**Exam 2 Part C. 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 2 Part C is due Friday March 5 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 WEB LINK to guide your answers.*

**A. Please answer the following questions, which are in the Intro to the ETC YOUTUBE video. (36 pts)**

1.

2.

3.

4.

5.

6.

7.

8.

9.

**B. Draw and label the ETC precisely as completed in the ETC Part 1 and Part 2 YOUTUBE videos. Note, Part 1 and Part 2 will give you the foundation of the ETC and the reactions in ETC. After you complete Part 1 and Part 2 take a PICTURE of your completed diagram (which shows all reactions), and input into the MS Word document or attach to your email. (75 pts)**

**C. Write out the 5 steps of the ETC in DETAIL (for full credit). (75 pts)**

**Separate Questions in the YOUTUBE Part 2 video.**

10. What molecule is the FINAL acceptor of electrons in the ETC? (4 pts)

11. What enzyme pumps the H+ from the intermediate space to the matrix? (4 pts)

**D. Write out the ATP Production of One Glucose Molecule (from the ATP Production YOUTUBE video. Please show everything as done in the video! (30 pts).**

**Stage 1: Glycolysis**

**Stage 2: Conversion of Pyruvate to ACoA**

**State 3: TCA Cycle**

**E. Answer these overall questions on metabolism from the ATP Production YOUTUBE video. (4 pts each for 28 pts)**

12. What is the common intermediate in metabolism?

13. What is glycogenolysis?

14. What is the ATP yield from glycogen?

15. During strenuous exercise, what molecule is a byproduct of glycolysis?

16. Why is PFK important?

17. What is the Wall in a Marathon?

18. How energy efficient are we in oxidizing glucose?

**END**