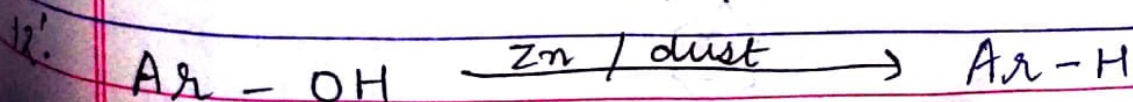
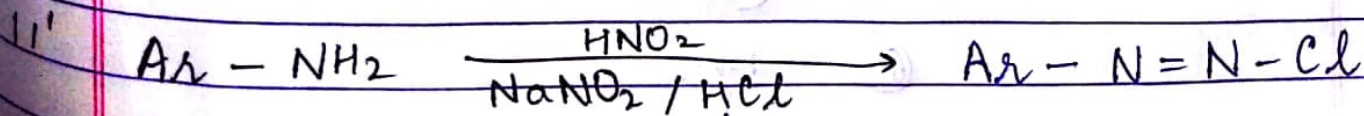
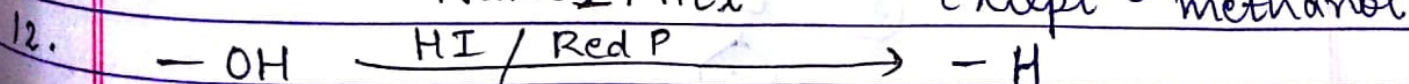
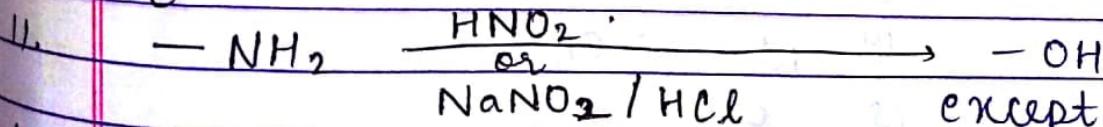
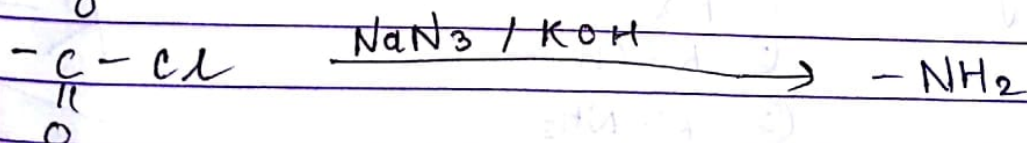
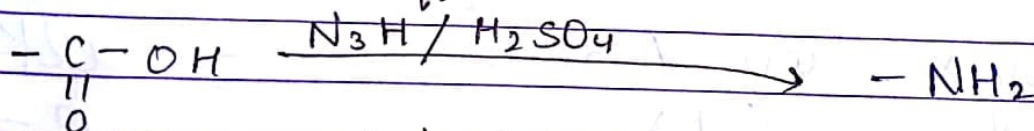
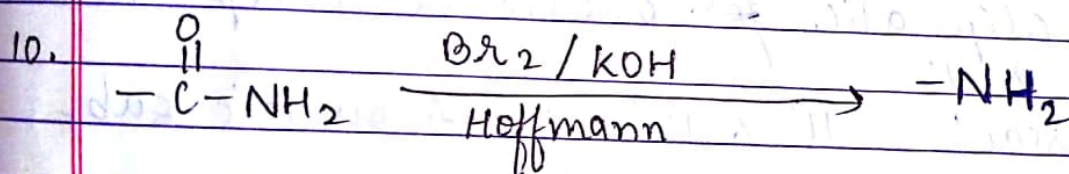
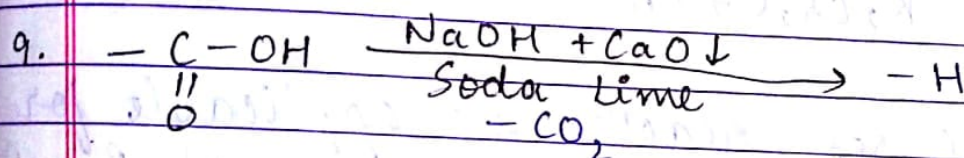
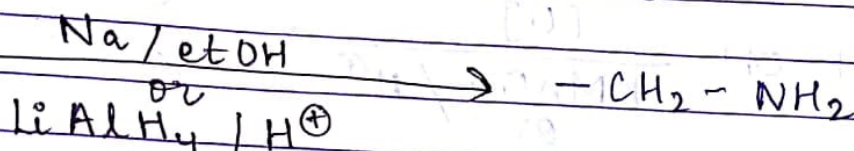
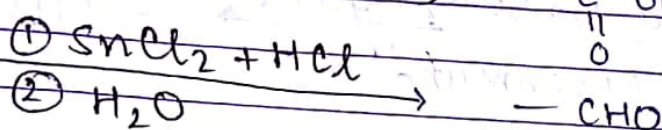
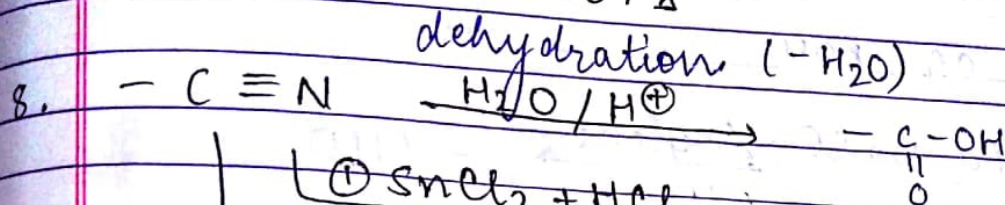
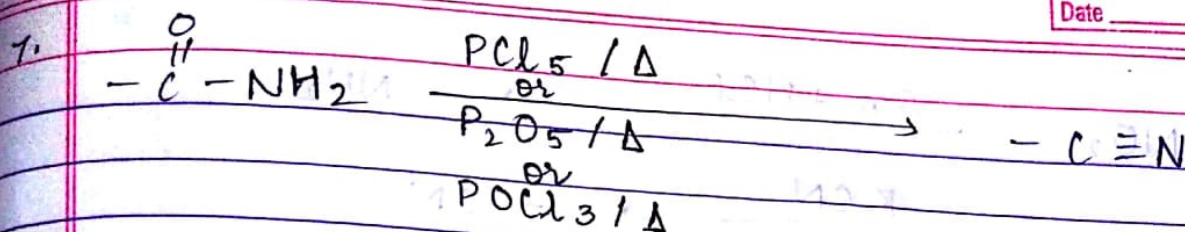
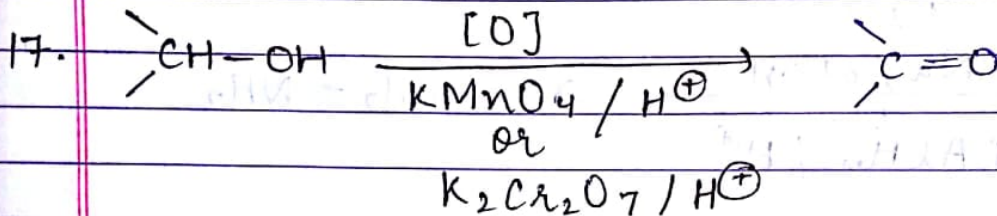
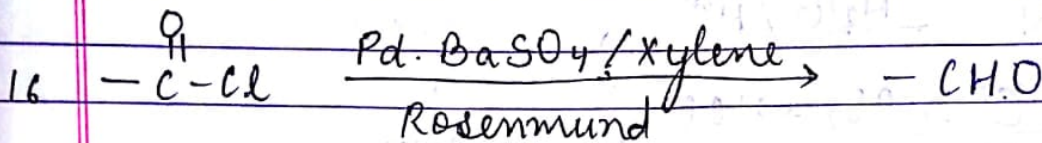
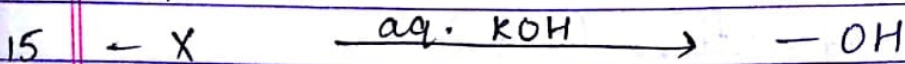
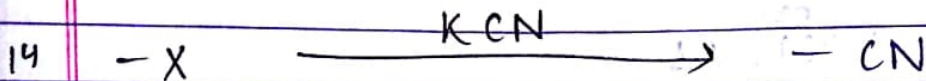
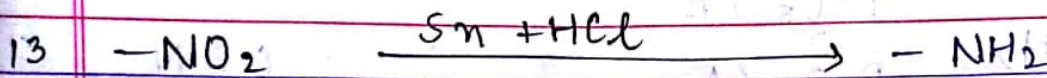


Imp. Conversion in Organic

- ① $-CH_2-OH \xrightarrow[\substack{\text{P.C.C.} \\ \text{or} \\ CrO_3 / \text{Acetone}}]{[O]} -CH=O$ Partial Hydrolysis
2. $-CH_2-OH \xrightarrow[\substack{\text{or} \\ K_2Cr_2O_7 / H^+ \\ \text{or} \\ \text{dil. HNO}_3}]{KMnO_4 / H^+} -\overset{\overset{O}{\parallel}}{C}-OH$ complete Hydrolysis
 $-CH=O$
3. $-CH=O \xrightarrow[\substack{\text{or} \\ NaBH_4 / OH^- \\ \text{or} \\ LiAlH_4 / H^+ \\ \text{or} \\ Ni / H_2}]{\text{red.} \\ Na / EtOH} -CH_2-OH$
 $\text{>C=O} \xrightarrow{\text{or} \\ LiAlH_4 / H^+} \text{>CH-OH}$
4. $-\overset{\overset{O}{\parallel}}{C}- \xrightarrow{HI / \text{Red P}} -CH_2-$
 $\swarrow$
 $\begin{cases} Zn-Hg / HCl \\ \text{Clemmensen} \\ N_2H_4 / OH^- / \Delta \\ \text{Wolf Kishner redn} \end{cases} \searrow$
5. $-\overset{\overset{O}{\parallel}}{C}-OH \xrightarrow[\substack{\text{or} \\ PCl_3 / \Delta \\ \text{or} \\ SOCl_2 / \Delta}]{PCl_5 / \Delta} -\overset{\overset{O}{\parallel}}{C}-Cl$
6. $-\overset{\overset{O}{\parallel}}{C}-Cl \xrightarrow{NH_3 / \Delta} -\overset{\overset{O}{\parallel}}{C}-NH_2$





Note :- All these ~~see~~ reacⁿs are applicable for both aliphatic ~~for~~ substance except Reacⁿ 11 & 12

Refer reacⁿ 11' & 12' for Aromatic sub.

R-MgX with Acidic H $\longrightarrow$ alkane

① HX

② $\text{R}'-\text{OH}$

③ $\text{R}'-\text{NH}_2$

④ $\text{R}'-\text{C}\equiv\text{CH}$

⑤ OH

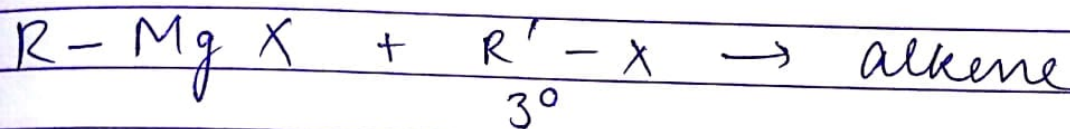
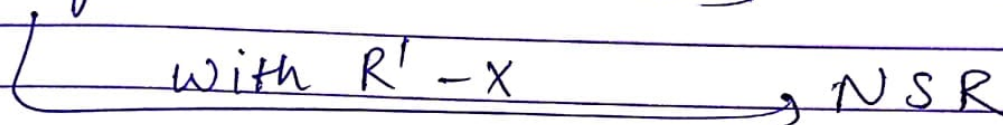
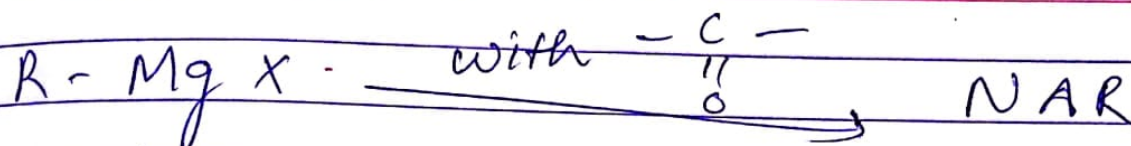


⑥ NH_2



R-H

as base or Nu



Last moment Important Revision Topics for ORGANIC CHEMISTRY

by SUNIL NAIN Sir

online test series for Chemistry & AIIMS-GK
visit - bewiseclasses.com

1. IUPAC Nomenclature :- Rules & Naming of open chain, cyclic & aromatic compounds.
2. ISOMERISM :-
 - Structural Isomerism
 - Geometrical isomerism
 - Optical isomerism.
 - D-L & R/S configuration
 - enantiomers, identical, diastereomers, racemic mixture, meso compounds, epimers, erythro & threo.
 - conformers of butane & cyclohexane & compound having hydrogen bonding like ethylene glycol, 2-Fluoro ethanol
revise $\rightarrow$ stability order
3. GOC-I :-
 - Resonance & stability of Resonating structures
 - Acidic & Basic strength ~~at~~
 - Acidic strength - ortho effect, steric inhibition in Resonance (SIR) effect (important)
 - Basic strength of amines & steric inhibition in protonation (imp)
SIP effect
 - Aromaticity & its application
 - Hyperconjugation :- stability of alkene & heat of hydrogenation
 - Tautomerism.

4. GOC-II :- Solvents, Electrophilicity & Nucleophilicity,

• Rxn's :- EAR, NAR, FRAR $\rightarrow$ addition Rxns

• ESR, NSR, FRSR (not imp.) $\rightarrow$ substitution Rxns
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$
SN¹ SN² S_NAE SNⁱ

• E¹, E² $\rightarrow$ Elimination Rxns

$\rightarrow$ stereochemistry in chemical rxns (EAR, SN¹, SN², E¹/E²)
from these rxns

5. Hydrocarbons :-

• Alkanes $\rightarrow$ preparation — Wurtz rxn, Fittig Rxn, Corey House synthesis.
Kolbe electrolysis & decarboxylation — reduction by Grignard reagent & metal acids.
& physical properties.

• Alkene :- Hydrogenation of alkyne. & phy. properties
oxidation of alkene — ozonolysis

• Alkynes $\rightarrow$ reduction & ozonolysis (Tollen's reagent test)

• Benzene / Toluene :- preparation, ESR, ozonolysis & oxidation

6. Alkyl Halide :- $\text{CHCl}_3 \rightarrow$ • Haloform ~~test~~ ^{Rxn}, Iodoform rxn
• Carbyl amine test, Reimer Tiemann Rxn
• Physical properties

7. Alcohol phenol & ether :- preparation of alcohol from R-MgX,
hydrolysis of ester, Lucas Test, Victor Meyer Test
Williamson Synthesis. & phy. properties.

8. Aldehyde & Ketone :- Aldol condensation, Cannizzaro's Rxn, Claisen +
condensation, Pina cole - Pinacolone Rearrangement, Bayer's Villiger
oxidation & phy. properties.

$\rightarrow$ Test of aldehyde :- Tollen's reagent test, Fehling solⁿ test, Benedict test

~~9. A containing compound~~

9. Carboxylic acid:-

- HVZ Rxn & preparation of benzoic acid.
- phy. properties of acid

10. N-containing compounds :-

- Gabriel phthalimide Rxn
 - Hoffmann Bromamide Rxn
 - Schmidt Rxn & Curtius Rxn
- phy. properties & Basic strength of amines

- carbyl amine rxn | isocyanide test
- Rxn with Tilden / NOCl

- Hoffmann mustard oil Rxn
- Distinction b/w 1°/2°/3° amines by Hinsberg reagent

Aniline:-

- Rxn:-
- Diazotization
 - nitration of aniline

Note:-

1. All these topics are given in Pdf notes of BeWise Classes KOTA (in same sequence discussed)
2. You may revise Biomolecules, Polymer, Chemistry in Everyday life & Environmental Chemistry from NCERT or attempt tests of BeWise Classes. (~~be wise classes~~ at bewiseclasses.com Text No - 28, 29, 30.
3. No need for other material in org. Chemistry it is more than enough (NCERT covered)
here