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

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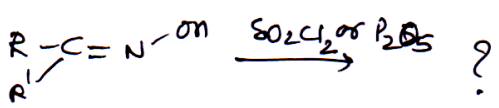
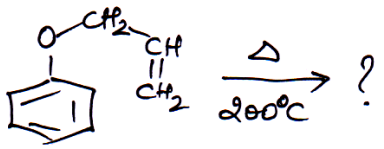
SECTION - II

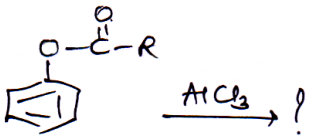
Q4) Define molecular rearrangement reactions and classify them. Explain in brief any 2 reactions with mechanisms, at electron deficient carbon. **[10]**

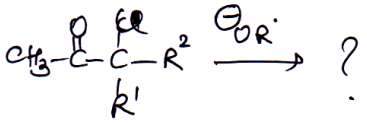
OR

Product the product/s

i) 

ii) 

iii) 

iv) 

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

a) Explain the Elbs reaction for synthesis of anthracene.

b) Discuss the reduction of naphthalene under different conditions.

c) How are 1- & 2-anthranols prepared?

d) How shall you prepare 9-chloropharanthrene?

e) Write a short note on Willgerodt rearrangement.

f) Explain why claisen rearrangement is intramolecular.

g) In Oxy-lope rearrangement isomeric diene is not obtained. Explain.

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

a) Pinacol – Pinacolone rearrangement

b) Lossen rearrangement

c) Starenz Rearrangement

d) Favorskii Rearrangement