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SUBJECT CODE NO: B-2087
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. Pattern - 2013 (S.Y SEM III)
Examination November / December 2025
Chemistry Paper-VII (Organic Chemistry)

[Time: 1:30 Hours]

[Max. Marks: 50]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Use blue or black pen only.

Q1

A) Write the following chemical reactions of Ethylene glycol.

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- i) Nitration
- ii) Acylation

B) Explain the Knoevenagel Condensation and Aldol Condensation

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OR

C) Describe acidity of carboxylic acid and effect of substituent on acid strength

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D) Explain the reactions of Amines with

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- i) Nitrous acid
- ii) Electrophilic Aromatic Substitution

Q2

A) Explain preparation of Aldehyde from

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- i) Acid chloride
- ii) Gattermann Koch Reaction

B) Explain Nitration of Benzene and their reduction in acidic and neutral medium

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OR

Write short notes (Any four)

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- i) Oxidation of ethylene glycol
- ii) Acidic nature of phenol
- iii) Reactions of carboxylic acid
- iv) Preparation of acetic acid from nitriles
- v) Basicity of Amine
- vi) Baeyer Villiger Oxidation

Q3 Choose and write one correct option of each question.

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1. LiAlH_4 reduces aldehyde into

- a) Amine
- b) Phenol
- c) Alcohol
- d) Ketone

2. Ethylene glycol is prepared from alkene using
 - a) Aldehyde
 - b) Acetic acid
 - c) O_3O_4
 - d) Nitric Acid
3. Fries rearrangement produces
 - a) Mixture of ortho & Para acetophenone
 - b) Ortho Hydroxy Acetophenone
 - c) Phenol
 - d) Acetophenone
4. The Claisen rearrangement is
 - a) Conversion of aromatic acid to aromatic ether
 - b) Conversion of aromatic ether to phenol
 - c) Ether to phenol
 - d) None
5. The aldol reaction between formaldehyde and acetaldehyde gives
 - a) Diol
 - b) Dihydroxy ketone
 - c) Hydroxy aldehyde
 - d) Dialdehyde
6. Ketones can be prepared by
 - a) Nitrite
 - b) Carboxylic acid
 - c) 2° Alcohol
 - d) All of the above
7. Reduction of acetic acid by $LiAlH_4$ produce
 - a) Acetone
 - b) Alcohol
 - c) Ethane
 - d) Aldehyde
8. Primary amine is prepared by
 - a) Hoffmann bromamide reaction
 - b) HVZ reaction
 - c) Fries rearrangement
 - d) Riemer Tiemann reaction
9. The product of HVZ reaction is
 - a) α -halo ketone
 - b) α -halo carboxylic acid
 - c) β -keto ester
 - d) None
10. Amine on reaction with nitrous acid gives
 - a) Aniline
 - b) Nitrobenzene
 - c) Benzene diazonium chloride
 - d) Benzoin

