



**INDIAN SCHOOL MUSCAT**  
**SENIOR SECTION**  
**DEPARTMENT OF CHEMISTRY**  
**CLASS XII**  
**CHAPTER-AMINES**  
**WORKSHEET – 09**



1. Why do amines react as nucleophiles?
2. Write a chemical reaction in which the iodide ion replaces the diazonium group in a diazonium salt.
3. Give the IUPAC name of  $\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2\text{CH}=\text{CH}_2$
4. Why is an alkylamine more basic than ammonia?
5. Effect the following conversions:
  - a) Aniline to p-nitro aniline
  - b) Benzyl bromide to 2-Phenyl ethanamine
  - c) Acetaldehyde to ethyl amine
  - d) Nitro Benzene to Benzene
  - e) Methyl cyanide to acetone
6. Account for the following:
  - a) Diazonium salts of aromatic amines are more stable than those of aliphatic amines.
  - b) Amines are more basic than alcohols of comparable molecular masses.
7. Illustrate the following reactions giving a chemical equation in each case:
  - a) Carbylamine reaction
  - b) Coupling reaction
  - c) Gabriel-Phthalimide synthesis
8. Give the structures of A , B and C in the following reactions:
  - a)  $\text{CH}_3\text{CH}_2\text{I} \xrightarrow{\text{NaCN}} \text{A} \xrightarrow[\text{Partial hydrolysis}]{\text{OH}^-} \text{B} \xrightarrow{\text{NaOH} + \text{Br}_2} \text{C}$
  - b)  $\text{C}_6\text{H}_5\text{NO}_2 \xrightarrow{\text{Fe/HCl}} \text{A} \xrightarrow[273 \text{ K}]{\text{HNO}_2} \text{B} \xrightarrow{\text{C}_6\text{H}_5\text{OH}} \text{C}$

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