Mag Biochem Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_

**Questions for Test Review**: Carbs, Lipids, Proteins, NA (\*STUDY PPt; Questions from each unit and Review Sheet!)

1. From Book: Chapter 20

Problems 20.1, 20.2, 20.6-20.15, 20.20, 21a, 22, 23, 31, 39, 41 a-c, 44, 45, 47, 69.

Other ques: 1- Draw D and L glyceraldehyde; 2- Identify chiral carbon(s0 in D- glucose; 3- Compare solubilities of water, alcohol, benzene; 4-How does glucose adopt a pyranose structure and where is anomeric carbon?; 5- What type of reaction forms disaccharides?; 6- What is formed when sucrose id hydrolyzed?; 7- What is glycogen and where is it found?; 8- What is a glycosidic bond?; 9- How is hemiacetal formed?; 10- What is empirical formula of a carb?

1. Chapter 21: Study Figure 21.1 (sphingolipids not on test). How many ‘tails’ are on each type?

Problems 21.1a, 21.2, 3, 4, 5, 9, 12, 13, 19, 21, 29,

Other ques: 1- Compare/contrast HDL from LDL; 2- Describe structure of a steroid and give 3 types. Which steroid are the others derived from?; 3- What is bile, where is it produced (and stored) and what is meant by emulsification?; 4- What is function of a steroid primary messenger?; 5- IUPAC name of glycerol?; 6- Explain hydrogenation of an unsaturated fat; 7- Explain orientation of the polar and nonpolar parts of a lipid in the cell membrane.; 8- Hormones can be either \_\_\_\_\_\_\_\_ or \_\_\_\_\_.; 9- What is a micelle? Explain the orientation.

1. Chapter 22:

Problems: 22.8; 10; 11; 12; 14; 16; 17; 37; 38; 39; 48; 53; 54; 55a,b; 64;

1. Other questions- 1- What is a residue?; 2- Explain the 4 levels of classification of protein structure; 3- Which proteins are functional proteins and why are they ‘easily’ denatured?; 4- Which level of classification is NOT denatured?; 5- How do enzymes work?; 6- How do proteins orient themselves in an aqueous environment?; 7- Compare/ contrast alpha helix vs. beta sheet.; 8- What is a zwitterion?
2. DNA (very little): 1- Distinguish purine from pyrimidine and tell which bases are which type.; 2- Basic structure of a nucleotide?; 3-Differences in DNA and RNA nucleotides?; 4- Double helix or alpha helix?