

## Chapter Five Study Guide (0723)

### The Four Tissue Types

- 1 In the Hierarchy of Organization, what comes before tissue and after tissue? What are the four tissue types? What are the defining features for each tissue? What type of cells are used to make each tissue? In or organs (e.g. stomach) how many tissue types are used? Describe from going  
2 from the outside to the middle
- 3 What is a cell's matrix? Other names? Where does it come from and where is it located? Other terms to describe tissue matrix? Is it always the same consistency? If the matrix is a hydrated protein what does this mean and what is this substance nickname?
- 4 Please Note: You will need to know how to describe each tissue type. This information is covered at the beginning of C5\_2 powerpoint slides. What are the key features of epithelial tissue? (know all ten)
- 5 What is the significance of the basement membrane? What is the danger if the basement membrane thickens? What epithelial surface connects to the basement membrane? What is the side away the basement membrane called? What is its significance? Locations?
- 6 What are the different classes of epithelial tissue? What is the significance between the two extremes? Possible locations?
- 7 What is a goblet cell? Location? Cell type?
- 8 Where would you see a simple columnar brush board epithelial cell? Function?
- 9 Stratified epithelial cells maybe keratinized or nonkeratinized? Where are location for each? Significance?
- 10 What are the four types of epithelial membranes? (Remember, epithelial tissue form the lining and covering of your body)? What is the key difference between each membranes?
- 11 What is deep to the basement membrane in a mucous membrane? What structures are located in this deeper layer? Why? Significance?
- 12 What is the difference between an endocrine and exocrine gland? What is the mode of action for each gland type?
- 13 What are the three methods of secretion for exocrine glands? Which one of thee glands only become active during adolescence? Location(s) of this particular gland? Function? Which one of these glands explode their cells in order to release their secretions?
- 14 What best describe connective tissue? What is the big difference between epithelial and connective tissue? What is the structural and functional relationship between epithelial and connective tissue?
- 15 What are fibroblasts? Location? Functions? What do they produce? What type of extracellular fibers may fibroblast make? Why are they able to do this? What fiber type makes up 25 percent of the protein in the human body? Characteristic of each fiber type? Significance?

- 16 What is hyaluronic acid? Nickname? If you are a bacteria and you want to move through the matrix, what molecule would you make?
- 17 What is the difference between loose and dense fibrous connective tissue? Where will you find these different fibrous connective tissues? How is dense regular and dense irregular fibrous connective tissue differ from each other? What type of structures are formed by the regular and irregular dense fibrous connective tissue? What term is used to describe loose fibrous connective tissue?
- 18 What type of dense fibrous connective tissue is in tendons and ligaments? What is the function of these two structures?
- 19 What is the structure and function of adipose tissue? What is the tissue type?
- 20 What is the difference between bone and cartilage? What are the three forms of cartilage? What type of cell makes cartilage? What is function of the blast vs the clast? What is unusual about this connective tissue?
- 21 What is the structure and functions of the following junctions: tight junctions, gap junctions, desmosomes, and hemidesmosomes?