



Eastern University, Sri Lanka

EXTERNAL DEGREE

Third Year First Semester Examination in Science- (April/ May 2016)

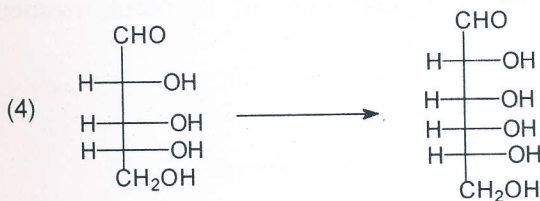
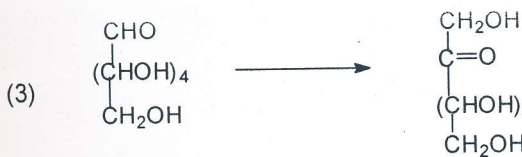
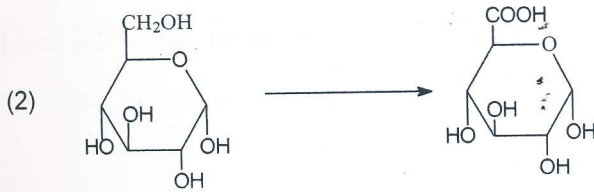
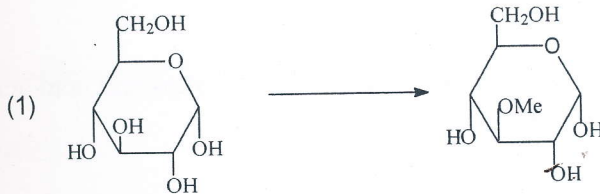
EXTCH 301 Chemistry of Natural products

(Repeat)

Answer all questions

Time: 01 hour

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



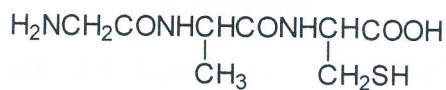
(40 marks)

- (b) What is Muta-rotation? Explain with a suitable example.

(10 marks)

Contd...

- (c) Show how the following tripeptide can be synthesized starting with individual amino acids.



(20 marks)

- (d) Draw the structures of the following disaccharides and indicate the type(s) of linkage in it.

- (i) Sucrose
- (ii) Lactose
- (iii) Maltose

(30 marks)

- 2 (a) Give two examples each for amino protecting groups and acid activating groups used in the synthesis of peptide chain.

(20 marks)

- (b) Show how Phenyl isothiocyanate (Ph-NCS) could be used to determine the terminal residue in a peptide.

(30 marks)

- (c) Give the isomeric natures of Citral and discuss a method to synthesize one of its isomers.

(30 marks)

- (d) Write the cyclohexane configurations of menthol, isomenthol, neomenthol and neoisomenthol.

(20 marks)

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