1. What is the primary function of bones in the human body?
   a) Produce hormones
   b) Store energy
   c) Protect vital organs
   d) Absorb nutrients

2. Which type of joint allows for the greatest range of motion?
   a) Ball-and-socket joint
   b) Hinge joint
   c) Pivot joint
   d) Fixed joint

3. What is the role of cartilage in the skeletal system?
   a) To connect muscles to bones
   b) To produce red blood cells
   c) To reduce friction between bones
   d) To store minerals

4. What is the scientific name for the thigh bone?
   a) Tibia
   b) Femur
   c) Humerus
   d) Radius

5. Which type of muscle is under voluntary control?
   a) Smooth muscle
   b) Cardiac muscle
   c) Skeletal muscle
   d) Involuntary muscle

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1. Explain the difference between tendons and ligaments.

2. Describe the importance of the axial skeleton and provide two examples of bones it includes.

3. Identify two key differences between compact bone and spongy bone.

4. How does the musculoskeletal system contribute to homeostasis in the human body?

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1. Describe the process of muscle contraction, including the roles of actin, myosin, calcium ions, and ATP.

2. Discuss three disorders of the musculoskeletal system (e.g., arthritis, osteoporosis, scoliosis), their causes, and potential treatments.

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1. A person suffers a broken bone in their arm. Explain the steps involved in the healing process of the bone.

2. A gymnast uses her musculoskeletal system extensively during a routine. Explain how her muscles and bones work together to produce movement.