

Name _____ Date _____ Period _____

STUDY GUIDE – CHAPTERS 4-7

Multiple Choice Topics (77 points)

- Miller-Urey experiment
- hydrocarbons
- functional groups
- isomers
- monomer/polymer
- examples of carbohydrates
- examples of lipids
- examples of proteins
- saturated/unsaturated fatty acids
- hydrolysis/dehydration synthesis
- levels of protein structure
- categories of R groups
- structures/diagrams of molecules
- phospholipids
- structure of organelles
- function of organelles
- prokaryotic cells
- eukaryotic cells (plant/animal)
- microtubules/microfilaments
- structure of the cell membrane
- chemicals on the cell membrane
- transport across the cell membrane
- aquaporins
- osmosis
- hypertonic/hypotonic/isotonic
- diffusion/facilitated diffusion
- active transport
- proton pump
- co-transport
- types of endocytosis

Free Response Topics (27 points)

- cell membrane transport
- organelles
- prokaryotic vs. eukaryotic cells
- endosymbiotic theory
- macromolecules
- fruit fly lab
- potential vs. kinetic energy
- experimental design
- chi square analysis
- interspecific relationships

