

Total No. of Questions : 6]

SEAT No. :

P3152

[Total No. of Pages : 2

[5245]-304

**Second Year B. Pharmacy (Semester - III)**  
**PHARMACEUTICAL ORGANIC CHEMISTRY - III**  
**(2013 Pattern) (Theory)**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections to be written in separate answer books.*
- 3) *Figures in right indicate full marks.*
- 4) *Neat diagrams must be drawn if necessary.*

**SECTION - I**

**Q1)** Draw the Newman projection formulae for n-butane & discuss the energy profile diagram for the same. **[10]**

OR

Discuss in details the conformational analysis of cyclohexane.

**Q2)** Answer any five: **[15]**

- a) How shall you prepare amino acids from halogen acids?
- b) Which is the most preferred conformation between menthol & neo-menthol and why?
- c) Explain why trans decalin is more stable than cis decalin.
- d) Explain the term dipole-dipole interaction with suitable examples.
- e) Why cis-trans is different than Z-E nomenclature? Explain.
- f) Discuss the limitations of D/L method of nomenclature.
- g) Explain the priority rules for assigning Z/E nomenclature.

**Q3)** Write short notes on any two **[10]**

- a) Geometrical Isomerism & structural Isomerism
- b) Conformations of decalin.
- c) Stereospecific & stereoelective reactions
- d) Chirality with suitable examples

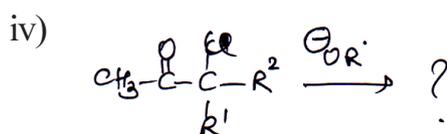
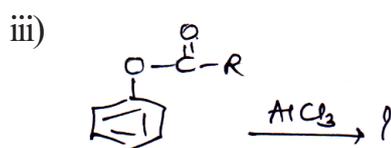
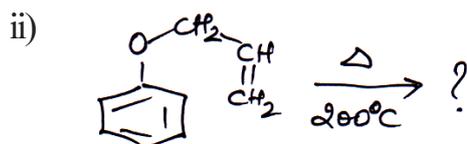
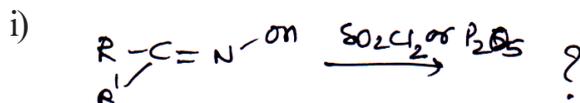
**P.T.O.**

## SECTION - II

**Q4)** Define molecular rearrangement reactions and classify them. Explain in brief any 2 reactions with mechanisms, at electron deficient carbon. [10]

OR

Product the product/s



**Q5)** Answer any five [15]

- Explain the Elbs reaction for synthesis of anthracene.
- Discuss the reduction of naphthalene under different conditions.
- How are 1- & 2-anthranols prepared?
- How shall you prepare 9-chloropharanthrene?
- Write a short note on Willgerodt rearrangement.
- Explain why claisen rearrangement is intramolecular.
- In Oxy-lope rearrangement isomeric diene is not obtained. Explain.

**Q6)** Short notes (any two) [10]

- Pinacol – Pinacolone rearrangement
- Lossen rearrangement
- Starensz Rearrangement
- Favorskii Rearrangement

