

Fayoum University
Faculty of Science
Chemistry Department
2nd Year. Chem./ Ph.



Academic Year: 2010/2011
1st Semester 15/1/ 2012
Organic Chemistry
Time: 3 h.

*****Answer the Following Questions*****

Question No. 1:

Show how can you elucidate the structure of ethyl acetoacetate.

Question No. 2:

What is the main products formed from the reaction of E.A.A. with:

1- 1,2-Dibromoethane. 2-Acetyl chloride. 3-Urea.

Question No. 3:

A) Write the steps of the preparation of following compounds:

1-Phenol. 2- Benzaldehyde. 3- Methyl orange.
4-Salicylic acid. 5- Cumen from benzene.

B) Outline each of the following R, S structure.

i) CHFCIBr

ii) 2- Butanol

iii) $\text{Ph}-\underset{\text{NH}_2}{\text{CH}}-\text{COOH}$

Question No. 4:

A) Which of the following are aromatic compounds:

1- Cyclopentadiene. 2- Naphthalene. 3- Tropylium cation.
4- Cyclopentadiene anion. 5- Cycloheptatriene.

B) Write short note on the following:

1- Aromaticity of benzene. 2- Sand Mayer reaction.
3- Oxidation of p- xylene and o- xylene. 4- preparation of asprine.
5-Indicators.

Best wishes