# Ch 20: Circulatory, Immune, and Excretory Systems (30 points)

## A Balancing Act

List some substances in the body that must be kept in proper balance.

How do the kidneys help maintain homeostasis?

## Blood

List at least three characteristics of the following blood cells:

* Erythrocytes
* Leukocytes
* Platelets

What part of the body manufactures red blood cells?

Which four parts of the body manufacture or mature white blood cells?

How does blood clot?

What percentage of blood plasma is water?

List three substances that are transported by blood.

What kind of substance regulates blood?

List the kinds of blood types a person can have.

## The Heart

\*\*Draw and label the following parts of the heart: Pericardium, Pulmonary veins and arteries, Aorta, Vena Cava, R/L Atria, R/L Ventricles

What inside the heart causes a heart attack?

Explain how the following can contribute to a heart attack:

* Atherosclerosis
* Coronary embolism
* Coronary thrombosis

## Immune System

What two things are the body’s first line of defense against harmful substances?

What inside the stomach kills most foreign substances?

How do inflammation and fever help with killing pathogens?

Name the two different types of lymphocytes (white blood cells).

What is the role of antibodies in the immune system?

How does a vaccine work?

How is an allergy a malfunction in the immune system?

What happens in an autoimmune disease?

## Excretory System

Name the four main parts of the excretory system.

How does dialysis help a person with bad kidneys?

How can a patient’s urinalysis help a doctor?

## Vocabulary 20 (23 points)

Homeostasis

Erythrocytes

Hemoglobin

Phlebotomy

Anemia

Leukocytes

Antibodies

Platelets

Blood plasma

Cardiovascular

Arteries v. Veins vs. Capillaries

Pulse v. Blood Pressure

Atherosclerosis

Pathogens

Inflammation

Antigens

Lymphocytes

Antibodies

Active v. Passive Immunity

Allergy

Autoimmune disease

Diabetes

Nephron