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SUBJECT CODE NO:- B-2149
FACULTY OF SCIENCE
B.Sc. S.Y (Sem-III) Examination March/April 2018
Chemistry Paper-VII
Organic Chemistry

[Time: 1:30 Hours]

[Max. Marks: 50]

- N.B Please check whether you have got the right question paper.
- 1) Attempt all questions.
2) Use blue or black pen only.
- Q.1 a) How will you distinguish primary, secondary and tertiary alcohols by their oxidation? 10
b) Explain the reactions of acrylic acid. 10
- OR**
- c) Why phenols are acidic in nature? Explain Reimer-Tiemann reaction with mechanism. 10
d) Explain the reduction of nitrobenzene in acidic, basic and neutral media. 10
- Q.2 a) How will you prepare 10
i) Acetaldehyde from acetyl chloride
ii) Acetone from acetonitrile
iii) 2-butanone from propanoic acid
- b) How will you obtain primary amines by 10
i) Reduction of nitro compounds
ii) Reduction of nitriles
iii) Reductive amination of aldehydes and ketones
- OR**
- c) Write short notes on (any four) 20
i) Basic nature of amines
ii) Mannich reaction with mechanism.
iii) Baeyer – villiger oxidation
iv) Reaction of amines with nitrous acid
v) Effect of substituents on acid strength.
vi) Comparison of basicity of primary, secondary and tertiary aliphatic amines.

Q.3 Choose and write the correct answer of the following questions. (answer all questions)

10

- 1) Glycerol has
 - a) One secondary and two primary – OH groups.
 - b) One primary and two secondary – OH groups.
 - c) Three primary – OH groups
 - d) Three secondary – OH groups.
- 2) Phenol is
 - a) Strong base than NH_3
 - b) Strong acid than alcohol
 - c) Neutral in nature
 - d) Strong acid than HCl
- 3) Acetone and acetaldehyde are
 - a) Positional isomers
 - b) Functional isomers
 - c) Not isomers
 - d) Chain isomers
- 4) Citric acid on heating at 423 K gives
 - a) Malic acid
 - b) Tartaric acid
 - c) Acetic acid
 - d) Aconitic acid
- 5) Nitroalkanes on reduction with metal in acid solution give
 - a) Secondary amines
 - b) Secondary alcohols
 - c) Ketones
 - d) Primary amines
- 6) Benzaldehyde does not undergo aldol condensation because
 - a) It contains benzene ring
 - b) It contains –CHO group
 - c) It does not contain α – hydrogen atom
 - d) None of these
- 7) Which of the following statements is false about acid strength of acetic acid
 - a) Acetic acid is a weaker acid than formic acid.
 - b) Acetic acid is a stronger acid than monochloroacetic acid.
 - c) Acetic acid is a weaker acid than trichloroacetic acid.
 - d) Acetic acid is a stronger acid than propionic acid.

- 8) Acetamide changes into methylamine by
- Hofmann bromamide reaction
 - Reimer-Tiemann reaction
 - Decarboxylation
 - None of these
- 9) Acetyl chloride on hydrolysis gives
- Acetic acid
 - Acetone
 - Acetaldehyde
 - Phenol
- 10) Reduction of aromatic nitro compound with tin and hydrochloric acid results in formation of
- Aliphatic primary amine
 - Aromatic primary amine
 - Aliphatic secondary amine
 - Aromatic secondary amine