

The exam will be comprehensive with questions covering material from all three midterm exams plus questions on lipids and carbohydrates. You should use the previous study guides plus the midterms as a guide to what to know from the earlier material.

Lipids

1. Know the basic classes of Lipids.
2. Know their solubility properties
3. Review the biosynthetic pathways as covered in lecture with an emphasis on mechanism.
4. Be able to recognize steroids and terpenes.
5. Be able to identify the isoprene units in a terpene.
6. Know how to carry out a carbocation rearrangement to explain the biosynthesis of a terpene

Carbohydrates

1. Know the basic structure and functions of sugars.
2. Know how the hemiacetal cyclization takes place. Know the various other reactions of the anomeric carbon.
3. Know the difference between α and β glycosidic bonds.
4. Review the Fisher glucose proof and be prepared to do something similar.
5. Know how disaccharides and polysaccharides form.
6. Know the difference between a reducing sugar and a non-reducing sugar
7. Know about the solubility properties of a carbohydrate

Final Word

Reactions and Synthesis are the most important part of this exam. You will also see mechanisms. Make sure you know how to do the synthesis problems from the workshops. All problems of the day are useful study material.

Good Luck Everybody!