

(i) Printed Pages: 4 Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 4th Semester
(2055)

CHEMISTRY (Same for B.Sc. Microbial & Food
Technology)

Paper-XIV : Organic Chemistry-B

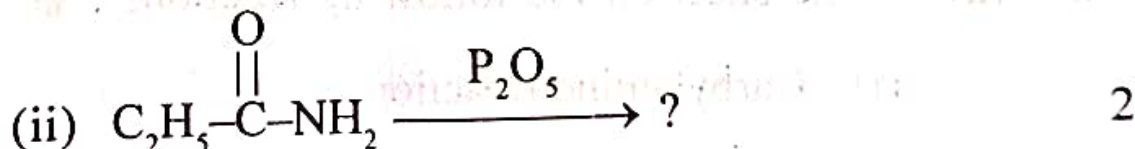
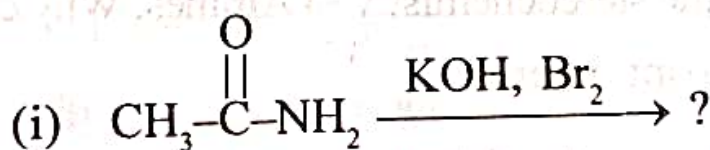
Time Allowed : Three Hours] [Maximum Marks : 22

Note :— Attempt FIVE questions in all, selecting ONE question from each unit. Q. No. 9 is compulsory.

UNIT-I

1. (a) Giving mechanism, discuss the Acidic hydrolysis of Esters. 2

- (b) Complete the following Reactions :



2. (a) Give an account of order of Reactivity of acid derivatives towards nucleophilic acyl substitution. 2

- (b) Discuss the Amphoteric Nature of Amides. 2

UNIT-II

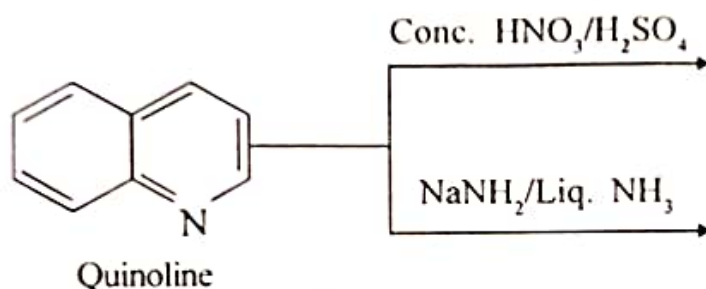
3. (a) Give mechanism of Acid Catalyzed Ring Opening Reactions of epoxides. 2
- (b) Explain the following terms :
- (i) Iodine value
- (ii) R.M. value. 2
4. (a) Give product of the following :
- (i) *Anisole + Hot Conc. HI* \rightarrow
- (ii) *Ethyl Bromide + Sod. terbutoxide* \rightarrow 2
- (b) Write a note on Cleansing action of Soaps. 2

UNIT-III

5. (a) What happens when Nitromethane is treated with :
- (i) LiAlH_4
- (ii) Zn/NaOH ? 2
- (b) Describe the stereochemistry of Amines. Why can't amines exist as enantiomers ? 2
6. (a) Write short on the following reactions :
- (i) Carbylamine Reaction
- (ii) Hofmann Bromamide Reaction. 2
- (b) How can you separate Primary, Secondary and Tertiary amines by Hinsberg's reagent ? 2

UNIT-IV

7. (a) Explain the reason why :
- (i) Pyridine is more basic than Pyrrole,
 - (ii) Thiophene is more aromatic than Pyrrole ? 2
- (b) Discuss the Skraup Synthesis for quinoline with its mechanism. 2
8. (a) Explain the relative rates of Electrophilic Substitution of Pyrrole and Benzene with the help of resonating structures. 2
- (b) Complete the following reactions :



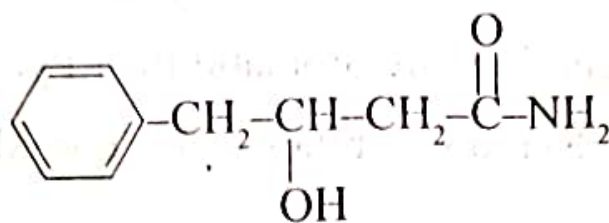
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UNIT-V

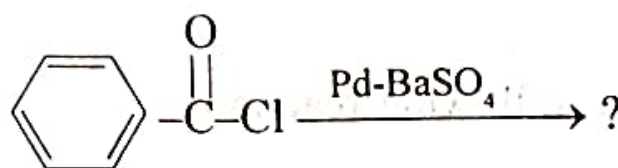
9. (a) How are soaps prepared from oil or fat ? Give the chemical equation.
- (b) Why 2,4,6-trinitrophenol is called an acid ? Give its chemical name.
- (c) Arrange the following in increasing order of Basicity :
- (i) Aniline
 - (ii) m-nitroaniline
 - (iii) p-nitroaniline
 - (iv) p-methylaniline.

(d) Draw molecular orbital structure of Pyrrole.

(e) Write down the IUPAC name of the following compound :



(f) Complete the following reaction :



6×1=6