

## Study Guide C7 (0723)

### Bone Tissue

- 1 What is another term used to describe bone tissue? How would an engineer describe bone? What does this mean? What is the non-living material of bone called? What two materials make up this non-living portion of bone and what is the characteristic of each component?
- 2 What is the functional unit of bone? What is the difference between cancellous (spongy) bone and compact bone? Location of each? Which one is harder?
- 3 Draw a long bone and label using these terms: epiphysis, diaphysis, compact bone, spongy bone, medullary cavity, articular cartilage, hyalin cartilage, periosteum, and epiphyseal plate. When would you replace the epiphyseal plate with epiphyseal line?
- 4 What is the difference between an osteocyte, osteoblast, and osteoclast?
- 5 What is bone marrow? Location? Two forms? Where and when do you find these marrow types?
- 6 What terms are used to describe bone development during fetal growth? Explain in simple terms the difference.
- 7 What terms are used to describe bone development after birth? After birth, where do we still see cartilage until we reach the age of 20? What happens after 20 years of age? Which adult bone growth continues after the age of 20? Significance?
- 8 What is Wolf's Law of the Bone? Significance?
- 9 Explain the two forms of dwarfism.
- 10 What are the four steps in healing a bone fracture in a long bone?