

**Subject Code: B13106/R13**

**I B. Pharmacy I Semester Regular Examinations Feb. - 2014**

**PHARMACEUTICAL ORGANIC CHEMISTRY-I**

**Time: 3 hours**

**Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**  
Answering the question in **Part-A** is Compulsory,  
Three Questions should be answered from **Part-B**

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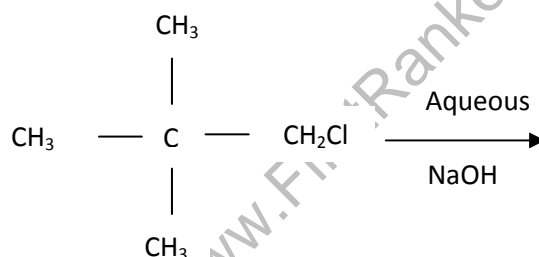
**PART-A**

- 1.(i) What are free radicals? Discuss the stability of free radicals?
- (ii) Explain Bayers strain theory and its limitations.
- (iii) Compare and contrast  $SN^1$  and  $SN^2$  reactions.
- (iv) Write the Williamson's synthesis of ethers.
- (v) Explain the enantiomers with examples
- (vi) How do you prepare Grignard reagent?

[4+4+4+4+3+3]

**PART-B**

- 2.(a) Explain the addition of hydrogen halide to alkenes.
- (b) Discuss theory of reactivity with examples?
- 3.(a) Give the mechanism of E1 and E2 reactions with suitable examples.
- (b) Discuss the various methods for preparation of alkanes.
- 4.(a) Explain the sequence rules with examples.
- (b) Write the products of the following reactions



[8+8]

- 5.(a) Explain the stability of cycloalkanes.
- (b) Explain about Saytzeff's rule with examples?

[8+8]

6. Define the following terms
  - (a) Mesomeric effect
  - (b) Electromeric effect
  - (c) Optical activity
  - (d) Configuration and conformation

[4+4+4+4]

- 7.(a) Write all possible steps in synthesis of isobutylene and 1- butane
- (b) The order of reactivity of alcohols  $3^\circ > 2^\circ > 1^\circ$  and explain, in details
- (c) What happens when ethanol is treated with potassium permanganate and explain?

[6+6+4]