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The Open University of Sri Lanka

B. Sc. Degree Programme - 2015/2016

Faculty of Natural Sciences

Department of Chemistry

CMU3120 - Organic Chemistry II

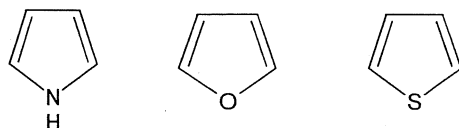
CONTINUOUS ASSESSMENT TEST I

Ques No.	Max.	Marks
1	50	
2	50	
Total	100	

Date: Sunday, 10th April 2016

Time: 9.00.a.m. – 10.00 a.m.

1. i) Arrange the following compounds in the order of increasing resonance stability.



(5 Marks)

- ii) Draw the possible resonance structures of thiophene.

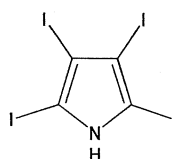
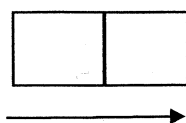
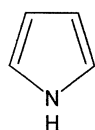
(15 Marks)

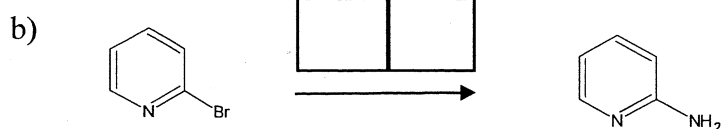
- iii) Explain why pyrrole is less basic than pyridine.

(10 Marks)

- iv) Give the appropriate reagents needed for the following conversions.

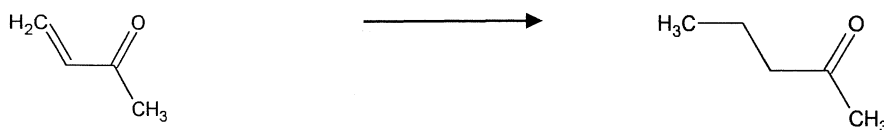
a)





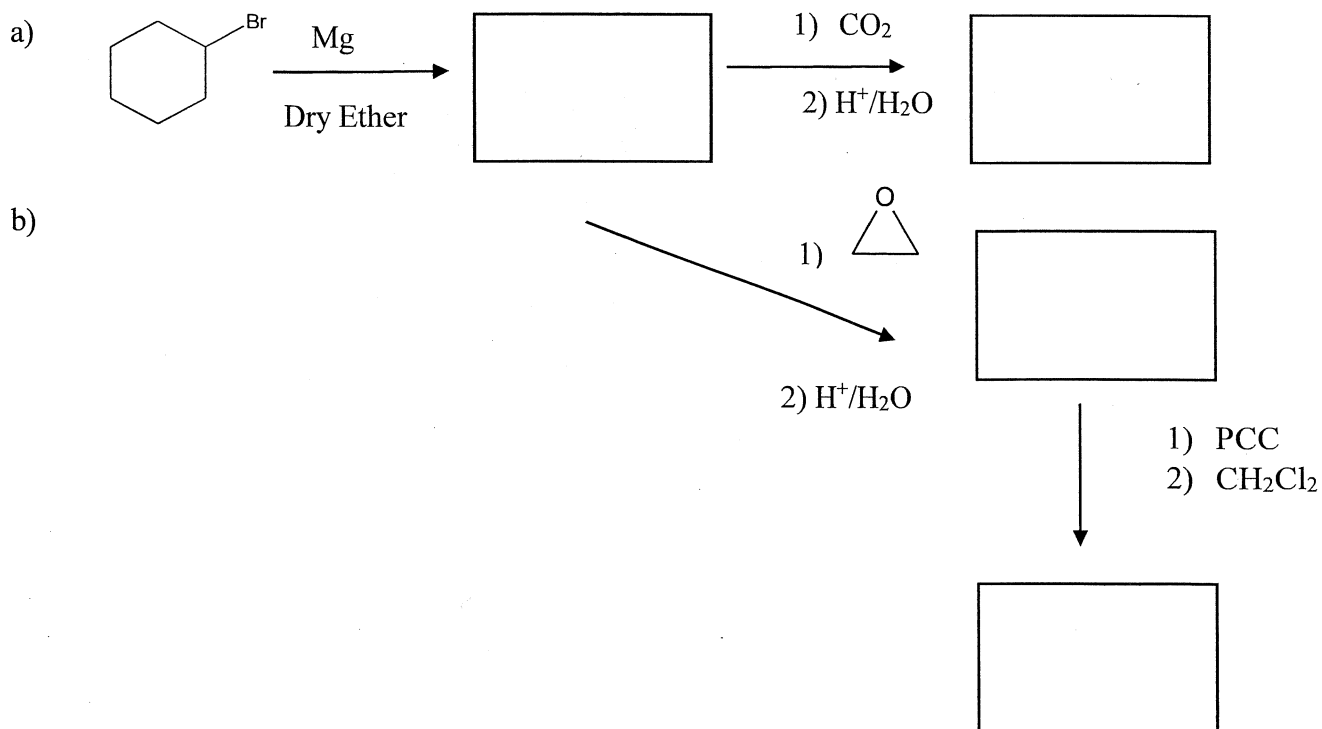
(20 Marks)

2. i) The following is an example of the reaction of α, β -unsaturated ketones with organocuprates. Give the appropriate reagents and the mechanism of this reaction.



(20 Marks)

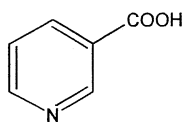
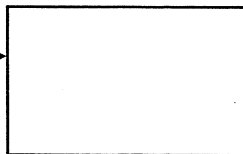
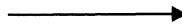
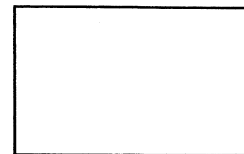
- ii) Give the products for the following reactions.



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c)

 PCl_5  NH_3 

(30 Marks)

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Name :.....

Address :.....

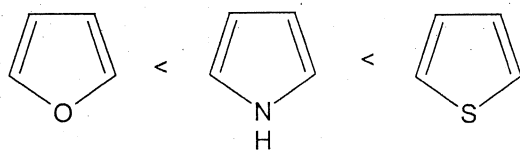
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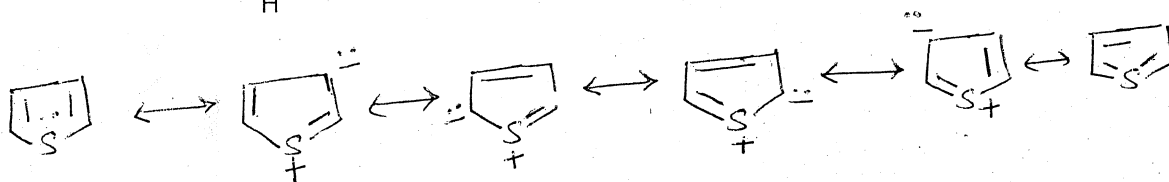
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CONTINUOUS ASSESSMENT TEST I

Answer Guide

1. i)



ii)



iii) lone pair of electrons on Nitrogen of pyridine is available for abstracting a proton because it is not involved in the aromatic sextet of pyridine. In pyrrole, the lone pair of electron is involved in the formation of the aromatic sextet of pyrrole. Therefore, it is delocalized on to the ring and less available to abstract H^+ .

iv) a) I_2/KI (page 28 of Unit I)

b) NH_3/Δ (page 13 of Unit I)

2. i)

