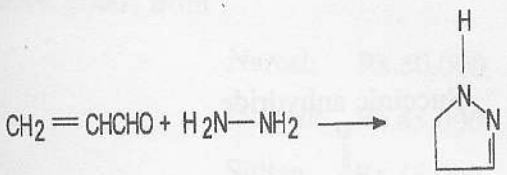
EASTERN UNIVERSITY, SRI LANKA
SECOND EXAMINATION IN SCIENCE – 2003/2004
SECOND SEMESTER
(June/July-2005)
CH204 REACTION MECHANISM AND AROMATICITY

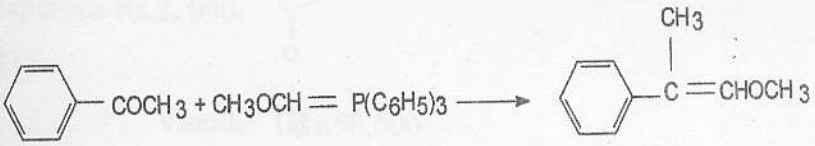
Answer all questions **Time: 01 hour**

1. (a) Write a mechanism for the following;

(i).



(ii)



(b) Glyceraldehyde ($CH_2OHCHOHCHO$) is made from $BrCH_2CH_2CH_2OH$. Show how this could be done and give all essential experimental conditions.

2. (a)

(i). Outline the molecular orbitals of cyclopentadienyl system by using polygon and circle method and explain on this basis why cyclopentadienyl anion is aromatic.

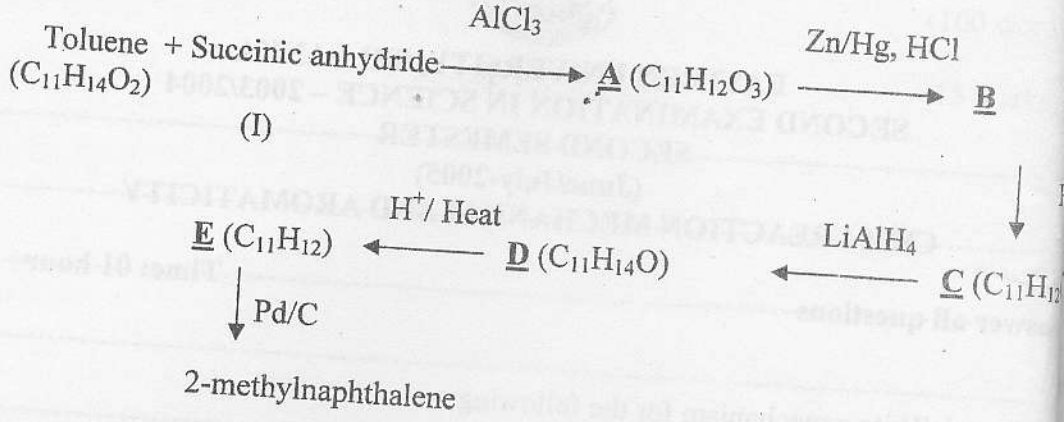
(ii). What electron distribution would you expect for the cyclopentadienyl cation?

(iii). Would you expect it to be aromatic? Explain.

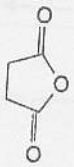
(iv). Would you expect cyclopentadienyl cation to be aromatic on the basis of Huckel's rule?

Cont..

(b). Write the structures of **A**, **B**, **C**, **D** and **E** in the following reaction sch



Succinic anhydride



(I)

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