

UKA TARSADIA UNIVERSITY

Maliba Pharmacy College

B. Pharm 2nd Semester Internal Examination April 2013

030020202- Organic Chemistry-I

Time: 10:00 a.m. To 1:00 p.m.

Max. Marks: 70

Date: 01/05/2013

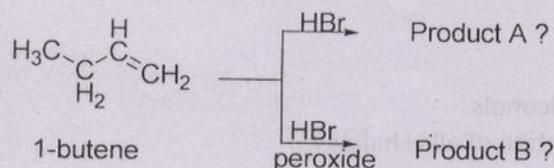
Instructions:

- Question no. 1 is compulsory.
- From Q.2 to Q.7 attempt any four questions.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

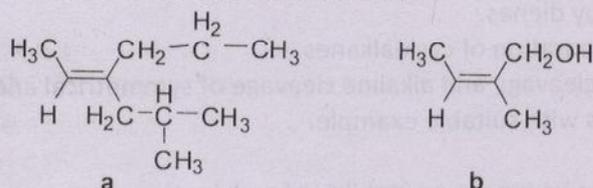
Q.1 (a) Answer the following: (any six)

06

- 1 Give the products for the following reactions



- 2 Identify the cis and trans isomers:



- 3 Give statement for Pauli's exclusion principle.
- 4 Arrange the following in increasing order of their boiling point.
Neo pentane, pentane, iso pentane.
- 5 How will you synthesize Grignard reagent?
- 6 Write reaction when 1-phenylethanol allow to react with PBr_3
- 7 Define hyper conjugation.
- 8 Give example of polar and non polar covalent bond.

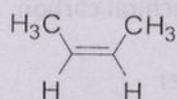
(b) Describe in brief: (any four)

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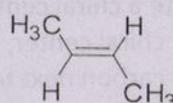
- 1 Explain Markownikoff's rule with suitable example.
- 2 Write a note on Zaitsev's rule.
- 3 Define Meso compounds.
- 4 Explain Structural isomerism.
- 5 Explain conformational isomerism in alkanes
- 6 Define the terms proton and mass number.

Q.2 (a) Which compound in the given set should have larger dipole moment and why?

04



(cis)-2-butene



(trans)-2-butene

- (b) Explain the SN_1 reaction with its stereochemistry
- (c) Write short note on Oxymercuration – demercuration

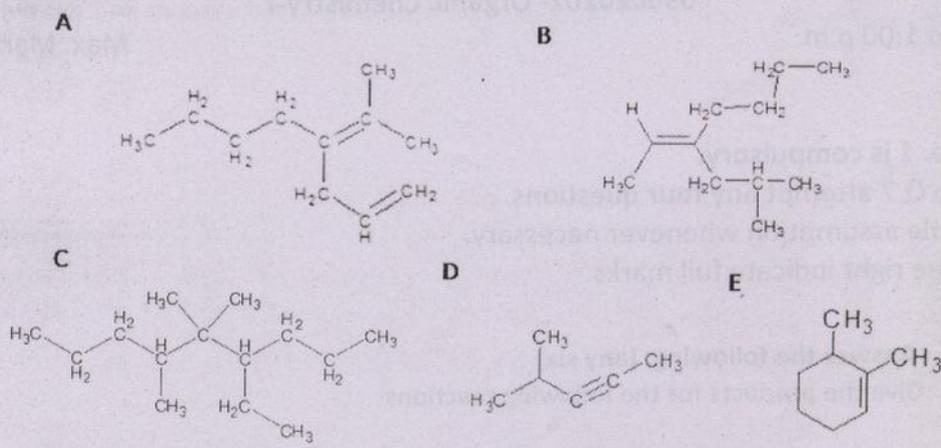
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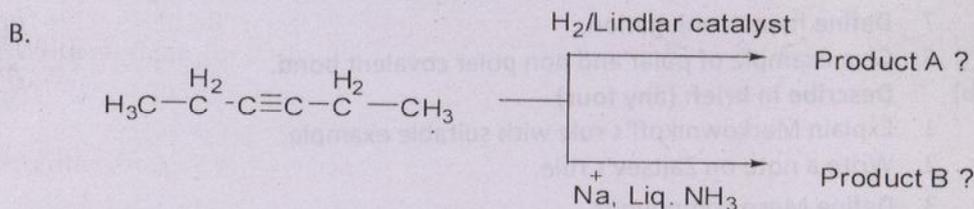
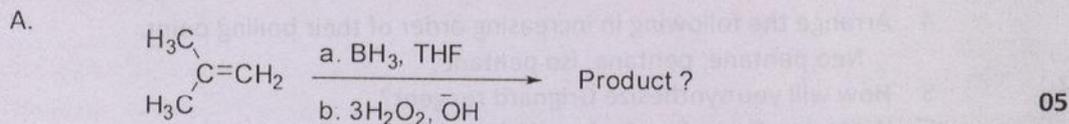
- Q.3** (a) Explain the acidity of 1-alkynes with suitable examples. 04
 (b) Explain the terms stereo specific and stereoselective reactions giving examples. 05
 (c) Write the IUPAC names for following structures 05



- Q.4** (a) Write reactions given by alcohols. 04
 (b) Write methods for preparation of alkyl halides. 05
 (c) Write note on resonance. 05

- Q.5** (a) Write reactions given by dienes. 04
 (b) Write methods for preparation of cycloalkanes. 05
 (c) Write reaction of acid cleavage and alkaline cleavage of symmetrical and unsymmetrical epoxides with suitable example. 05

- Q.6** (a) Define carbocation. Give comment on stability of carbocation. 04
 (b) Write the products for the following reaction



- (c) Differentiate in Fischer, Newman and Sawhorse representations giving suitable examples. 05

- Q.7** (a) Explain $sp^3, sp^2,$ and sp hybridization in carbon. 04
 (b) Give note on microwave synthesis. 05
 (c) Explain how stereochemistry affects chemical reactions which:
 (i) generate a chiral center from an achiral carbon, 05
 (ii) involve chiral center, 05
 (iii) involve carbon next to chiral center 05