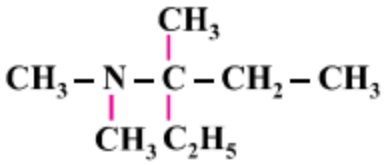
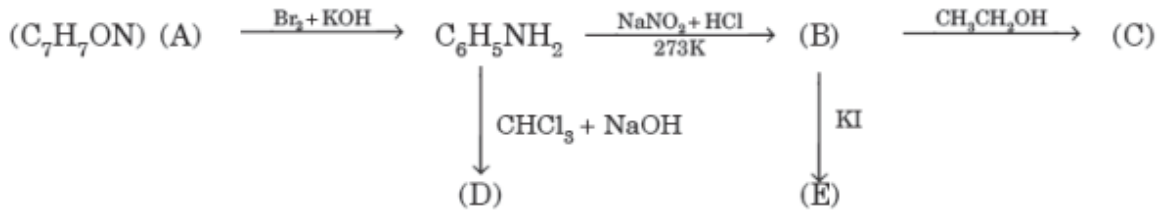
CBSE Class 12 Chemistry Chapter 13 Amines Worksheet – Set 1

Q1. In the conversion of $C_2H_5Br \rightarrow C_2H_5CN$, the reagent used is
(a) Alcoholic potassium cyanide
(b) Alcoholic silver cyanide
(c) Ammonia
(d) None of the above
Q2. The reduction of methyl cyanide with sodium and alcohol gives
(a) Methyl amine
(b) Ethyl amine
(c) Acetic Acid
(d) None of the above
Q3. An aliphatic organic compound containing carbon, hydrogen, and nitrogen reacts with dilute hydrochloric acid to produce formic acid. It is then reduced to dimethyl amine by platinum or nickel and undergoes an addition reaction with chlorine and sulphur. The compound can be
(a) Methyl isocyanide
(b) Methyl cyanide
(c) Methyl amine
(d) None of the above
Q4. Ethyl isocyanide can be prepared by reacting
(a) Ethyl bromide and hydrogen cyanide
(b) Ethyl bromide and potassium cyanide
(c) Ethyl bromide and silver cyanide
(d) None of the above
Q5. In the reaction between ethyl bromide and silver nitrite, the product obtained is
(a) Ethane
(b) Nitro ethane
(c) Ethyl nitrite
(d) None of the above
Q6. Write the IUPAC name of CH_3NC.
Q7. Draw the structure of TNT.
Q8. Write the IUPAC name of the following compound.



Q9. How will you test the presence of primary amine?
Q10. Why does aniline not undergo Friedel Crafts's reaction?

Q11. Why electrophilic substitution in aromatic amines takes place more readily than in benzene?
Q12. Why do nitro compounds have higher boiling points than hydrocarbons of comparable molecular mass?
Q13. Why is aniline a weaker base than cyclohexyl amine?
Q14. Why is an alkylamine more basic than ammonia?
Q15. Write the IUPAC name of the $(CH_3)_2N\text{-}CH_2CH_3$?
Q16. Write chemical equations for the following reactions.
(a) Reaction of ethanolic ammonia with ethyl chloride.
(b) Ammonolysis of benzyl chloride followed by reaction with chloroform.
Q17. Convert the following.
(a) Propionamide to ethyl amine
(b) Aniline to phenol
Q18. (a) Why can't we form primary amine diazonium salt?
(b) Why is it essential to keep the temperature very low (273 - 278 K) during diazonium salt formation?
Q19. An aromatic compound A of molecular formula C_7H_7ON undergoes a series of reactions shown below. Write the structure of A, B, C, D, and E in the following reactions.



Q20. What happens when
(a) Benzene diazonium chloride reacts with CuCN/KCN.
(b) Benzene diazonium chloride reacts with water