EXAM II: Ch. 5, 6, 7, 9 & 10

Ch. 5 & 6
Carbohydrates (HO), Lipid Basics (HO), Lipid Metabolism (HO)

Carbohydrates:
Ch. 5 pg. 139-160, 163-166
Q’s: 1, 3, 4, 5, 6, 7

Know basic structures of mono, di- and polysaccharides and some examples of each.
Know what types of atoms are found in carbohydrates
Know functions of carbs in body
Know how carbs are metabolized- what organs systems and also how they are used in metabolism of lipids and proteins
Understand the basic of lactose intolerance
Know sources of glucose, fructose, lactose, maltose, cellulose, glycogen, starch, fibers
Know the role of insulin in carb metabolism
Know where insulin is made, what it is made of and how it is regulated in the blood
Know some examples of food sources of carbs, simple vs. complex
Know food sources of fiber
Know what artificial sweeteners are and the basic differences between them and sugars
Know how many kcals/gram

Lipids:
Ch. 6 pg. 179-205
Q’s: 1, 2, 5, 7

Know basic structures of sat, unsat, long, med, short chain fatty acids and some examples of each.
Know what types of atoms are found in lipids
Know the difference between fats and oils
Know triglycerides, phospholipids and sterols basic structure and functions
Know how lipids are metabolized- what organs systems and how stored in body
Understand the basics of lipid digestion (enzymes esp. lipoprotein lipase) and absorption in the digestive system
Know the difference between cis and trans fats in terms of structure and function in the body
Know where cholesterol is made, what it is made of and how it is regulated in the blood
Know some examples of food sources of lipids, sat vs. unsat
Know about the essential fatty acids including structural differences and food sources
Know how lipids and cholesterol are related to heart attacks
Know how many kcals/gram
Ch. 7
Protein Basics (HO), Protein Metabolism (HO)

Proteins:
Ch. 7 pg. 225-250
Q’s: 1, 2, 3, 4, 5, 6, 9

Know four levels of protein structure
Know what types of atoms are found in proteins
Know monomer subunit of proteins
Know functions of proteins in body
Know how proteins are metabolized - what organs systems and also how they are used in metabolism of lipids and carbs
Understand the basics of enzyme function
Know food sources of protein - complete vs. incomplete sources
Know how many kcals/gram

Ch. 9
Lipid soluble Vitamins (HO)

Lipid Soluble Vitamins:
Ch. 9 pg. 287-313
Q’s: 2, 4, 5, 6, 7, 8, 9

Ch. 10
Water Soluble Vitamins (HO)

Water Soluble Vitamins:
Ch. 10 pg. 325-356
Q’s: 1, 2, 3, 5, 6, 8

For EACH vitamin know: major functions, food sources, health results (diseases) of deficiency or excess
Know how being vegetarian or vegan can affect vitamin intake
Know how vitamins are stored, processed and excreted by the body

EXTRA TIPS:

1. Some foods to know the basic components of: citrus fruits, avocados, whole grains, leafy green vegetables, legumes, milk, peanut butter, meats, fish, soy beans

2. Some conditions to know the basics of: heart attack, lactose intolerance, hemmorroids, diverticula, diabetes (1 and 2), pellagra, beriberi, spina bifida, rickets, scurvy