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SUBJECT CODE NO:- B-2005
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y. (Sem-III) Examination Oct/Nov 2019
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.

- Q.1 a) Explain Reimer-Tiemann reaction with mechanism. 10
- b) How are monohydric alcohol's prepared from 10
- 1) Aldehyde
 - 2) Carboxylic acid
 - 3) Ketone
 - 4) Ester
- OR
- c) Explain knovengeal condensation with mechanism. 10
- d) How will you prepare ketone from 10
- 1) Nitriles
 - 2) Carboxylic acids
- Q.2 a) Explain the following reactions of Nitroalkane. 10
- 1) Reduction
 - 2) Hydrolysis
 - 3) Action of Nitrous acid
 - 4) Halogenation
- b) 1) Explain the basic nature of Amines. 06
- 3) Give any one method of preparation for malic acid and tartaric acid 04
- OR
- c) Write short notes on (any four) 20
- 1) Claisen rearrangement
 - 2) Pinacol- Pinacolone rearrangement
 - 3) Bayer-Villegier oxidation of ketone
 - 4) Reduction of carboxylic acid using Li Al H₄
 - 5) Reaction of amines with nitrous acid
 - 6) Benzoin condensation

Q.3 Choose and write the correct answer of the following questions. (Answer all questions) 10

- 1) The cyanide ion – $C \equiv N$ reacts with a ketone to give
 - a) An acid
 - b) A cyanohydrin
 - c) An aldehyde
 - d) An amine
- 2) Acetone on oxidation with chromium trioxide gives
 - a) Acetaldehyde
 - b) Acetic acid
 - c) Acetate
 - d) Acetophenone
- 3) Hydrolysis of benzonitrile gives
 - a) Benzylamine
 - b) Phenol
 - c) Benzene
 - d) Benzoic acid
- 4) Which of the following is not a dicarboxylic acid?
 - a) Terephthalic acid
 - b) Salicylic acid
 - c) Succinic acid
 - d) Malonic acid
- 5) Which of the following is strongest acid?
 - a) Ethanol
 - b) Water
 - c) Phenol
 - d) Tertiary butyl alcohol
- 6) Chlorobenzene can be converted into phenol by heating it with caustic soda under pressure this is known as,
 - a) Dow's process
 - b) Kolbes process
 - c) Fittig reaction
 - d) Reimer-Tiemann reaction
- 7) Which of the following reagent used for diazotization reaction.
 - a) Nitric acid
 - b) Nitrous acid
 - c) Nitrobenzene
 - d) None of the above
- 8) Benzene diazonium chloride on reaction with phenol in weakly basic medium gives
 - a) Diphenyl ether
 - b) P-hydroxy azobenzene
 - c) Chloro benzene
 - d) Benzene
- 9) Ethylene glycol reacts with excess of PCl_5 to give
 - a) 1,1 –dichloroethane
 - b) 1,2 dichloroethane
 - c) 1,1,1-trichloroethane
 - d) 2,2- dichloroethane
- 10) Oxidation of glycerol by using conc. HNO_3 gives
 - a) Glyceraldehyde
 - b) Nitroglycerine
 - c) Tartronic acid
 - d) Glyceric acid