

EASTERN UNIVERSITY, SRI LANKA. THERDEX AMINATION IN SCIENCE-PROPER & REPEAT FIRST SEMESTER 2007/2008 (December 2008) CH 302 HETEROCYCLIC CHEMISTRY AND

ORGANIC REARRANGEMENT REACTIONS

Time allowed: ONE Hour

LINKAR I

Answer all questions

1. (a) Write the product/products of the following reactions.

(b) Complete the scheme by inserting missing structures/reagents $(\underline{A}, \underline{B}, \underline{C})$ and \underline{D}

Contd.

(c) (i) Write plausible mechanism involved in the following reaction.

(25 marks)

Berstey, St.

(ii) Indicate how the following conversion could be effected and give essential experimental conditions.

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

(b) Complete the scheme by inserting missing structures and reagents $(\underline{A}, \underline{B}, \underline{C})$ and write plausible mechanism involved in the reaction \underline{C} to \underline{D} .

$$CH_{3}CH_{2} \xrightarrow{C} -OEt \xrightarrow{NaOH} A \xrightarrow{H^{+}} B \xrightarrow{CH_{3}COCI} C$$

$$\downarrow OH^{-}$$

$$D$$

$$(40 Marks)$$

****END****