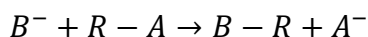
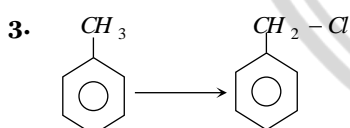


Organic reactions and their mechanism

1. To which of the following four types does this reaction belong



- (a) Unimolecular electrophilic substitution
(b) Bimolecular electrophilic substitution
(c) Unimolecular nucleophilic substitution
(d) Bimolecular nucleophilic substitution
2. An alkyl halide may be converted into an alcohol by
- (a) Elimination
(b) Addition
(c) Substitution
(d) Dehydrohalogenation

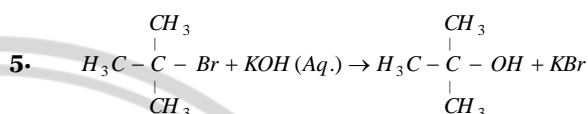


The above reaction proceeds through

- (a) Nucleophilic substitution
(b) Electrophilic substitution
(c) Free radical substitution
(d) More than one of the above processes

4. Geometry of reaction intermediate in S_N^1 reaction is

- (a) Tetrahedral
(b) Planar
(c) Triangular bipyramidal
(d) None of these



above reaction is

- (a) S_N^1
(b) S_N^2
(c) E_1
(d) Both (a) and (b)

6. In electrophilic substitution reaction nitrobenzene is

- (a) Meta-directing
(b) Ortho-directing
(c) Para-directing
(d) Not reactive and does not undergo any substitution

7. The most common type of reaction in aromatic compounds is

- (a) Elimination reaction
(b) Addition reaction
(c) Electrophilic substitution reaction
(d) Rearrangement reaction



8. The function of $AlCl_3$ in Friedel-Craft's reaction is
 (a) To absorb HCl
 (b) To absorb water
 (c) To produce nucleophile
 (d) To produce electrophile
9. Which of the following can't be used in Friedal Craft's reactions
 (a) $FeCl_3$ (b) $FeBr_2$
 (c) $AlCl_3$ (d) $NaCl$
10. The nitration of a compound is due to the
 (a) NO_2 (b) NO_3
 (c) NO (d) NO_2^+
11. Dehydrohalogenation of an alkyl halide is a/an
 (a) Nucleophilic substitution reaction
 (b) Elimination reaction
 (c) Both nucleophilic substitution and elimination reaction
 (d) Rearrangement
12. Addition of HCl to vinyl chloride gives 1, 1-dichloroethane because of
 (a) Mesomeric effect of Cl
 (b) Inductive effect of Cl
 (c) Restricted rotation around double bond
 (d) None of these
13. Formation of ethylene from acetylene is an example of
 (a) Elimination reaction
 (b) Substitution reaction
 (c) Addition reaction
 (d) Condensation reaction
14. Conversion of CH_4 to CH_3Cl is an example of which of the following reaction
 (a) Electrophilic substitution
 (b) Free radical addition
 (c) Nucleophilic substitution
 (d) Free radical substitution
15. Following reaction,
 $(CH_3)_3CBr + H_2O \rightarrow (CH_3)_3COH + HBr$ is an example of
 (a) Elimination reaction
 (b) Free radical substitution
 (c) Nucleophilic substitution
 (d) Electrophilic substitution
16. Which is an electrophile
 (a) BCl_3 (b) CH_3OH
 (c) NH_3 (d) $AlCl_4^-$
17. The electrophile in the nitration of benzene is
 (a) NO_2^+ (b) NO_2
 (c) NO^+ (d) NO_2^-



18. The following compound will undergo electrophilic substitution more readily than benzene
- (a) Nitrobenzene (b) Benzoic acid
(c) Benzaldehyde (d) Phenol
19. Which represents nucleophilic aromatic substitution reaction
- (a) Reaction of benzene with Cl_2 in sunlight
(b) Benzyl bromide hydrolysis
(c) Reaction of $NaOH$ with dinitrofluorobenzene
(d) Sulphonation of benzene
20. Which is an electrophile
- (a) $AlCl_3$ (b) CN^-
(c) NH_3 (d) CH_3OH

