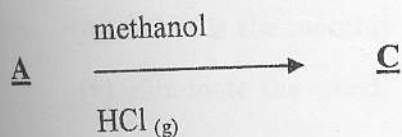
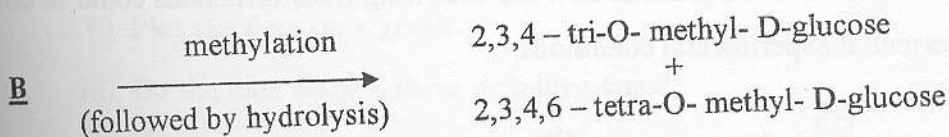
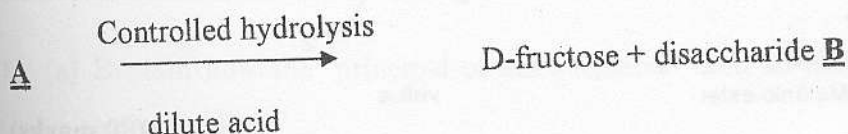


EASTERN UNIVERSITY, SRI LANKA.
THIRD EXAMINATION IN SCIENCE-PROPER & REPEAT
FIRST SEMESTER 2007/2008 (December 2008)
CH 301: CHEMISTRY OF NATURAL PRODUCTS

Time allowed: **ONE Hour**

Answer all questions

1. (a) A non reducing trisaccharide **A** occurs in gentian roots. The following reactions are observed.

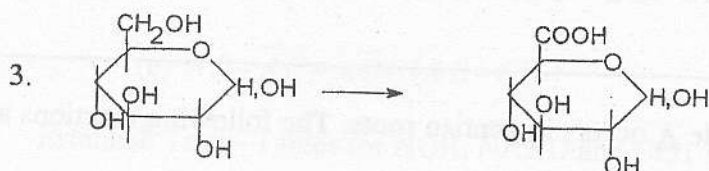
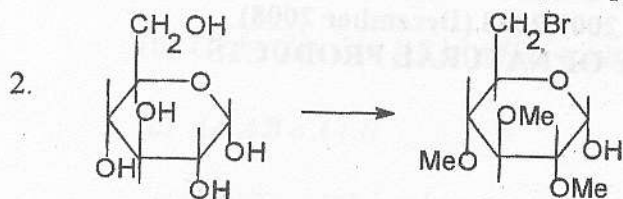


Deduce the structure of the compounds **A**, **B** and **C** and explain all the above observations. **(55 marks)**

Contd.

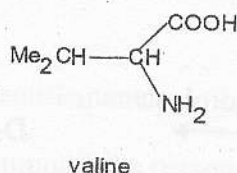
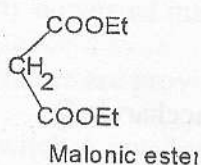
(b) Show by means of equations how the following conversions could be effected. Give essential experimental conditions.

1. α -D-glucose \longrightarrow 3-O-methyl-D-glucopyranose



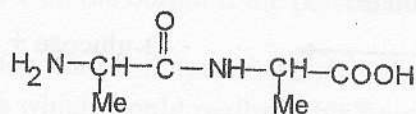
(45 marks)

2. (a) By means of equations show how valine could be synthesized from malonic ester. Give essential experimental conditions and mechanisms involved in it.



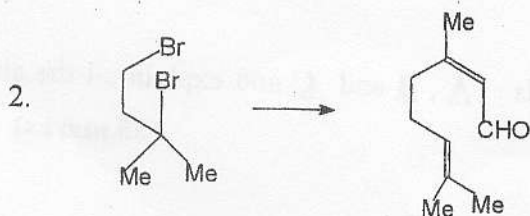
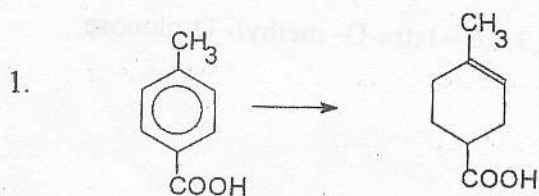
(30 marks)

(b) By using "Sanger method" describe how you could determine N-terminal of the following amino acid.



(30 marks)

(c) Indicate by means of equations how the following transformations could be effected. Give essential experimental conditions.



(40 marks)

***** END *****