**Unit 4 Test - Review**

*Answer on a separate sheet of paper and turn in with your exam for 5 “extra credit” points.*

**Section 4.1  - Heart Structure**

* Pretend you are a drop of blood that is traveling through the body.  You start at the toes and work your way to the brain.  Describe in detail how you travel through the heart.
* Identify the following parts of the heart on a diagram **AND** describe their function:
  + Tricuspid Valve
  + Mitral (Bicuspid) Valve
  + Pulmonary Valve
  + Aortic Valve
  + Right/Left Atrium
  + Right/Left Ventricles
  + Septum
  + Apex
  + Aorta
  + Superior/Inferior Vena Cava
  + Pulmonary Arteries
  + Pulmonary Veins
* What are the functions of:
  + Arteries:
  + Veins:
* Explain how veins and arteries differ, and why.
* How do the lungs and heart work together to pick up and deliver oxygen to the cells?
* Describe the flow of blood through the heart to accomplish the following:
  + Pulmonary Circulation
  + Systemic Circulation

**Section 4.2 - Heart Function**

**4.2.1 - Heart Rate**

* What does a person's heart rate show?
* How is a heart rate usually calculated?
* What are the most common pulse points used to measure heart rate.

**4.2.2 - Blood Pressure**

* What is blood pressure?
* Describe the following
  + Systolic Pressure
  + Diastolic Pressure
* What is hypertension?

**4.2.3 - EKG**

* What is the purpose of an EKG?
* Describe the following.  What are they?  What do they show?  What part of the heart 's conduction system are they associated with?
  + P-wave
  + QRS-Complex
  + T-Wave
* Label a diagram of the heart and describe the function of the following:
  + sinoatrial node
  + atrioventricular node
  + Perkinjie Fibers
  + Bundle of His
* Label the parts of an EKG, describe what problems with different parts of the EKG mean.

**Section 4.3 - Heart Dysfunction**

**4.3.1 - What is Cholesterol?**

* What is cholesterol and what role does it play in our cells and in our body?
* What are the following, and what do they do in the body?
  + LDL:
  + HDL:
* What are some of the risks of high blood pressure?
* What are two treatments that are often recommended for high blood pressure? (Include the one that anna was using.)

**4.3.2 - Hypercholesterolemia**

* What is hypercholesterolemia and how is it inherited?
* Be able to analyze the results of the gel electrophoresis to correctly diagnose the presence of familial hypercholesterolemia and be able to identify the following:
  + Homozygous individuals
  + Heterozygous individuals
  + Identify the pattern of inheritance within a family.
* What are the function of statins and how do they work to lower cholesterol levels in the body?

**4.4.1 - Unblocking the Vessels**

* What is artherosclerosis?What are its major contributing factors?