Name _____
Human Biology Lab Manual Lab Report
Laboratory Exercise 4: Cardiovascular System

CARDIOVASCULAR SYSTEM

Activity 1: Identify the two circuits of the cardiovascular system:

Identify the pulmonary circuit and systemic circuit in Figure 4.1 of the lab manual:

A. _____ B. _____

Activity 2: Distinguish structural differences between the types of blood vessels.

1.	5.
2.	6.
3.	7.
4.	8.

Activity 3: Trace the path of blood through the heart

Refer to Figure 4.4b. Label the part of the heart that comes next as blood flows through the heart.

1. Right atrium	6.
Tricuspid valve	Bicuspid valve
2.	7.
Pulmonary semilunar valve	Aortic semilunar valve
3.	8.
4.	9.
5.	10.

Which side of the heart pumps oxygen-poor blood (right or left)? _____

Which side of the heart pumps oxygen-rich blood (right or left)? _____

Activity 4: Identify structures of the sheep heart.

Label the external anatomy of the heart with these terms: right atrium, right ventricle, left atrium, left ventricle, coronary artery, and adipose (fat) tissue.

A.	D.
B.	E.
C.	F.

Label the internal anatomy of the heart with these terms: right atrium, right ventricle, left atrium, left ventricle, interventricular septum, tricuspid valve, bicuspid valve, and aorta.

A.	E.
B.	F.
C.	G.
D.	H.

Which ventricle has a thicker wall (right or left)? _____

Activity 5: Listening to the Heartbeat at Rest

1. When the stethoscope is positioned between the fourth and fifth ribs, which sound is louder: lub/1st sound or dub/2nd sound? _____
2. When the stethoscope is positioned between the second and third ribs, which sound is louder: lub/1st sound or dub/2nd sound? _____

Activity 6: Measuring Blood Pressure at Rest versus after Exercise

Table 4.1 Blood Pressure		
	Blood Pressure at Rest	Blood Pressure after Exercise
Partner		
Yourself		

Why would a person have lower blood pressure at rest than after exercise:

_____

_____

Activity 7: Measuring Heart Activity by Using Electrocardiography (ECG)

Cut and tape an electrocardiogram within the box below.

Does the above ECG resemble a normal ECG as shown in Figure 4.7 in the lab manual? ☐Y ☐N

Activity 8: Lab Review

1. Within which type of blood vessels are nutrients and wastes exchanged? _____
2. Which type of blood vessels have valves? _____
3. How many chambers does the heart contain? _____
4. Which chamber of the heart has the thickest wall? _____
5. The pulmonary arteries carry oxygen-rich or oxygen-poor blood? _____
6. Which chamber of the heart pumps blood to the systemic circuit? _____
7. Which heart valve prevents backflow from the left ventricle to the left atrium? _____
8. Which heart valves produce the lub sound of the heartbeat? _____
9. Which has higher blood pressure: systolic or diastolic pressure? _____
10. What is known as the heart's natural pacemaker? _____