

Total No. of Printed Pages: 3

SUBJECT CODE NO: - Y-2005
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y (SEM-III)
Examination March / April - 2023
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) How will you prepare following from ethanol 10
- i) Ethyl acetate
 - ii) Ethyl chloride
 - iii) Ethene
 - iv) Acetic acid
- b) Explain the following reaction with mechanism 10
- i) Knoevenagel condensation reaction
 - ii) Claisen rearrangement
- OR**
- a) Explain following reaction with mechanism 10
- i) Mannich Reaction
 - ii) Fries Rearrangement
- b) How will you prepare Acetic acid from following 10
- i) CO_2
 - ii) CH_3CN
 - iii) CH_3COCl
 - iv) CH_3CONH_2
 - v) $\text{CH}_3\text{COOC}_2\text{H}_5$
- Q2 a) How will you prepare primary amines from the following? 10
- i) Nitromethane
 - ii) Methyl cyanide
 - iii) Acetaldehyde
- b) Explain the following reactions 10
- i) Hoffmann-bromamide reaction
 - ii) Diazotization reaction of amine

OR

- a) Write short notes on following (any four) 20
- i) Pinacol – pinacolone rearrangement
 - ii) Acidic nature of phenol
 - iii) Benzoin condensation
 - iv) Preparation methods of tartaric acid
 - v) Basic Nature of amines
 - vi) Distinguish pri, sec and tertiary alcohol by oxidation reaction

Q3 Choose and write the correct answer of the following questions 10

- 1) The reaction of carboxylic acid with alcohol catalysed by cone. H_2SO_4 is called as _____
- a) Dehydration
 - b) Esterification
 - c) Saponification
 - d) Neutralization
- 2) What is the commercial method of preparation of phenol?
- a) Cumene process
 - b) Dows process
 - c) From diazotization salt
 - d) None of these
- 3) Which of the following reagent may be used to distinguish between phenol and benzoic acid?
- a) Tollen's reagent
 - b) Aq. NaOH
 - c) Neutral FeCl_3
 - d) FeCl_3
- 4) Acetophenone is prepared from which of the following reaction?
- a) Sandmeyer Reaction
 - b) Wurtz Reaction
 - c) Friedel crafts Reaction
 - d) All of these
- 5) Oxidation of isopropyl alcohol gives _____
- a) Acetaldehyde
 - b) ether
 - c) Acetic acid
 - d) Acetone
- 6) Which class of the compound shows H-bonding even more than in alcohol?
- a) Aldehyde
 - b) carboxylic acid
 - c) phenol
 - d) ether
- 7) Which of the following is the strongest acid?
- a) FCH_2COOH
 - b) ClCH_2COOH
 - c) CH_3COOH
 - d) BrCH_2COOH

- 8) Reduction of Nitro alkanes gives _____
- a) Alcohol
 - b) Amine
 - c) Ester
 - d) None of these
- 9) Which of the following compound is expected to be most basic?
- a) Methyl amine
 - b) ethyl amine
 - c) Hydroxyl amine
 - d) None of these
- 10) Ethyl amine undergoes oxidation in the presence of KMnO_4 to form which compound?
- a) Acid
 - b) alcohol
 - c) Nitrogen oxide
 - d) aldehyde