

Numerous study questions and activities are provided in the “End of the Chapter” sections of the textbook and the “Student Study Guide” that accompanies the textbook. Listed questions below are questions that can be answered from the course lectures and readings. Answering these does not directly guaranty success on the exam. Nevertheless, completing these exercises may assist in developing thinking skills in biology, which more directly affects performance on exams.

### CHAPTER 3: CELL STRUCTURE AND FUNCTION

End of the Chapter Study Aids (p. 54)

*Studying the Concepts:* all questions

*Testing your knowledge of the Concepts:* all questions

*Understanding key terms:* active transport/cell/cell theory/cellular (aerobic) respiration/chromatin/chromosome/cilium/cytoplasm/cytoskeleton/diffusion/endoplasmic reticulum (rough & smooth)/flagellum/Golgi apparatus/lysosome/microtubule/mitochondrion/nuclear envelope/nucleoplasm/organelle/osmosis/plasma membrane/ribosome/selectively permeable/tonicity (iso-, hypo-, hyper-)/ vesicle

Student Study Guide (p. 15)

*Study Questions:* 1-13

*Definitions Crossword:* all except coenzyme

*Chapter Test:* 1-10, 12-19

### CHAPTER 4: ORGANIZATION AND REGULATION OF BODY SYSTEMS

End of the Chapter Study Aids (p. 74)

*Studying the Concepts:* 1-12

*Testing Your Knowledge of the Concepts:* 1-5, 7-9, 11-37

*Understanding Key Terms:* adipose tissue/blood/bone/capillary/carcinoma/cardiac muscle/cartilage/coelom/collagen fiber/columnar epithelium/compact bone/connective tissue/cuboidal epithelium/dermis/endocrine system/epidermis/epithelial tissue/gland/hair follicle/homeostasis/hyaline cartilage/integumentary system/ligament/loose fibrous connective tissue/lymphatic system/matrix/melanocyte/meniges/microvillus/mucous membrane/muscle tissue/negative feedback control/nervous tissue/neuroglia/neuron/oil gland/pleural membrane/positive feedback control/reproductive system/respiratory system/skeletal muscle/skin/smooth muscle/spongy bone/squamous epithelium/striated/subcutaneous layer (hypodermis)/sweat gland/tendon/tissue/urinary system/white blood cell

Student Study Guide (p. 23)  
*Study Questions:* 1-9, 11-15, 17-29  
*Definitions Wordsearch:* all of these  
*Chapter Test:* 1-6, 9, 14-20, 23-25

## CHAPTER 10: SKELETAL SYSTEM

End of the Chapter Study Aids (p. 198)  
*Studying the Concepts:* 1-6, 8-16 (answer only questions that apply to material covered in class)  
*Testing Your Knowledge of the Concepts:* 14-20  
*Understanding Key Terms:* appendicular skeleton/arthritis/articular cartilage/axial skeleton/cartilage/chondrocyte/compact bone/fontanel/foramen magnum/ growth plate/intervertebral disk/joint/ligament/medullary cavity/ossification/osteocyte/periosteum/pectoral girdle/pelvic girdle/red bone marrow/spongy bone/tendon/vertebral column

Student Study Guide (p. 73)  
*Study Questions:* 1, 3-5, 8-11, 13, & 14  
*Definitions Wordsearch:* all of these  
*Chapter Test:* 1-5, 8, 10, 11, 15, 18, 23, & 24

## CHAPTER 12: MUSCULAR SYSTEM

End of the Chapter Study Aids (p. 218)  
*Studying the Concepts:* 1-6, 9, 10, & 12  
*Testing Your Knowledge of the Concepts:* 1, 4, 7-16  
*Understanding Key Terms:* actin/atrophy/creatine phosphate/hypertrophy/insertion/muscle fiber/myofibril/myoglobin/myosin/neuromuscular junction/origin/oxygen debt/sarcomere/sliding filament theory/tendon

Student Study Guide (p.81)  
*Study Questions:* 1,2, 4-7 8-14, 20-22.  
*Definitions Wordsearch:* all of these, except tetanus  
*Chapter Test:* 1-11, 14-22, 24, 25

CHAPTERS 12 & 13: NERVOUS SYSTEM AND SENSORY PERCEPTION

End of the Chapter Study Aids:

*Studying Concepts:*

Chapter 12 - p. 244: 1, 4, 5, 6, 7, 9, 10, 11, 12, & 13

Chapter 13 - p. 290: 1, 2

*Understanding Key Terms:* autonomic system, axon, axon bulb (terminus), brain, brain stem, cell body, central nervous system (CNS), cerebral cortex, cranial nerve, dendrite, gray matter, hypothalamus, interneuron, integration, limbic system, long-term memory, medulla oblongata, meninges, midbrain, motor neuron, myelin sheath, nerve, nerve impulse, neuron, peripheral nervous system (PNS), pons, reflex, short-term memory, spinal cord, spinal nerve, sympathetic division, synapse, thalamus, white matter, mechanoreceptor, perception, sensation, stimulus, thermoreceptor, photoreceptor,

*Testing Your Knowledge of the Concepts* - p. 245: 1, 3-7, 9, 12, 15, 16, 18, 19, 20, 24,

Student Study Guide (p. 90, 103)

*Study Questions* - Chapter 12: 1 -5, 9-10, 12-18, 21-25, 27-29

- Chapter 13: 1-6

*Wordsearch:* all words on p. 100

*Chapter test (p. 100):* 1-4, 7-16, 18-23