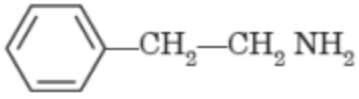
CBSE Class 12 Chemistry Chapter 13 Amines Worksheet – Set 2

Q1. How many isomeric amines with the formula C_7H_9N contain a benzene ring?
(a) Five
(b) Four
(c) Three
(d) None of the above
Q2. The oxidation of aniline with $K_2Cr_2O_7$ / H_2SO_4 produces
(a) Benzoic acid
(b) p- Benzo quinone
(c) p- Nitro phenol
(d) None of the above
Q3. The electrolytic reduction of nitro benzene in a strongly acidic medium produces
(a) Aniline
(b) Phenyl hydroxy amine
(c) p- amino phenol
(d) None of the above
Q4. In the nitration of benzene with concentrated nitric acid and concentrated sulphuric acid, the electrophile is
(a) NO_2^+
(b) NO_2^-
(c) NO_2
(d) None of the above
Q5. An organic amino compound reacts with aqueous nitrous acid at low temperatures to produce an oily nitrosamine. The compound is
(a) $(C_2H_5)_3N$
(b) $(C_2H_5)_2NH$
(c) $C_2H_5NH_2$
(d) None of the above
Q6. Write the IUPAC and common name of the following compound.



Q7. Draw the structure of m- toluidine.
Q8. Identify A, B and C in the reaction mentioned below.

$$CH_3Br \xrightarrow{KCN} A \xrightarrow{LiAlH_4} B \xrightarrow[273\ K]{HNO_2} C$$

Q9. Convert nitrobenzene to aniline.
Q10. Why does methyl amine have a lower boiling point than methanol?

Q11. Why is methyl amine a more substantial base than ammonia?
Q12. Why does aniline dissolve in an aqueous hydrochloric acid solution?
Q13. Why is it difficult to prepare pure amines by the ammonolysis of alkyl halides?
Q14. Convert toluene to p- Iodotoluene.
Q15. What is Hinsberg reagent?
Q16. Draw the structure, IUPAC names, and indicate primary, secondary and tertiary to the five isomeric amines with the formula C_7H_9N containing a benzene ring.
Q17. An aromatic compound A on treatment with aqueous ammonia and heating forms compound B, which on heating with Br and KOH forms a compound C of molecular formula C_6H_7N. Write the structures and IUPAC names of compounds A, B and C.
Q18. Write the chemical equation for the following reactions.
(a) The reaction of ethanolic NH_3 with C_2H_5Cl.
(b) Ammonolysis of benzyl chloride and amine reaction formed with two moles of CH_3Cl.
Q19. Complete the following reactions.

(a) $$C_6H_5N_2Cl + H_3PO_2 + H_2O \longrightarrow$$

(b) $$CH_3CH_2NH_2 + CHCl_3 + alc.\ KOH \longrightarrow$$

(c) $$C_6H_5N_2^+Cl^- \xrightarrow[room\ temp.]{H_2O}$$

(d) $$C_6H_5NH_2 + HCl(aq) \longrightarrow$$

Q20. How will you convert?
(a) Propionamide to Ethyl amine?
(b) Aniline to Phenol
(c) Aniline to Acetanilide.