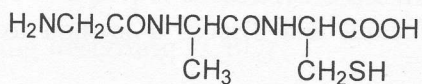


EASTERN UNIVERSITY, SRI LANKA
THIRD YEAR FIRST SEMESTER EXAMINATION IN SCIENCE
[April/May'2017]
EXTERNAL DEGREE
EXTCH 301. CHEMISTRY OF NATURAL PRODUCTS
(Special Repeat)

Answer all questions

Time Allowed: One hour

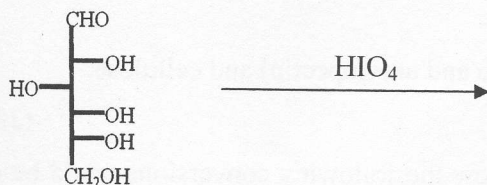
1 (a) Show how the following tri peptide can be synthesized starting with individual amino acids.



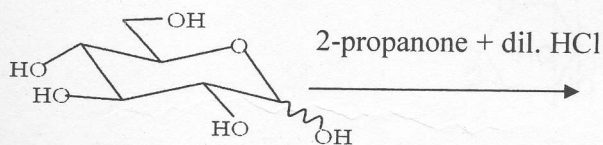
(30 marks)

(b) Give the structure of the products formed in each of the following reactions and suggests plausible mechanism for their formation if necessary.

i)

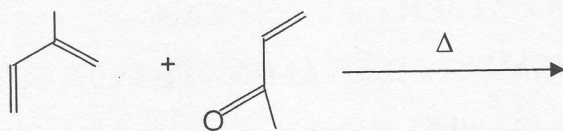


ii)

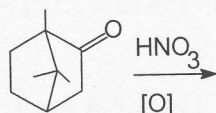


Contd...

iii)



iv)



(40 marks)

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

(30 marks)

2 (a) D-Galactose gives a pentose by on Wohl degradation. Write reasonable mechanisms for the reactions involved in the Wohl degradation.

(30 Marks)

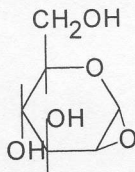
(b) Describe the structure of starch (amylose and amylopectin) and cellulose.

(30 Marks)

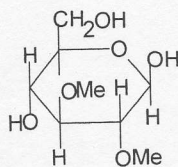
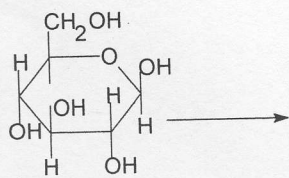
(c) Indicate by means of equations show how the following conversions could be effected.

Give essential experimental conditions.

(i) Glucose



(ii)



(40 marks)
