Ministry of Higher Education & Scientific Research Al-Muthanna University College of Science Department of Biology



Subject: organic chemistry Stage: first year

Date: / /201 .10. 06. 2017

Time : Three hours

((Assessment of the final exam for the second semester)) Academic year 2016 -2017

45

Q1// Compare between (Anisole and Nitobenzene) in regard by catalysis reaction (Hisupport your answer in writing chemical equation?	$NO_3/H_2SO_4)$,
Q2// Give the structure of the following compounds? (choose ten only)	(8 marks)
(1) 3- Butyn-2-ol, (2) Glycerene, (3) O- Hydroxybenzoic acid, (4) Aniline,	(5) Benzophenone
(6) Acetaldehyde, (7) Toluene, (8) Acetone, (9) Styrene, (10) P-Xylene, (11) Vinyl Bromide
	(10 marks)
Q3/A / - Complete the following reaction:	*
1. $CH_3CH = CH_2$ HBr/ROOR ?	
2. Dimethyl acetylene + CL ₂ ?	+ CL ₂
3. $CH_2=CH_2+Br_2/CCL_4$	
	(6 marks)
Q3/B / Write the step of Methane Chlorination?	
	(4 marks)
Q4/ Give all the reaction steps for the preparation of the following compounds?	
 1- From benzene prepare : (a) Toluene (b) Nitrobenzene. 2- From acetylene prepare : Acetaldehyde 	
3- From benzene prepare: m-bromo nitro benzene 4- from 1,2-dibromo propane prepare: propyne	
	(12 marks)
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Best of luck

