on osteoclast precursors

C) It binds to M-CSF receptor to induce osteoblast differentiation

D) It prevents NF- κ B activation

E) B and C

Q6) Which of the following factors promotes osteoclast differentiation?

- A) BMPs (Bone Morphogenic Proteins)
- B) Estrogen and testosterone
- C) PTH and IL-1
- D) All of the above

Q7) Which of the following is NOT a function of bones?

- A) Mechanical support
- B) Hormone secretion
- C) Mineral homeostasis
- D) Hematopoiesis
- E) all of the above

Q1) C

Q2) C

Q3) D

Q4) B

Q5) B

Q6) C

Q7) B