Printed Pages: 02 **Sub Code: RPH206**

Paper Id: | 1 | 5 | 0 | 2 | 3 | 4 | **Roll No.** | | | | | | | | | | |

B.PHARM
(SEM II) THEORY EXAMINATION 2017-18
PHARMACEUTICAL CHEMISTRY-II
(PHARMACEUTICAL ORGANIC CHEMISTRY)

Time: 3 Hours ***Total Marks: 70***

Note: Attempt all Sections.

SECTION A

1. Attempt *all* questions in brief. **2 x 7 = 14**

a) Define inductuctive effect.

b) What are Carbanions?

c) Explain Aromaticity.

d) Write about IUPAC system of nomenclature.

e) Differentiate *cis* and *trans* isomers.

f) What are nucleophiles and electrophiles?

g) Draw the structure of following compounds-

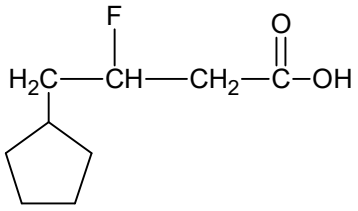
i. 1-Chloro-2-ethyl-2-methyl butane

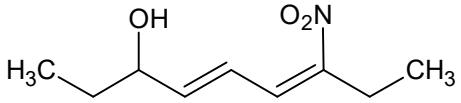
ii. 3-Nitro-2-methylheptane

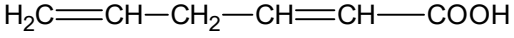
SECTION B

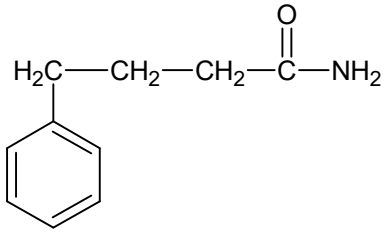
2. Attempt any *three* of the following: **7 x 3 = 21**

a) Give the IUPAC name of these following compounds-

i. 

ii. 

iii. 

iv. 

b) Explain Aromatic electrophilic substitution reaction.

c) Write about Optical activity with a suitable diagram.

d) What is Baeyer strain theory? Explain.

e) What are Polynuclear hydrocarbons? Draw the structure of Naphthalene and also give its reaction with an electrophile.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

a) What is Mannich reaction? Give its reaction with mechanism.

b) Write the conformational analysis of Butane and propane.

4. Attempt any *one* part of the following: 7 x 1 = 7

a) What is a Nucleophilic addition reaction? Write any one Nucleophilic addition reaction of methyl amine with mechanism.

b) What are primary, secondary and tertiary alcohols? Differentiate them with their examples.

5. Attempt any *one* part of the following: 7 x 1 = 7

a) Write about discovery and structure of benzene. Explain the Resonance for the stability of benzene.

b) What are organometallic compounds? Write about Grignard reagent with its synthetic importance.

6. Attempt any *one* part of the following: 7 x 1 = 7

a) Explain stereochemistry with its classification. What are diastereomers and enantiomers?

b) Write the reaction of Meerwein-Ponndorf-Verley reduction with its mechanism.

7. Attempt any *one* part of the following: 7 x 1 = 7

a) Write the sulfonation and chlorination reactions of phenol with mechanism.

b) What are Free radicals? Write any two Free radical reactions.