**Exam 1 Part A. Your Name:**

**Please TYPE your answers in an MS Word Document. When complete send your exam answers as an ATTACHMENT to an Email to Dr. Kravitz. Exam 1 Part A is due Friday August 21 by 12midnight. No late papers accepted. Also, academic honesty is totally active here. Please do your OWN work! Use AS MUCH SPACE as you wish in your answers!**

*This EXAM is open note. Please use the August 17-August 21 LINK to guide your answers.*

**A. In you own words, please explain the two pump ‘schematic’ system of the heart? (5 pts)**

1.

**B. Starting with the VENULES (which I have started), please number sequentially the path of blood through the systemic and pulmonary circuits. (16 pts). Please use graphic on WEB page for visual**

\_\_\_\_\_Aorta

\_\_\_\_\_Tricuspid valve

\_\_\_\_\_Pulmonary veins

\_\_\_\_\_Left ventricle

\_\_\_\_\_Lungs

\_\_\_\_\_Mitral valve

1. Venules

\_\_\_\_\_Pulmonary semilunar valve

\_\_\_\_\_Pulmonary arteries

\_\_\_\_\_Veins

\_\_\_\_\_Right atrium

\_\_\_\_\_Right Ventricle

\_\_\_\_\_Capillaries

\_\_\_\_\_Aortic semilunar valve

\_\_\_\_\_Arteries

\_\_\_\_\_Inferior vena cava or superior vena cava

\_\_\_\_\_Left atrium

\_\_\_\_\_ Arterioles

**B. Thoroughly write out the 3 Phases of the Cardiac Cycle (15 pts)**

Phase 1.

Phase 2.

Phase 3

**C. What are the TWO major cell systems in a working heart? (6 pts)**

1.

**D. Draw and label the Cardiac Condition system. Please take a picture drawing with your mobile device and input into the document or attach to your email when you send your exam. (20 pts)**

**E. Please define/answer the following terms. (28 pts)**

1. Depolarization (4 pts):

2. Repolarization (4 pts):

3. Resting membrane potential (4 pts):

4. Autorhythmic (or pacemaker) cells (4 pts):

5. Threshold (i.e., the charge) for action potential in the heart (4 pts):

6. Resting membrane potential (RMP) (i.e., the charge) in the heart (4 pts):

7. What charge does the action potential spike to during depolarization? (4 pts)

**F. Pioneers of EKG. Please answer the following (5 pts each totaling 30 pts)**

1.What pioneer published the first EKG?

2.What pioneer discovered the interatrial conduction pathway (between right and left atria)?

3.What pioneer discovered blood flow through the human body?

4.What pioneer discovered the bundle of His?

5.What pioneer discovered the purkinje fibers?

6.What pioneer published the 1st electrical recording of the human heart?

**F. Who are YOU question? I realize I know many of you from advisement and previous classes, but there are some of you who I do not know. (6 pts)**

1. What is your career goal?

2. What are your hobbies?

3. What type of exercise do you enjoy?

4. What are your favorite foods to eat?

5. Please tell me something unique about yourself?

6. What has been the most challenging aspect of dealing with COVID-19 for you?

**End of Exam.**