

(4302)

2009-2010
 B.Sc. (HONS.) (PART-I) EXAMINATION
 (CHEMISTRY)
 ORGANIC CHEMISTRY
 (CH - 112)

Maximum Marks : 26

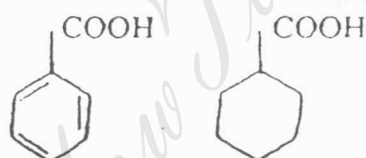
Duration : Two Hours

- NOTE:** (i) Answer ALL the questions.
 (ii) Marks are indicated against each question.

Answer any THREE of the following :

(2x3)

- a) Define and illustrate with suitable example the concept of hyper-conjugation.
 b) Why sp hybridized carbon is more electronegative than sp^3 hybridized carbon, explain.
 c) Describe the various types of organic reactions with suitable examples.
 d) Compare the relative acidity of the following carboxylic acids :



- (e) Discuss the relative stability of a 1° , 2° and 3° carbocation.
 (a) Describe briefly the oxymercuration - demercuration reaction of alkene.
 (b) Explain the 'Markownikoff's rule' and the peroxide effect.
 (c) Describe the Hoffmann elimination reaction for preparation of alkenes.

(2½)

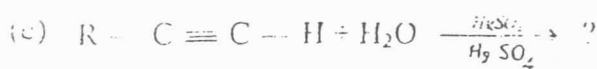
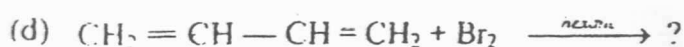
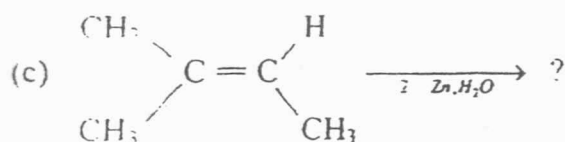
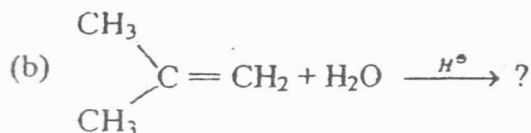
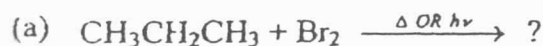
(2½)

(02)

OR

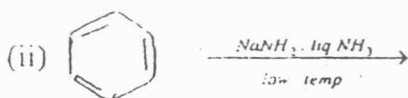
Write down the product/s in the following equations :

1 each=7



SECTION B

3 (a) Predict the products and give mechanism of any ONE of the following reactions : (02)

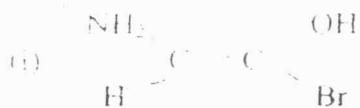


(b) State and explain Huckel's rule. (02)

(c) Why cyclopropane and cyclobutane are less stable than cyclopentane, explain. (02)

4 (a) What do you understand by configuration ? Explain the term R & S with suitable examples. (03)

(b) Identify E and Z isomers in the following compounds : (02)



(c) Differentiate between diastereomers and enantiomers with suitable examples. (02)