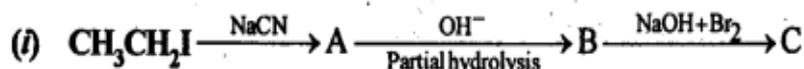
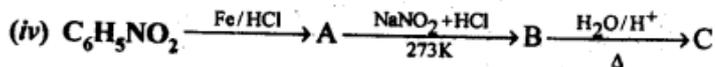
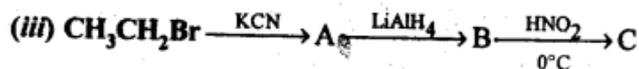
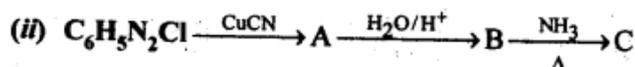




Test Paper | Class-12 | Chapter Amines & Carboxylic Acid | Marks 30 | 1.5 h

- 1 Aniline is less basic than: 1
 a) Triphenylamine
 b) Benzylamine
 c) Diphenylamine
 d) p-nitroaniline
- 2 Which one of the following reactions helps in preparing amines from lower amines? 1
 a) Wurtz reaction
 b) Mannich reaction
 c) Schmidt reaction
 d) Hofmann bromamide reaction
- 3 Which one of the following between these compounds has the lowest Boiling rate? 1
 a) Aniline
 b) Butyl amine
 c) Diethylamine
 d) Propyl amine
- 4 Which of the following acids has the smallest dissociation constant? 1
 a) $\text{CH}_3\text{CHF}\text{COOH}$
 b) $\text{FCH}_2\text{CH}_2\text{COOH}$
 c) $\text{BrCH}_2\text{CH}_2\text{COOH}$
 d) $\text{CH}_3\text{CHBr}\text{COOH}$
- 5 HVZ reaction is used to prepare 1
 a) β -haloacid
 b) α -haloacid
 c) α, β -unsaturated add
 d) None of these
- 6 Write the equations involved in the following reactions: 2
 (i) Diazotisation
 (ii) 'Hofmann's bromamide reaction
- 7 Predict the products of the following reactions: 4





- 8 Why do primary amines have higher boiling point than tertiary amines? 1
- 9 Although amino group is o and p – directing in aromatic electrophilic substitution reactions, aniline on nitration gives a substantial amount of m-nitroaniline 1
- 10 An aromatic compound 'A' on treatment with aqueous ammonia and heating forms compound 'B' which on heating with Br₂ and KOH forms a compound 'C' of molecular formula C₆H₇N. Write the structures and IUPAC names of compounds A, B and C 3
- 11 How are the following conversions carried out? 4
- (i) Nitrobenzene to benzoic acid
- (ii) Benzene to m-bromophenol
- (iii) Benzoic acid to aniline
- (iv) Aniline to 2,4,6-tribromofluorobenzene
- 12 Although phenoxide ion has more number of resonating structures than carboxylate ion, carboxylic acid is a stronger acid than phenol. Why? 2
- 13 During the preparation of esters from a carboxylic acid and an alcohol in the presence of an acid catalyst, the water or the ester should be removed as soon as it is formed 1
- 14 Give simple chemical tests to distinguish between the following pairs of compounds. 1
- Phenol and Benzoic acid
- 15 Which acid from each of the following pairs would you expect to be a stronger acid? 2
- (i) CH₃COOH or CH₂FCOOH
- (ii) CH₂FCOOH or CH₂ClCOOH

Assertion And Reasoning

Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.

- (a) If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
- (b) If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
- (c) If the Assertion is correct but Reason is incorrect.



(d) If both the Assertion and Reason are incorrect.

- 1 Assertion : Amines are basic in nature. 1
Reason : Amines have lone pair of electrons on nitrogen atom
- 2 Assertion : Aniline does not undergo Friedel-Crafts reaction. 1
Reason : -NH_2 group of aniline reacts with AlCl_3 (Lewis acid) to give acid-base reaction.
- 3 Assertion: Carboxylic acids are stronger acids than phenols. 1
Reason: There is a greater dispersal of negative charge on the carboxylate ion than on the phenate ion.
- 4 Assertion: Carboxylic acid exist as dimer. 1
Reason: Carboxylic acid shows hydrogen bonding.

