**Final Exam Review Guide**

Chap 1

1. Review the concept of homeostasis (see notes). PG. 2
2. All orientation and regional terms. (See notes). PG. 13, 15-17
3. Planes through the body. PG. 5

Chap 3

1. Parts of a cell. From notes. PG. 55-56
2. Functions of the cell organelles PG. 55-56
3. Passive versus active transport (notes).
4. Mitosis – know all phases, parts of cell during these phases (know related key terms and vocabulary such as centrioles, spindle, centromere, etc.) PG. 75
5. DNA bases – what they are/ what they pair with, how they replicate (copy). See notes.

Chap 4

1. Know all about epithelial tissues – characteristics, types, shapes of, where various types are found in the body, what these tissues look like under the microscope. See notes.
2. Review key terms like keratin, non-keratinized, cilia, non-ciliated. See notes.
3. Understand special substances that make up some of the types of epithelial like collagen, reticular fibers, etc. See notes. PG. 96
4. Also, know types of specialized cells like chondrocytes, osteocytes, etc. See notes. PG. 100-101
5. Explain the different types of cartilage. See notes (hyaline, fibrocartilage, elastic). PG. 100

Chap 5

1. Skin anatomy (all the structures on the diagrams we did in class) - pg 121 or notes
2. Know layers of the epidermis. Pg. 112 Also, specialized cells within some of the layers (like Merkel cells, melanocytes, etc.). See notes. PG. 112
3. Review all skin disorders discussed in lecture notes. PG. 118
4. Know about the glands like sebaceous, eccrine, apocrine, etc. What do they do? What do they look like? PG. 119-120
5. Skin cancers – see notes.

Chap 6

1. Axial versus appendicular skeleton. See notes. PG. 140
2. Basic shapes of bones. See notes. PG. 141-142
3. Functions of bones. See notes.
4. Bone Markings (all 18). What they are, where they are, etc. PG. 143-148
5. Anatomy of a long bone – parts. pg 151 (see notes also). What these parts are like epiphysis, etc.
6. Osteoblasts versus osteoclasts (functions/ what they do). See notes. PG. 152
7. Microscopic anatomy of bone – (see notes)
8. How bone develops (see notes). As well as Wolf’s Law. See notes.
9. Types of fractures (notes or text pg 159-160).
10. Diseases of the bone as discussed in lecture. PG. 162

Chap 7

1. Name of **all** bones from diagrams (see notes) including skull, wrist, pelvis, etc.
2. Parts of avertebrae. Pg 177 or notes
3. Differences in cervical, thoracic and lumbar vertebrae PG. 176
4. Differences in male and female pelvis PG. 193
5. Rib cage...identify the true, false, and floating ribs PG. 179

Chap 8

1. How joints are classified (Diartroses, etc.)
2. Special types of joints (gomphosis, sympheses, synovial, etc.)
3. Understand bursae. How are they made, location? PG 204
4. Origin and insertion of muscles
5. Movements of joints (gliding, etc.) PG. 211-216
6. Types of synovial joints (saddle, etc.) PG. 205-208

Chap 9

1. 3 basic types of muscle tissue. PG. 221
2. Characteristics/functions of each type of muscle tissue (from previous question). PG 222-224
3. Anatomy of muscle layers. Notes.
4. Microscopic muscle anatomy. Notes.
5. Basic shapes of muscle. Notes PG. 226
6. How muscle lifts a load. Notes.
7. Muscle fascicles (i.e., circular, bipennate, etc.) PG. 226-229
8. All major muscles that we went over in lecture from diagrams including full body, face, tongue, back, etc.
9. What the muscles actually do/control (like those of the face... which one helps you smile, lifts your eyebrows, etc.)

Chap 10

1. 2 major types of nervous system and the subsystems they break down into (like PNS into somatic and autonomic). What each type controls/does.
2. Major types of neuroglia and what they do. PG. 265
3. Parts of a neuron. Pg 254 or notes.
4. How nerve impulses travel along neurons. See notes.
5. Special terms like synapse, types of neurotransmitters, etc. What they are/ what they do/ the types of, etc. (notes)
6. Diseases of the nervous system (notes)
7. Parts of the brain (all from notes) and functions of these areas. Include “ventricles” from notes.
8. Review notes regarding diseases like Alzheimer’s, Parkinson’s, etc.
9. Explain the various receptors and what they do
10. Parts of the eye (all from notes) and what they do
11. Explain how we see (notes) and describe the special cells of the retina (rods and cones). PG. 283
12. Explain the featured disease of the eye from video about Karen losing her eyesight.
13. How do we smell/ taste? How many tastes can we discern? Explain the gustatory hairs and how they work (on tongue).
14. Parts of the ear (all from notes) and how these parts function (what do these parts do)? PG. 286-287
15. Be sure you understand otoliths and hairs that ‘bend’ with regard to equilibrium and/or hearing. PG. 286
16. Explain equilibrium and balance (and parts of ear that do that). Notes.
17. Discuss reflexes (notes)

<The End>

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***The test will be 100 multiple choice and matching type questions. They count 1 point each. Please bring a scantron and sturdy no. 2 pencil with good eraser. Please be on time and ready to go.***