



Eastern University, Sri Lanka

Third Year First Semester Examination in Science-External Degree

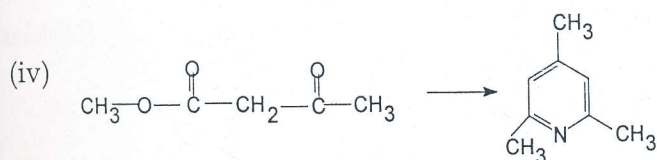
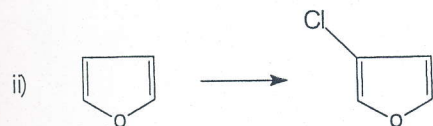
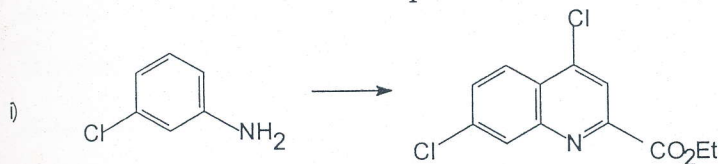
2010/ 2011 (June/ August 2012)

EXTCH 302 HETEROCYCLIC CHEMISTRY AND ORGANIC
REARRANGEMENT REACTIONS

Answer all questions

Time: 01 hour

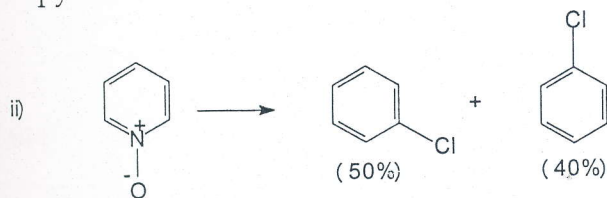
1. (a) By means of equations show how the following transformations could be effected. Give essential experimental conditions.



[60 Marks]

(b) Explain the following observations

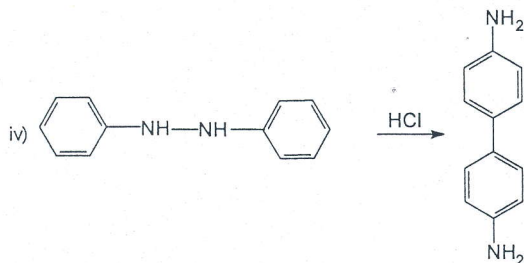
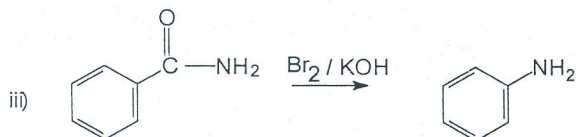
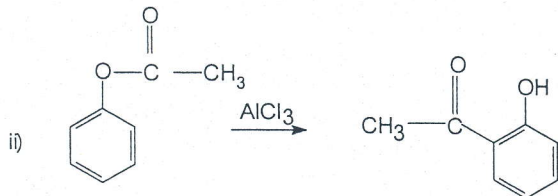
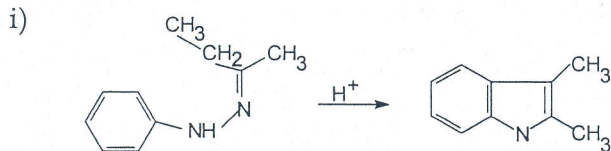
i) Aromatic electrophilic substitution takes place preferentially at position 3 in pyridine



[40 Marks]

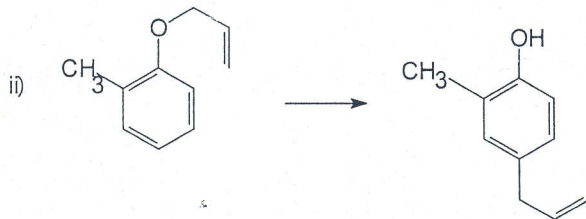
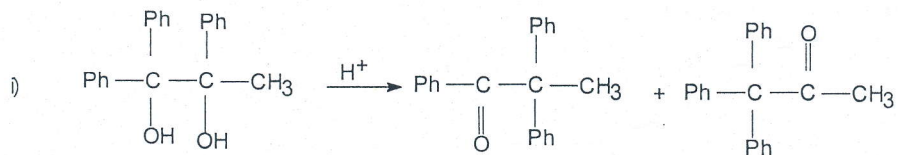
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2. (a) Write plausible mechanisms involved in the following reactions.



[60 Mar]

b) Explain the following observations



[40 Mar]