Review: Circulatory System Name **KEY**

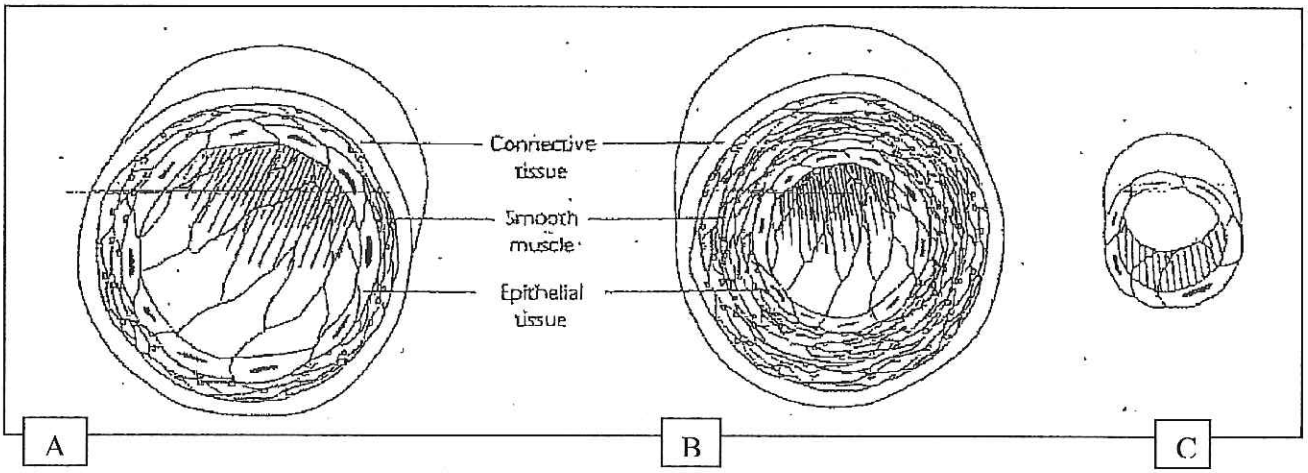
1. What is the function of the atria?
   right atrium *receives deoxygenated blood from the body*
   left atrium *receives oxygenated blood from the lungs*

2. What is the function of the ventricles?
   right ventricle *pumps deoxygenated blood to the lungs*
   left ventricle *pumps oxygenated blood to the body*

Define the following:

3. a group of nerve cells that adjusts heart rate: *pacemaker*
4. a muscular organ that pumps blood throughout the body: *heart*
5. made up of the heart, blood, and blood vessels: *cardiovascular system*
6. flap of tissue that prevents blood from flowing backwards: *valve*
7. the largest artery: *aorta*
8. the largest veins: *superior and inferior vena cava*
9. where substances are exchanged between the blood and the body cells: *capillaries*

Identify the following blood vessels.



1. A: *vein* B. *artery* C. *capillary*

2. After blood leaves the heart, which vessels does blood flow through. Which order?

   arteries → *capillaries* → *veins*

2. In which vessel is blood pressure the highest? *artery*

3. Which vessel allows diffusion through its walls? *capillary*

4. What causes blood pressure? *contraction of the ventricles/ the force blood exerts against the walls of arteries*

5. What factors help move blood through veins? *valves, contraction of muscles, smooth inside surface*

Complete the table and answer the questions.

Blood Component	Description	Function
plasma	*liquid and dissolved proteins*	*transports materials*
red blood cell	*has hemoglobin, disk-shaped, no nucleus*	*carries oxygen from lungs*
white blood cell	*larger than red cell, has nucleus*	*fights infection*
platelet	*white blood cell fragments*	*sticks to wound, produces fibrin*

11. If a person with type B blood needs a transfusion, which types of blood can the person safely receive?
B and *O*

Write each of the behaviors on the list below in the appropriate column on the chart.

Behaviors

running
smoking
playing basketball
being overweight
eating low-sodium foods
eating salty foods
eating foods low in cholesterol
eating foods high in fat

12.

Behaviors that Affect Your Heart	
Healthy	Harmful
running	smoking
playing basketball	being overweight
eating low-sodium foods	eating salty foods
eating foods low in cholesterol	eating foods high in fat

Write a definition for each of the terms below.

1. atherosclerosis *artery walls thicken, fatty material builds up*
2. cholesterol *a waxy, fat-like substance that restricts blood flow*
3. heart attack *occurs when blood flow to the heart is blocked*
4. hypertension *high blood pressure*

Why is atherosclerosis dangerous? *It can lead to a heart attack because it blocks blood flow, which can kill you.*

Number the following in the correct order. (2-10) Number 1 is done for you.

__1__ Deoxygenated blood enters the heart through the superior vena cava and the inferior vena cava.

10 Arteries branch into capillaries in the body where oxygen is dropped off and CO_2/waste is picked up, and the "dirty" blood returns to the heart through the veins.

6 Oxygenated blood travels back to the heart through the pulmonary veins.

5 Deoxygenated blood enters the lungs, releases excess carbon dioxide, and picks up oxygen to become oxygenated blood.

2 Deoxygenated blood fills the right atrium.

9 Both ventricles contract and oxygenated blood leaves the heart through the aortic valve and into the aorta.

7 Oxygenated blood enters the heart and fills the left atrium.

3 Both atria walls contract and the deoxygenated blood goes down through the tricuspid valve to fill the right ventricle.

8 Both atria contract and oxygenated blood travels through the mitral valve down to fill the left ventricle.

4 Both ventricles contract and deoxygenated blood leaves the right ventricle through the pulmonary valve and into the pulmonary arteries.

Label the parts of the heart and draw arrows with RED & BLUE showing the flow of blood.