Name:
Date:

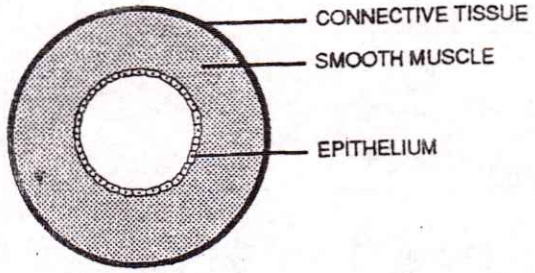
DONOW 3.1

VESSELS

Period:
Living Environment

1. The thick, muscular vessels that transport blood away from the heart are the
   (1) atria (3) veins
   (2) arteries (4) ventricles

2. Which structure is best illustrated by the diagram below?



   (1) an artery (3) a capillary
   (2) a heart ventricle (4) a lymph vessel

3. The diagrams below represent cross sections of vessels found in the human circulatory system.

   Diagram A most likely represents
   (1) vein (3) a capillary
   (2) a lymph vessel (4) an artery

4. Which body structures have walls one cell thick? Very thin
   (1) veins and arteries
   (2) trachea and bronchi
   (3) capillaries and alveoli
   (4) lymph vessels and stomach

5. Dissolved nutrients, wastes, and oxygen are exchanged between the blood and intercellular fluid through the walls of
   (1) arteries (3) capillaries
   (2) veins (4) ventricles

6. Exchange of soluble compounds, gases, and wastes through the intercellular fluid occurs between cells and
   (1) valves (3) veins
   (2) capillaries (4) arteries

7. Which transport vessel is correctly paired with its usual function?
   (1) lymph vessels – add blood toward the heart
   (2) capillary – provides a site for the exchange of materials between the blood and body tissues
   (3) artery – filters bacteria and dead cells from the lymph and the blood
   (4) vein – produces white blood cells

8. Which type of vessel normally contains valves that prevent the backward flow of materials?
   (1) artery (3) capillary
   (2) arteriole (4) vein

9. The movement of blood from the legs toward the heart is hindered (stop) by gravity. The effect of gravity is counteracted by
   (1) smooth muscle in the capillaries
   (2) cilia lining the blood vessels
   (3) valves in the veins
   (4) lymph nodes near major vessels

10. Veins are blood vessels that
    (1) deliver blood to the cells of the body
    (2) contain striated muscle
    (3) carry blood toward the heart
    (4) readily exchange materials between the blood and body cells

Name: _____
10 points

Homework # 3.1
THE HEART

1. Explain the function of your HEART.

_____

_____

2. Is your HEART, an ORGAN, a TISSUE, an ORGAN SYSTEM. Circle one.

3. Your HEART belongs to which ORGAN SYSTEM? _____

4. Draw a HEART and LABEL the following parts: (4 points)
   a. RIGHT ATRIUM
   b. RIGHT VENTRICLE
   c. LEFT ATRIUM
   d. LEFT VENTRICLE

5. Differentiate SYSTEMIC and PULMONARY circulations.

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_____

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_____

6. Trace the pathway of blood from your stomach to the heart, to the lungs, back to your heart and back to the stomach. Use ARROWS. (2 points)