

Use the back of the page and/or attach additional pages as needed. Hand written answers only.

- 1) Define nutrient and name the 6 major types.
- 2) Define enzyme by its' complete structure (3 major parts) and function. Name an enzyme involved with the breakdown for each of the four major macromolecule classes. Explain two things that might be responsible for denaturing an enzyme.
- 3) Properly and completely define redox and where it occurs in a mammalian cell. Name two coenzymes involved with this process.
- 4) Define metabolism and name the two major types.
- 5) Name a hormone that controls the digestive secretions of the following organs:
 - a. Pancreas
 - b. Gallbladder
 - c. Liver
 - d. Stomach
- 6) Define the process of digestion; name the two types; and give four structures that are involved.
- 7) Give the formula for aerobic respiration: _____
- 8) Properly and completely define Calorie: _____
- 9) Define transamination and deamination and where it occurs and give the end products.
- 10) Define beta oxidation by the chemical reaction and where it occurs and the end product.
- 11) Name four ways that heat is transferred from the body
- 12) Completely and properly define hydrolysis and dehydration synthesis.
- 13) What is BMR and how it is controlled?
- 14) Regarding vitamins: Name 3 fat soluble and 2 water soluble vitamins and give the function/use for each
- 15) Regarding minerals: Name 3 bulk and 2 trace minerals and give the function/use for each.
- 16) Define glycolysis, where it occurs and the major end products.
- 17) Define TCA, where it occurs and the major end products
- 18) Define oxidative phosphorylation, where it occurs, and the final end products.
- 19) Give the chemical processes involved in ATP production, name the mammalian source, and give 3 unique uses of ATP
- 20) Give the normal temperature range for humans, the specific control centers, and define fever.
- 21) Explain the difference between HDL and LDL by their structure and use in the body.
- 22) Urea is made by the _____ and eliminated by the _____.