

Eastern University Sri Lanka

Third Year First Semester Examination in Science

2008/2009 (April/May 2010)

External Degree (2004/2005)

EXTCH 301: CHEMISTRY OF NATURAL PRODUCTS

Answer all questions

Time: One Hour

1 (a) Show how the following tri peptide can be synthesized starting with individual amino acids.

(30 marks)

(b) Indicate by means of equation how the following transformation may be effected?

(i)
$$H_2N$$
—CH—COOH CH_2CH_3

(ii)
$$CH_2(CO_2Et)_2 \longrightarrow H - C - CH_2SH$$

(40 marks)

(c) Give the isomeric natures of Citral and discuss a method to synthesis one of its isomers. (30 marks)

Cont ..

2. (a) Write the cyclohexane configuration of menthol, isomenthol, neoment neoisomenthol.

(40 n

(b) Indicate by means of equations show how the following conversions reffected. Give essential experimental conditions.

(ii)

(30 m₃

- (c) Draw the structures of the following disaccharides and indicate the typof the linkage in it.
 - (i) Sucrose
 - (ii) Lactose
 - (iii) Maltose

4. \

a)

c)

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 $(30 \, \mathrm{m}$