

(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
(2042)

CHEMISTRY

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

(Organic Chemistry—B)

Paper—XIV

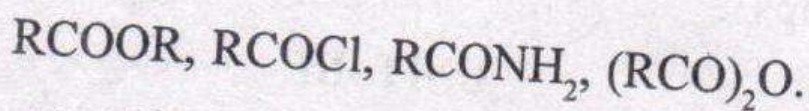
Time Allowed : Three Hours]

[Maximum Marks : 22

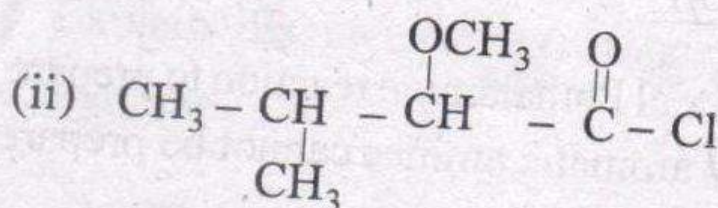
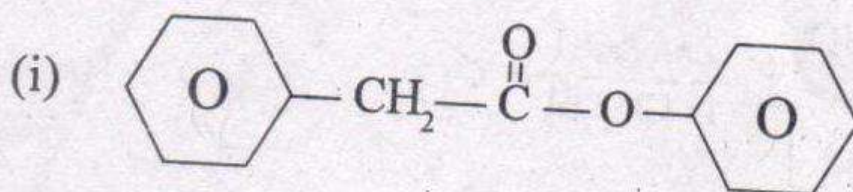
Note :— Attempt five questions in all, selecting at least one question from each unit. Question No. 9 of Unit V is compulsory.

UNIT-I

1. (a) Arrange the following acid derivatives in decreasing order of their reactivity :

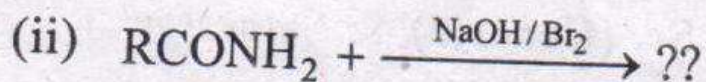
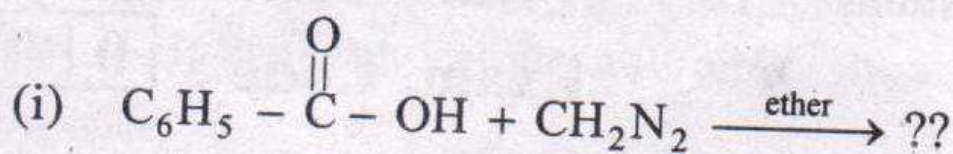


- (b) Write the IUPAC names of the following compounds :



2,2

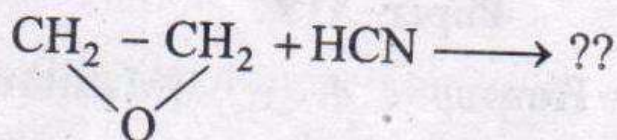
2. (a) What is esterification ? Discuss its mechanism.
 (b) Complete the following reactions :



2,2

UNIT-II

3. (a) Explain the mechanism of acid catalyzed ring opening of ethers.
 (b) Complete the following reaction :



2,2

4. (a) Explain the terms :

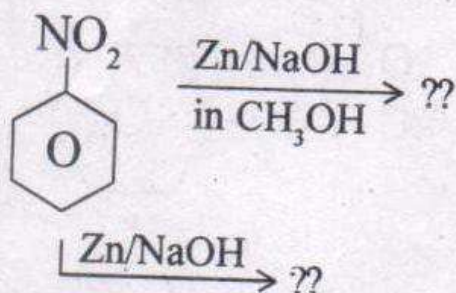
- (i) Acid value
 (ii) Iodine value.

- (b) What are synthetic detergents ? How they differ from soaps ?

2,2

UNIT-III

5. (a) Complete the following reactions :



- (b) Write the Gabriel Phthalamide reaction to prepare aliphatic amines. Why aromatic amines cannot be prepared by this method ?

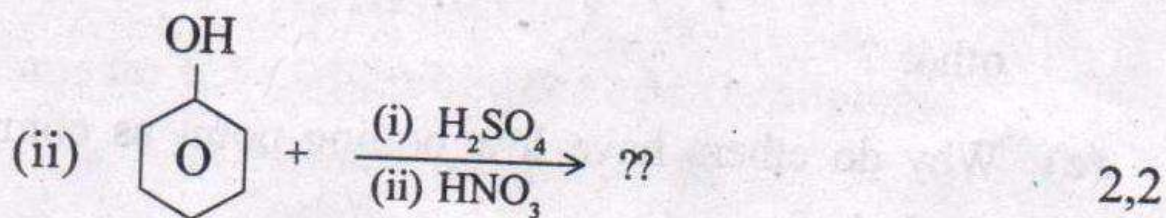
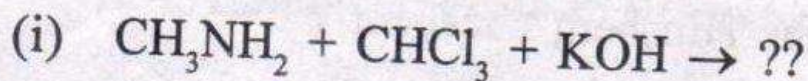
2,2

6. (a) Write short notes on :

(i) Hoffmann Bromamide Reaction

(ii) Amine Salt as Phase Transfer Catalyst.

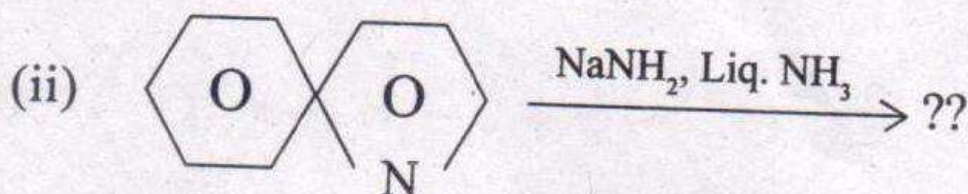
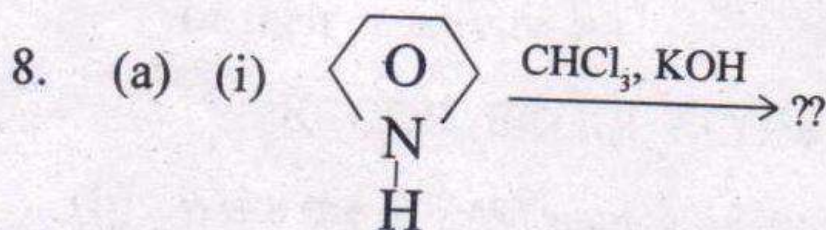
(b) Complete the following reactions :



UNIT-IV

7. (a) Compare the Basicity of Pyrrole, Piperidine and Pyridine.

(b) Give the mechanism of Bischler-Napieralski Synthesis for Isoquinoline. 2,2



(b) Explain the mechanism of nucleophilic substitution in Pyridine. 2,2

UNIT-V

9. (a) Why are acid amides amphoteric in nature ?
- (b) Why α -Hydrogens in nitroalkanes show acidic behaviour ?
- (c) What is the Hinsberg's reagent ?
- (d) What are fats and oils ? How do they differ from each other ?
- (e) Why do ethers have low boiling point as compared to alcohols ?
- (f) What is chichibabin reaction ? 6×1