

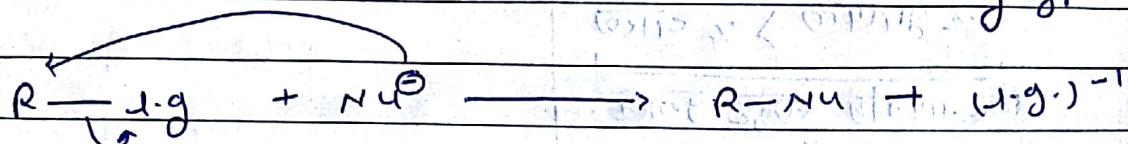
# Acid Halide

SHREE  
DATE: / /  
PAGE NO.:

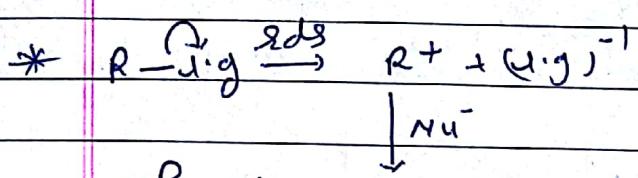
\* नाइट्रिक अम्लीय सूत्रसंवापन अभिकरणात् (R-X, ROH, ROR)

Nucleophilic Substitution Reactions:

आम्लकर्मी अभिकरण के अन्तर्गत यह को विस्थापित करता है।  
विस्थापनीय समूह नहीं हैं।  
नहीं छोड़ देते हैं।

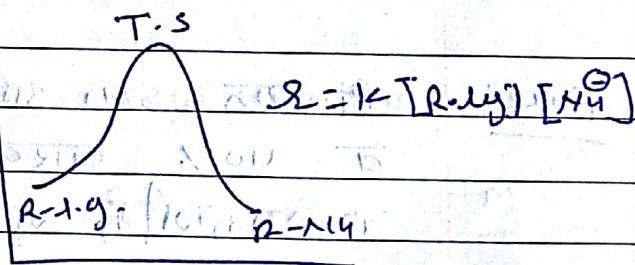
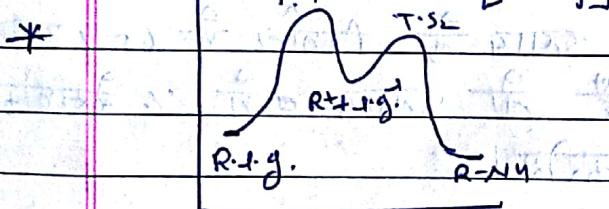
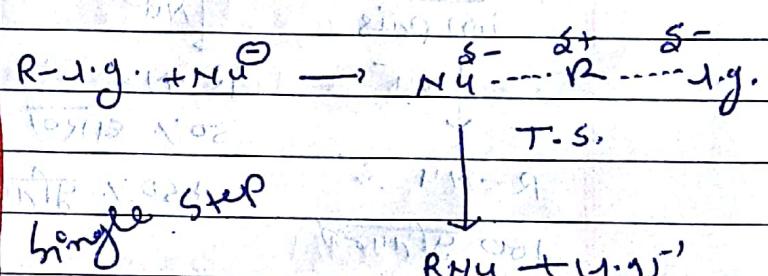


$S_N^1$  → unimolecular



2 step  
unimolecular

$S_N^2$  → Bimolecular



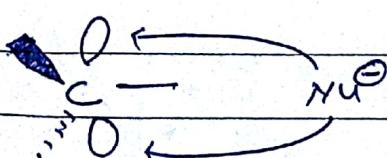
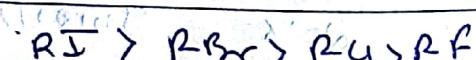
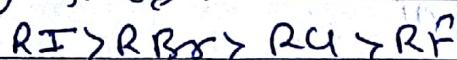
\*  $S_N^1$  नाइट्रिक अम्लीय की प्रक्रिया व सान्केति से असमर्पित होती है।

प्रद नाइट्रिक अम्लीय की सान्केति व प्रक्रिया मिले करती है।

\* अभिकरण की क्रियाशीलता  $3^\circ > 2^\circ > 1^\circ$

अभिकरण की क्रियाशीलता  $1^\circ > 2^\circ > 3^\circ$  |  $T_{S_2} \rightleftharpoons$  lesser the crowding effect

\* L.g. की प्रक्रिया



100% inversion

✓ { धारा) नहीं Retention  
प्रतिपथ नहीं Inversion

Teacher's Signature

SN1

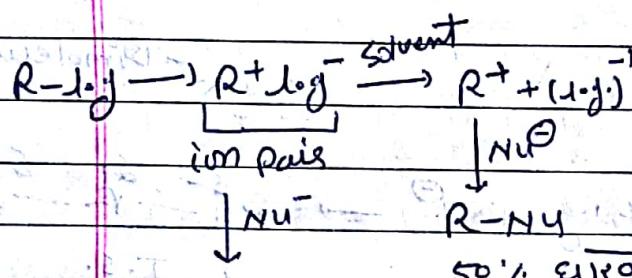
SN2

पुकाशी के समानादा की  
रेसीफ़ियत

$50\% \text{ धारणा} \rightarrow 100\% \text{ रेसीफ़ियत}$   
 $+50\% \text{ पूरित्यन}$

$\gamma - \text{पूरित्यन} > \% \text{ धारणा}$

विलम्बात्मक समृद्धि प्रभाव  
log. effect



$R-N\bar{U}$   
 $+50\% \text{ पूरित्यन}$   
 $100 \text{ पूरित्यन}$

Ques. गंधि रहने SN1, अग्निक्षिप्त के उत्पाद के मिशन की  $60\% \text{ पूरित्यन}$   
वा  $40\% \text{ धारणा}$  होता है तो उत्पाद की  $80\% \text{ रेसीफ़ियत}$   
वा पुकाशी की पूरित्यन होती है।

Sol $60\% \text{ ट्रीटमेंट}$  $(+)$  $(-)$  $80\% \text{ रेसीफ़ियत}$  $20\% \text{ पुकाशी करणा}$ 

Teacher's Signature

Fuming का SN1 और SN2 प्रक्रिया

### Fuming

एजटी अ० Polari

$\text{H}_2\text{O}, \text{INN}_3, \text{RON}$

अम्लीय तोर फॉर्म्युला

ब्रेजटी अ० non-polar

ether, CCN, benzene

n-hexane, n-heptane

(अम्लीय तोर नफिल्म)

#### Polar Protic

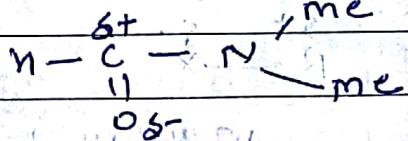
न अम्लीय प्रैग्वाक्षरीय तोर  
जी जुड़ी होती है

eg H<sub>2</sub>O, RON, RN<sub>3</sub>

#### Polar aprotic

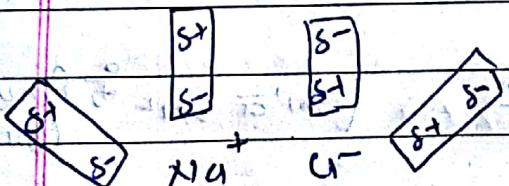
न अम्लीय फ्रैग्वाक्षरीय तोर  
नहीं जुड़ी होती है

DMP or Dimethyl formamide



DMSO or Dimethyl Sulphonide

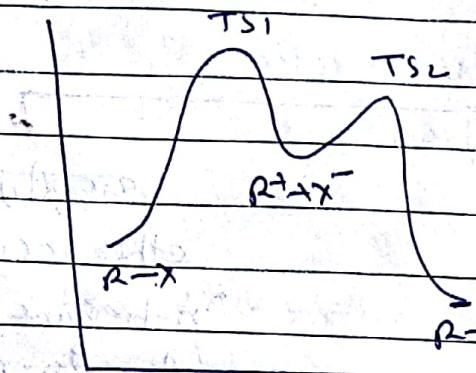
me-S-me



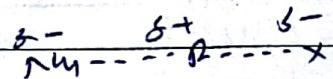
द्वारा घनांग और अविभाप्त  
द्वारा कारण घनांग प्रभावित  
द्वारा का जलमील द्वारा है

द्वारा घनांग और कुप्रल  
द्वारा का कारण घनांग का लग  
जीले नहीं होता है

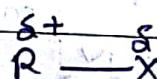
$\text{SN}^1$



$\text{SN}^2$



Polarizability  $\rightarrow \text{R}-\text{X}^-$   
Facility  $\downarrow$  = Polar Protic



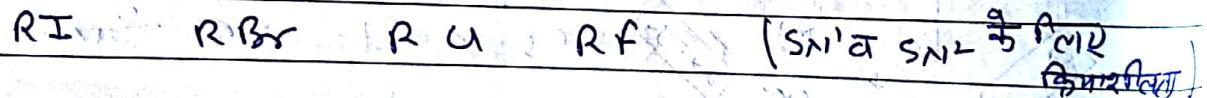
weakly polar

Polar protic } b/cuz it causes  
is not } greater solvation  
Suitable } in  $\text{NY}$  than  
int-s

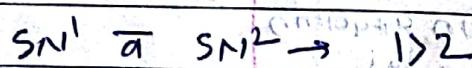
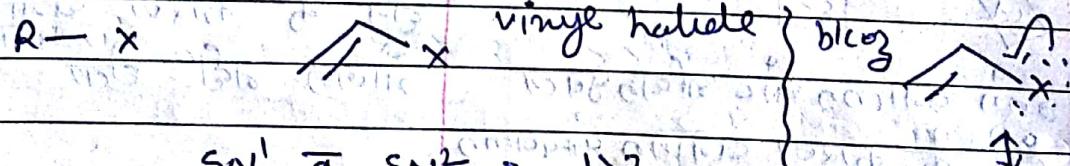
Polar aprotic

Ques: तुलना कीजिए

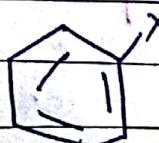
(a)



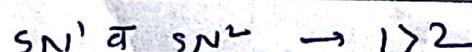
(b)



(c)

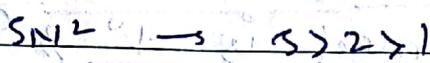
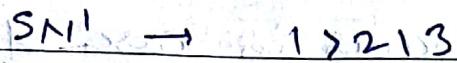


Aryle halide



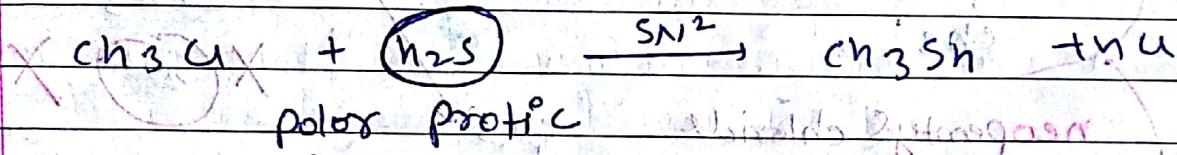
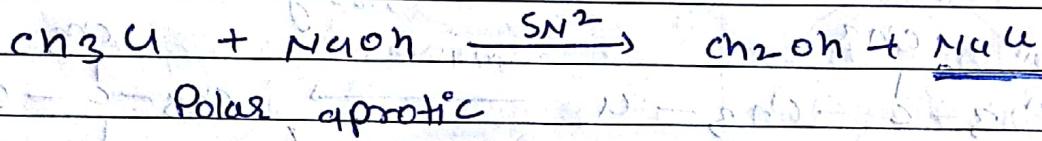
Teacher's Signature

①



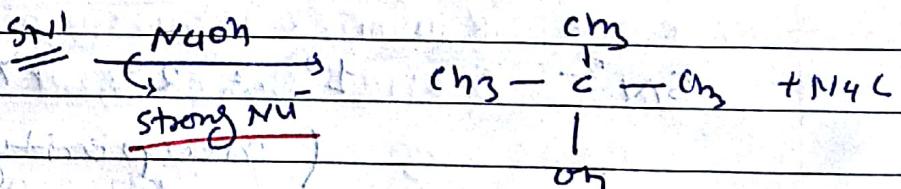
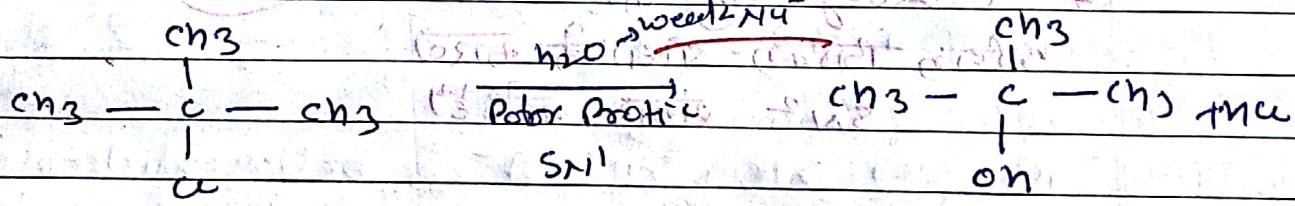
②

Facile leaving group



Ques:

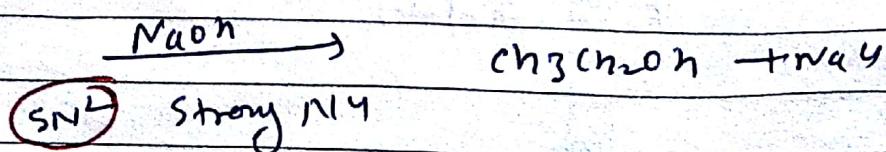
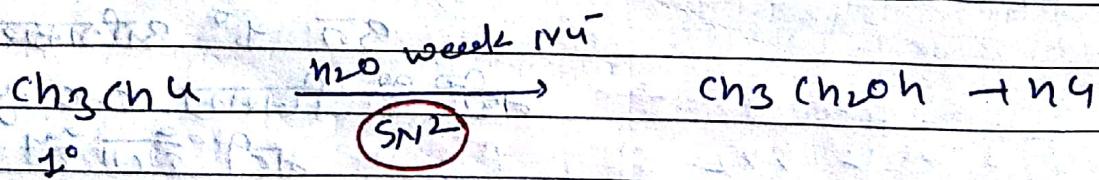
①



Note

3° nucleophile  $\frac{1}{n}$  अद्यन्तीर्ण विद्युत बोल्ट के कारण  $SN2 R^2$

②

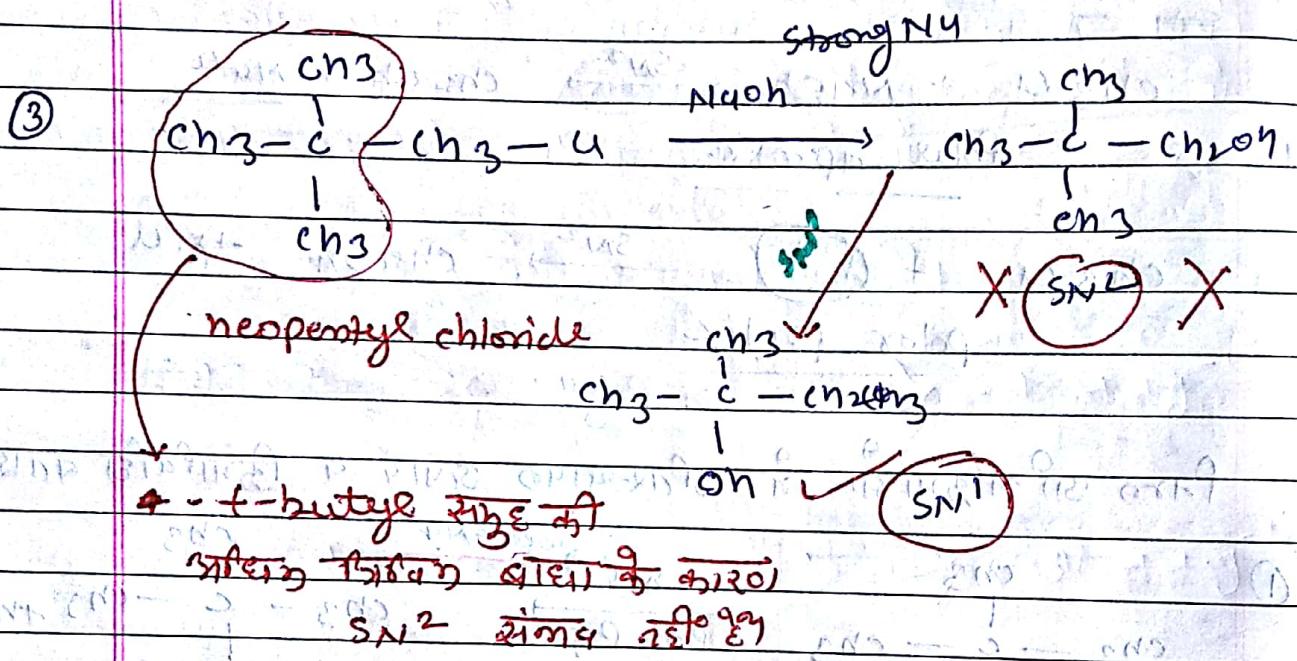


Teacher's Signature

Note

$SN^2$  doesn't occur in  $3^\circ$  neopentyl substrate

$SN^1$  doesn't occur in case of carbocation formed is  $1^\circ$  & doesn't rearrange



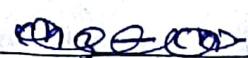
$SN^2 \quad 1^\circ > 2^\circ \gg 3^\circ$

( neopentyl  $\frac{1}{4}$  संभव नहीं है)

$SN^1 \quad 3^\circ > 2^\circ \gg 1^\circ$

$3^\circ \quad 1^\circ$  असंभव  $\frac{1}{4}$  संभव  
नहीं है जिसके C.C. पर विभाजित  
नहीं होता है

(4)



CH<sub>3</sub>CH<sub>2</sub>



CH<sub>3</sub>

NaOH

SN<sub>2</sub>

OH — | — OH

CH<sub>3</sub>

100% inversion

H<sub>2</sub>O

weak NY

SN<sub>1</sub>

CH<sub>3</sub>CH<sub>2</sub>

CH<sub>3</sub>CH<sub>2</sub>

CH<sub>3</sub>

OH

+ HO

CH<sub>3</sub>CH<sub>2</sub>

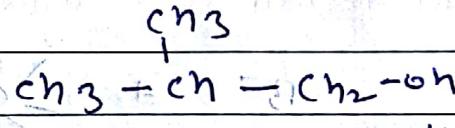
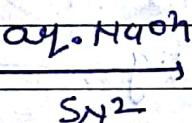
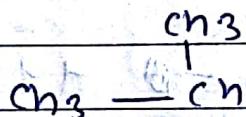
CH<sub>3</sub>

Solvent acts  
nucleophile

$\Rightarrow$  Solvolysis  $\Rightarrow$  SN<sub>1</sub>

2LY

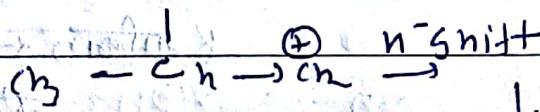
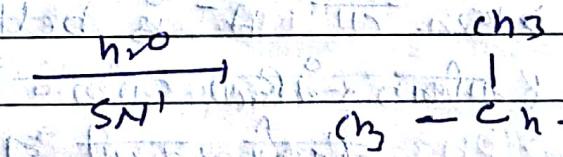
(5)



+ NH<sub>4</sub><sup>+</sup>

1°

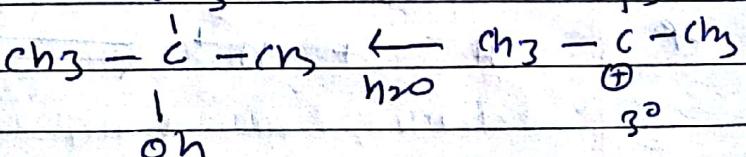
H<sub>2</sub>O



↓

CH<sub>3</sub>

CH<sub>3</sub>



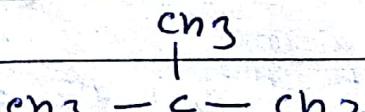
h<sub>2</sub>O

3°

CH<sub>3</sub>

CH<sub>3</sub>

EtOH



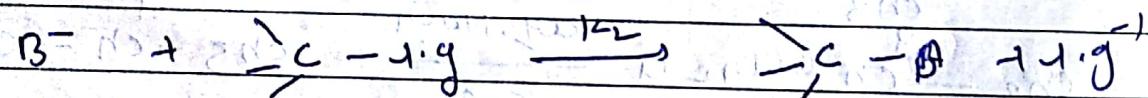
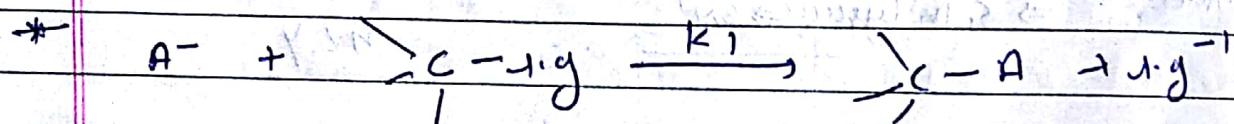
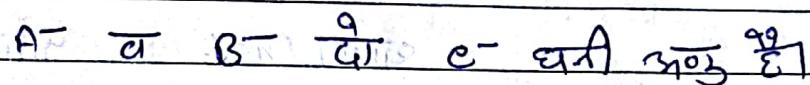
+ NH<sub>4</sub><sup>+</sup>

SN<sub>1</sub>

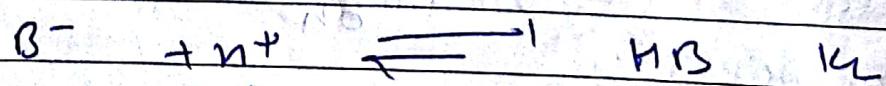
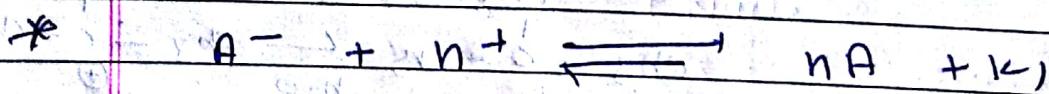
OEt

## Nucleophilicity vs Basicity →

नायिकता व्यवहार vs शास्त्रीयता: दोनों एकीजी असमिकारुप के साथ अभिभावित होने वाली स्थिति है जिसमें एक अभिभावक के कानून द्वारा प्रभावित करता है औ उसके द्वारा अभिभावक के कानून के कानून द्वारा प्रभावित करता है। अभिभावक के द्वारा शास्त्रीयता के मिकाली द्वारा असमिकारुप के द्वारा नियंत्रित करता है।

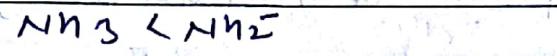
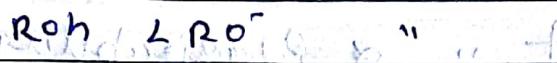
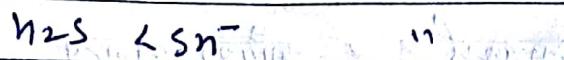
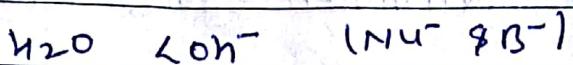


गणि  $k_1 > k_2$   $\frac{A^-}{B^-}$   $A^-$  is better nucleophile than  $B^-$   
(नायिकता व्यवहार) अनियोन के गतिविधियों पर  
ध्यान करती है।



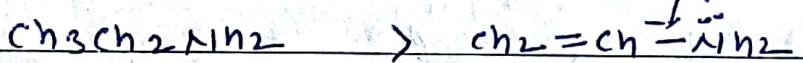
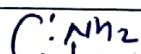
$n_1 > n_2 \Rightarrow A^-$  is better base than  $B^-$   
लिखित सिद्धान्त

① किसी जल के अन्य संयुक्त शारीर नाभिक सैद्धांतिक प्रबल का होता है।



②

e- घटी अवृत्ति e- का प्रस्थापनीकरण शारीर व नाभिक सैद्धांतिक सामग्री का कहा है।



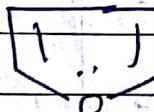
aliphatic amine

aromatic

Tetrahydronaphthalene  
(THF)



→



Tetrahydrophosphole  
(THP)



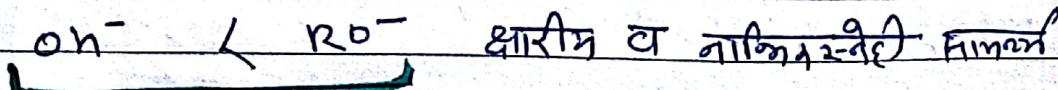
③ नाभिक: शारीर व नाभिक सैद्धांतिक सामग्री एवं दी दिशा में उत्तर से परिवर्तित होती है अब इसे प्रबल क्षारी ही प्रबल नाभिक सैद्धांतिक होता है।

In a Period



शारीर व नाभिक सैद्धांतिक  
प्रबल

नाभिक सैद्धांतिक  
प्रबल

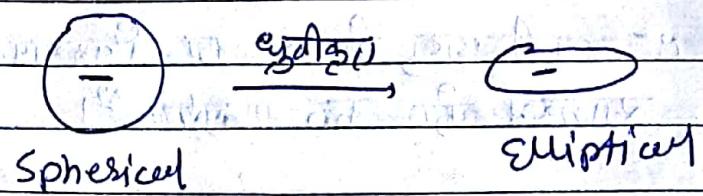


शारीर व नाभिक सैद्धांतिक प्रबल

Teacher's Signature

② समृद्धि के नामित्र स्वेच्छी व शारीर सामग्री के बीच संबंध समावान्तर नहीं होता।

शारीर सामग्री व आवेदनके जागीर्दारी " & Polarizability of atom  $\propto \frac{1}{r^3}$



in a gp शारीर सामग्री

|     |            |                    |
|-----|------------|--------------------|
| F-  | $\uparrow$ |                    |
| Cl- |            |                    |
| Br- |            |                    |
| I-  |            | जागीर्दारी सामग्री |

$\text{ON}^- > \text{SN}^-$  (Basic strength)

$\text{ON}^- < \text{SN}^-$  (Nucleophilicity)

$\text{NH}_3 > \text{PH}_3$  (Basicity)

$\text{NH}_3 < \text{PM}_3$  (Nucleophilicity)

③ परिवर्तन का प्रणाली

परिवर्तन का प्रणाली जलसंयोग के

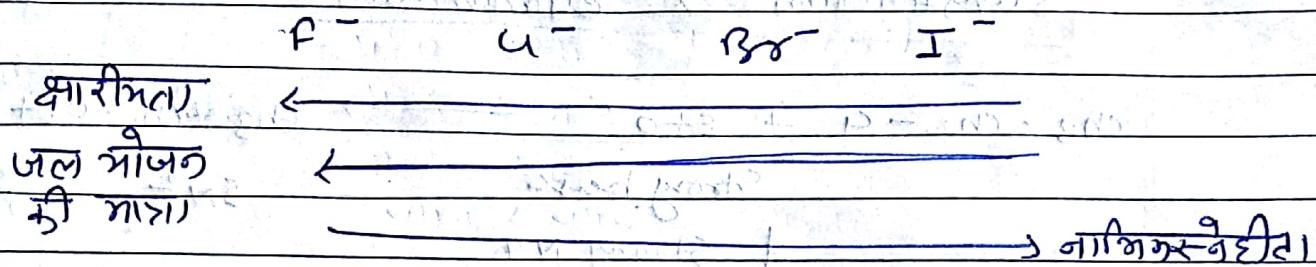
कार्य के बारे में

परिवर्तन के कार्य के अप्रैक्ष की अप्रैक्ष की

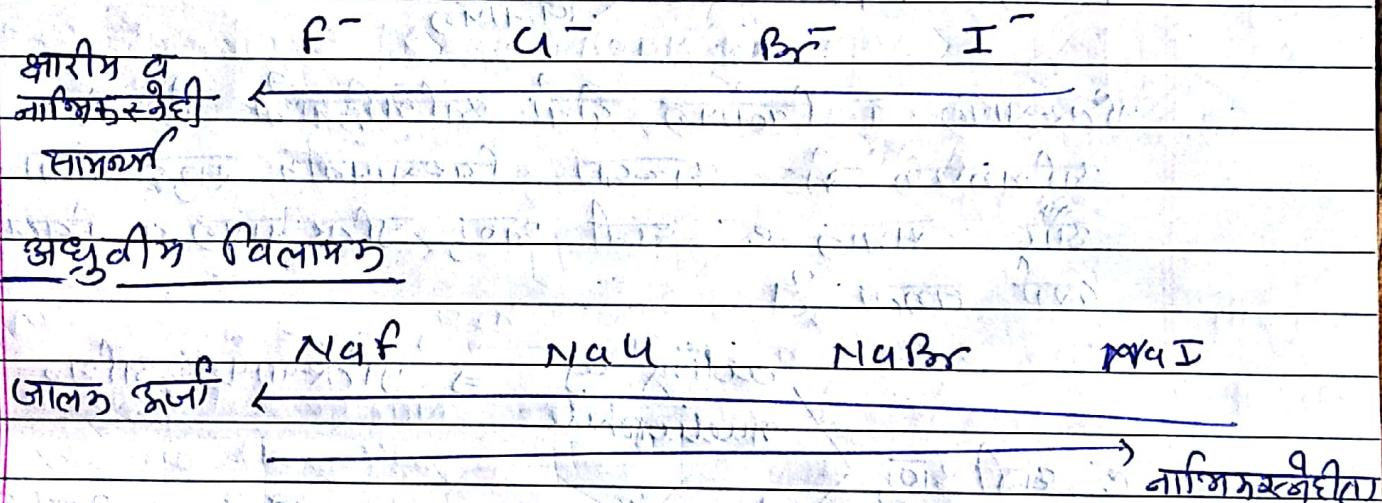
परिवर्तन के कार्य के अप्रैक्ष की अप्रैक्ष की

Teacher's Signature

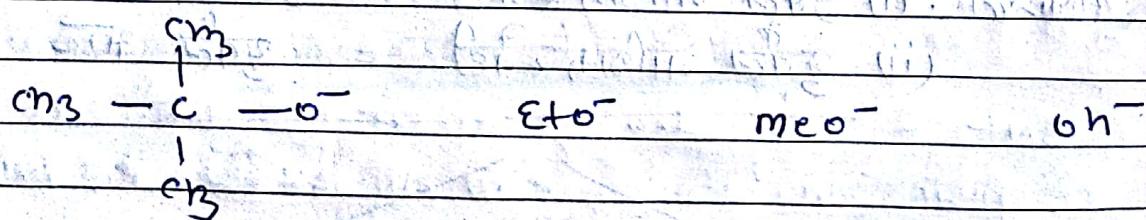
Polar protic : Solvates both cation & anion



Polar aprotic  $\text{H}_2\text{O}$  doesn't solvate cations.



⑥  $\rightarrow$  नामित वर्गवटी के अधिक साधन विद्या नामित वर्गवटी के कानून विद्या है।



[t-butoniels.com](http://t-butoniels.com)

Basic Strength       $1 > 2 > 3 > 4$

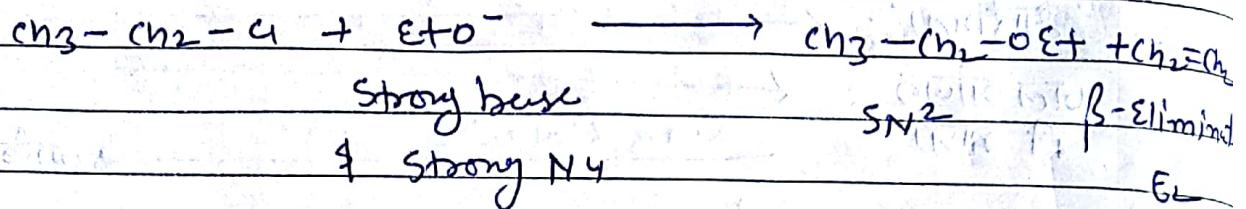
$$2 > 3 > 4 > 1$$

## ଆଜିମୁଖ ନିର୍ମିତ ବାଦି

**Teacher's Signature**

## # युक्तिपापन vs फॉलोपन

### Substitution vs elimination



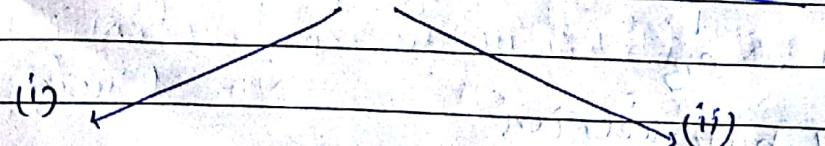
RX, ROH, R-O-R { विलोपन }

युक्तिपापन के विलोपन दोनों अभिक्रियाएँ बहुत अलग होती हैं। अभिक्रिया के अन्दर प्रसवापनम् राजू होता है। और साथ ही C- धरी अणु युक्तिपापन के विलोपन में होता है।

C- धरी अणु { acting as nucleophile }  $\Rightarrow$  युक्तिपापन अभिक्रिया

acting as base  $\Rightarrow$  विलोपन अभिक्रिया

उदाहरण : (i) युक्ति पापन (नायिन एवं विलोपन) = युक्ति शास्त्र  
(ii) युक्ति विलोपन (नायिन एवं विलोपन) = युक्ति शास्त्र



SN<sub>2</sub> VS E<sub>2</sub>

1° > 2° > 3° | 3° > 2° > 1°

स्टार्टर  
स्टार्टर

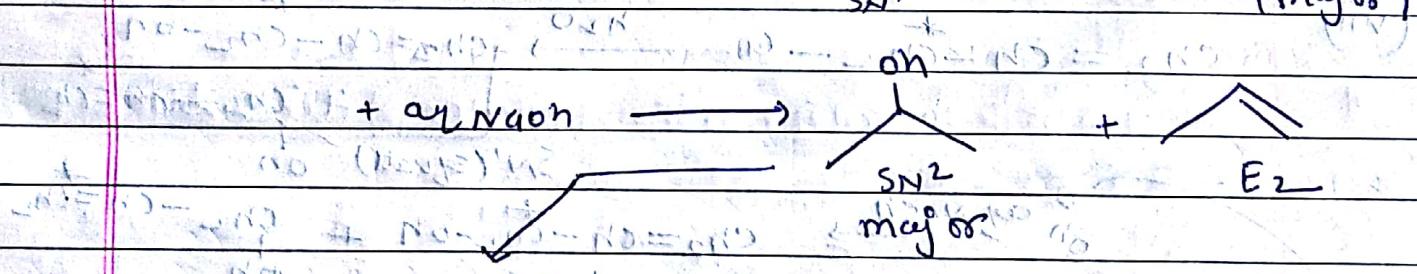
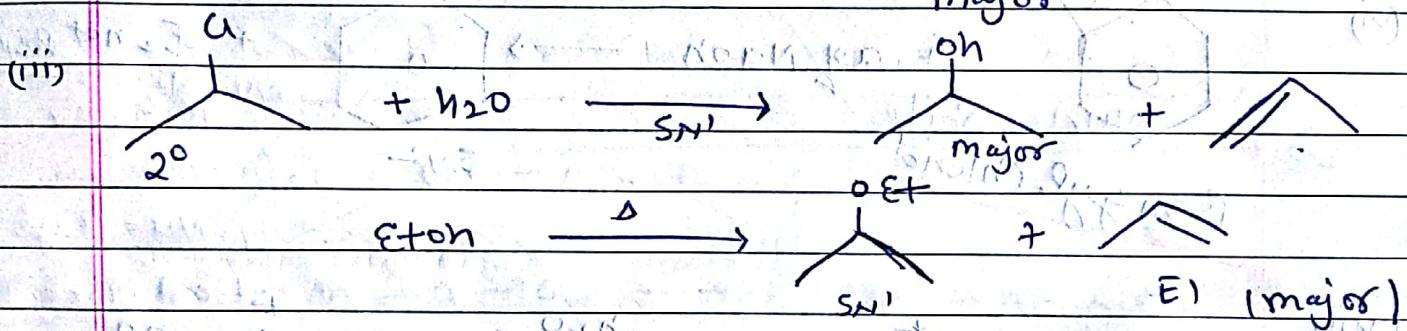
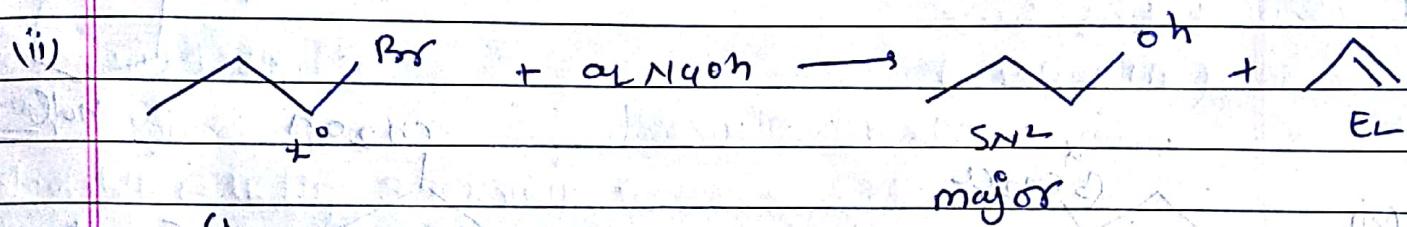
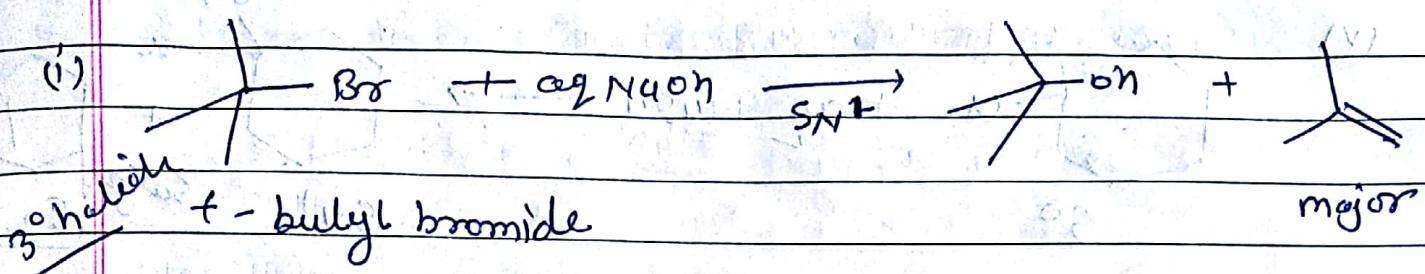
स्टार्टर  
स्टार्टर

SN<sub>1</sub> VS E<sub>1</sub>

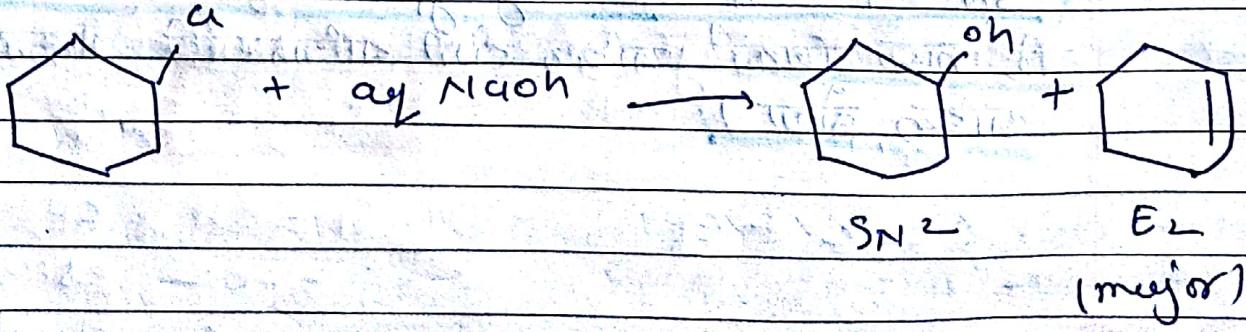
3° > 2° > 1° | 3° > 2° > 1°

स्टार्टर  
स्टार्टर

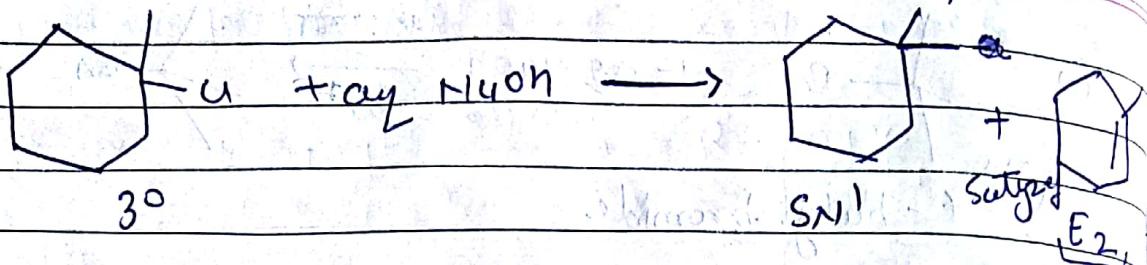
Teacher's Signature



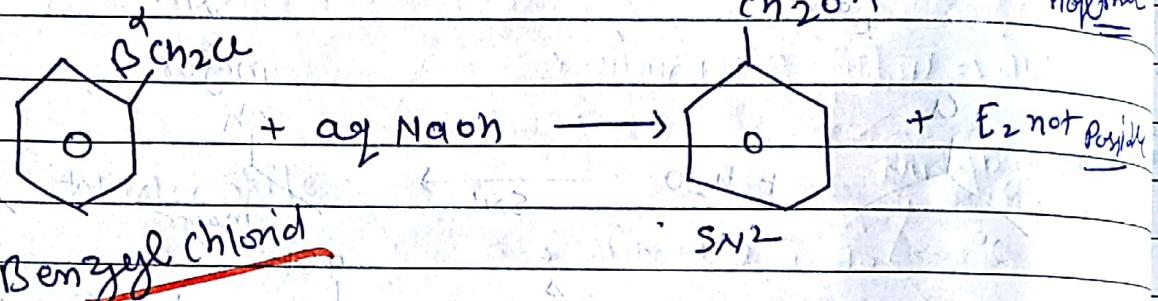
\* open chain 2°  $\xrightarrow{SN2}$  vs E<sub>2</sub>  $\xrightarrow{SN2}$  vs E<sub>1</sub>  
3414  $\xrightarrow{SN2}$  3414 3414 close chain 2°  $\xrightarrow{SN2}$  E<sub>1</sub>  
3203 3414 3414



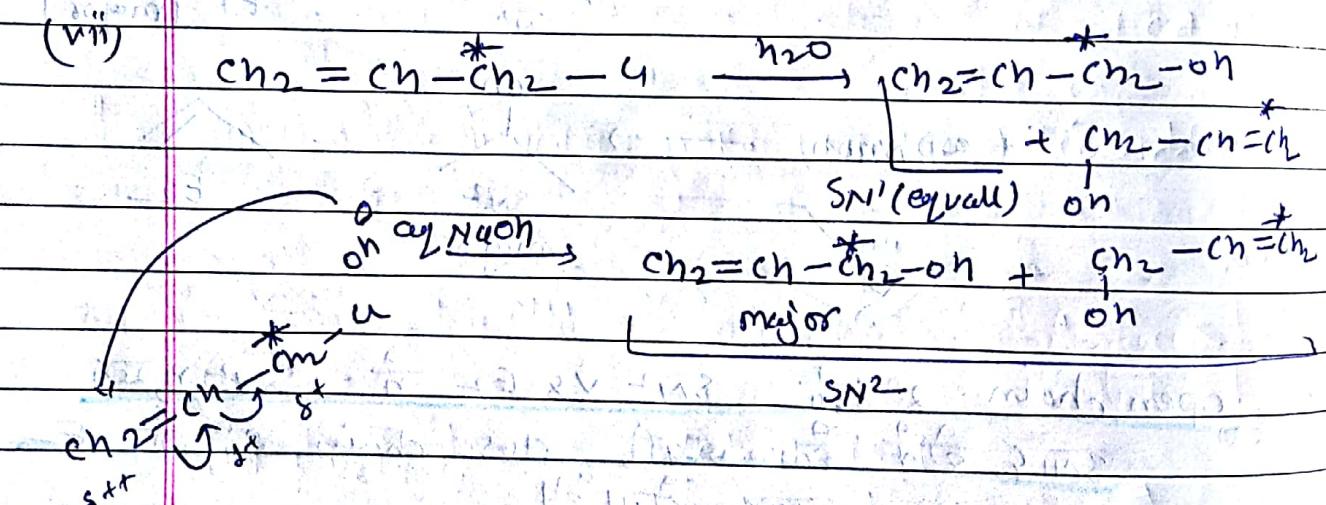
(v)



(vi)



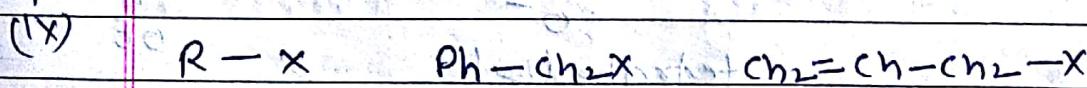
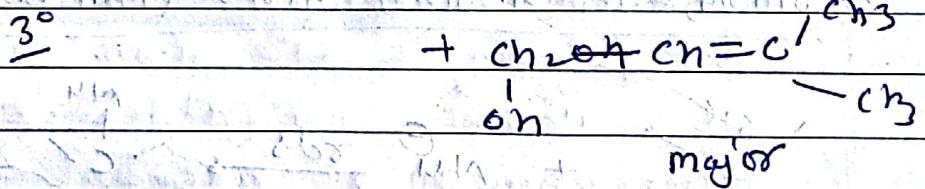
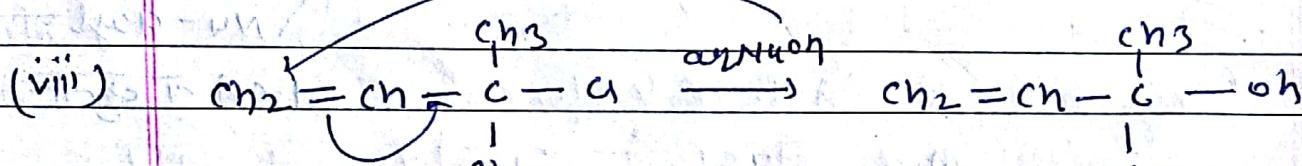
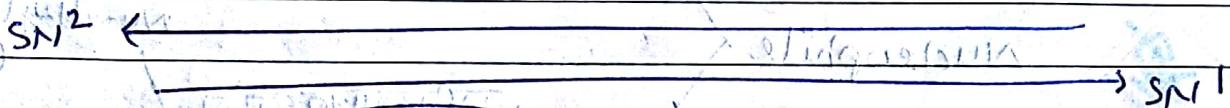
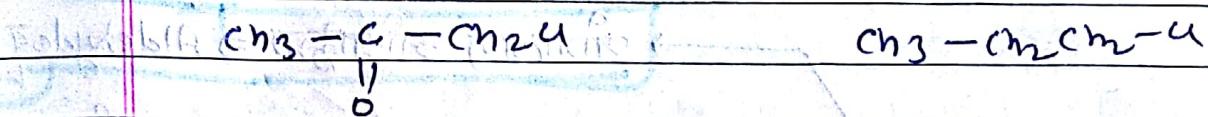
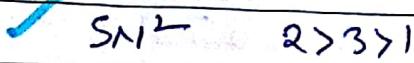
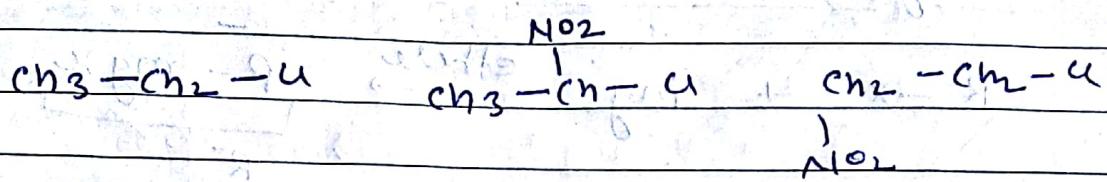
(vii)



SN<sub>2</sub> R n → leaving gp से जुड़े कार्बन पर होता है।  
जैसे मिनी अमिन वितर्क इवां अमिनों की तरह होता है।

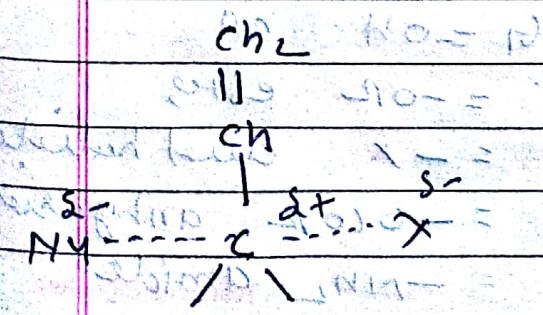
Teacher's Signature

for ex.  $\text{SN}^2 \xrightarrow{\text{to}} \text{Alkyl halide}$



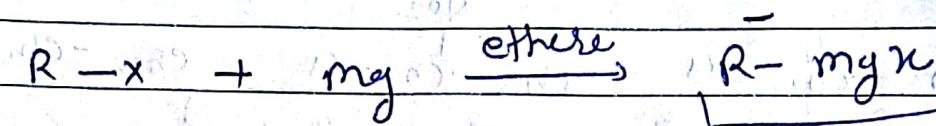
aliphatic      Benzyl halide      allyl halide

$\boxed{2 > 3 > 1} \rightarrow \text{for Both}$

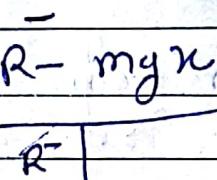


Benzyl & allyl halide  $\text{SN}^1$  &  
 $\text{SN}^2 \xrightarrow{\text{to}} \text{Alkyl halide}$   
 $\text{SN}^1 \xrightarrow{\text{to}} \text{Alkyl halide}$   
 $\text{Alkyl halide} \xrightarrow{\text{to}} \text{Alkene}$   
*Teacher's Signature*

## Grignard अभियंत्र



act as base.  
(ALKANE)



R<sup>-</sup> as Nucleophil

प्रीगाल्य अभियंत्र  $\Rightarrow$  Aldehydes

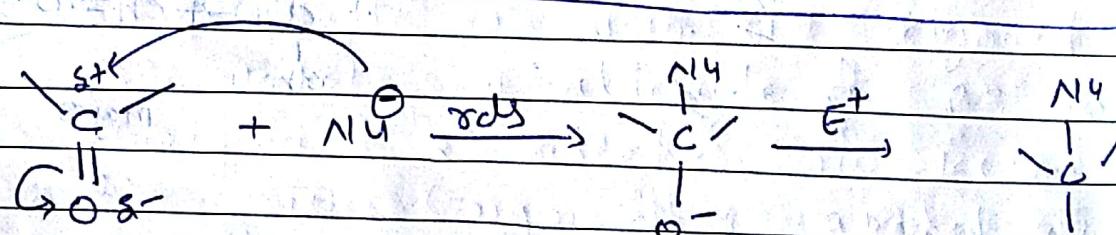
Nucleophile

Nu-alkyl  $\text{R}^n$   
(RX, ROH,  
ROR)

पूरित्वापन रासायनिक

Nu-acyl  $\text{R}^n$   
(CA वे एस्टर)

# नाइट्रोजन के द्वारा प्रीगाल्य अभियंत्र (Nucleophilic addition P<sup>n</sup>)



aldehyde & ketone

tetrahedral

intermediate

\* नाइट्रोजन के द्वारा पूरित्वापन वा Nucleophilic add<sup>n</sup>-elimin

S<sub>N</sub>AC

S<sub>N</sub>AE

R-C-G

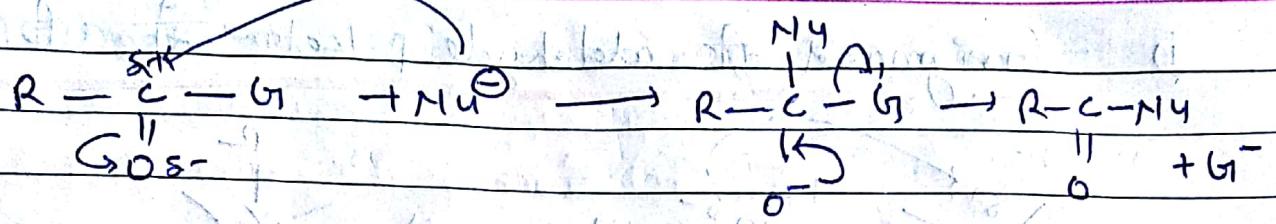
G = OH, CA

= OR ester

= X eiles halide

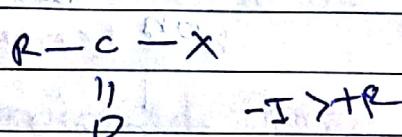
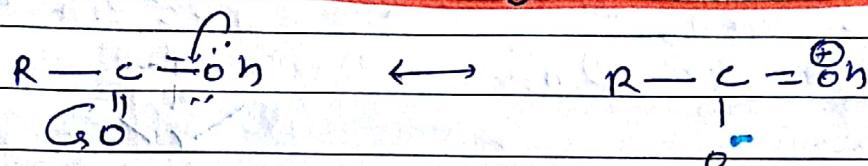
= O(OR) anhydride

= NH<sub>2</sub> amide

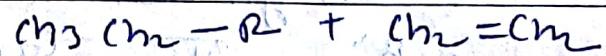
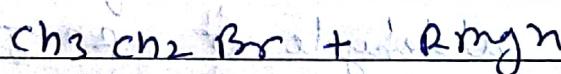


Alkaline Med.

\*  $\text{acid halide} > \text{anhydride} > \text{ester} > \text{CA} > \text{amide}$

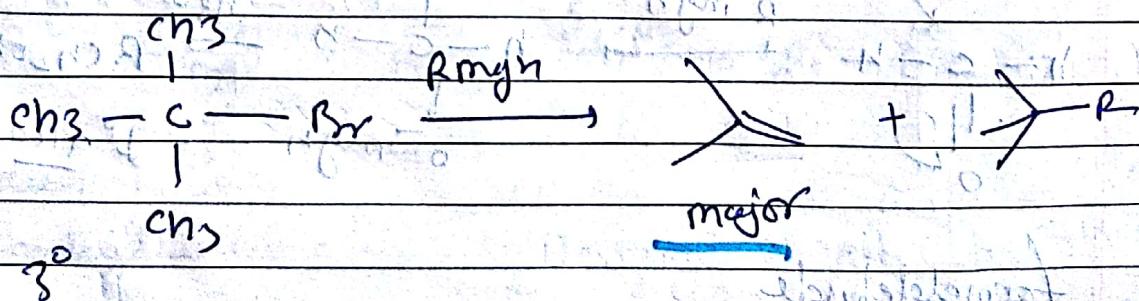


### Nu-alkyl Substitution

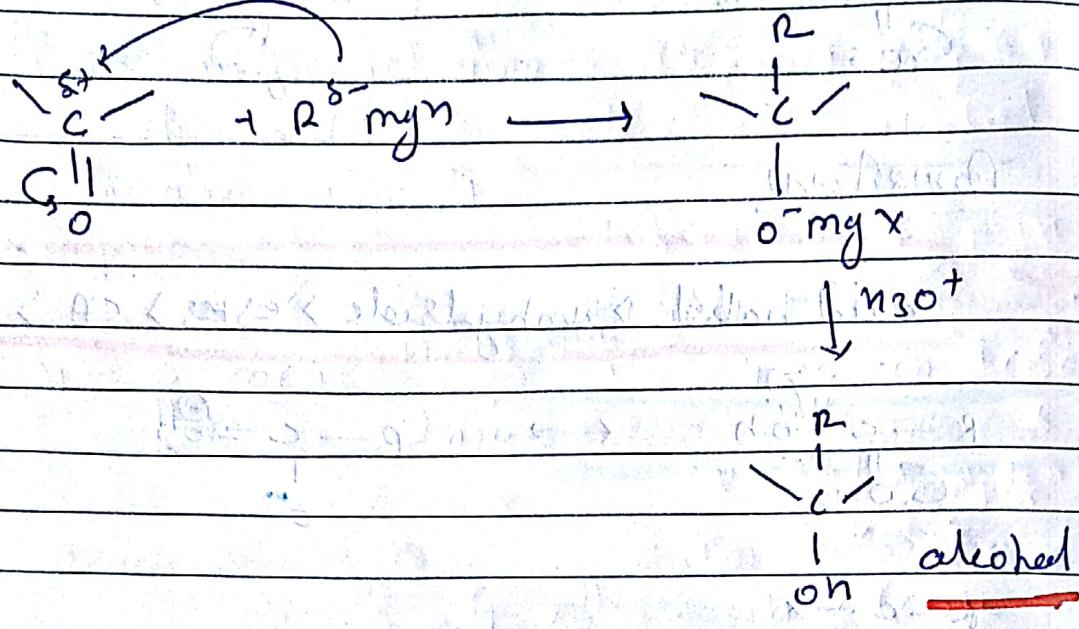


SN2  
meyor

E2



i) Grignard की aldchyle & ketone की अभिक्रिया



Grignard की Ald. or Ketone की अभिक्रिया

याइलेंस के रूप से उत्पन्न होती है

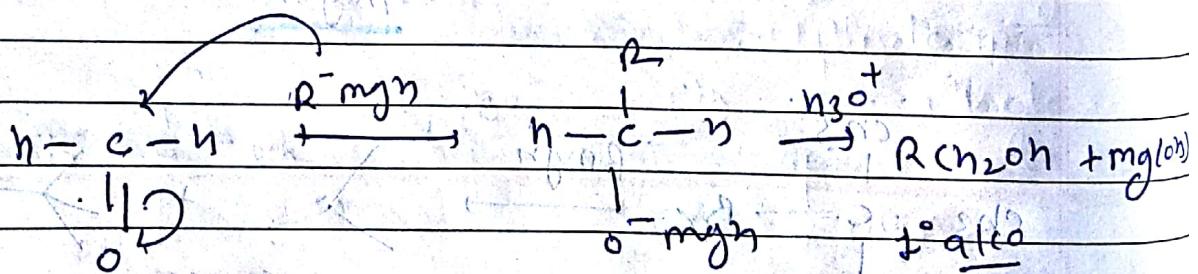
से Alcohol की अभिक्रिया होती है

formaldehyde के अभिक्रिया होती है

$1^\circ$  alcohol के अभिक्रिया होती है

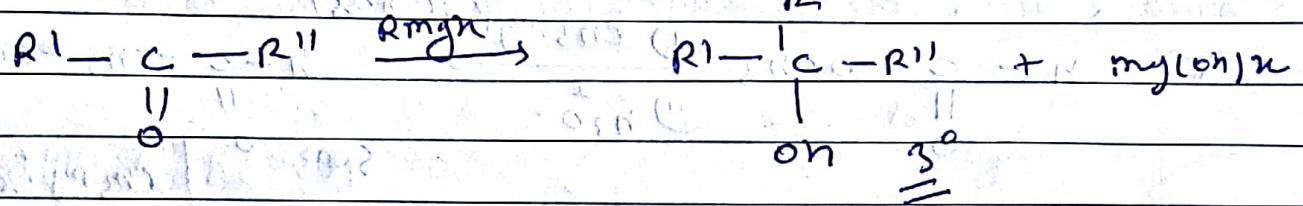
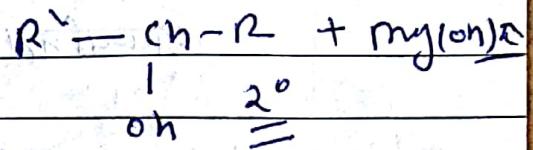
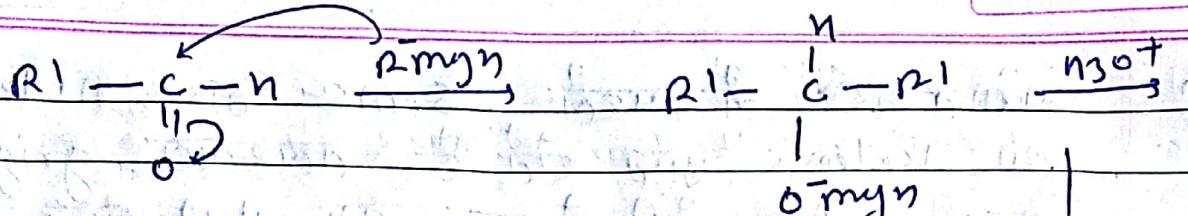
Grignard  $2^\circ$  alcohol के अभिक्रिया होती है

$3^\circ$  Grignard  $3^\circ$  alcohol के अभिक्रिया होती है



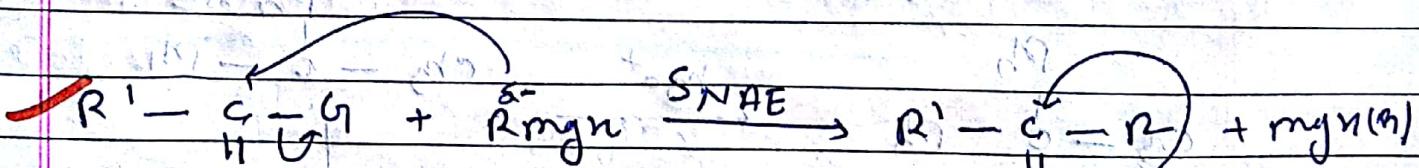
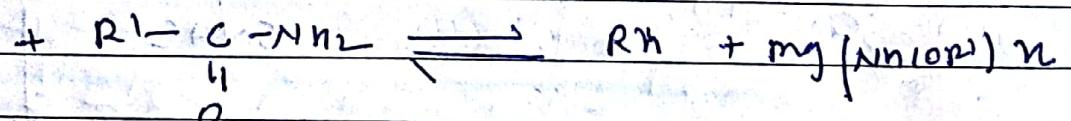
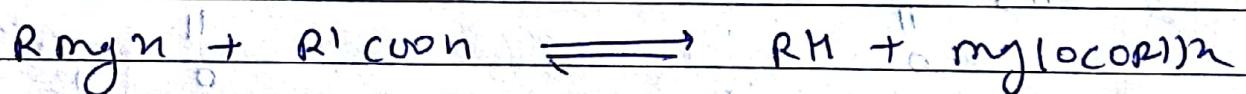
formaldehyde

Teacher's Signature



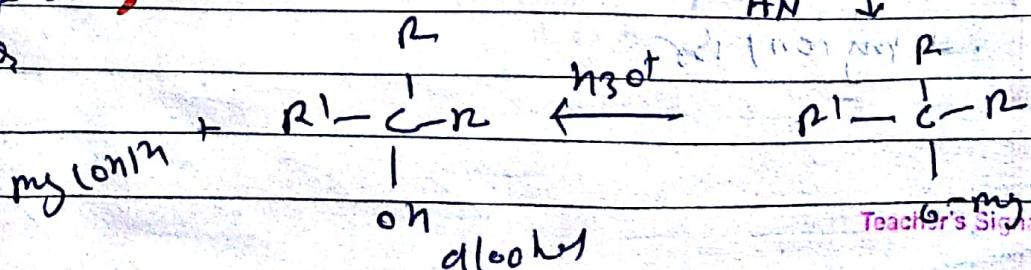
# Grignard की CA व अमिड के उत्पन्न होने के अधिकारी :

Carboxylic acid व amide के साथ  $R_2 MgN$  Grignard की उपयोग दर्शाता है। जिसके लिए alkane उत्पन्न होता है।

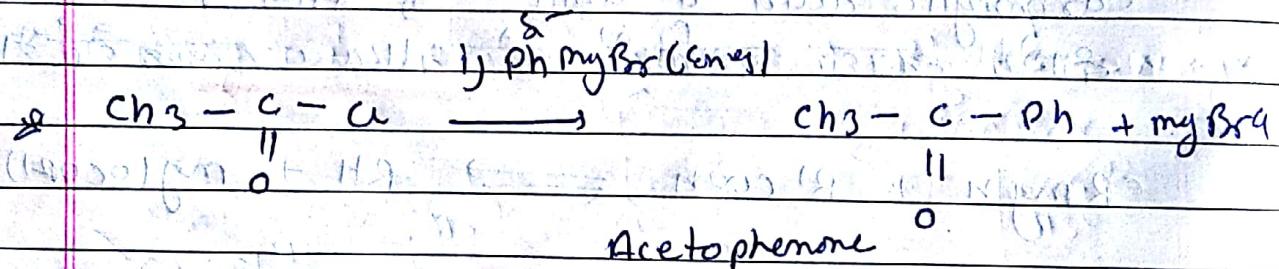
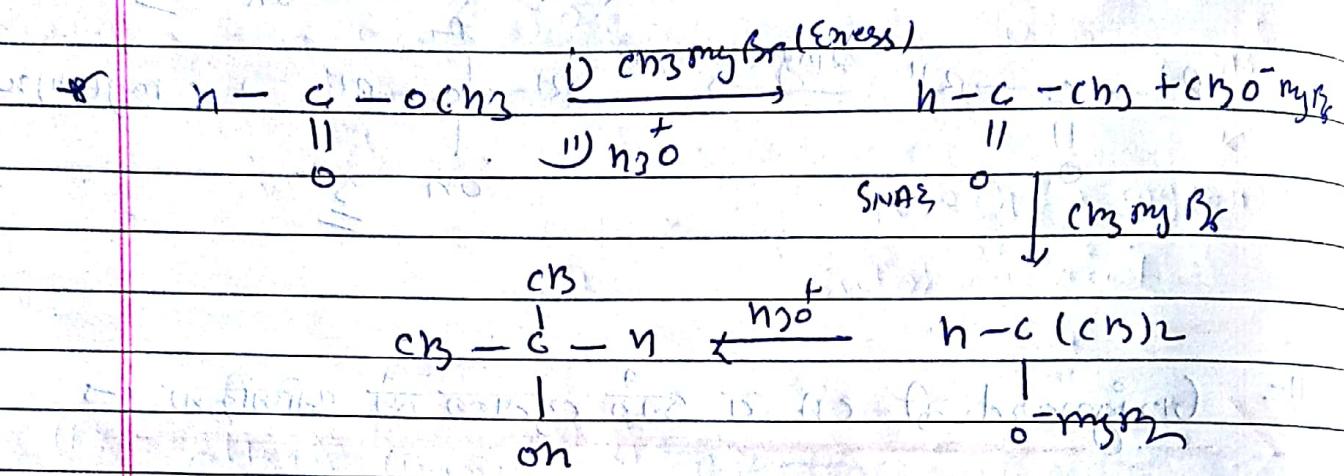


अवृत्ति हलेट,  
अंबियूड्राइड,  
जेस्टर

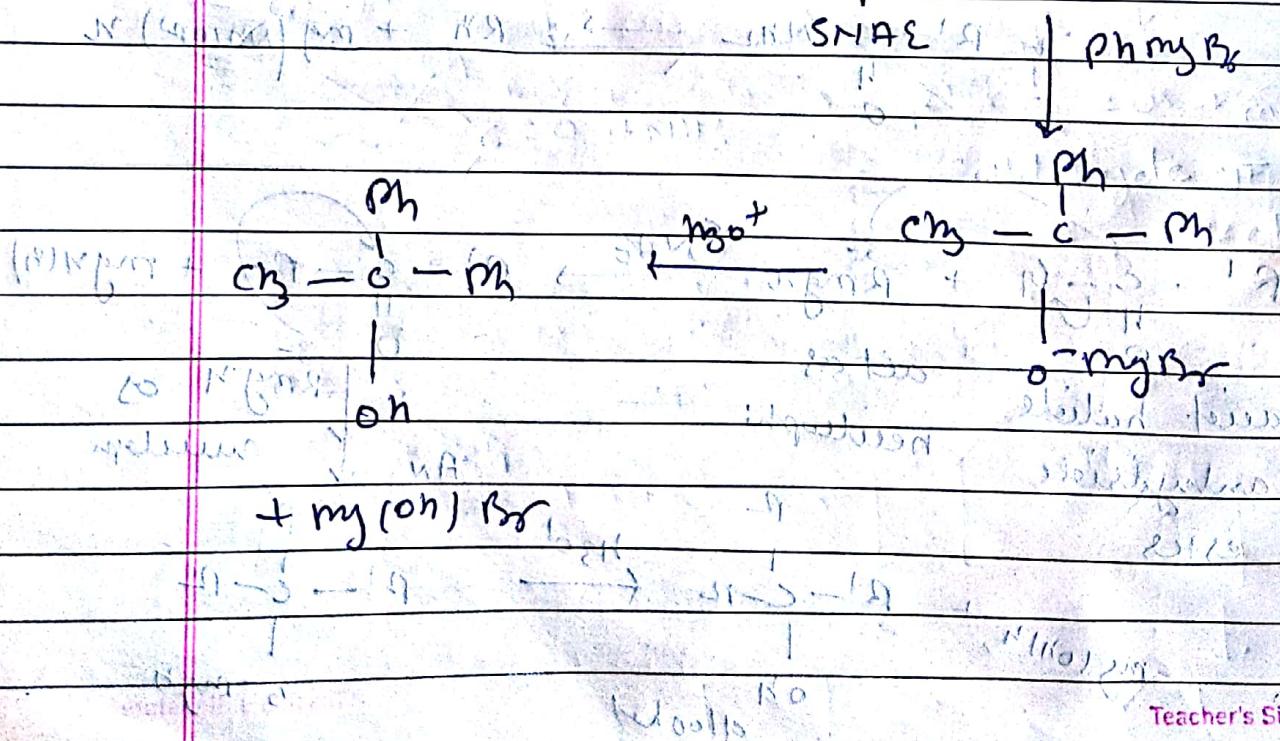
$R_2 MgN$  का  
मुख्य



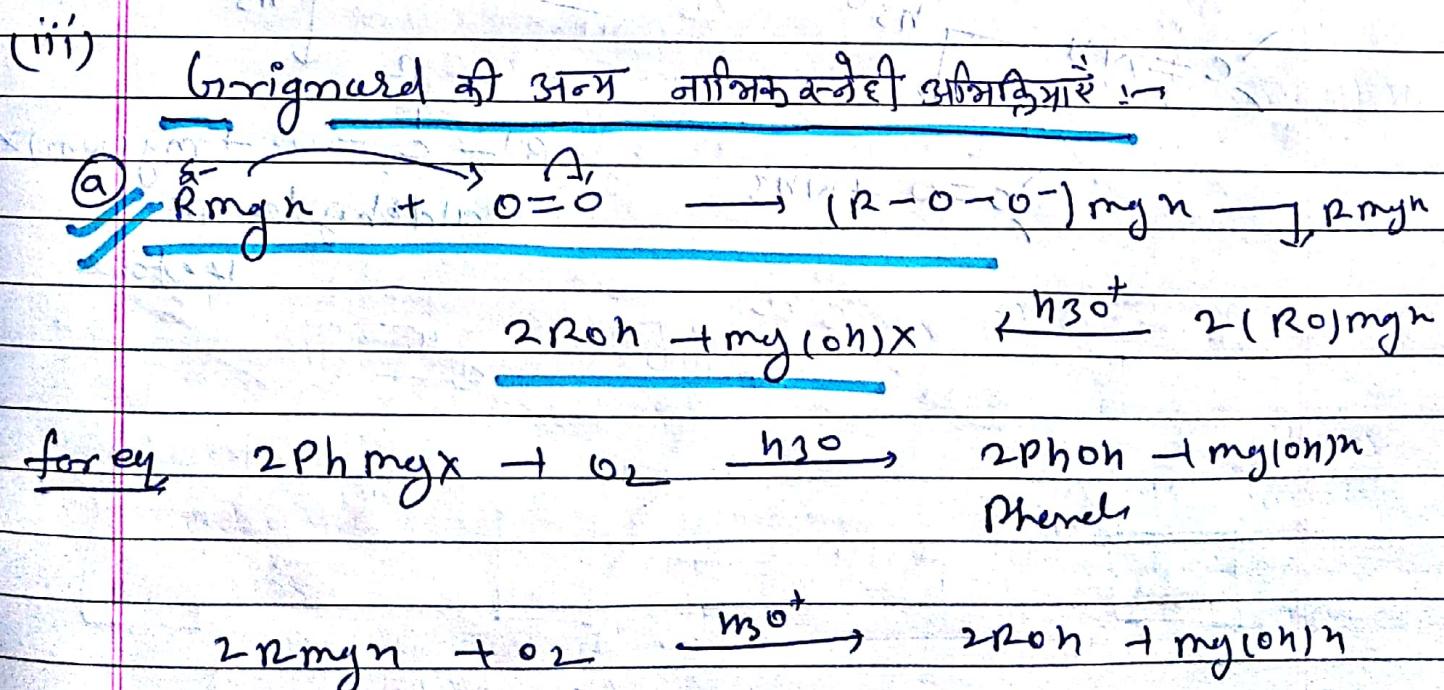
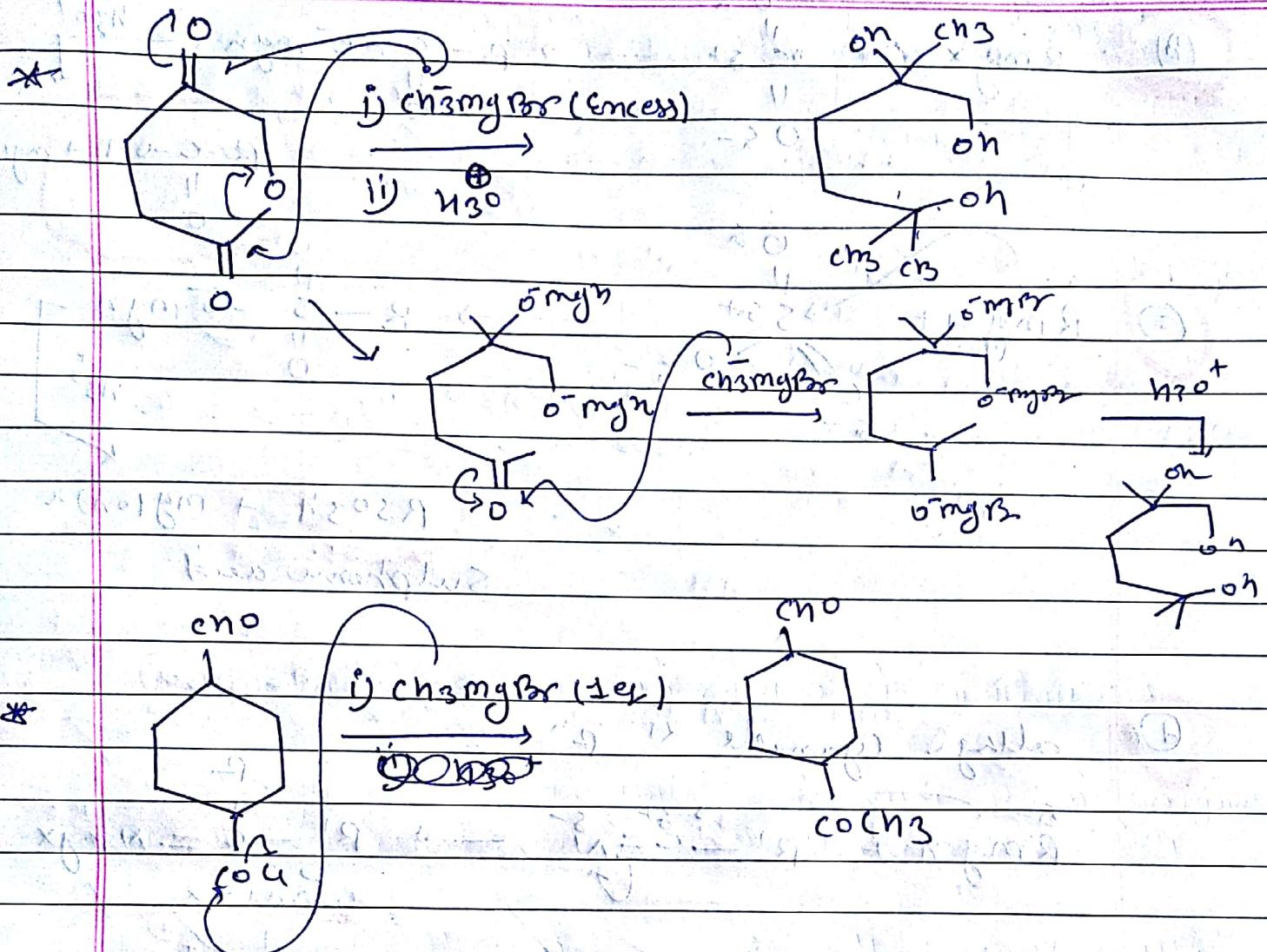
उपरीका  $Rn$  में पदल  $\xrightarrow{SNAE}$  होता Aldehyde  
 या Ketone होता है तथा इसका Grignard  
 पूर्ण नाम अमिनोबोर्कर्ड  $Rn$  (AN) होता है  
 या aldehyde / ketone के alcohol के  
 उत्पादन के लिए



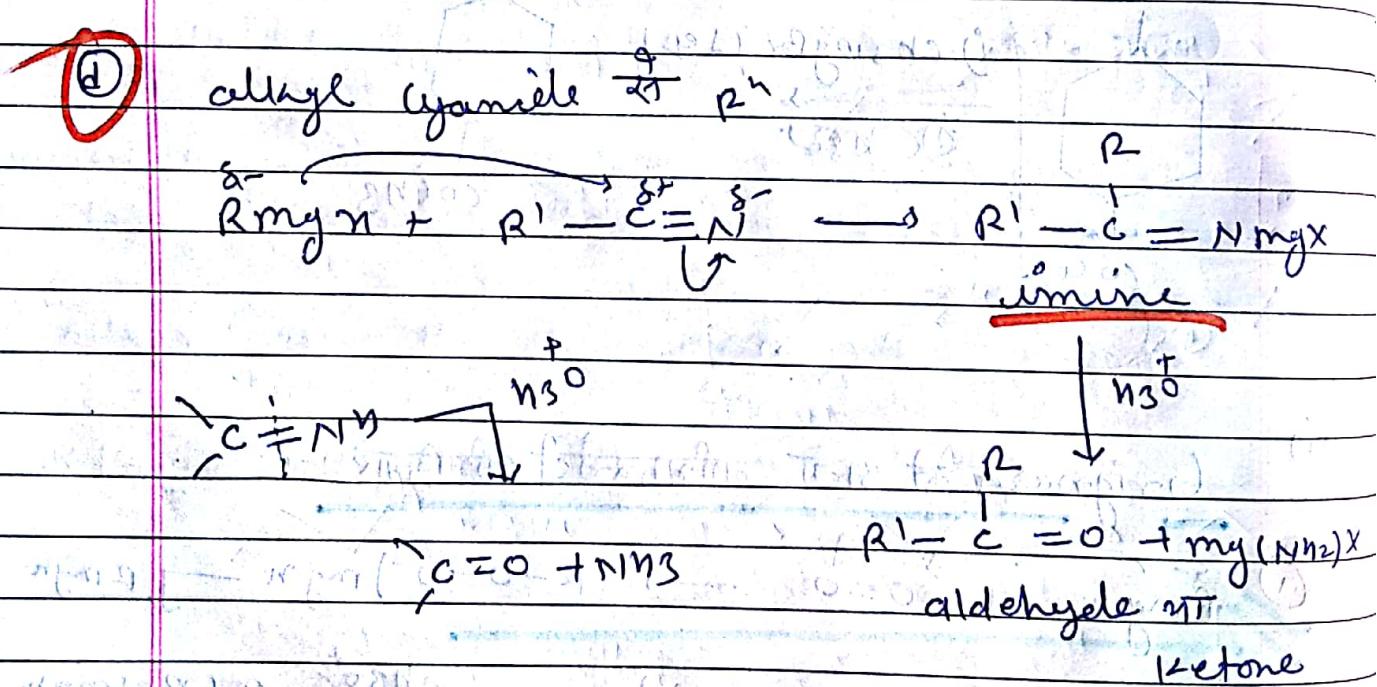
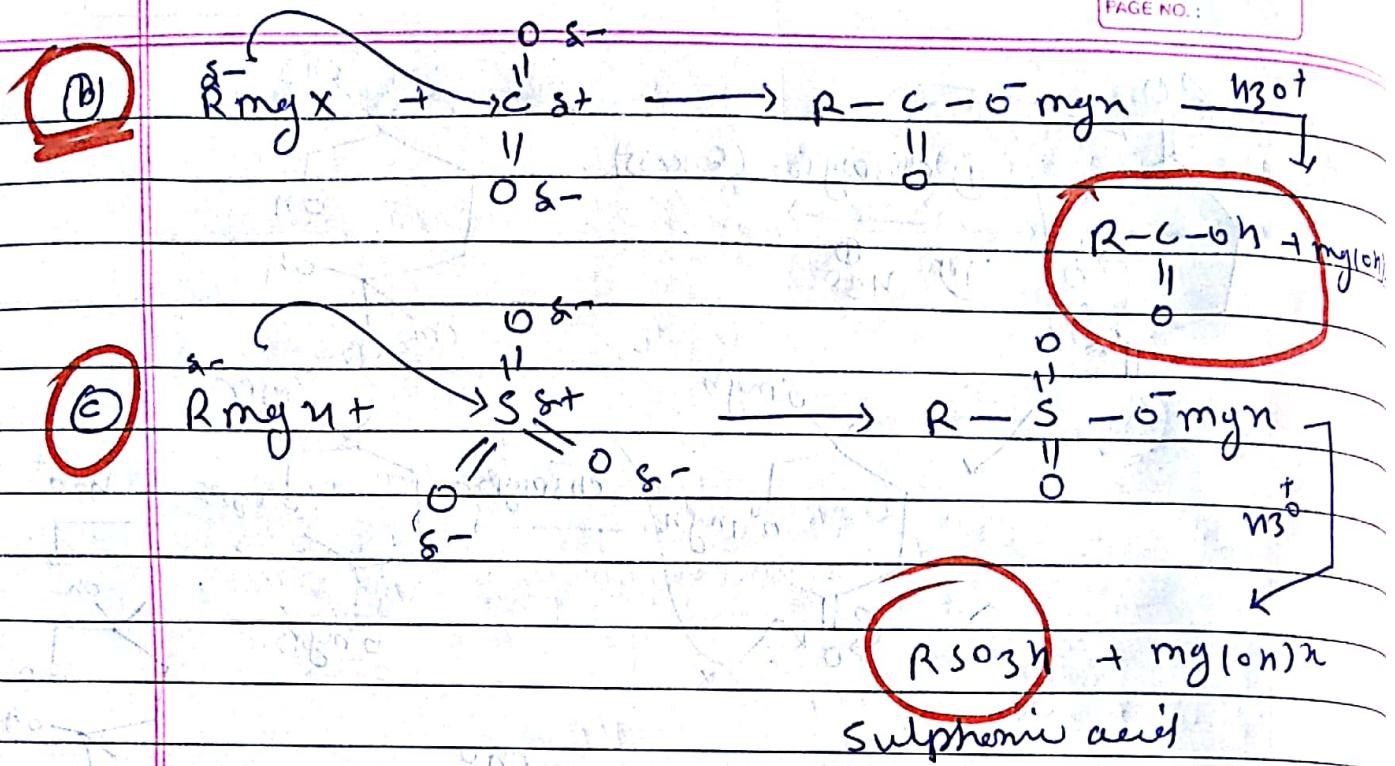
Acetophenone



Teacher's Signature



Teacher's Signature

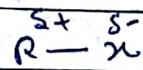


Teacher's Signature

Alkyl or aryl halide  $\rightarrow$



Alkyl halide



weakly polar

मोले जलसे कम प्रतिक्रिया करते हैं

जलमें अवश्यक  $R-N > \text{Alkyne} > \text{Alkene} > \text{Alkane}$

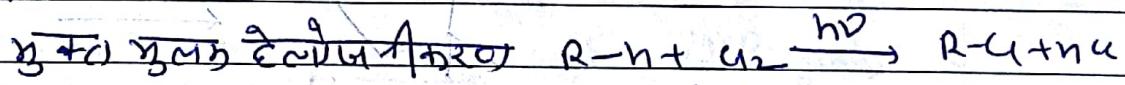
\* अल्फा से अद्वारा कहा जाता है इसकी जलमें अवश्यकता है

\*  $d < d_{H_2O}$

\* फ्लॉग्युल्फ्ट्रिल  $R-U > R-F > R-Br > R-I$   
( $U \Rightarrow q \times d$ )

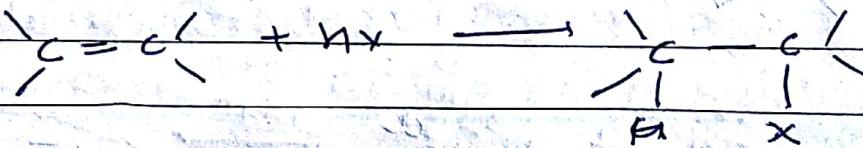
अल्फा ना प्रतिक्रिया करती है

### 1. Alkane घटाव

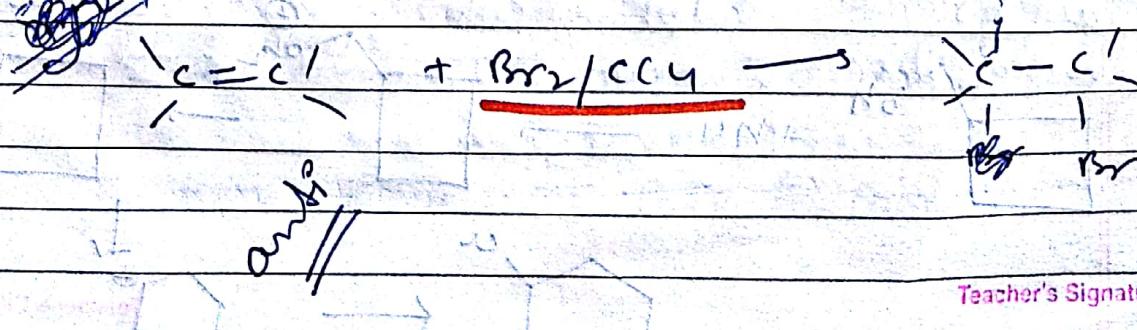


### 2. Alkene or alkyne घटाव

i)  $H_X \xrightarrow{\text{नियंत्रित}}$  अवश्यकता

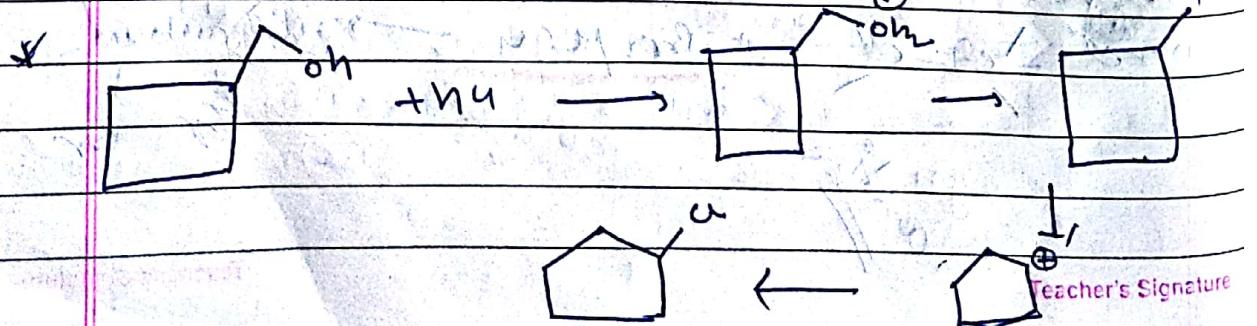
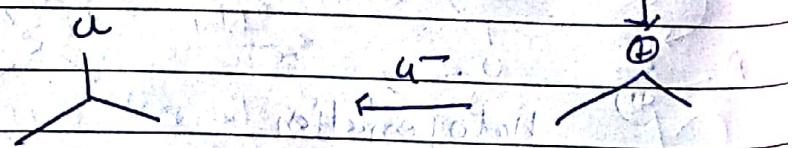
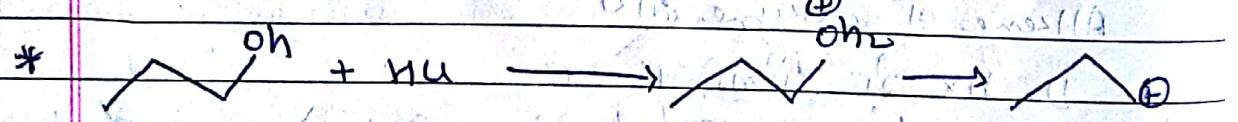
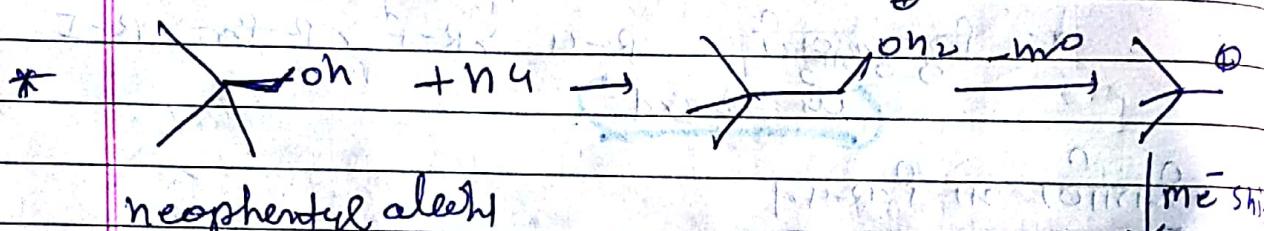
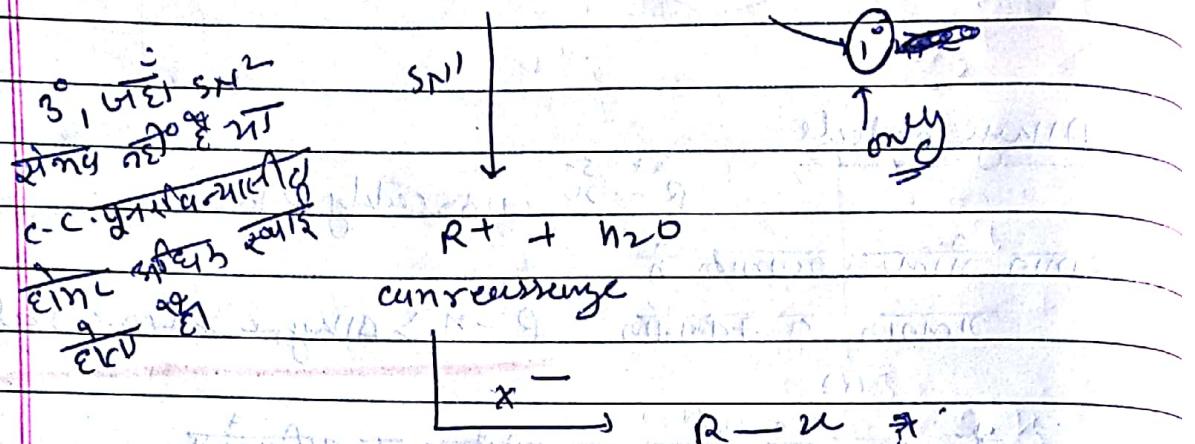
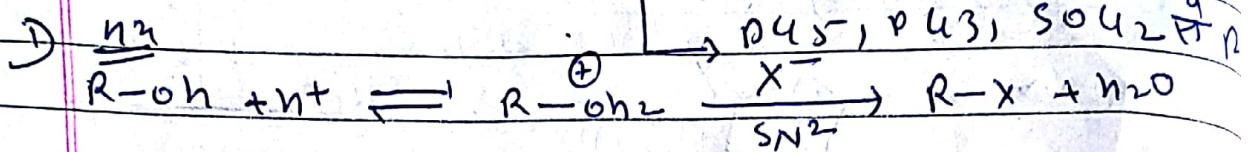


ii) Halogenation



Teacher's Signature

### 3. Alcohol $\xrightarrow{21}$ Reaction



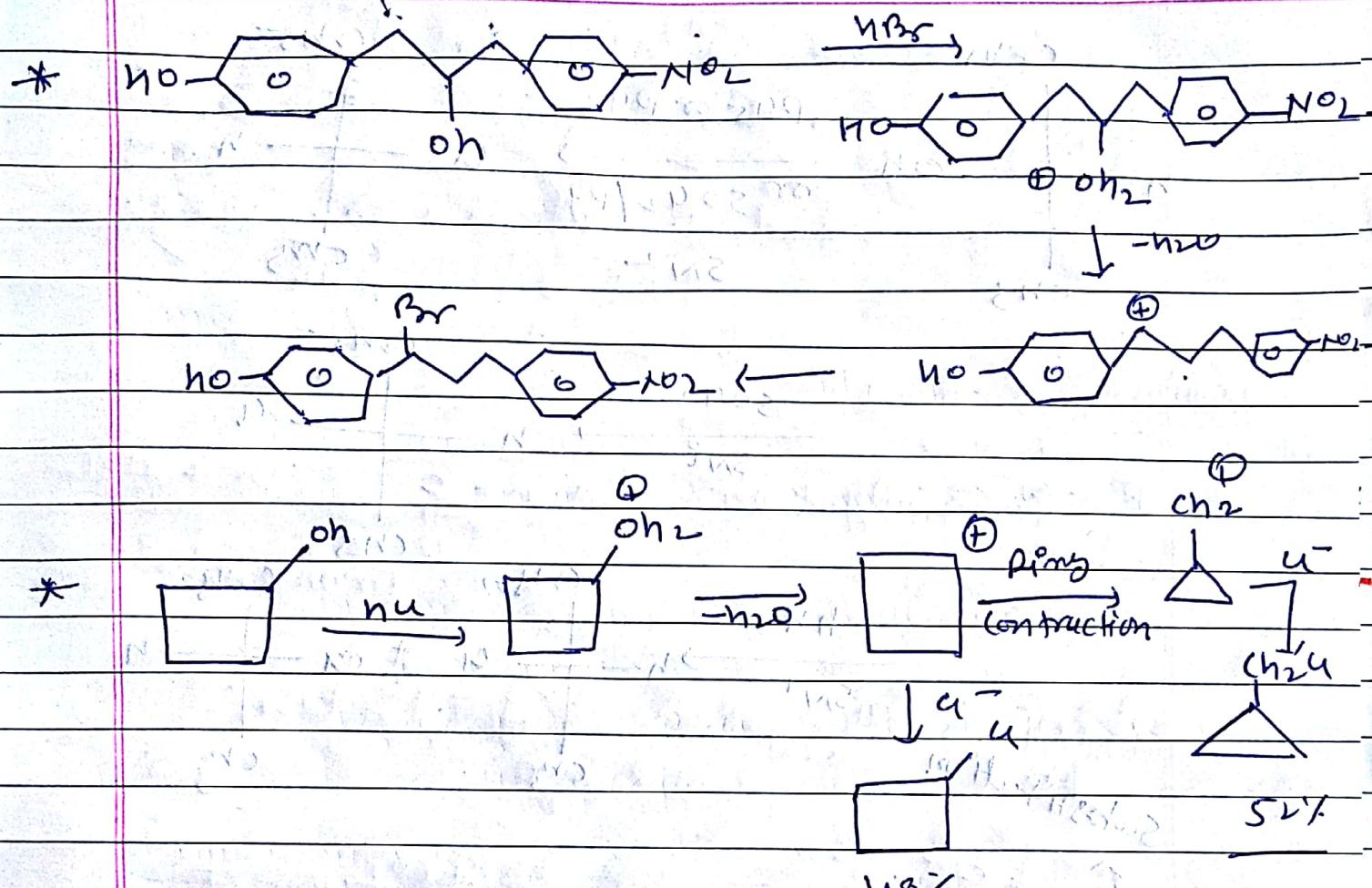
$SN^2$   $\text{QC}$

$n_3C-\text{Cl} \rightarrow$

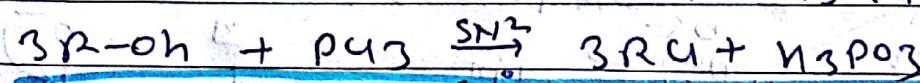
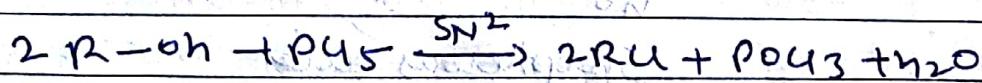
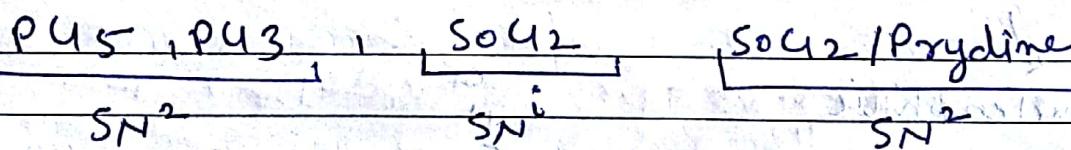
SHREE

DATE: / /

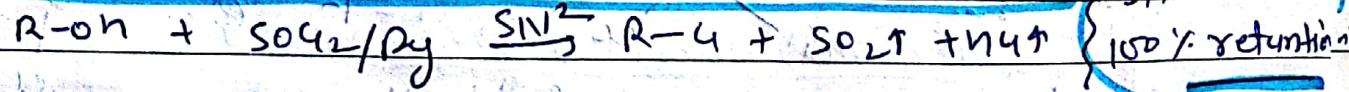
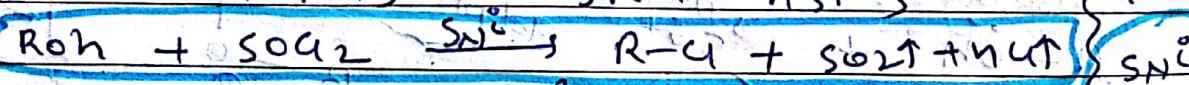
PAGE NO.:



(ii)



Darzen  
Reactn



$SN^2$

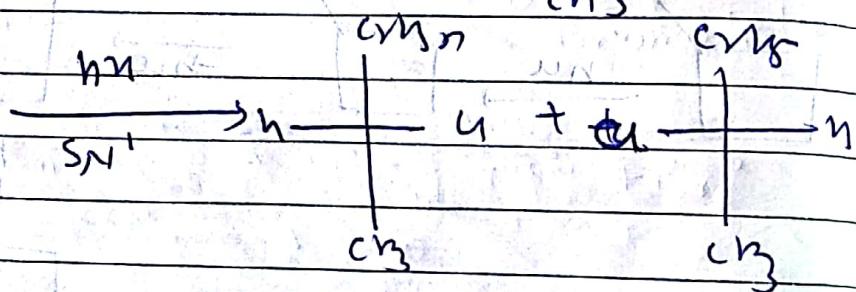
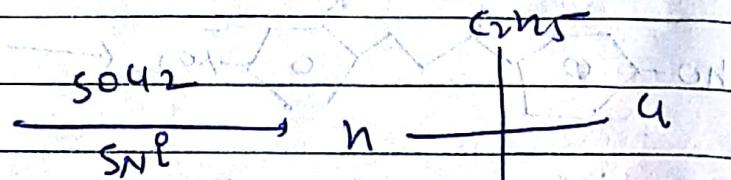
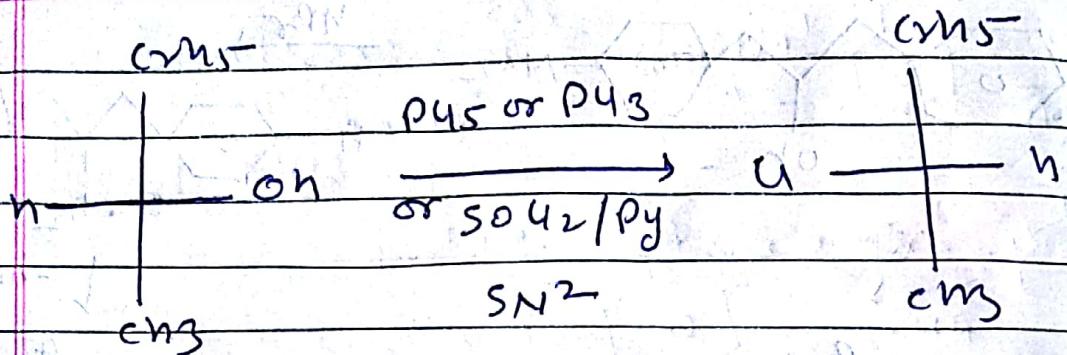
100% inversion

$SN^2$

100% retention

इन सभी प्रकार के विद्युतीय अवस्थाएँ जो इन तीनों अवधियों में आती हैं, उनमें से तीनों ने ग्राफों के अनुदर्शकों में अनुपर्याप्त दूरी

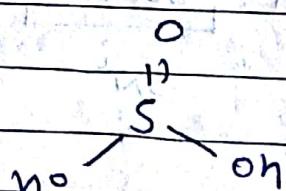
Teacher's Signature



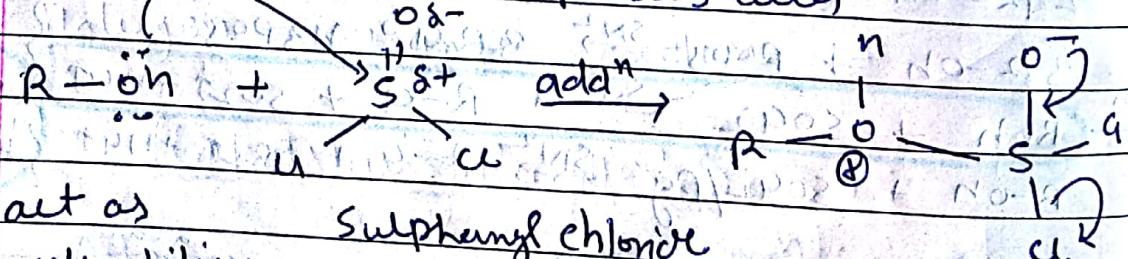
Substitution

$\xrightarrow{SN^1}$  internal reaction

Nucleophilic



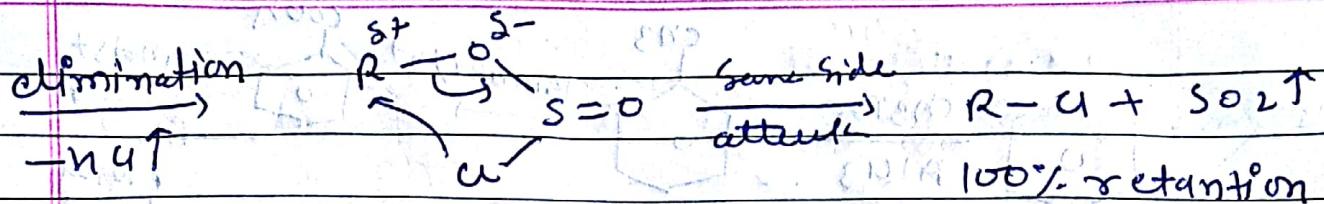
Sulphurous acid



act as nucleophilic

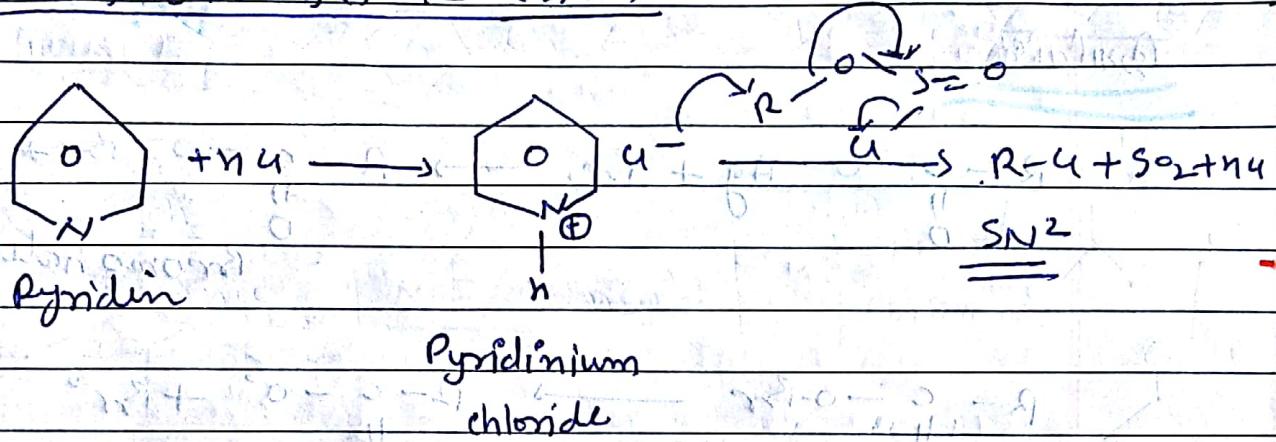
Sulphenyl chloride

Teacher's Signature



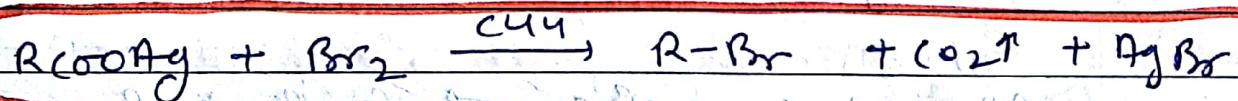
Chloro Sulphonate ester

ऐलिमिनेशन के प्रमाण तथा पर (SN2) :-

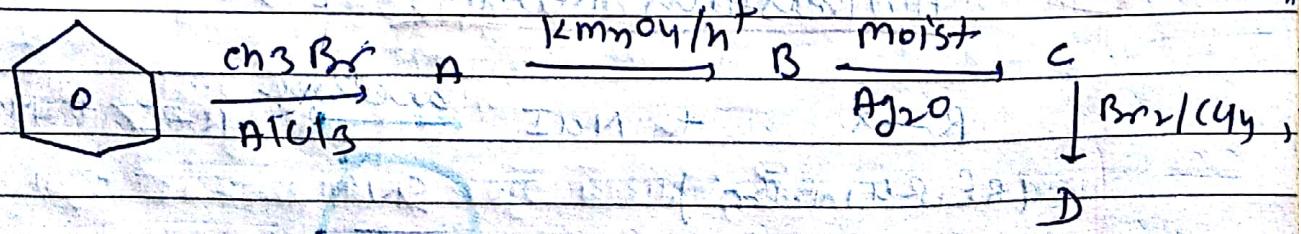


(2)

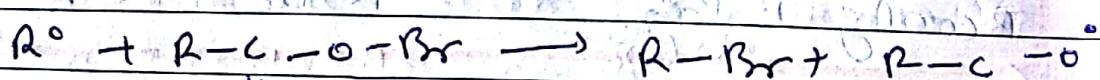
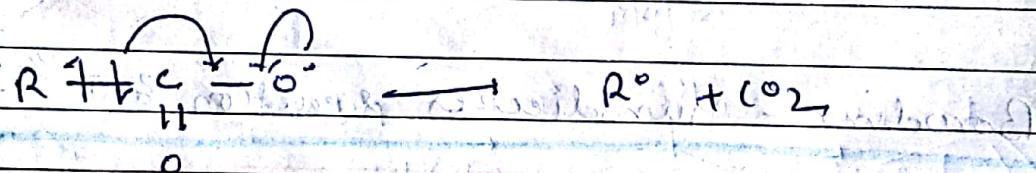
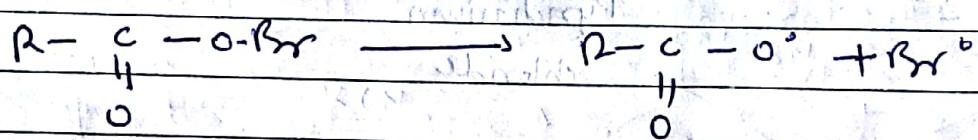
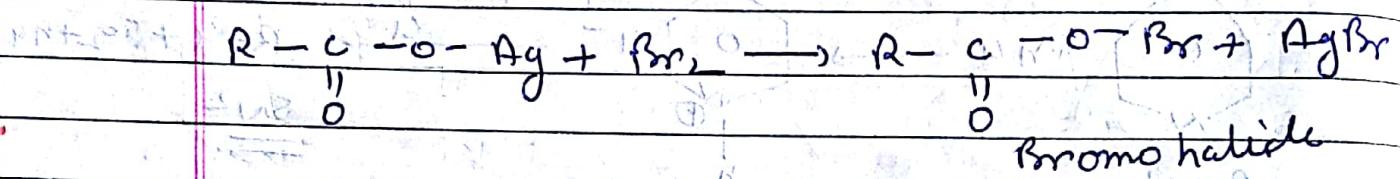
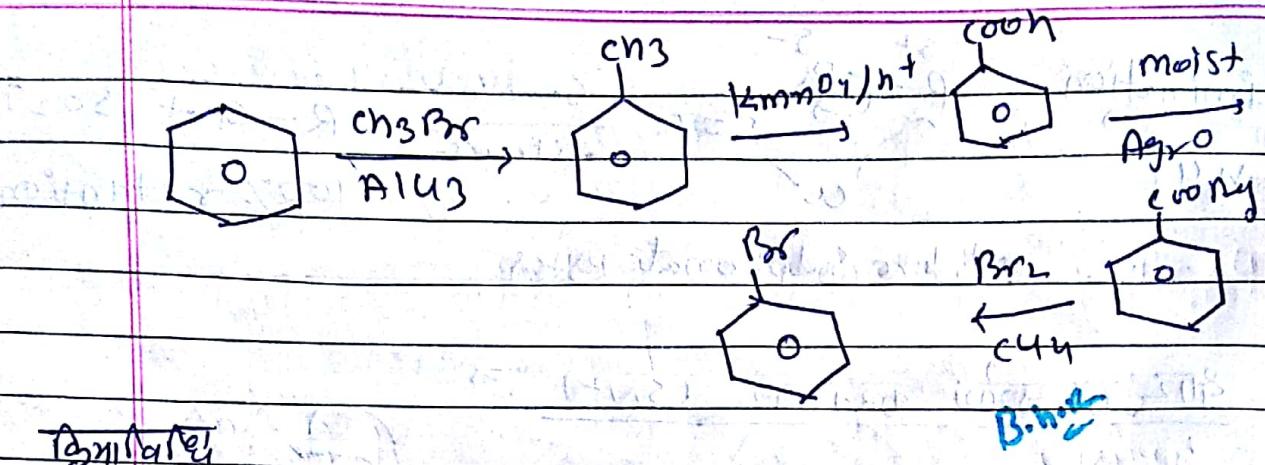
# Borodine - Finschelke reaction :-



इसका R ने carbonylic acid की Silver लवा भी  
Nucleophile से अणुओं फैलाये हैं और अभिक्रिया करके एवं  
रासायनिक कार्बन को बाला Allgemein heilic द्वारा दीती है।  
R ने यह कार्बन को बाला दीता है।



Teacher's Signature

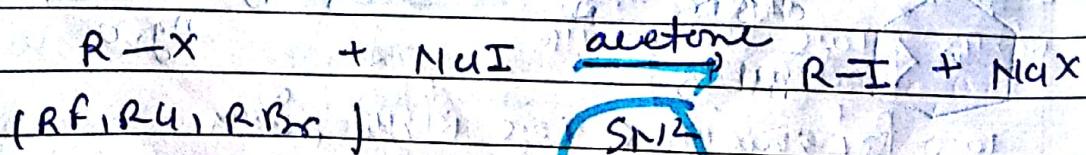


(5)

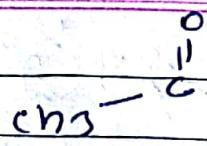
### Halogen - exchange reaction :

(1)

#### Finkelstein Reaction



acetone



weakly polar solvent

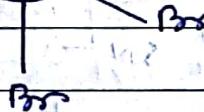
hint.

(प्राकृतिक रूप से) विलयन :  $\text{NaI} < \text{NaCl} < \text{NaBr} < \text{NaF}$

इस अवधि में साथ के आठ दिशाएँ में विलयन होते हैं तो करण आठ दिशाएँ में विलयन कर कर दी जाती है।



$\text{NaI}/\text{acetone}$



B<sup>-</sup>



I<sup>-</sup>



I<sup>-</sup>



I<sup>-</sup>

$\text{SN}^2$

I<sup>-</sup>



I<sup>-</sup>

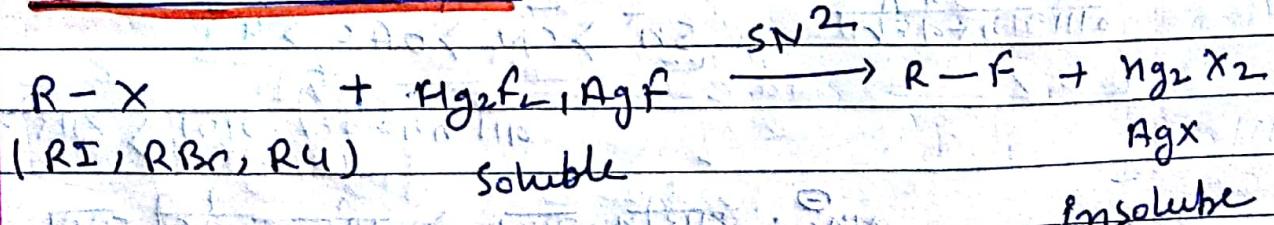
anti<sup>o</sup>

elimination

I<sup>-</sup>

ii)

Swast reaction :

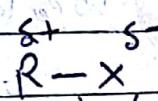


Teacher's Signature

in case of  $\text{NaNH}_2 \rightarrow$  Elimination  
Product is major

SHEE  
PAGE NO.:

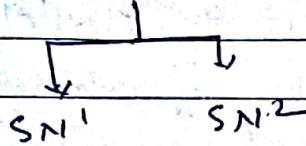
21 सितंबर २०१५



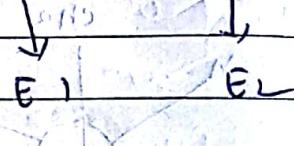
good log. Ig character  $I^- > Br^- > Cl^- > F^-$

21 सितंबर २०१५

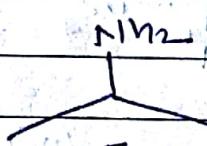
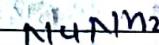
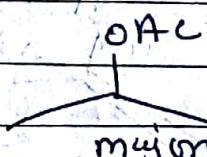
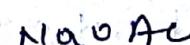
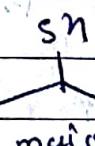
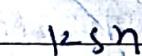
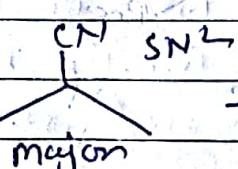
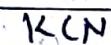
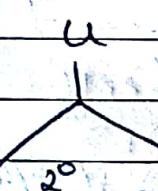
गुणवत्ता



तारीख



Ques:



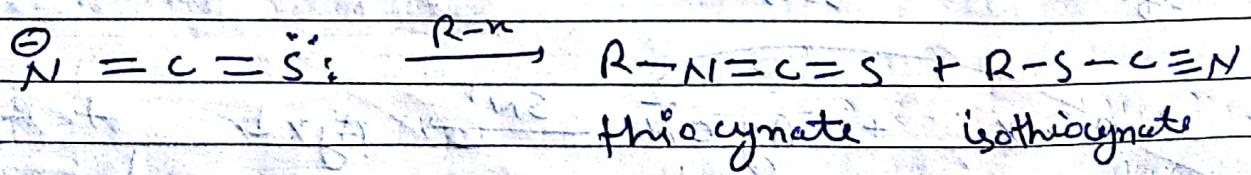
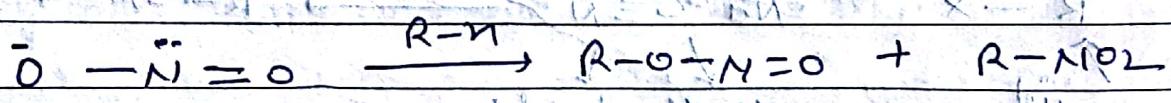
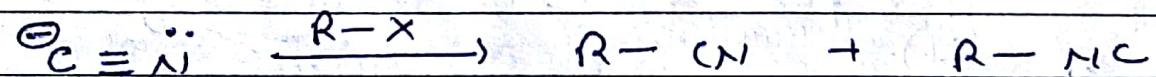
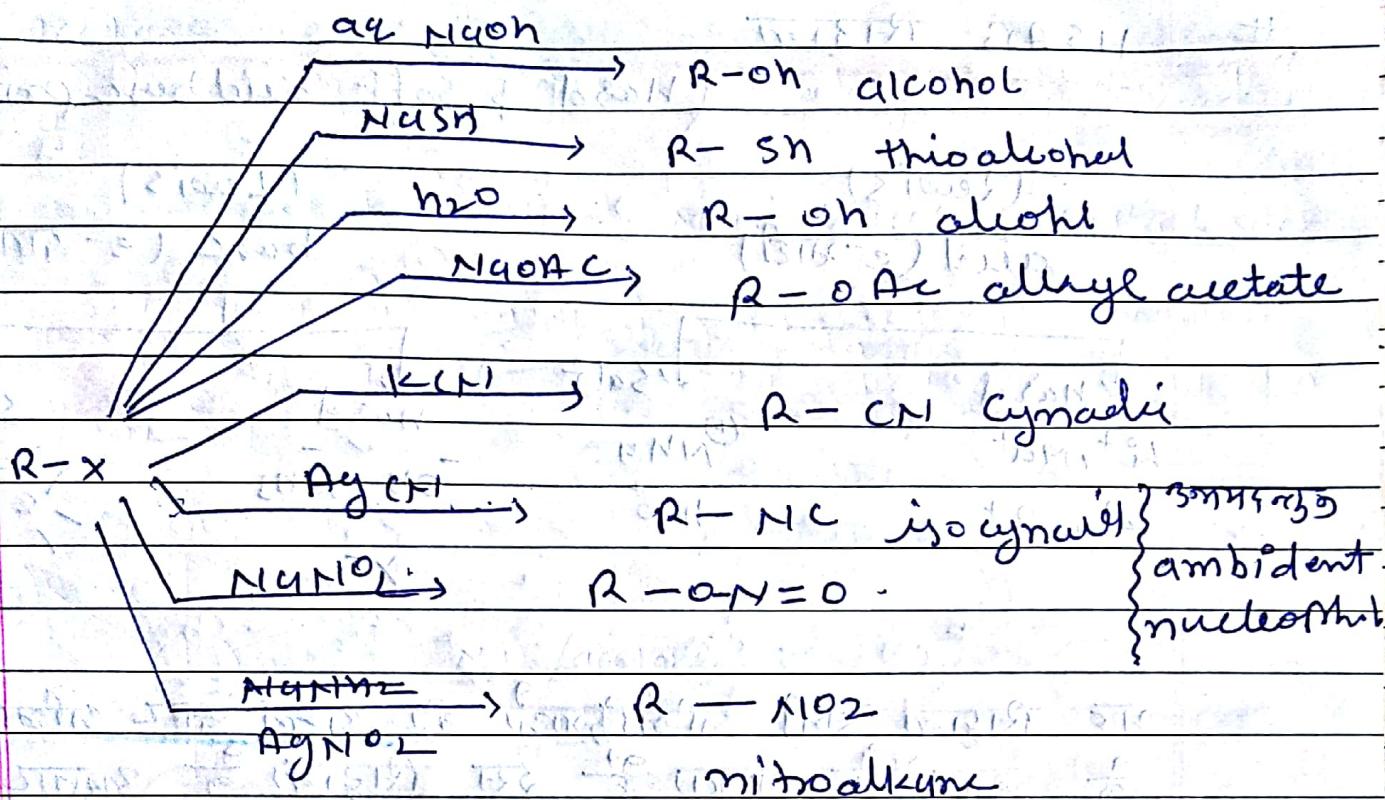
नाहियिकी

$SN^- > CN^- > OAc^- > NH_2^-$

गुणवत्ता गुण > गुण गुण

$NH_2^- ; \text{कार्बन } \text{250} > \text{ऑक्सिजन } \text{250}$

Teacher's Signature



# HSAB सिद्धान्त

(Hard & soft acid base principle)

(२०१५)

aiet (ए-एटी)

(Lewis)

base ( $e - 41(1)$ )

→ March

Li<sup>+</sup>, Na<sup>+</sup>

$\leftarrow$  R+

$\downarrow$  13a

- 130 -

Museo

Scif

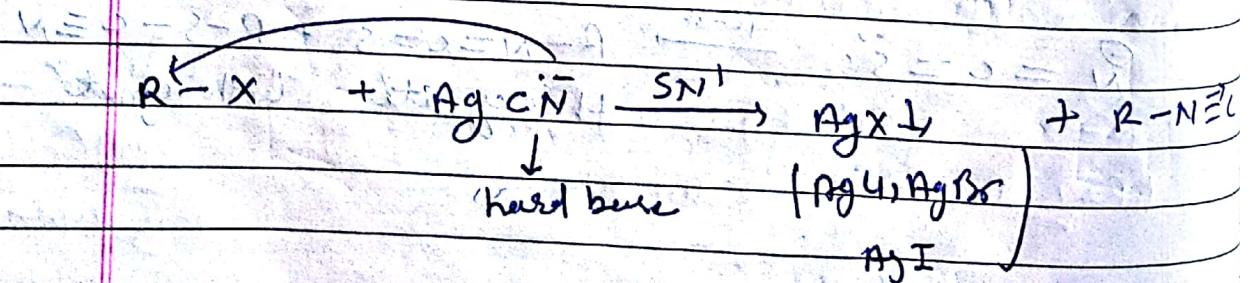
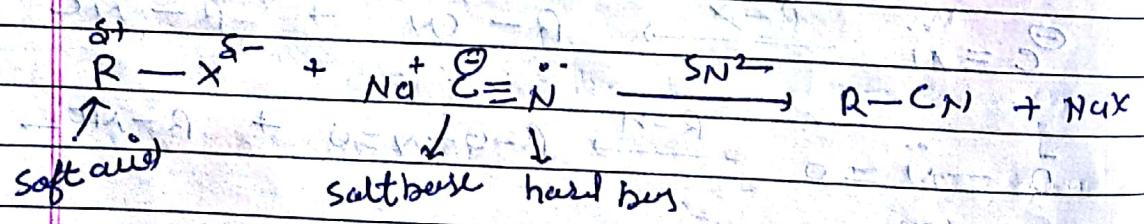
一

में सिवाना सभी अंतर्राष्ट्रीय को इन्हें क्षात्र अंतर्राष्ट्रीय  
 $\frac{9}{9}$  के बनप  $\frac{9}{9}$  गाला  $\frac{9}{9}$  इस सिवाना के  $\frac{9}{9}$  गाला

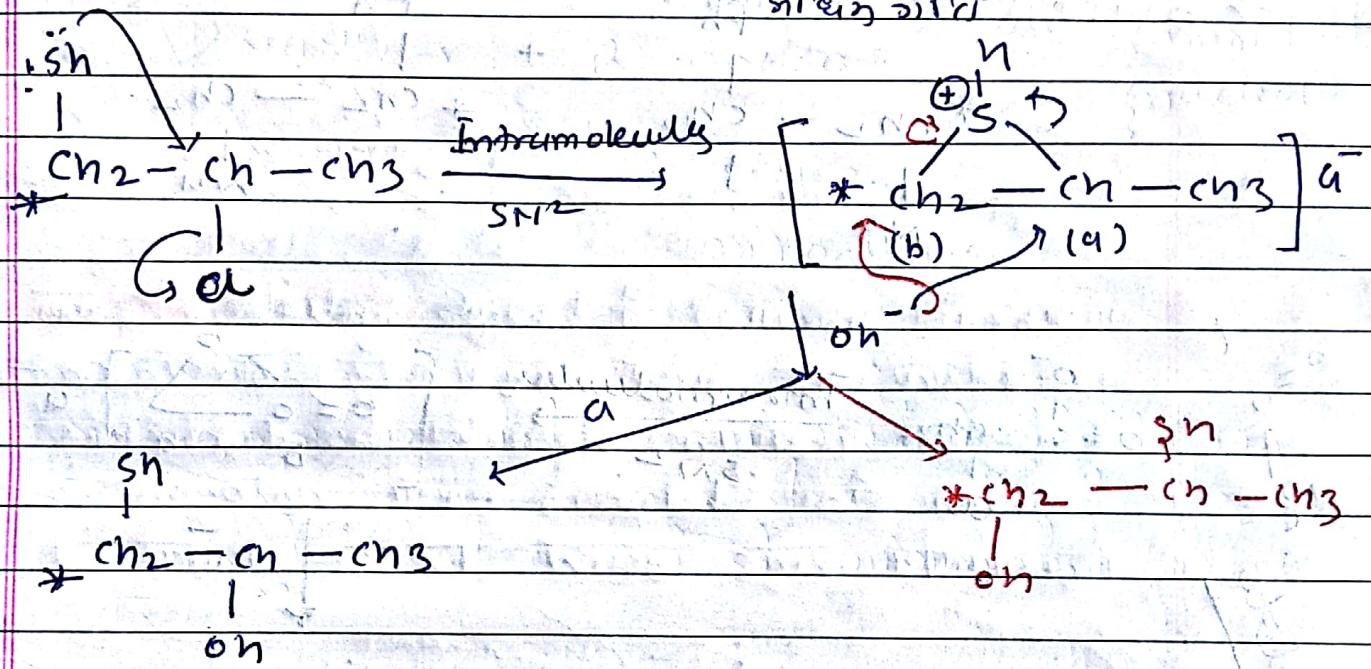
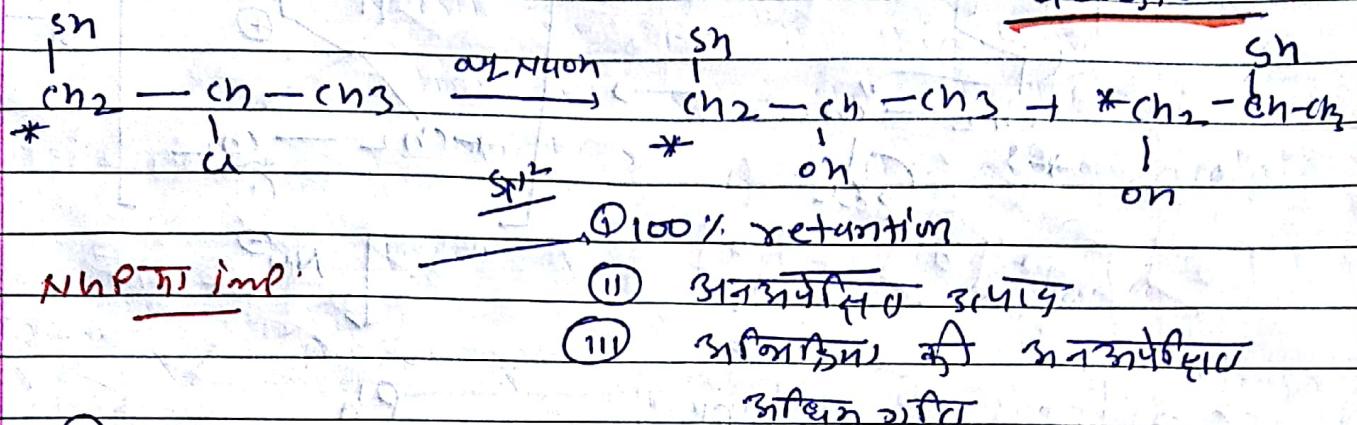
Hard aerial Hard base of 1100

soft acid soft base के साथ संगत लकड़ी करें जिधुम फॉस्फोरस आणि विटामिन

3) Hard acid वाले ये यूनिवर्सल हार्ड एसिड  
एवं एक अमीर अमीर ट्राईप्रोटोक्लोरो वा  
ट्रियूलिफ्ट्रो एवं हार्ड बास इनमें से



~~#~~ Neighbouring group Participation or NGP or anchimeric assistance: →

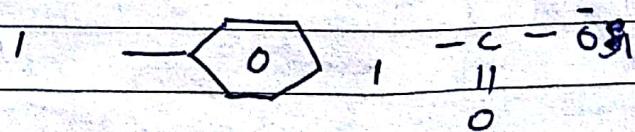


100% Retention

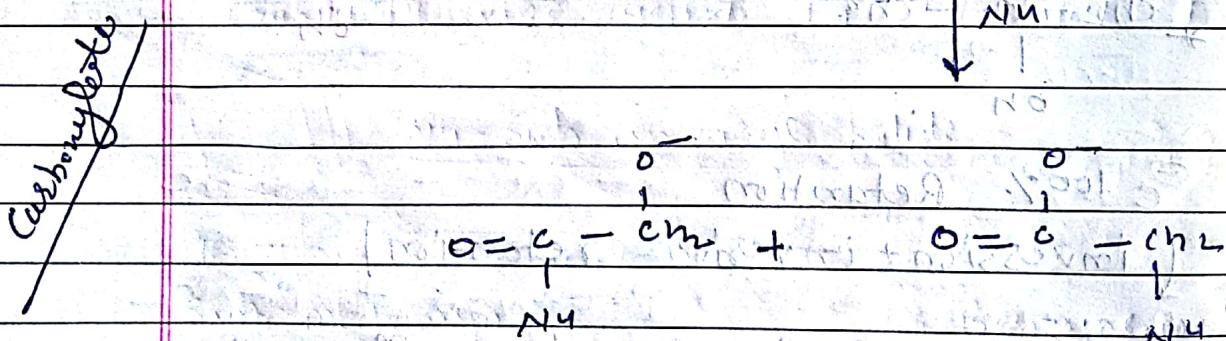
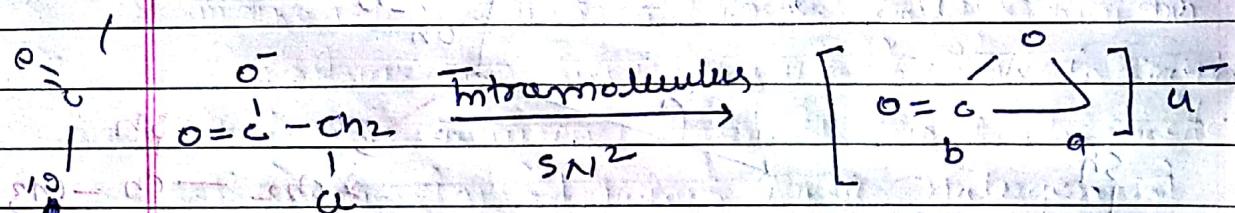
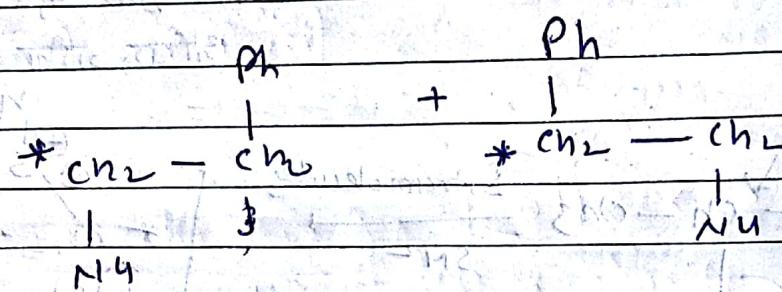
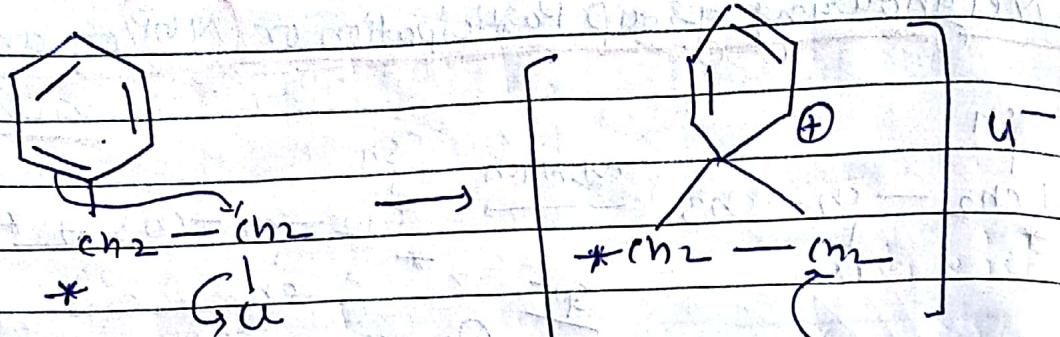
$$(\text{Inversion} + \text{inversion} = \text{retention})$$

B-C पर नामिकृत-ग्रन्थ समुद्र उपस्थिति होता है।

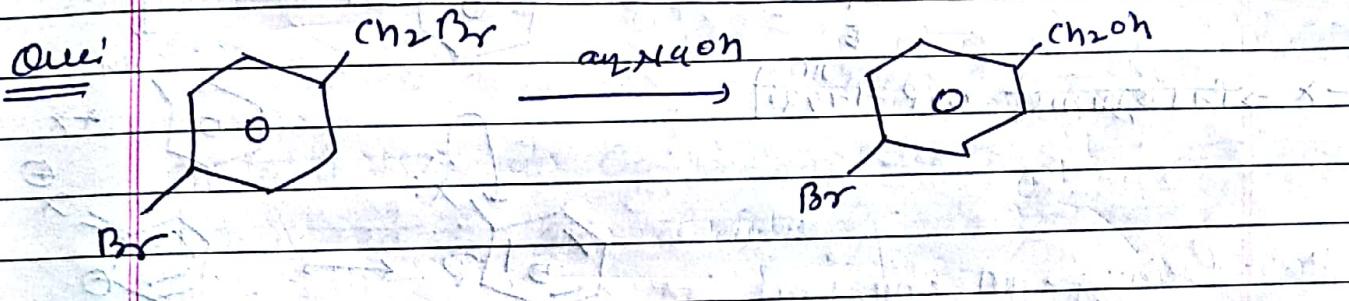
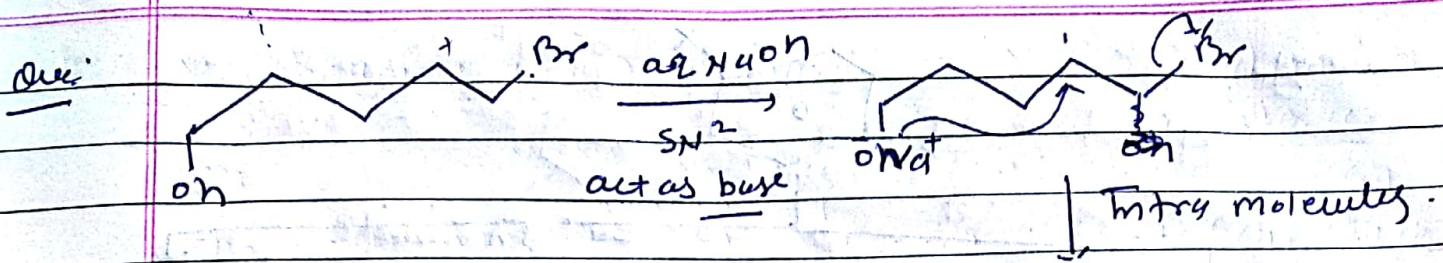
GPs → -sh, -ish, -on, -oh, -ch=ch<sub>2</sub>



**Teacher's Signature**

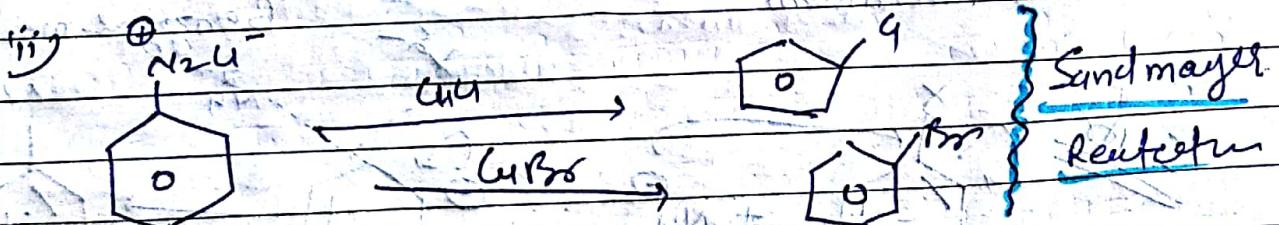
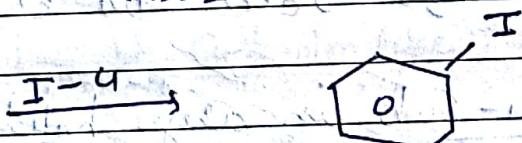
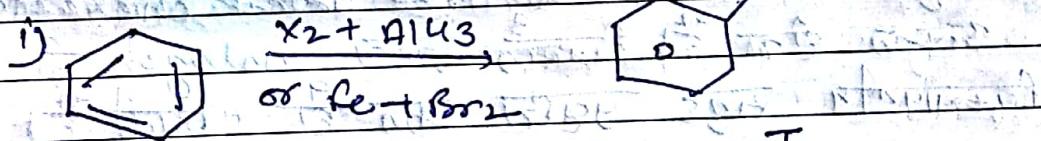


Teacher's Signature



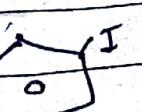
\* **ARYL HALIDE :**

Primo

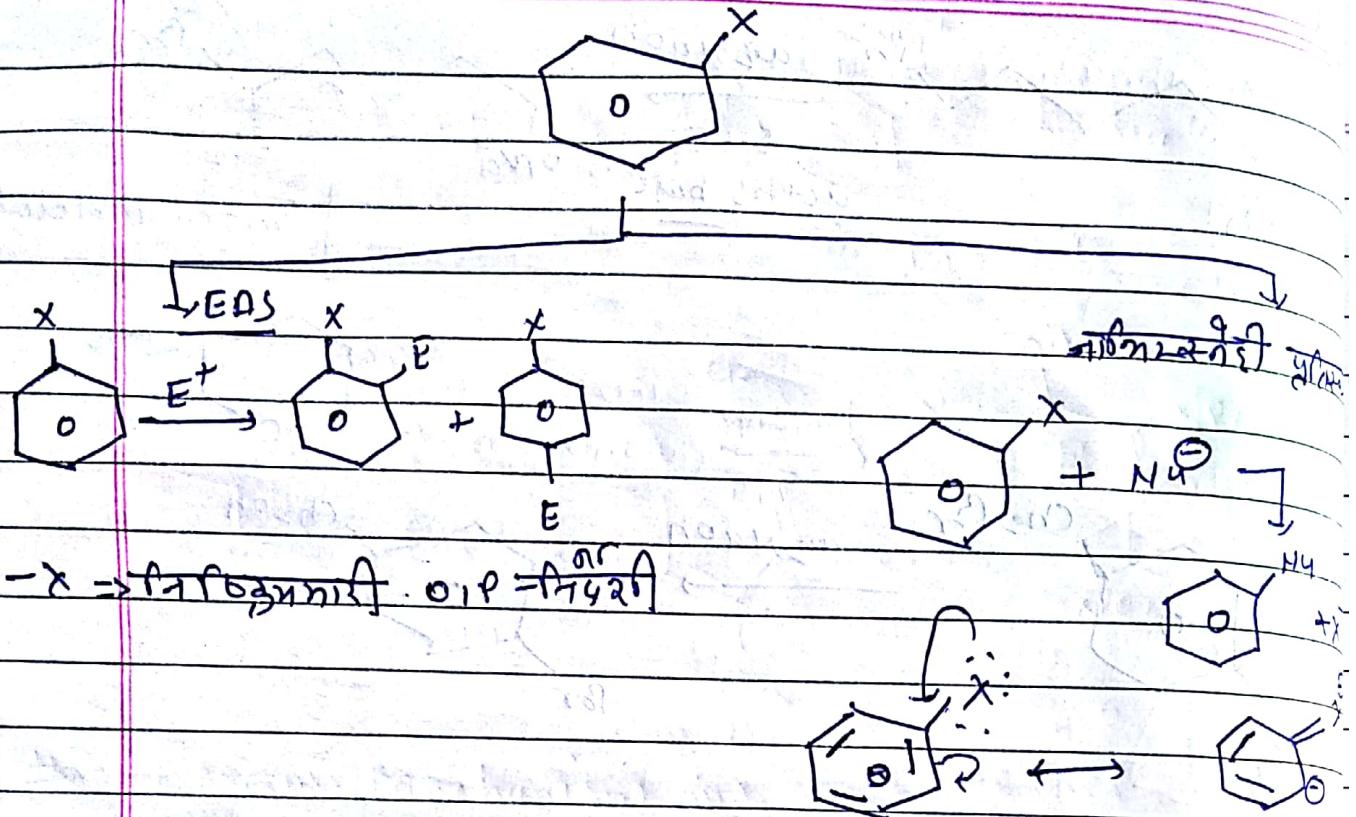


Benzene diazonium salt

Bolts-Scheme

$\xrightarrow{\text{KJ}}$  

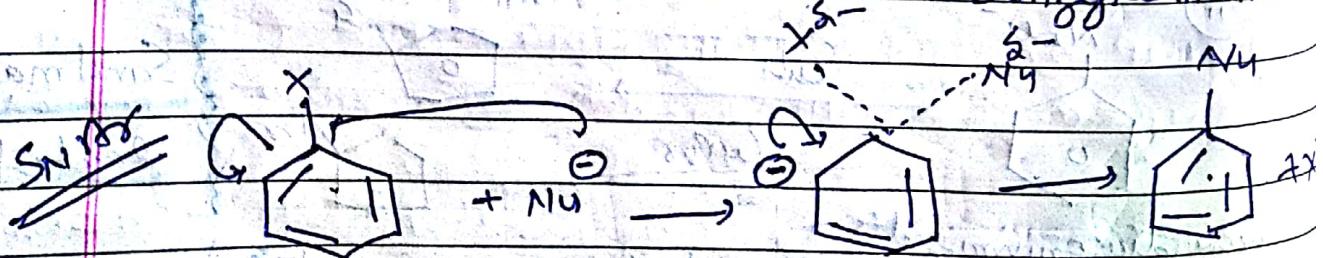
Teacher's Signature



ની અક્ષરે પ્રત્યે એક અર્ગેલ હાઇડેન્ફોર્મ કરું  
દ્વિનાયિલ કુ કરું રિઝાલિન કુ કરું કાર્બન  
હાઇડેન એટ ની ડોબ્લુ બન્ડ છેચેટે  
વાળન દીન એ રિઝાલિન કરું નાયેન એ  
પ્રત્યે એક સિસ્ટમ કરું એ જારી રહે

### Nu-Sub. in aryl halide

~~SNAr mechanism~~

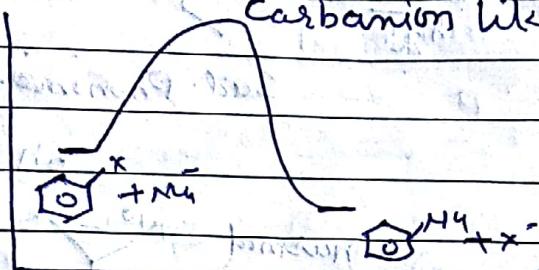


Carbanion like T-S'

\* Single step एक पद

+

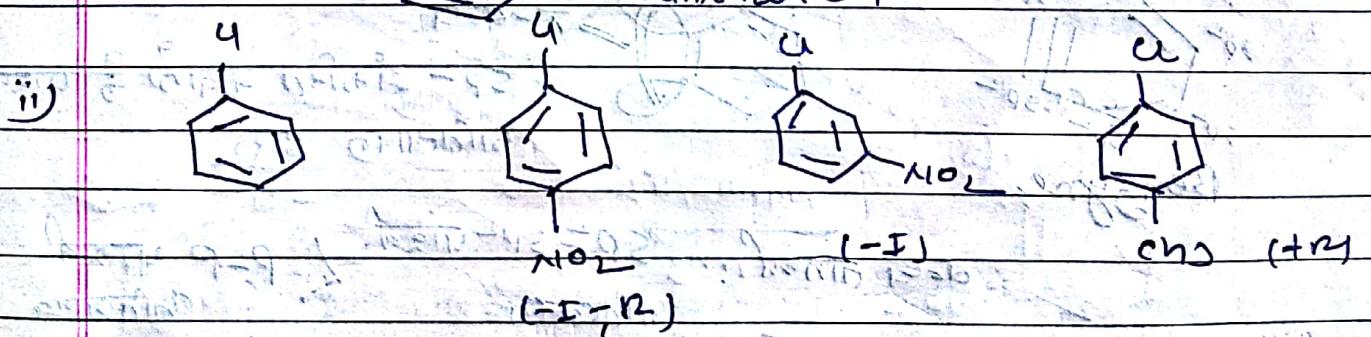
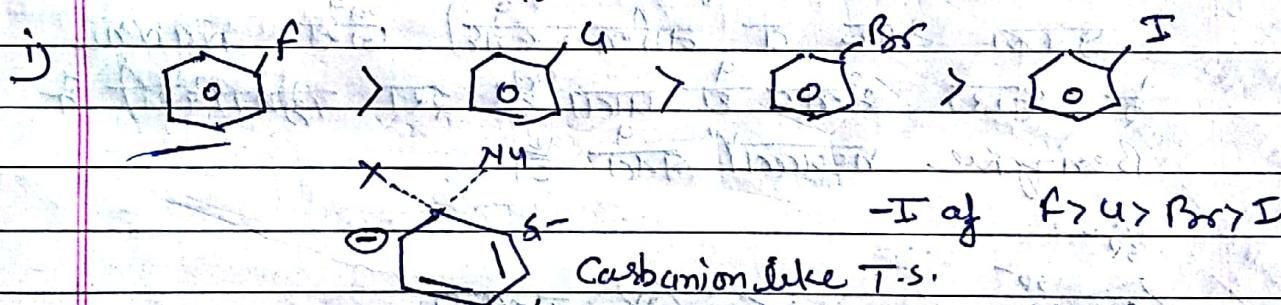
Carbanion like T.S.



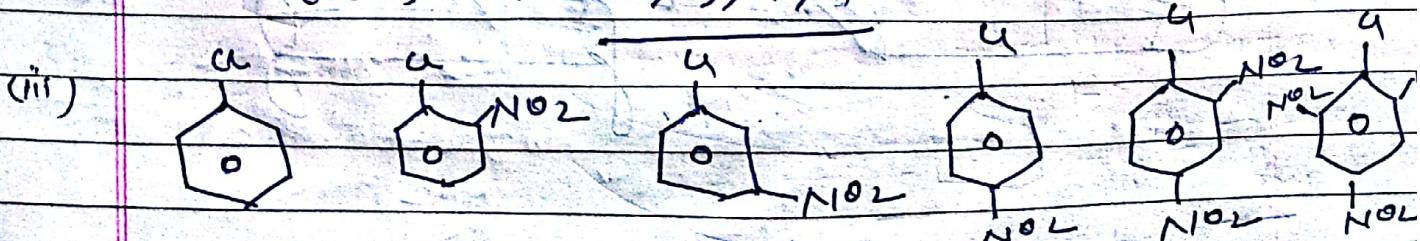
\* ज्ञान ताप, दाव परिस्थिती में दी संभव होती है।

वह सजी करने जो Carbanion like T.S. की स्थानता  
प्राप्त करते हैं वह अस्थिरता की गति की विधते हैं।

One:  $\text{SnAr}$  के लिए क्रमशः

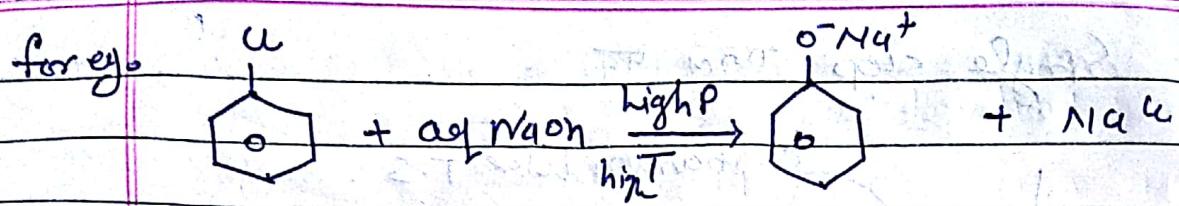


order  $\rightarrow 2 > 3 > 1 > 4$

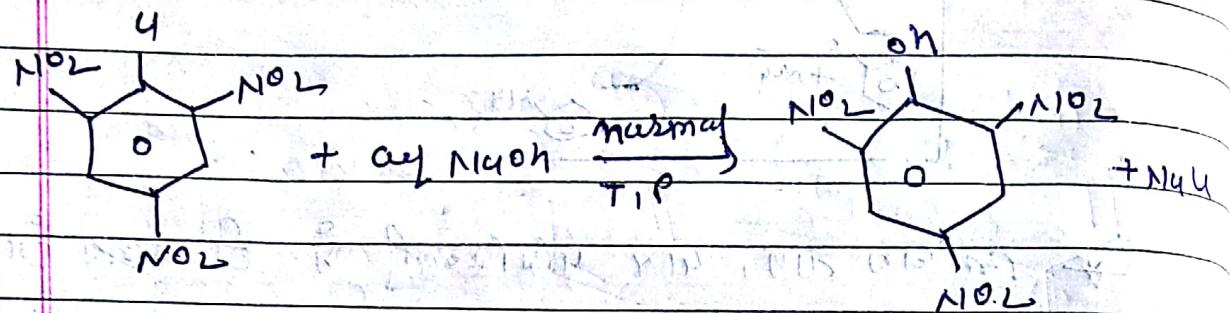


$6 > 5 > 2 > 4 > 3 > 1$

Teacher's Signature



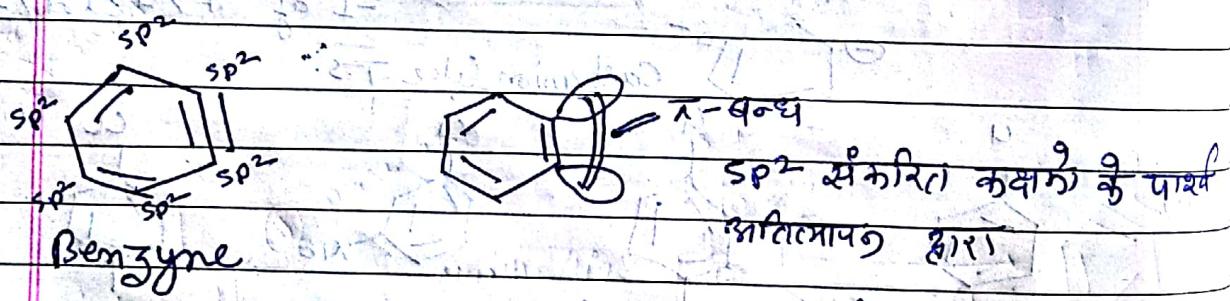
Sud. Phenoxide



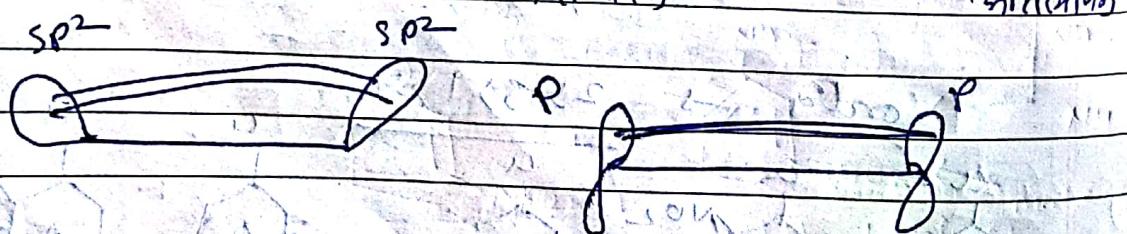
### # Benzyl mechanism :→

Aryl halide → Benzyne

किनारपर क्षात्र पुस्तकालय जल संग्रहीत  
क्षेत्र वा नामिकरणी जैसे NaBH4  
के क्षेत्र जोड़ दी पाता ही कर किनारपर  
Benzyne नामक वर्ता है।

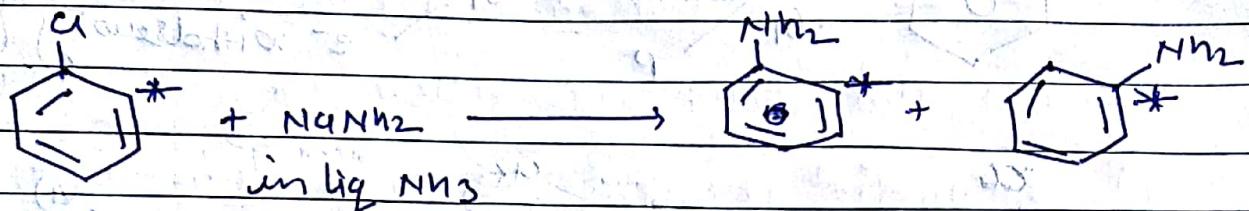


ब-ध गति:  $\text{sp}^2 = \text{sp}^2$  वाला  $\text{P}=\text{P}$  वाला



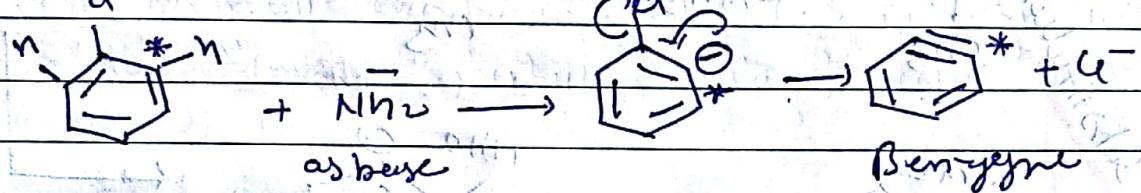
Teacher's Signature

$sp^2 - sp^2$  पार्श्व अणुमान के तुलना में यह कहा जाता है कि Benzyne  
निम्नता अवधि उत्तराधिक होता है।

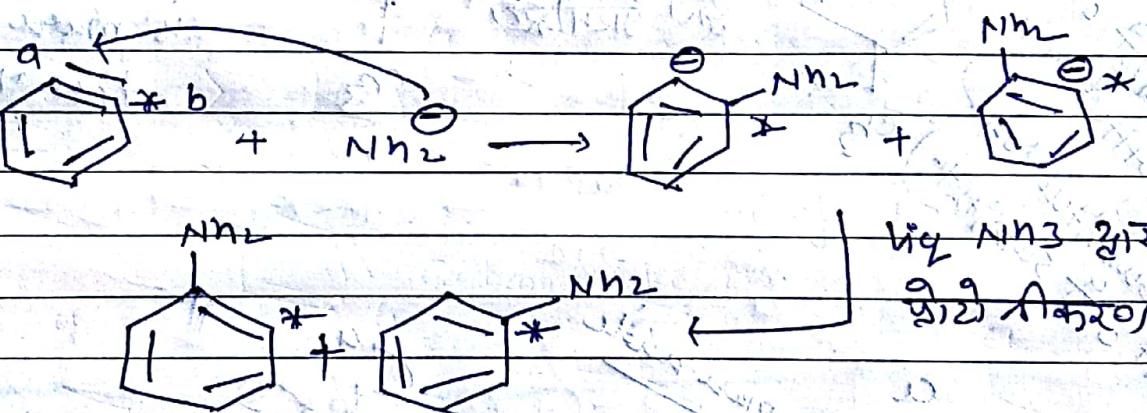


### Amines

i)  $NH_2$  act as base



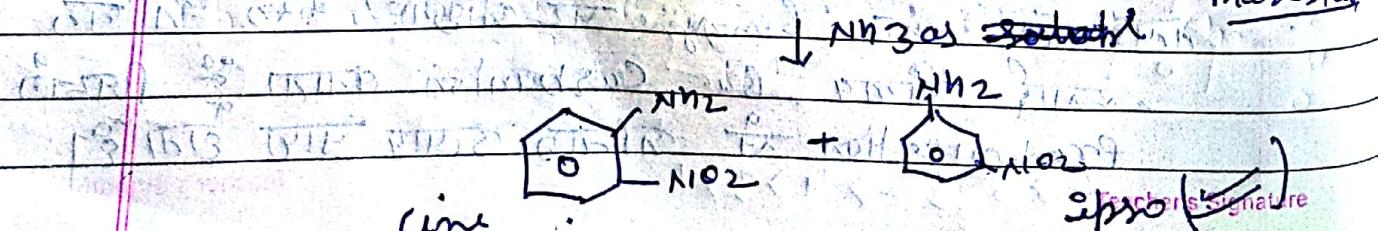
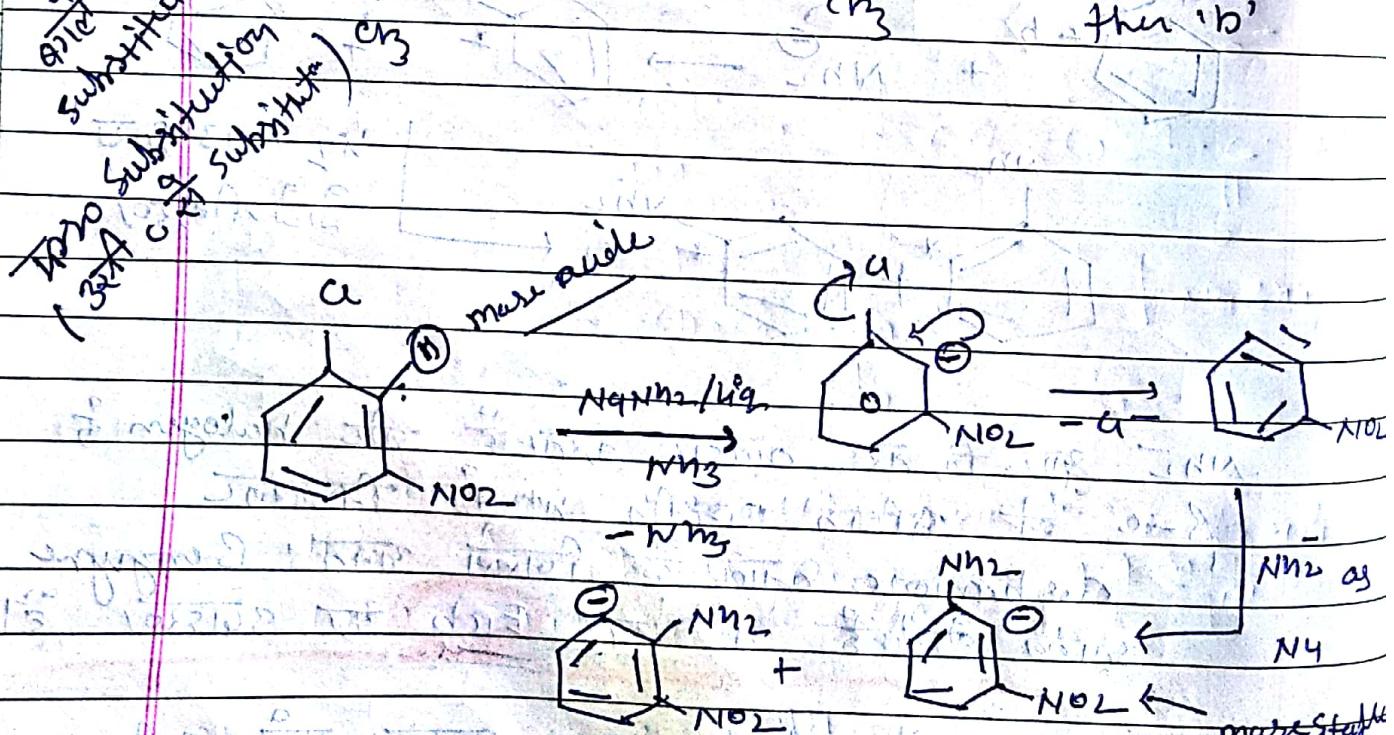
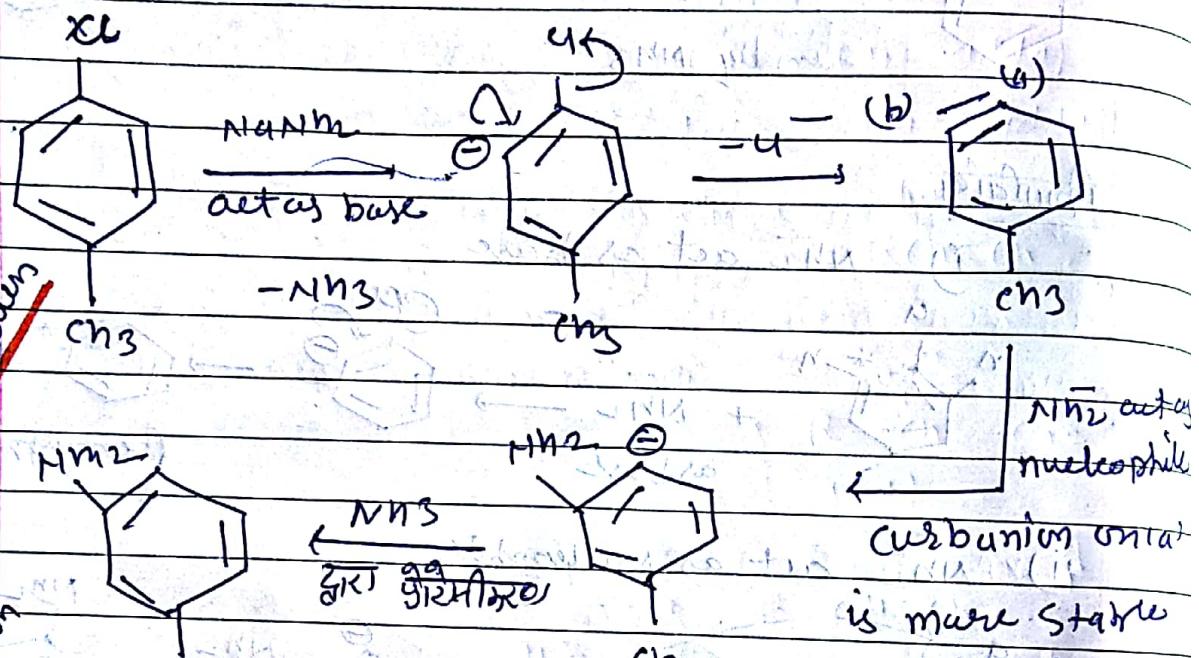
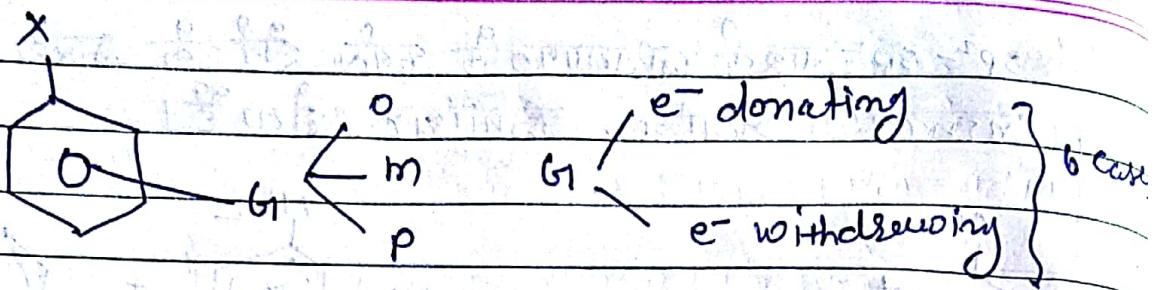
ii)  $NH_2$  act as nucleophile

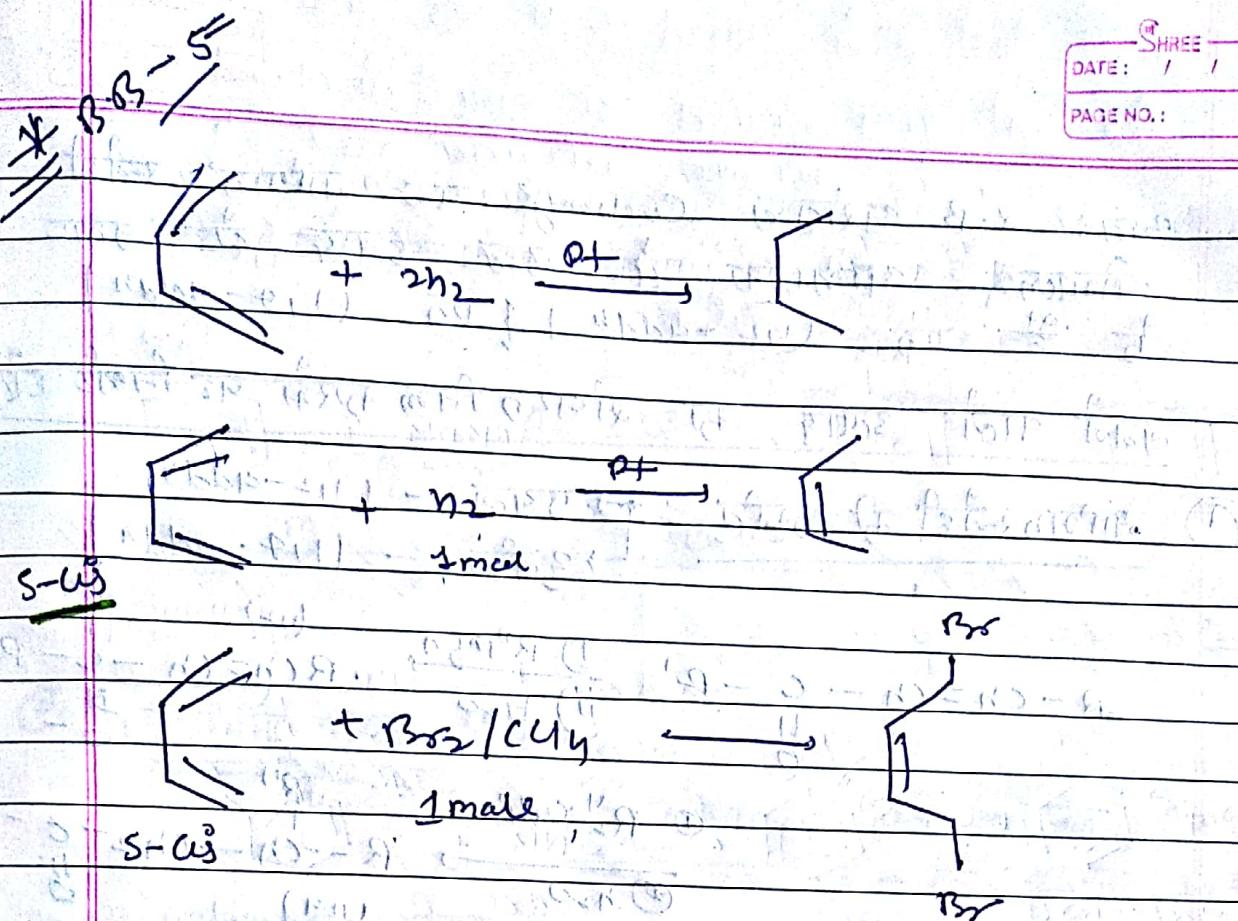


$NH_2$  शीर्ष के तरह मासिक है और Halogen के  
 $\beta$ -C से अतिरिक्त असंतुष्टि  $H^+$  का विकालन  
Carbanion एवं है जिससे अनेक Benzyne  
उत्पन्न होता है एवं यह **Friedel-Crafts** का उपयोग है।

अमिनो  $NH_2$  Benzyne के निष्ठा करने वाली  
जलाली दीमुख Bas Carbanion एवं है प्रत्यक्षी  
Protonization से उत्पन्न होता है।

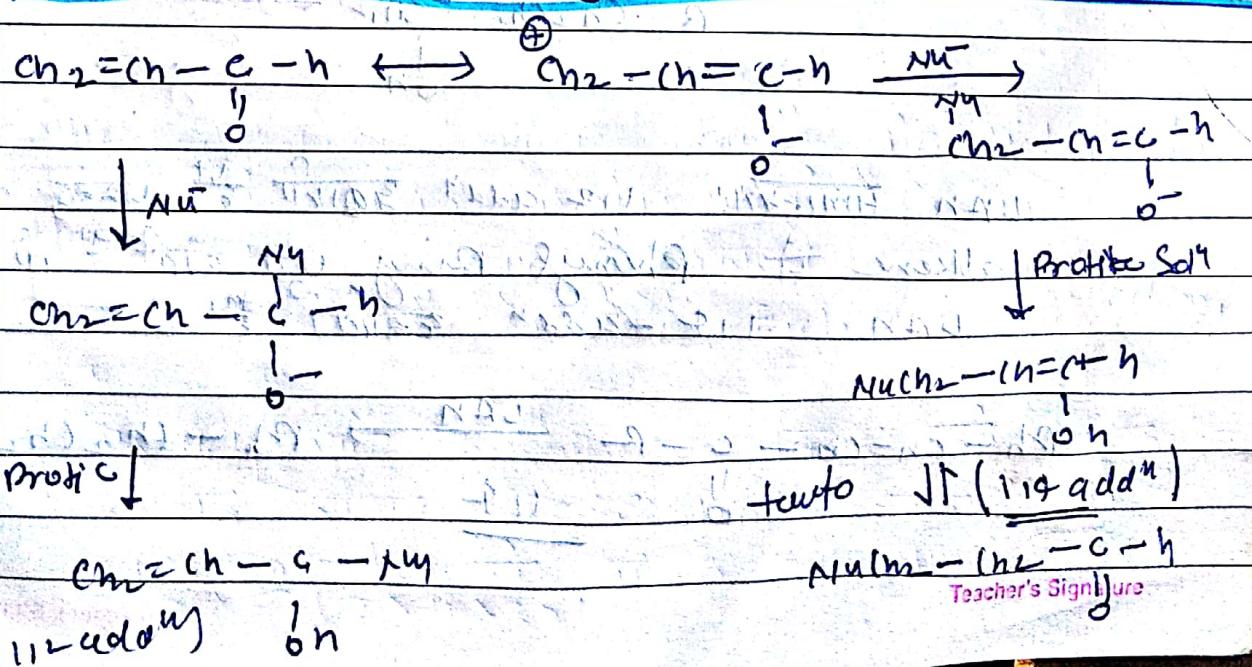
Teacher's Signature





हल्के दरी से अंगात्रु अणिक्टों के द्वारा प्रतिरक्षणीय alkene अंगात्रु क्षियाशील होता है जबकि hydrogen के व्याप्रों के द्वारा कहा प्रतिरक्षणीय alkene नियंत्रित किया जाता है।

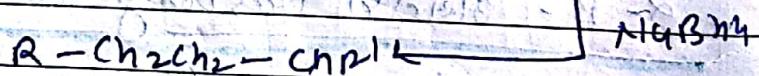
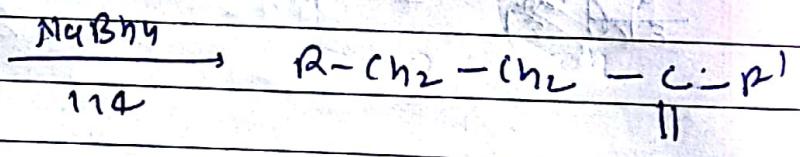
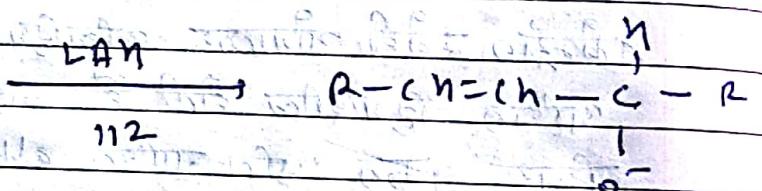
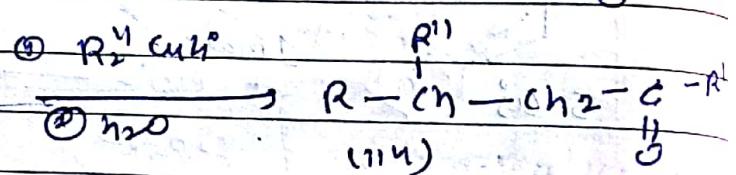
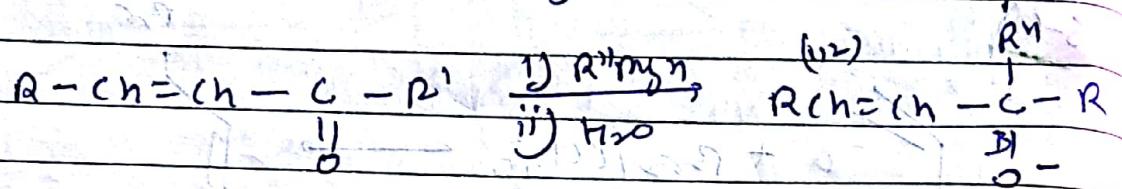
~~#~~  $\alpha$ -B-असंतृप्त Carbonyl पर लक्षित होने वाला प्रक.



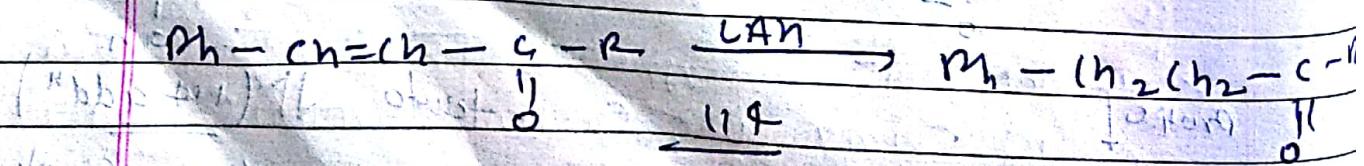
बंनने वाले उपाय का क्षेत्र सिंहरु पर मिलते हैं।

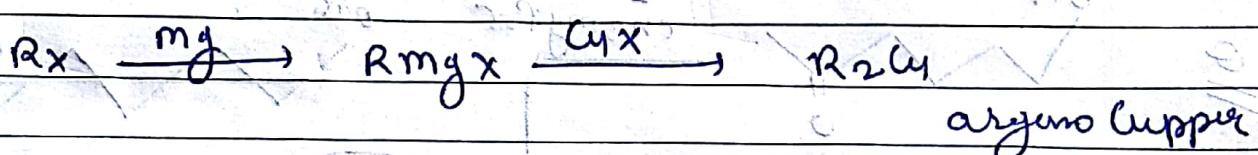
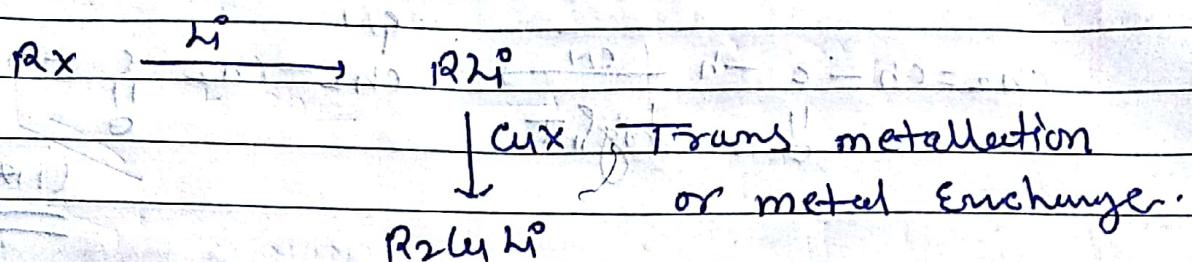
① नाभिन्सीय की पृष्ठता :-  $\rightarrow$  प्रबल - (112-add'n)

$$\rightarrow \text{gof}(x) = (1, 4 - \text{add}^n)$$



~~Lithium Ammonium~~: 1,2-add<sup>n</sup> ~~2,2,2-trifluoroethyl~~ ~~2,2,2-trifluoroethyl~~ ~~2,2,2-trifluoroethyl~~



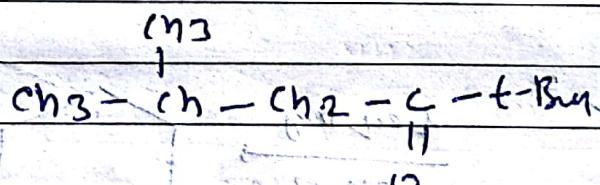
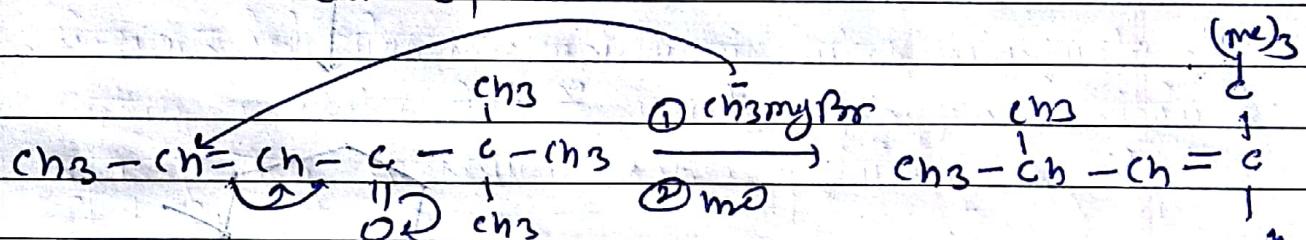


②

नियन्त्रित विद्युत :

Carbonyl carbon के रूपमें  
बायर विधि से 1,2 की असमिक्यालीय विद्युत 1,4-

attacked होती है।



③

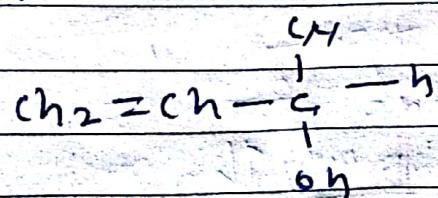
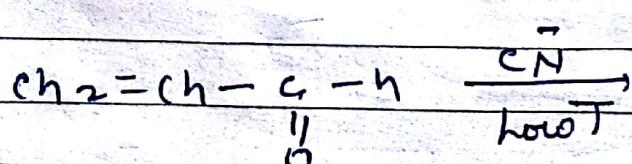
therodynamic vs kinetic Control :-

अधिक ताप

(1,4-addition)

कम ताप

(1,2-addition)

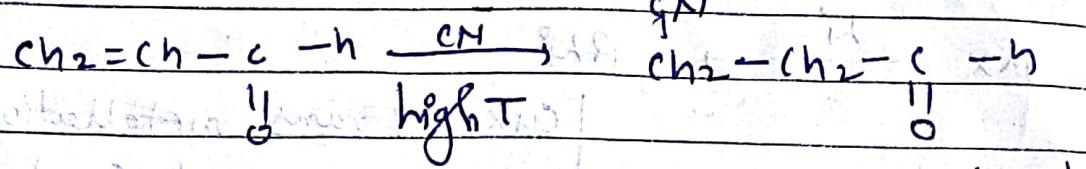


(1,2)

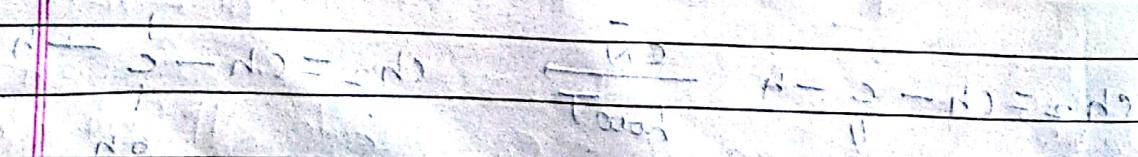
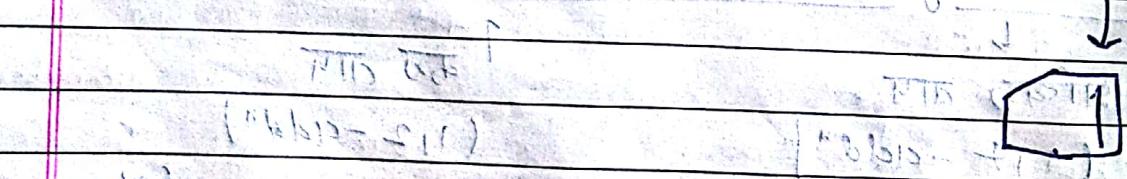
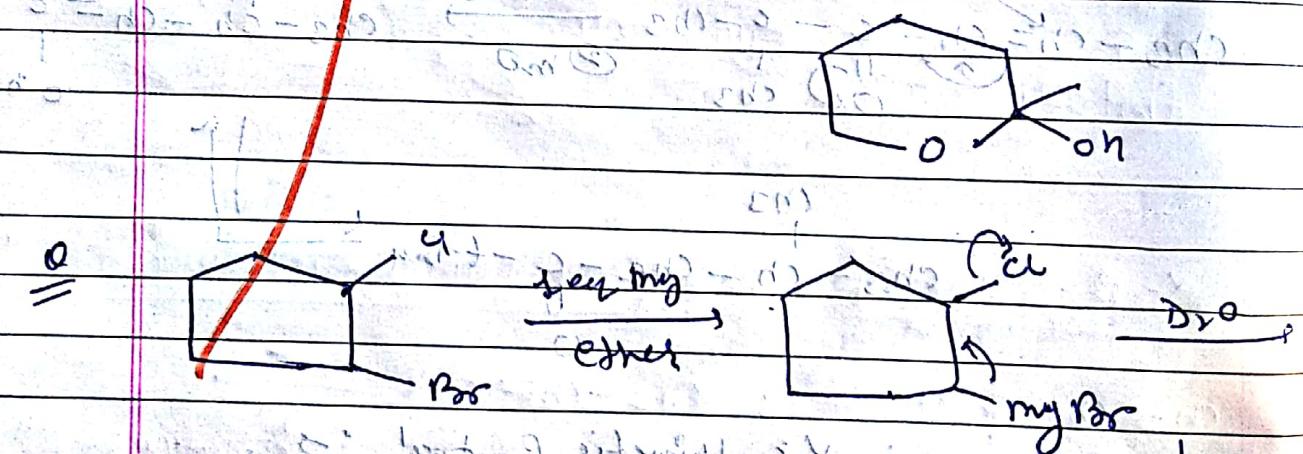
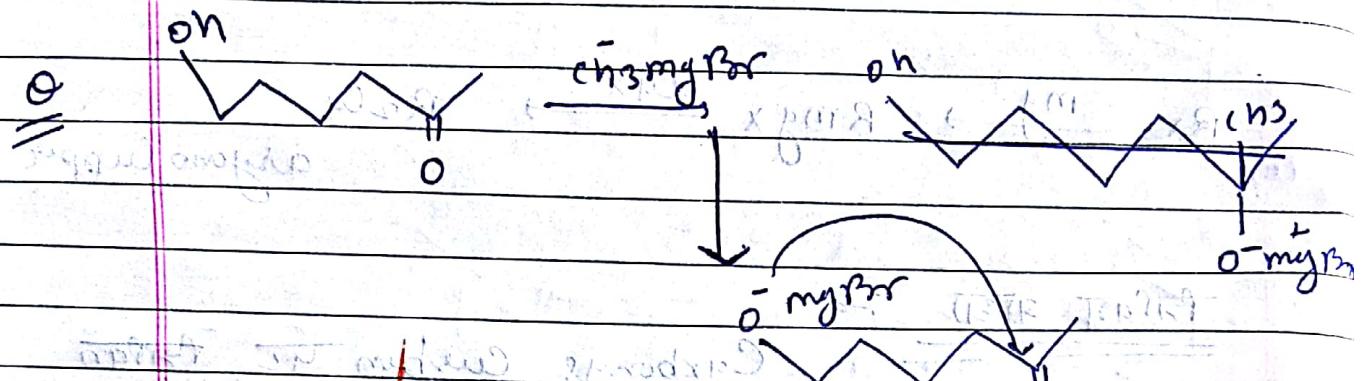
Teacher's Signature

अस्ति किए गए Chiral-C हैं जुड़े चारे फॉर्म नहीं हैं।  
 कोई भी अन्य विद्युत नहीं होती है तो Chiral Cusben का  
 विनाश अप्रवाहीर रूप से होता है।

DATE: / /  
PAGE NO. / /



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Teacher's Signature