

Anatomy Physiology Skeletal System Quiz Answer Key PDF

Anatomy Physiology Skeletal System Quiz Answer Key PDF

Disclaimer: The anatomy physiology skeletal system quiz answer key pdf was generated with the help of StudyBlaze AI. Please be aware that AI can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at max@studyblaze.io.

Discuss how the skeletal system interacts with the circulatory system.

The skeletal system interacts with the circulatory system primarily through the production of blood cells in the bone marrow and the supply of nutrients and oxygen to the bones via blood vessels.

What are the differences between the axial and appendicular skeletons in terms of structure and function?

The axial skeleton supports and protects vital organs, while the appendicular skeleton is primarily involved in movement and locomotion.

Which cell type is responsible for bone resorption?

- A. Osteoblasts
- B. Osteocytes
- C. Osteoclasts ✓**
- D. Chondrocytes

Explain the process of endochondral ossification and its significance in bone development.

Endochondral ossification involves the replacement of hyaline cartilage with bone, beginning with the formation of a cartilage model, followed by the invasion of blood vessels, the differentiation of chondrocytes into osteoblasts, and the eventual mineralization of the cartilage matrix, leading to the formation of mature bone.

Which bones are part of the appendicular skeleton? (Select all that apply)

- A. Femur ✓**
- B. Humerus ✓**
- C. Sternum

D. Scapula ✓

Which of the following is not part of the axial skeleton?

- A. Skull
- B. Vertebral column
- C. Rib cage
- D. Pelvic girdles ✓**

What type of joint is the shoulder joint?

- A. Hinge joint
- B. Ball and socket joint ✓**
- C. Pivot joint
- D. Saddle joint

Which hormone decreases blood calcium levels by inhibiting osteoclast activity?

- A. Parathyroid hormone
- B. Calcitonin ✓**
- C. Insulin
- D. Glucagon

Which part of the bone contains the marrow?

- A. Periosteum
- B. Diaphysis
- C. Epiphysis
- D. Medullary cavity ✓**

Which of the following are types of synovial joints? (Select all that apply)

- A. Hinge ✓**
- B. Ball and socket ✓**
- C. Suture
- D. Pivot ✓**

What type of bone is the femur classified as?

- A. Short bone
- B. Flat bone
- C. Irregular bone
- D. Long bone ✓**

Which nutrients are essential for healthy bone development? (Select all that apply)

- A. Vitamin D ✓**
- B. Calcium ✓**
- C. Vitamin C
- D. Iron

What are the potential consequences of a vitamin D deficiency on the skeletal system?

The potential consequences of a vitamin D deficiency on the skeletal system include weakened bones, increased risk of fractures, and the development of osteomalacia in adults and rickets in children.

Which of the following are symptoms of osteoporosis? (Select all that apply)

- A. Bone pain ✓**
- B. Joint stiffness
- C. Increased bone density
- D. Fractures ✓**

Which of the following are functions of the skeletal system? (Select all that apply)

- A. Support ✓**
- B. Protection ✓**
- C. Hormone production
- D. Movement ✓**

Identify and explain the types of movements possible at a synovial joint.

The types of movements possible at a synovial joint include flexions, extensions, abductions, adductions, rotations, circumductions, and gliding movements.

What is the primary mineral stored in bones?

- A. Iron
- B. Sodium
- C. Calcium ✓**
- D. Potassium

Which of the following is a function of the skeletal system?

- A. Digestion
- B. Hormone production
- C. Blood cell production ✓**
- D. Waste excretion

Which of the following bones are classified as flat bones? (Select all that apply)

- A. Sternum ✓**
- B. Scapula ✓**
- C. Vertebrae
- D. Ribs ✓**

Describe the role of osteoblasts and osteoclasts in bone remodeling.

Osteoblasts build new bone by producing the bone matrix, while osteoclasts break down old bone tissue, allowing for continuous bone remodeling and maintenance.