**Tissue Review Sheet- due day of test**

1.Define tissue. *A group of cells similar to one another in structure that perform a common or related function*

2. Use the key choices to identify the major tissue types described below.

**a. connective tissue b. epithelium c. muscle tissue d. nervous tissue**

\_\_b\_\_1. lines body cavities and covers the body’s external surface

\_\_c\_\_\_2. pumps blood, flushes urine out of the body, allows one to swing a bat

\_\_d\_\_3. transmits electrochemical impulses

\_\_a\_\_\_4. anchors, packages, and supports body organs

\_\_b\_\_5. cells may absorb, secrete, and filter

\_\_d\_\_\_6. most involved in regulating and controlling body functions

\_\_c\_\_7. major function is to contract

\_\_\_b\_\_8. synthesizes hormones

\_\_a\_\_\_9. the most durable tissue type

\_\_a\_\_\_10. abundant nonliving extracellular matrix

\_a\_\_\_11. most widespread tissue in the body

\_\_d\_\_12. forms nerves and the brain

Epithelial Tissue

3. Describe five special properties of epithelial tissue. *Polarity- apical vs. basal surface, Specialize contacts- cells fit close together, Supported by connective tissue- basement membrane, No blood supply (avascular), Regeneration- replace lost cells)*

4. On what basis are epithelial tissues classified? (How are they named?)

*# of layers (stratified vs. simple) and cell shape (cuboidal, squamous, columnar)*

5. List the major functions of epithelium in the body, and give examples of each.

*A. Protection- stratified squamous of skin*

*B. Absorption- pseudostratified columnar- absorbs waste in respiratory tract*

*C. Filtration- simple squamous in arteries and veins*

*D.Secretion- simple columnar- lubricates digestive tract with mucus*

6. Respond to the following with the key choices.

**a. simple squamous b. simple cuboidal c. simple columnar d. pseudostratified ciliated columnar**

**e. stratified squamous f. transitional**

\_\_\_e\_\_1. lining of the esophagus

\_\_c\_\_\_2. lining of the stomach

\_\_a\_\_3. alveolar sacs of lungs

\_\_\_b\_\_4. tubules of the kidney

\_\_e\_\_\_5. epidermis of the skin

\_\_\_f\_\_6. lining of bladder; peculiar cells that have the ability to slide over each other

\_\_\_a\_\_\_7. forms the thin serous membranes; a single layer of flattened cells

7. How do you classify connective tissue?

*Variation in blood supply, extracellular matrix (fibers, ground substance)*

8. What are the functions of connective tissue?

*Binding and support, protection, insulation, transportation of substances*

9. Using the key, choose the best response to identify the connective tissues described below.

**a. adipose connective tissue**

**b. areolar connective tissue**

**c. dense fibrous connective tissue**

**d. elastic cartilage**

**e. fibrocartilage**

**f. hyaline cartilage**

**g. osseous tissue (bone)**

\_c\_\_\_1. attaches bones to bones and muscles to bones (tendons/ligaments)

\_\_a\_\_2. acts as a storage depot for fat

\_\_c\_\_\_3. the dermis of the skin

\_\_d,e,f\_\_4. makes up the intervertebral discs

\_\_g\_\_5. forms the hip bone

\_b\_\_\_6. composes basement membranes; a soft packaging tissue with a jellylike matrix

\_\_\_d,e,f\_\_7. forms the larynx, the costal cartilages of the ribs, and the embryonic skeleton

\_d,e,f\_\_\_8. provides a flexible framework for the external ear

\_d,e,f\_\_9. firm, structurally amorphous matrix heavily invaded with fibers; appears glassy and smooth

\_\_\_g\_\_10. matrix hard owing to calcium salts; provides levers for muscles to act on

\_\_a\_\_11. insulates against heat loss

10. What is the function of nervous tissue? Where is it located? What kind of cells can you find in nervous tissue?

\_*Regulates and controls body functions by sending electrical impulses. Located throughout the body (brain, spinal cord, nerves). Can find neurons in nervous tissue*

11. Check the appropriate spaces in the chart to indicate which muscle types exhibit each characteristic

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic** | **Skeletal Muscle** | **Smooth Muscle** | **Cardiac Muscle** |
| Voluntarily Controlled | X |  |  |
| Involuntarily Controlled |  | X | X |
| Has striations | X | X |  |
| Has a single nucleus per cell |  | X | X |
| Has multiple nuclei per cell | X |  |  |
| Attached to bones | X |  |  |
| Found in walls of organs |  |  | X |
| Has intercalcated discs |  | X |  |
| Concerned with locomotion | X |  |  |
| Changes internal volume of organ as it contracts |  | X | X |
| Tissue of heart |  | X |  |

12. Write the 3 steps of tissue repair and describe them

1*. Inflammation- WBCs and clotting proteins seep into injury- scab crated to prevent loss of blood*

2. *Granulation- new capillaries are formed, connective tissue makes collagen fibers, epithelial tissue is formed*

3. *Surface epithelium regenerates- epithelium thickens, fibrous tissue matures into scar tissue*