

UNIT 3 - CELLS, HISTOLOGY, INTEGUMENTARY SYSTEM

WORKSHEET - Tissues

Name _____ Period _____

1. Define a tissue. Name the four basic kinds of human tissue and list their functions?

1.

2.

3.

4.

2. List three examples of locations of epithelium.

3. Answer these questions about epithelium. (circle one)

- a. Epithelium consists mostly of _____.
(closely packed cells / intercellular material with few cells).
- b. Epithelium is penetrated by (many / no) blood vessels.

4. Which tissues consist of cells that wear out constantly and are replaced by mitosis throughout life.

5. What are glands?

6. Write EXO before descriptions of exocrine glands, and ENDO before descriptions of endocrine glands.

- a. Their products are secreted into ducts that lead either directly or indirectly to the outside of the body.
- b. Their products are secreted into the blood and therefore stay within the body; they are ductless glands.
- c. Examples are glands that secrete sweat, oil, mucus, and digestive enzymes.
- d. Examples are glands that secrete hormones.

7. Write **connective tissue** or **epithelial tissue** next to correct descriptions of these tissues.

- a. Consists of many cells with little intercellular substance (matrix):

b. Penetrated by blood vessels (vascular): _____

c. Does not cover body surfaces or line passageways and cavities, but is more internally located; binds, supports, protects: _____

8. In general, cartilage can endure (more / less) stress than most connective tissues.

9. Match the types of cartilage with the descriptions given.

E. Elastic F. Fibrous H. Hyaline

_____ a. Found where strength and rigidity are needed, as in discs between vertebrae and the symphysis pubis

_____ b. White, glossy cartilage covering ends of bones (articular), covering ends of ribs (costal), and giving strength to nose, larynx, and trachea

_____ c. Provides strength and flexibility, as in external part of the ear

10. Select the types of muscle tissue that best fit the descriptions below.

C. Cardiac Sm. Smooth Sk. Skeletal

_____ a. tissue forming most of the wall of the heart

_____ b. attached to bones

_____ c. spindle-shaped cells with ends tapering to points

_____ d. contain intercalated discs and gap junctions

_____ e. found in walls of intestine, urinary bladder, and blood vessels

_____ f. cells are multinucleate

11. Complete the table and statements about the four types of membranes in the body.

TYPES OF MEMBRANES	LOCATION	EXAMPLE	FUNCTION(S)
	lines body cavity leading to exterior		
Serous			allows organs to glide over each other
		lines knee & hip joints	
	Covers body surface		

12. The serous membrane covering the heart is known as the _____, whereas that covering the lungs is called the _____. The serous membrane over abdominal organs is the _____. The portion of serous membranes that covers organs (viscera) is called the _____ layer; that portion lining the cavity is named the _____ layer. Another name for skin is the _____ membrane. A _____ membrane secretes a lubricating fluid known as synovial fluid. Such a membrane (does / does not) contain epithelium.
13. The functional cells of the nervous system that transmit the nervous impulses are the (neurons / neuroglia) while the cells that support the functional cells of the nervous system are known as (neurons / neuroglia).

UNIT 3 - CELLS, HISTOLOGY, INTEGUMENTARY SYSTEM

WORKSHEET – Tissues - KEY

Name _____ Period _____

1. Define a tissue. Name the four basic kinds of human tissue and list their functions? A GROUP OF CELLS AND THEIR INTRACELLULAR SUBSTANCES THAT HAVE A COMMON EMBRYONIC ORIGIN AND FUNCTION TOGETHER TO PERFORM A SPECIALIZED ACTIVITY.
 1. EPITHELIAL- COVERS BODY SURFACES, LINES CAVITIES AND DUCTS, AND FORMS GLANDS
 2. CONNECTIVE- PROTECTS AND SUPPORTS BODY, FORMS FRAMEWORK OF ORGANS AND HOLDS ORGANS TOGETHER, AND STORES ENERGY
 3. MUSCLE- PRODUCES MOVEMENT THROUGH CONVERSION ON CHEMICAL ENERGY TO MECHANICAL ENERGY
 4. NERVOUS- INITIATES, TRANSMITS, AND INTERPRETS IMPULSES
2. List three examples of locations of epithelium.
OUTER COVERING OF BODY, RESPIRATORY TRACT, DIGESTIVE TRACT
3. Answer these questions about epithelium. (circle one)
 - a. Epithelium consists mostly of _____.
(closely packed cells / intercellular material with few cells).
 - b. Epithelium is penetrated by (many / no) blood vessels.
4. Which tissues consist of cells that wear out constantly and are replaced by mitosis throughout life.
EPITHELIAL
5. What are glands?
THEY ARE STRUCTURES COMPOSED OF ONE CELL OR A GROUP OF HIGHLY SPECIALIZED CELLS
6. Write EXO before descriptions of exocrine glands, and ENDO before descriptions of endocrine glands.
EXO a. Their products are secreted into ducts that lead either directly or indirectly to the outside of the body.
ENDO b. Their products are secreted into the blood and therefore stay within the body; they are ductless glands.
EXO c. Examples are glands that secrete sweat, oil, mucus, and digestive enzymes.
ENDO d. Examples are glands that secrete hormones.

7. Write **connective tissue** or **epithelial tissue** next to correct descriptions of these tissues.

a. Consists of many cells with little intercellular substance (matrix):

EPITHELIAL_____

b. Penetrated by blood vessels (vascular):_CONNECTIVE_____

c. Does not cover body surfaces or line passageways and cavities, but is more internally located; binds, supports, protects: __CONNECTIVE_____

8. In general, cartilage can endure (more / less) stress than most connective tissues.

9. Match the types of cartilage with the descriptions given.

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_SK___ c. spindle-shaped cells with ends tapering to points

__C__ d. contain intercalated discs and gap junctions

__SM__ e. found in walls of intestine, urinary bladder, and blood vessels

_SM___ f. cells are multinucleate

11. Complete the table and statements about the four types of membranes in the body.

TYPES OF MEMBRANES	LOCATION	EXAMPLE	FUNCTION(S)
MUCOUS	lines body cavity leading to exterior	Gastrointestinal tract	Keep cavities from drying out
Serous	Lines cavities that do not lead to outside	Pleura of lungs	allows organs to glide over each other
SYNOVIAL	At all movable joints	lines knee & hip joints	Lubricates joint
CUTANEOUS	Covers body surface	skin	Provide protection

12. The serous membrane covering the heart is known as the PERICARDIUM, whereas that covering the lungs is called the PLEURA. The serous membrane over abdominal organs is the PERITONEUM. The portion of serous membranes that covers organs (viscera) is called the PARIETAL layer; that portion lining the cavity is named the VISERAL layer. Another name for skin is the CUTANEOUS membrane. A SYNOVIAL membrane secretes a lubricating fluid known as synovial fluid. Such a membrane (does / does not) contain epithelium.
13. The functional cells of the nervous system that transmit the nervous impulses are the (neurons / neuroglia) while the cells that support the functional cells of the nervous system are known as (neurons / neuroglia).