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The Open University of Sri Lanka

B. Sc Degree / Stand Alone Programme 2006/2007

Organic Chemistry - CHU 3126 / CHE 5136

Level 5 - Assignment I - Test

Duration 1½ hours



Q	Marks	
	Max	Awarded
1	30	
2	20	
3	10	
4	40	
Total		

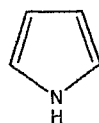
2006-12-18

3.30pm - 5.00pm

**Answer all questions.**

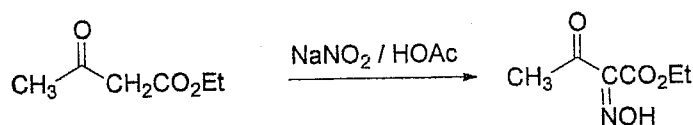
Maximum marks allocated to this paper are 105. However a candidate who scores 100 marks or above will be awarded 100% and those scoring less will be awarded the score they make.

1. a. Draw resonance structures for Pyrrole.



- b. Giving reasons, state why pyrrole is less basic than pyridine.

- c. During the synthesis of pyrroles, acetoacetates are reacted with  $\text{NaNO}_2$  / HOAc. One of the primary reactions that take place is as follows.

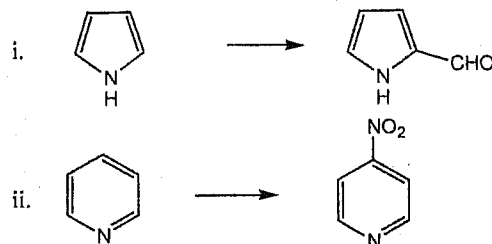


Give the mechanism of this reaction. (Hint:  $^+\text{NO}$  is formed from  $\text{NaNO}_2$  and HOAc) (30 Marks)

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2. Giving necessary reagents and conditions show how you would carry out the following conversions.



(20 Marks)

3. Give **ONE** example to illustrate nucleophilic substitution reaction of quinoline

(10 Marks)

4. a. Give a method to prepare the following compound.

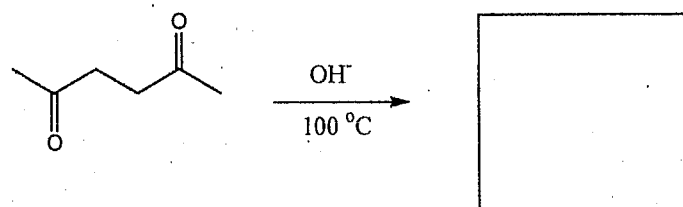
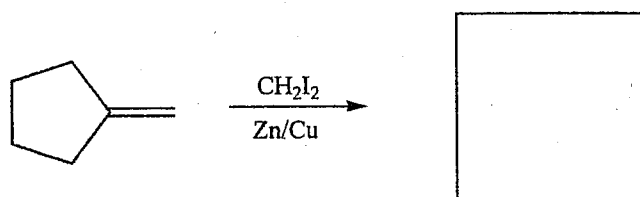
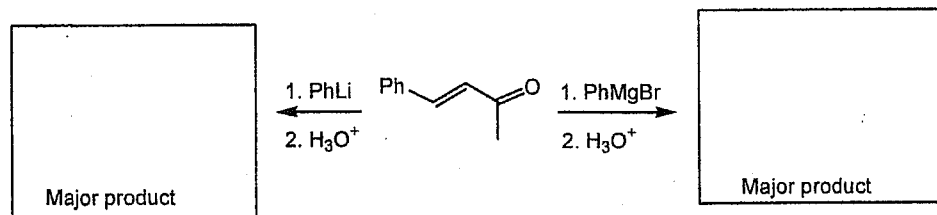


(05 Marks)

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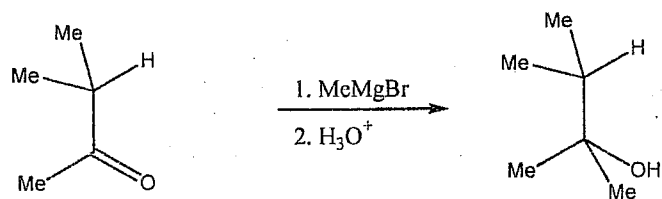
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b. Give the products of the following reactions.



(20 Marks)

c. Giving appropriate mechanism, explain why the following reaction does not occur.



(20 Marks)