First Year Pharm. D (SUPPLEMENTARY) : SUMMER - 2019
SUBJECT : PHARMACEUTICAL ORGANIC CHEMISTRY

Day : Thursday
Date : 04/07/2019
S-2019-4530
Time : 10.00 A.M. TO 01.00 P.M
Max. Marks : 70

N.B.:

1) **Q. No. 1** and **Q. No. 5** are **COMPULSORY.** Out of remaining solve **ANY TWO** questions from each section.
2) Figures to the right indicate **FULL** marks.
3) Answers to the both sections should be written in **SEPARATE** answer books.

SECTION – I

Q.1 **A** Solve **ANY FOUR** of the following: **(08)**

a) Write structure and IUPAC name of any two esters.
b) Why chloroacetic acid is stronger acid than acetic acid?
c) What is dipole moment? Explain with example.
d) Write structure and IUPAC name of any two amides.
e) Define and explain saytzeff rule.

B Explain with example: Diasteriomers **(03)**

Q.2 Explain reaction mechanism, stereochemistry and factors affecting reaction for E2 reaction. **(12)**

Q.3 **a)** What is heat of hydrogenation? Comment on stability of alkenes. **(07)**
b) Write a comparative note on E1 and SN1 reactions. **(05)**

Q.4 Write a note on **ANY THREE** of the following: **(12)**

a) Rules of assigning R & S configuration
b) Enantiomerism
c) Bromination in alkenes
d) Factors affecting SN2 reaction

SECTION – II

Q.5 **A** Solve **ANY FOUR** of the following: **(08)**

a) Define the term with example: (i) Reduction (ii) Hyperconjugation
b) Explain resonance stabilization of phenoxide ion.
c) Give medicinal use of aspirin and glyceryl trinitrate.
d) How will you convert carboxylic acid to its corresponding anhydride? Give reaction.
e) Why amines are basic in nature?

B Write short note on diazotization reaction. **(03)**

Q.6 Explain mechanism and applications of any three chemical reactions of carbonyl compounds. **(12)**

Q.7 **a)** Explain mechanism of friedel-craft's alkylation and nitration reaction in benzene with respect to electrophilic substitution reaction. **(07)**
b) Compare aliphatic and aromatic nucleophilic substitution reactions. **(05)**

Q.8 Write a note on **ANY THREE** of the following: **(12)**

a) Michael addition
b) Fries rearrangement
c) Sandmeyer's reaction
d) Kolbe reaction

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