

# CHEMISTRY

## Chapter - 15 Purification, Basic Principles and Characteristics of Organic Compounds

### 1. Functional group preference order

#### ASEHA NAKAA Delhi Training Camp

Carboxylic Acid > Sulphonic Acid > Ester > Acid  
Halides > Acid Amides > Nitrile > Aldehyde >  
Ketone > Alcohol > Amnes = > =

### 2. No Preference Functional Group

#### NAHE

Nitro, Alkyl / Aryl, Halo, Ethers

### 3. Carbon Chain

#### Monkey Eat Peeled Bananas

Meth, Eth, Prop, But

### 4. 3-D Representation

#### So towards Do away

Solid → Towards observer (◀◀◀)  
Dashed → Away from observer (|||||)

### 5. Types of Organic Reaction

#### EARS

- (a) Elimination
- (b) Addition
- (c) Rearrangement
- (d) Substitution

### 6. Structural Isomerism

#### Poor Farmer Managing Crops (PFMC)

- (a) Position
- (b) Functional Group
- (c) Metamerism
- (d) Chair

### 7. Optical Isomerism

#### GO

- (a) Geometrical
- (b) Optical

## Chapter - 16 Hydrocarbons and their Halogen Derivatives

### 1. m-directing Group

#### Queen Elizabeth Second's Navy Commands, Controls

Qiatonary,

### 2. o, p-directing

#### AHA AHA P

Alkyl (-R)  
Halogen (-X)  
Alkoxy (-OR)  
Amino (-NH<sub>2</sub>, NHR, NR<sub>2</sub>)  
Hydroxyl (-OH)  
Amide (-NHCl)  
Phenyl (C<sub>6</sub>H<sub>5</sub>)

### 3. SN1 reaction

#### CURT-I

Carbocation Intermediate  
Unimolecular Reaction  
Racemic mixture is obtained  
Two step process  
1st order kinetics

### 4. Chirality

#### CANS

Chiral → Non-Super imposable mirror Images  
Achiral → Super imposable Mirror Images