



EASTERN UNIVERSITY, SRI LANKA
SECOND EXAMINATION IN SCIENCE – 2003/2004
SECOND SEMESTER
(June/July-2005)
CH 205 BORON CHEMISTRY AND SILICATES

Answer All Questions.

Time: 01 Hour

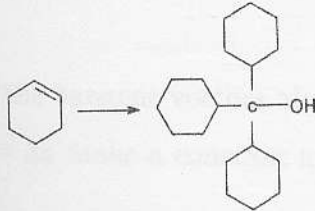
1. a) State Wade's rule.

b) Discuss the type of bonding and structure in each of the following Boron compounds, using Wade's rule.



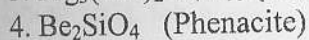
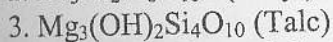
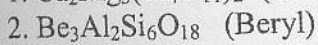
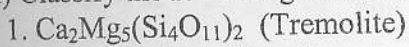
c) Derive "styx" number for B_4H_{10} , indicating the equations and rules clearly. And draw the most possible schematic diagram corresponding "styx" number.

d) How can the following transformation be effected through Boron compounds intermediate(s)?



2. a) (i) List the structural types of silicates.

(ii) Classify the following silicates into the different structure types



b) Briefly describe the properties of the followings

(i) Ortho silicates

(ii) Zeolites
