intervertebral discs synovial sac fibrous joint symphysis rotation

The Muscular System

1. List and describe the major functions of the muscular system.
2. Describe the microscopic structures of skeletal muscle tissue
3. Describe the major structural components of a muscle organ
4. Name and describe the functional unit of the muscular system.
5. Describe the mechanism of muscle cell contraction in as much detail as discussed in lecture.
6. List and give examples of the major ways that muscles are named.
7. Name and locate the major muscles of the human body.
8. Define or describe the relevant terms from your text including:

muscle fiber	endomysium	motor unit	abduction	neuromuscular junction
fascicle	acetylcholine	myofibril	twitch	sliding filament theory
aponeurosis	synergist	dorsiflexion	tetanus	muscle fatigue

Lecture Study Objectives: Exam II

BIOL 2404: Introductory ANATOMY AND PHYSIOLOGY

(Ziser, 2016)

The following is an outline of the core knowledge in BIOL 2404. After completing each topic below you should be able to:

Skin and Body Membranes

1. Describe the structure, location, and function of cutaneous, mucous, serous and synovial membranes.
2. Distinguish between visceral and parietal serosa, peritoneum, pleura and pericardium.
3. Summarize the major functions of the integumentary system.
4. Name the major layers of the skin and the characteristics of each.
5. Describe the distribution and function of the skin derivatives including; sebaceous glands, sweat glands, hairs, hair follicles, nails
6. Describe some of the major factors that affect skin color and their clinical significance
7. Define and describe relevant terms from the text including:

keratin melanin sebaceous glands jaundice subcutaneous tissue
melanoma rule of nines synovial membrane papillary layer stratum germinativum
arrector pili

The Skeletal System

1. Describe the structural organization of the skeletal system.
2. Describe the major functions of the skeletal system.
3. Describe the four main kinds of bones with respect to shape.
4. Describe the structure and histology of a typical long bone.
5. Describe the microscopic structure of bone and the three major types of cartilage tissues.
6. Describe how bones grow and repair themselves
7. Define general terms related to the surface features of bones, ie. "bone markings"
8. Name the bones making up the axial skeleton; skull, vertebral column, ribcage and sternum
9. Identify the fontanels of a fetal skull and explain their importance.
10. Describe the structure of a typical vertebra and be able to visually identify the bones of the five regions of the vertebral column.
11. Name the bones making up the major parts of the appendicular skeleton: pectoral and pelvic girdles and appendages.
12. Describe the differences in both structure and mobility between the pectoral and pelvic girdles and appendages
13. Describe the structural features that distinguish the male from the female pelvis.
14. Define or describe relevant terms from the text including:

bone markings	diaphysis	lacuna	ossification	epiphyseal plate
canaliculi	fontanels	sinuses	osteoporosis	pectoral girdle
long bone	osteoclast	callus	yellow marrow	

Articulations and Body Movements

1. Describe and compare the structure and range of movement of immovable, slightly movable, and freely
movable joints.
2. Describe the structure of a synovial joint.
3. Describe the types of movements permitted by the different types of synovial joints and give an example of each.
4. Define or describe relevant terms from the text including:

ligaments bursae joint capsule articular cartilage arthritis