

* Alkenes are the compounds in which both 2 sigma & 2 pi bonds are on same carbon:-

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11 12	10	6	7	8	9	10	11 12
07	13	14	15	16	17	18 19	11	13	14	15	16	17	18 19
08	20	21	22	23	24	25 26	12	20	21	22	23	24	25 26
09	27	28					13	27	28	29	30	31	

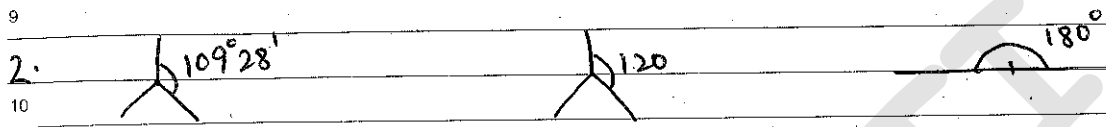
$CH_3-CH=C=CH-CH_3$
 This shows that not only triple bond but double bond can make C. sp hybrid.

2017
 JAN

Hybridization in Organic Compounds.

7am

1. sp^3 sp^2 sp
 4σ 3σ 2σ
 0π 1π 2π



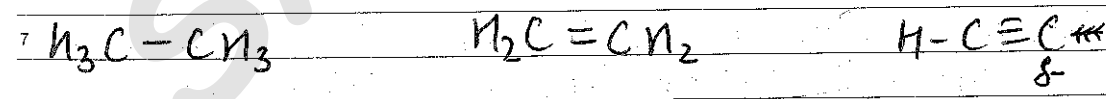
3. 3D 2D 1D

4. non planar planar planar

5. non-resonating resonating resonating
 ∴ in hybrid orbitals one lobe is bigger than other, 2 " " form sigma bonds so no. of sigma bonds are used to find hybrid. of carbon.
 3. ∴ wity & % of s character.

Acidic & ∴ wity.

5. sp^3 sp^2 sp
 $25\% s$ $33\% s$ $50\% s$



When carbon is sp hybrid, it is more e⁻ve so attracts the bonded pair and creates partial charges hence making the comp. polar, so it can release H⁺ easily, hence more acidic.

Do you know all people smile in the same language?

2017

02

benzochloride
Day (002-383)

January • Monday

DEC

2016

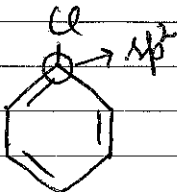
JAN

2017

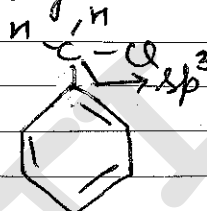
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
48			1	2	3	4	52	30	31				1
49	5	6	7	8	9	10	01	2	3	4	5	6	7
50	12	13	14	15	16	17	02	9	10	11	12	13	14
51	19	20	21	22	23	24	03	16	17	18	19	20	21
52	26	27	28	29	30	31	04	23	24	25	26	27	28

Give a chemical test b/w chlorobenzene & benzylchloride.

8 Chlorobenzene



benzylchloride

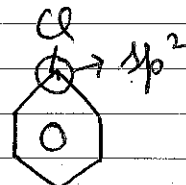
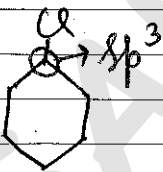


In chlorobenzene carbon is sp^2 hybrid.

So it is more acidic than sp^3 hybrid carbon in benzylchloride. So when Cl will attract the bonded pair of e^- towards itself.

sp^3 carbon being less \ominus ve couldn't stop the e^- from shifting whereas sp^2 can. Therefore benzylchloride becomes more polar, hence

more reactive. So add $AgNO_3$ to both white ppt. of $AgCl$ will be obtained in benzylchloride, as it is more reactive.



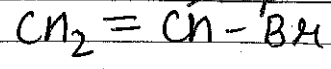
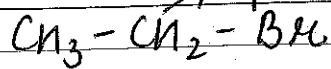
Similarly in chlorobenzene carbon is more acidic than cyclochlorohexane, so chlorobenzene will not be so polar so less reactive but chlorocyclohexane will be more reactive as will be polar \therefore Cl can attract e^- efficiently. So add $AgNO_3$, chlorocyclohexane will react to give white ppt. of $AgCl$.

Life is not a problem to be solved, but a reality to be experimented

AgCl → white ppt
 AgBr → pale yellow ppt

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09	→ 1	2	3	4	5	6
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

Day (003-362) **03** 2017
 January Tuesday



7am

Similarly Bromoethane will be more polar than Bromoethene, so on adding $AgNO_3$, Bromoethane will react to give pale yellow ppt of $AgBr$.

10

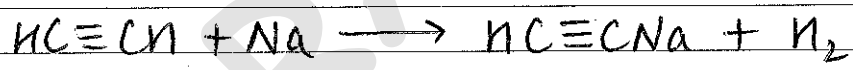
Q How will you differentiate b/w alkane, alkene & alkyne?

Add Bromine to all the three test tubes, alkane will show no effect, whereas alkene & alkyne will decolourise Bromine's brown colour.

1pm

Then we can differentiate b/w alkene & alkyne by adding Na, more polar i.e. more reactive alkyne (sp hybrid) will react with Na to give a pop sound of H_2 , whereas alkene will not react.

4



5

	Alkane	Alkene	Alkyne
(i) Br_2	X	✓	✓
(ii) Na	X	X	✓

Birthday / Anniversary

The future belongs to those who believe in the beauty of their dreams

Bond length \propto 1
s charac

2017

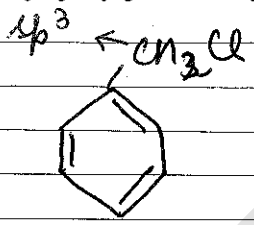
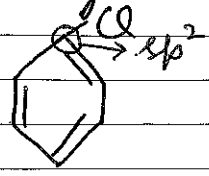
04

Day (004-361)

January • Wednesday

2016							2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
48			1	2	3	4	52	30	31				1		
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22
52	26	27	28	29	30	31	04	23	24	25	26	27	28	29	

Which has more dipole moment chlorobenzene & benzylchloride?



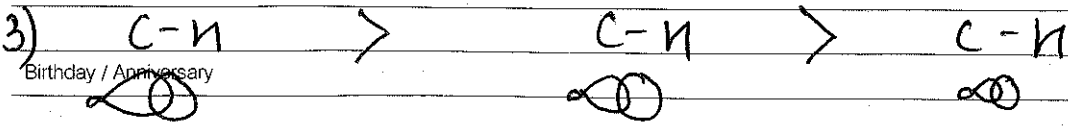
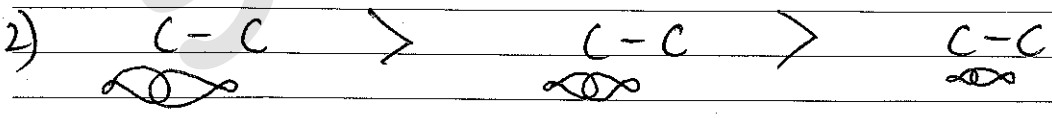
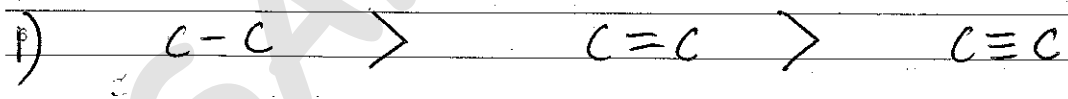
benzylchloride has more dipole moment.
 $\therefore \mu = C \times d$

as carbon in benzylchloride is sp^3 hybrid, so is less e^- \ominus ve and Cl can attract the bonded pair more effectively, so more charge & Bond length \propto 1 so more longer bond length. schar.

Whereas in chlorobenzene carbon is sp^2 hybrid, so is ^{more} e^- \ominus ve and can oppose the Cl from attracting bonded pair so less charge and also bond length of sp^2 is shorter than sp^3 .

Bond length

$P-P > sp^3 > sp^2 > sp > ss$



Birthday / Anniversary

Love is an ocean of emotions, entirely surrounded by expenses

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

Day (005-360)

05

2017

January • Thursday

σ Sigma bond
 1. overlap on internuclear axis

2. shown by ss, pp, sp



- head on overlap
- strong
- independent
- 1 e⁻ cloud

π Pie bond
 1. overlap is ⊥ to internuclear axis.

2. show by pp, pd, dd.



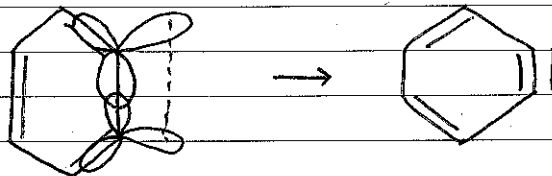
- lateral overlap
- weak
- dependant (formed after σ)
- 2 e⁻ cloud.

2. Note:- ① N₂ and N₂ like species, π bond is formed first. (proved by MOT)

② C₂ and C₂ like species have only π bond & no sigma bond. (proved by MOT).

③ sigma bond is formed by hybrid orbital, pie bond " " " atomic " "

④ benzene



- it has 2σ, 2π bonds still sp² hybrid.
- 3 bonds still 120° (should be 180°)
- has π bond but with single overlap

You cannot shake hands with a clenched fist

DEC							2016							JAN							2017										
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4	52	30	31					1																
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8																
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15																
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22																
52	26	27	28	29	30	31		04	23	24	25	26	27	28	29																

(iv) π bond, formed by hybrid orbital

(v) Cyclic alkane have restricted rotation about sigma bond.

Sigma e^- :- e^- that form sigma bond on molecular plane

Pie e^- :- e^- that forms pie bond, \perp to the molecular plane

Electronic Effects:-

- 1) Inductive Effect [σ of sigma e^-]
- 2) Electromeric Effect [σ of πe^-]
- 3) Hyperconjugation [delocalisation of sigma e^-]
- 4) Resonance [delocalisation of πe^-]

* displacement is b/w 2 atoms, where one side e^- cloud is more

* delocalisation is sharing of e^- among more than 2 bonded atoms

Birthday / Anniversary

Love is a state of mind which has nothing to do with mind

If hetero atom is more e⁻ \ominus ve than H₂ then shows -I, if less e⁻ \ominus ve then shows +I.

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11 12	10	6	7	8	9	10	11 12
07	13	14	15	16	17	18 19	11	13	14	15	16	17	18 19
08	20	21	22	23	24	25 26	12	20	21	22	23	24	25 26
09	27	28					13	27	28	29	30	31	

Day (007-358)

07

2017

January • Saturday

Inductive Effect

7am

8

9

10

11

12

1pm

2

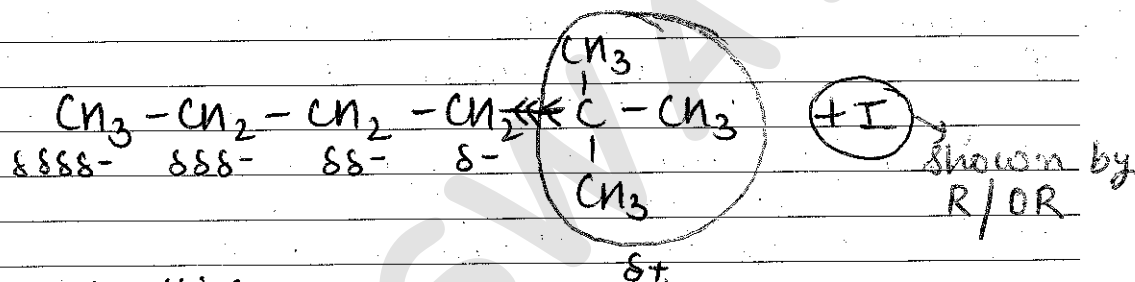
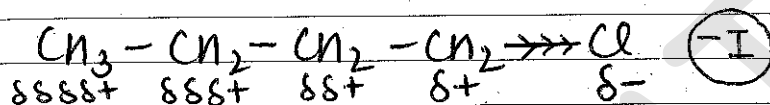
3

4

5

6

It is permanent but partial displacement of sigma e⁻, towards more e⁻ \ominus ve element. It can change physical and chemical and properties of a compound.



Characteristics

1. Permanent
2. Partial
3. δ of sigma
4. practically dies after 2 or 3 carbons
5. Can change physical and chemical properties of a compound.

+I \propto no. of carbons

Sunday 08

Applications:-

1. +I \propto stability of C⁺
stability of C⁻

2. I \propto Acidic. PIDA

Basic

(+ve I decreases acidic character)

Don't walk as if U rule the world. Walk as if you don't care who rules the world

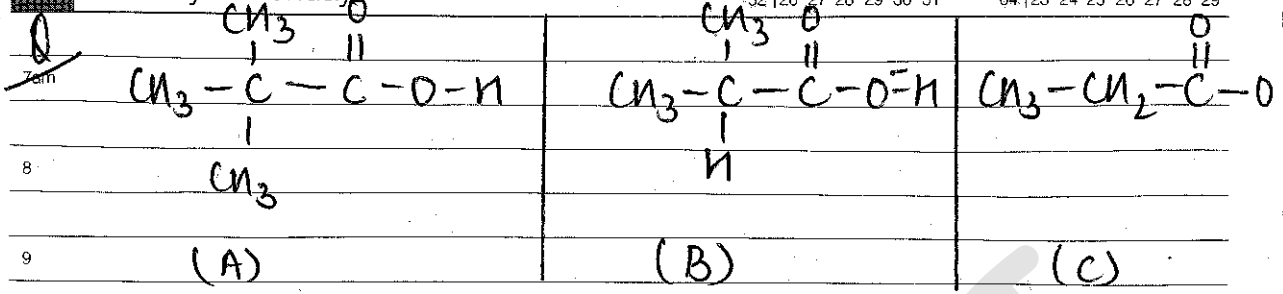
2017
Wk-2

09

Day (009-356)

January • Monday

DEC							2016							JAN							2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4	52	30	31														1			
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8												
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15												
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22												
52	26	27	28	29	30	31		04	23	24	25	26	27	28	29												



Which is more acidic?

11 More acidic will be the one which releases H^+ easily, All the three will undergo +I effect

12 But +I is maximum in (A), as (A) is most alkylated. There are 3 carbons (A) so they will show +I and shifts e^- towards carbon at centre, which in turn shifts the e^- towards 2nd carbon and then to oxygen. So the e^- deficiency of oxygen is fulfilled, so oxygen doesn't attract the shared e^- b/w oxygen & hydrogen so efficiently, making the bond less polar. As (A) is less polar so doesn't release H^+ easily so less acidic. Whereas carbons showing +I is less in (B) and least in (C) so e^- deficiency of oxygen is not fulfilled, so attraction of e^- from hydrogen is more. \therefore more polar and weaker bond. So releases H^+ easily and is acidic the most

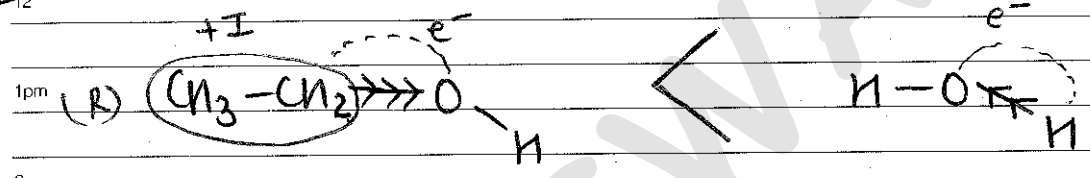
relation with equilibrium:- as the conjugate base of (C) after removal of H^+ is stable because oxygen doesnot has

A harmful truth is always better than a useful lie

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

too much -ve charge so it will not be attacked by +ve (charge is not visible) whereas in (A) oxygen carries high amount of -ve charge, as e^- is shifted by 3 carbons so any +ve charge can attack it. (as charge is visible) \therefore The conjugate base of (A) after removal of H^+ is not stable. This also proves that order of acidic character is $A < B < C$.

Q which is more acidic - water or alcohol?



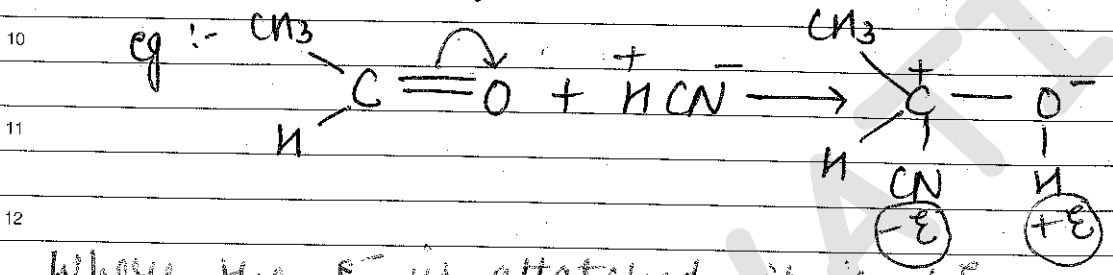
H_2O is more polar than alcohol, as O_2 in H_2 attracts the e^- from H very efficiently (as it is e^- deficient). But in alcohol, alkyl grp. shows $+I$ effect and gives e^- to oxygen, so oxygen's e^- deficiency is fulfilled. \therefore Oxygen doesn't attract the e^- from H so efficiently and becomes less polar and hence less weak, so doesn't release H^+ easily and is less acidic. In H_2O the bond becomes polar, hence weak so releases H^+ easily so is more acidic.

Relation with equilibrium:- as the conjugate base of H_2O is stable, because charge doesn't appear on it, so it releases H^+ readily. Whereas conjugate base of alcohol is not stable, as charge starts being appeared on it, so doesn't release H^+ , \therefore weak acid.

Electromeric Effect

7am

It is total but temporary movement of π bond towards more e^- \ominus ve element, in the presence of reagent is known as electromeric effect.



1pm

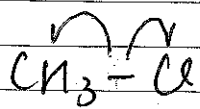
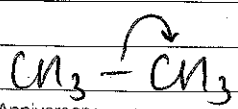
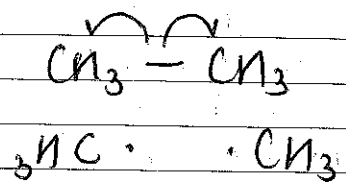
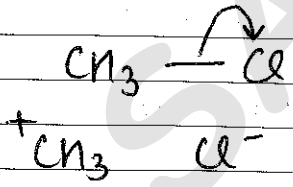
Fission of Bonds

Heterolytic

Homolytic

1. e^- cloud moves towards only one of the bonded atoms

1. e^- cloud distributes equally among both the bonded atoms



Birthday / Anniversary

2. under normal conditions

2. H E L P R 's presence required

Justifying a fault doubt

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

Day (012-353)

12

2017

January • Thursday

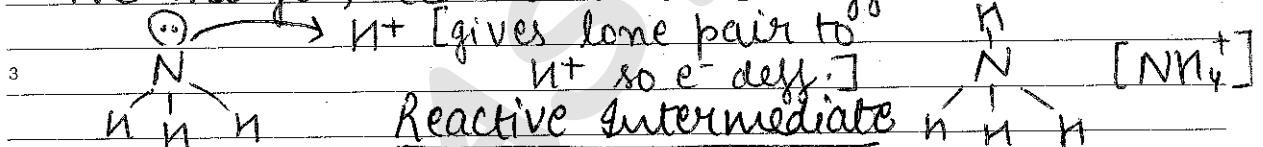
Wk: 2

3. One product is e^- deficient and one e^- rich
3. products are free radicals.

8. e^- deficient \rightarrow electrophile
 e^- rich \rightarrow nucleophile
Plan can be stopped by the presence of O_2

Electrophile	Nucleophile
1. e^- deficient species	1. e^- rich species
2. All Lewis Acids CH_3^+ , $AlCl_3$ etc	2. All Lewis Bases NH_3 , CH_3^- etc

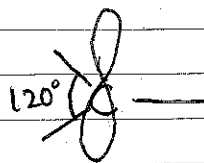
* NH_4^+ is not an electrophile though has +ve charge, because it is e^- deficient



* Carbocation

- formed by heterolytic cleavage
- act as electrophile
- has $6e^-$
- sp^2 hybrid
- trigonal planar
- unhybrid p orbital (empty), \perp to mol. plane
- 120° angle

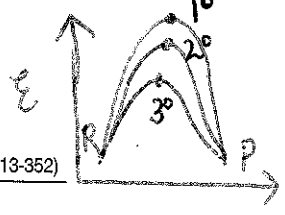
Birthday / Anniversary



8. $3^\circ > 2^\circ > 1^\circ$
due to +I effect & hyperconjugation

The real measure of a man's wealth is what he has invested in eternity

9. diamagnetic

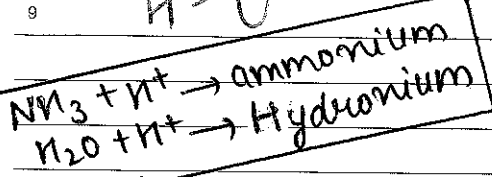
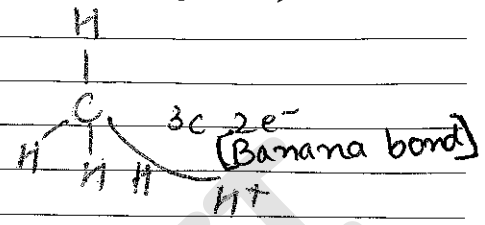
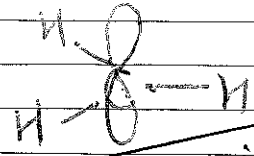


ET stability ↓

DEC 2016							JAN 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
48			1	2	3	4	52	30	31				1
49	5	6	7	8	9	10 11	01	2	3	4	5	6	7 8
50	12	13	14	15	16	17 18	02	9	10	11	12	13	14 15
51	19	20	21	22	23	24 25	03	16	17	18	19	20	21 22
52	26	27	28	29	30	31	04	23	24	25	26	27	28 29

Note :- Carbocation is of 2 types:-

1. Carbenium
2. carbonium



same as NH_4^+

* Carboanion

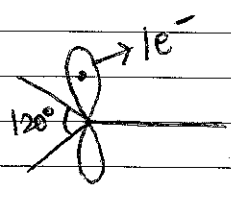
1. heterolytic cleavage
 2. $8e^-$
 3. sp^3 hybrid, with one lone pair
 4. act as nucleophile
 5. angle less than 109.28°
 6. trigonal pyramidal
 7. diamagnetic
- * shape like NH_3^+

$1^\circ > 2^\circ > 3^\circ$

because of +I effect

* Carbofree Radical

1. homolytic cleavage
 2. sp^2 hybrid.
 3. trigonal planar
 4. 120° angle
 5. unhybrid. p orbital \perp to molecular plane, having $1e^-$
 6. stability $3^\circ > 2^\circ > 1^\circ$
 7. has $7e^-$
 8. It is paramagnetic
- because of hyperconjugation.



Birthday / Anniversary

Friendship is a responsibility ...not an opportunity

FEB 2017							MAR 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
		1	2	3	4	5	06	6	7	8	9	10	11	12	
05	6	7	8	9	10	11	10	6	7	8	9	10	11	12	
06	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19
07	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26
08	27	28					13	27	28	29	30	31			
09															

Isomerism

7am

8 **Structural** [attachment changes] **Stereo** [position changes within the same space]

10

9

↓
↓

11 **Conformer** [This type arises due to free rotation of bond] **Configurational**

12

11 **staggered**

eclipse

Geometrical [configurational due to restricted rotation]

Optical [configurational due to non superimposable mirror images]



3 **cis**

trans

* Geometrical Isomerism.

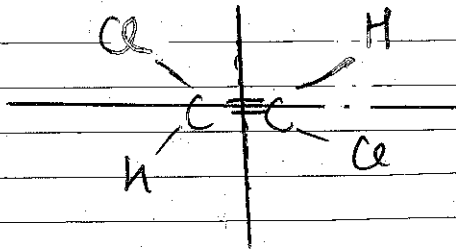
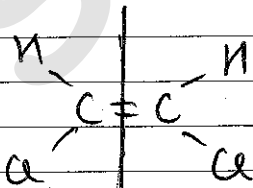
It is of 2 types:- cis and trans

5

Q Which has more stability?

trans is more stable because it is more symmetrical.

Sunday 15



Birthday / Anniversary

Kind words do not cost much. Yet they accomplish much

* although isomers have same molecular formula but still has diff. MP & BP for different structures

2017

16

Day (016-349)

January • Monday

DEC 2016							JAN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
48			1	2	3	4	52	30	31				1		
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22
52	26	27	28	29	30	31	04	23	24	25	26	27	28	29	

change from solid to liquid

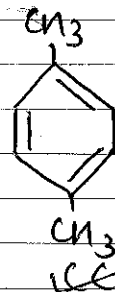
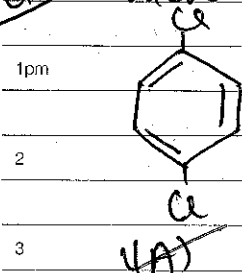
Q Which has more M.P.?

7am trans has more M.P. because it is more symm, so has better packing than cis.

Q Which has more B.P.?

8 cis has more B.P. because cis always has μ less than trans. \therefore trans is more non polar whereas cis is polar. So cis forms better dipole-dipole bonds. But trans forms London forces so has less intermolecular forces.

Q Which compound has $\mu = 0$?



4 Cl-Cl is in same plane with benzene so the μ is cancelled on both the sides.

5 whereas (B) will not have $\mu = 0$ as O is sp^3 hybrid. with 2 lone pairs so is non planar, as it is non planar so cannot cancel the dipole moment [for μ to be 0, force should be applied on a plane that is in a particular dirxn.] Though it shows resonance with benzene but only lone pairs all participating so the structure doesn't become planar. (πe^- is involved)

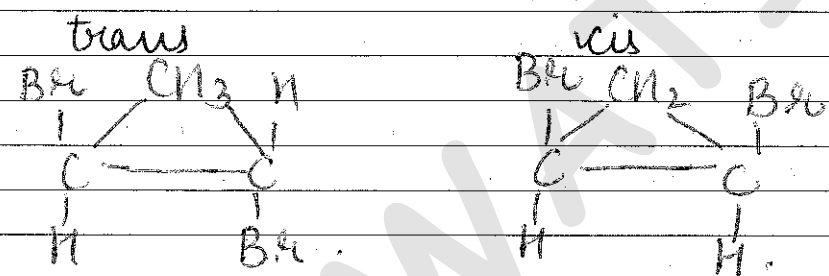
The goal in marriage is not to think alike, but to think together

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11 12	10	6	7	8	9	10	11 12
07	13	14	15	16	17	18 19	11	13	14	15	16	17	18 19
08	20	21	22	23	24	25 26	12	20	21	22	23	24	25 26
09	27	28					13	27	28	29	30	31	

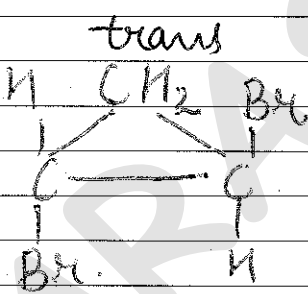
17
2017
Day (017-348)
January • Tuesday

7am But in (C) the Carbon, though is sp^3 hybd. still
8 cancels the ~~net~~ μ , as it comes on a plane
so as to show hyperconjugation (sigma e^- is
involved) $\therefore \mu = 0$.

9* Compounds that have geometrical isomerism
10 due to restricted rotation of sigma bond
are! -



1pm
Optical



Birthday / Anniversary

Marriage is the process of finding out what kind of man your wife would have preferred

DEC	2016							2017							
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4	52	30	31					1
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22
52	26	27	28	29	30	31		04	23	24	25	26	27	28	29

Optical Isomerism

7am

* **Monochromatic Plane Polarised light**:- a light of single colour, which moves only on one plane

* **Polariser**:- it is a nicol prism and form of calcium carbonate (CaCO_3). Brings the light on single plane.

* **Optically Inactive**:- The compound that cannot change the plane of the light

* **Optically Active**:- Compound that can change the plane of the light.

These are of 2 types:-

- 1) **Dextro rotatory**:- turns the light right.
- 2) **Levo rotatory**:- " " " left.

Experiment of Polarimetry

1. Firstly take a source of ^{nicol prism} monochromatic non polarised light. Then a polariser, then a tube (empty) and then an analyser. Polariser converts non polarised to polarised light.
2. Pass the light through the set up and check the intensity of light (by human eye) by looking through analyser.
3. Then put a solution in the tube and pass the light. If the intensity of light remains same, then comp. is inactive. If the intensity of light decreases then optically active

Birthday / Anniversary

You don't have to win every arguments. Agree to disagreements

* non superimposable - active
 * superimposable - inactive

analyser.

source of mono chromatic plane polarised light

19

2017

1102

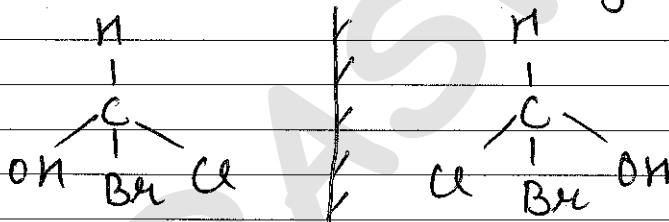
January • Thursday

FEB 2017							MAR 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
05			1	2	3	4	05	1	2	3	4	5			
06	6	Prism			11	12	06	6	7	8	9	10	11	12	
07	13	14	15	16	17	18	19	07	13	14	15	16	17	18	19
08	20	21	22	23	24	25	26	08	20	21	22	23	24	25	26
09	27	28					09	27	28	29	30	31			

4. Then start rotating the analyser, if same intensity is received after moving the analyser by some degrees. Then the comp. is optically active. It can either rotate the light towards right or left i.e. dextro rotatory (+) or levo rotatory (-) [Only changes the plane of light ... left].

Q How to check whether a comp is optically active or not?

If the mirror image of the comp. is non super imposable image then comp. is active. This can be checked as, if any 1 carbon in the compound has all different elements attached i.e. carbon is asymmetric.



Note: - 1. If in a compound only 1 carbon is asymm. then it will 100% be active. But if 2 or more than 2 carbon are asymm. then it may be optically active.

2. We can only check that whether a compound is optically active / inactive by looking at its formula but not tell that whether it is dextro or levo.

Birthday / Anniversary

Success is not the key to happiness. But happiness is the key to success

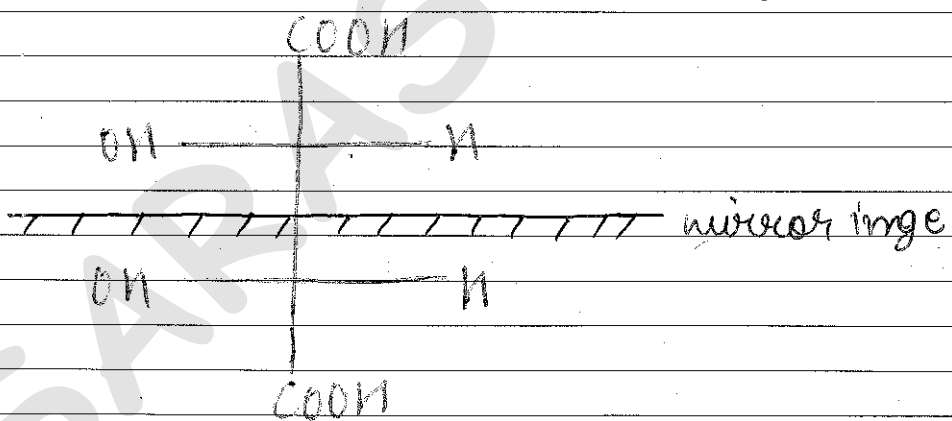
DEC							2016							JAN							2017										
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4	52	30	31					1	01	2	3	4	5	6	7	8	02	9	10	11	12	13	14	15
49	5	6	7	8	9	10	11	03	16	17	18	19	20	21	22	04	23	24	25	26	27	28	29								
50	12	13	14	15	16	17	18																								
51	19	20	21	22	23	24	25																								
52	26	27	28	29	30	31																									

* Compounds that are mirror image of each other and show opp. rotation are known as enantiomers

* Equimolar enantiomeric mixture which do not change the plane of light are known as racemic mixture

Q Why NaCl is used as the sources of yellow light in nicole prism?

Ans: - human eye can see least no. of shades of yellow light. As we have to observe the light from our eyes. If we take green colour we couldn't observe the intensity of light as human eye can see 6000 shades of green.



tartaric acid:

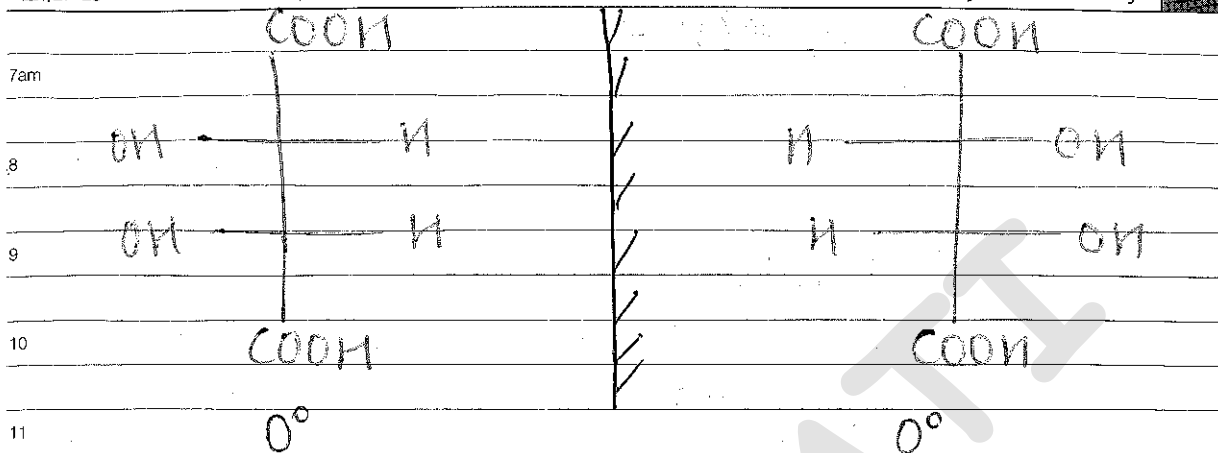
Half part compound is mirror image of other half, if upper part is dextro then lower part is levo so the total effect on change light will be 0. ∴ light will not change the plane.

Birthday / Anniversary

God always gives his best to those who leave the choice with him

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

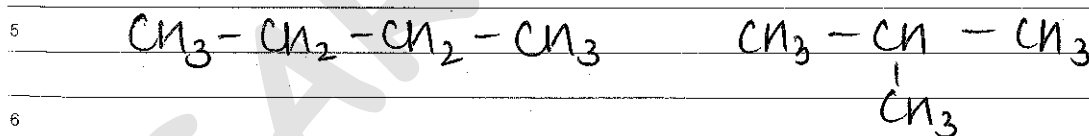
21
 Day (021-344)
 January • Saturday
2017



Since tartaric acid does not change the plane of light, this compound though has non superimposing mirror image, still are not enantiomers as they do not have opp. rotations, but same i.e. 0° .

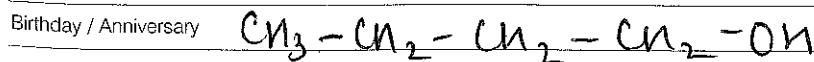
Structural Isomerism.

1) Chain Branch Isomerism



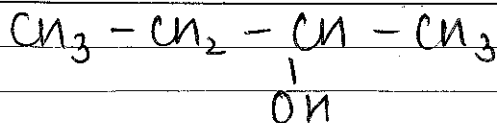
No. of carbons in main chain changes, branches are attached.

2) Position Isomerism



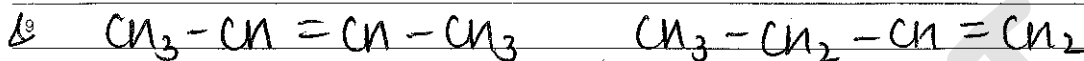
A dream is a goal with a deadline

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4		52	30	31				1
49	5	6	7	8	9	10	11		01	2	3	4	5	6	7
50	12	13	14	15	16	17	18		02	9	10	11	12	13	14
51	19	20	21	22	23	24	25		03	16	17	18	19	20	21
52	26	27	28	29	30	31			04	23	24	25	26	27	28



7am

8 Here the position of functional grp. is changing



10 Here the position of double bond or triple bond is changing.

11

3) Metamere

12 When the no. of carbons on each side of functional grp. changes, functional grp. should have 2 binding sites for showing metamers. eg:-

1pm

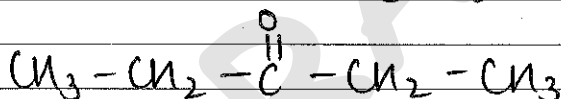
2



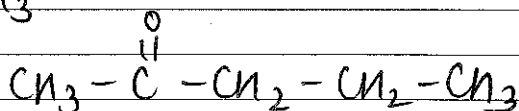
3



4



5



6

* Every metamere is a position isomer but every position isomer is not metamere.

Birthday / Anniversary

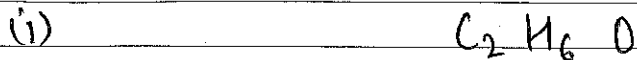
Winners work hard to win, losers find an excuse to lose

FEB							2017							MAR							2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
05		1	2	3	4	5	09		1	2	3	4	5																
06	6	7	8	9	10	11	12	10	6	7	8	9	10	11	12														
07	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19														
08	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26														
09	27	28						13	27	28	29	30	31																

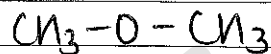
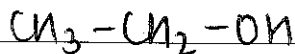
Day (024-341) **24** 2017
January • Tuesday

4) Functional Isomerism

7am



8



9

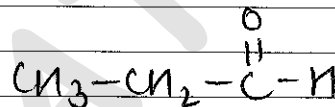
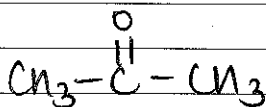
alcohol

ether

10



11



12

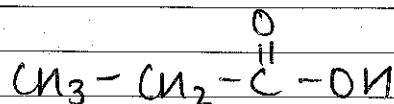
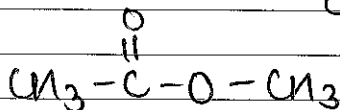
Ketone

aldehyde

1pm



2



3

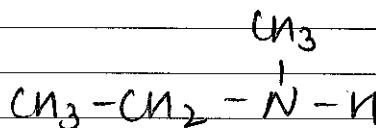
ester

carboxylic acid.

4



5

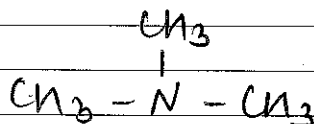


6

1° amine

2° amine.

7



3° amine

Birthday / Anniversary

Master your time and you master your life

2017

25

Day (025-340)

January • Wednesday

DEC

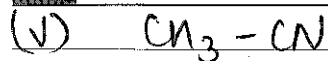
2016

JAN

2017

Mo	Tu	We	Th	Fr	Sa	Su
48			1	2	3	4
49	5	6	7	8	9	10
50	12	13	14	15	16	17
51	19	20	21	22	23	24
52	26	27	28	29	30	31

Mo	Tu	We	Th	Fr	Sa	Su
52	30	31				1
01	2	3	4	5	6	7
02	9	10	11	12	13	14
03	16	17	18	19	20	21
04	23	24	25	26	27	28

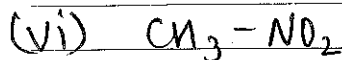


7am

nitrile

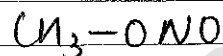


isonitrile

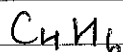


9

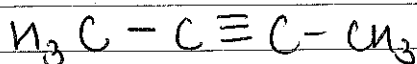
nitro



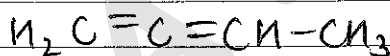
iso nitro



11



yne



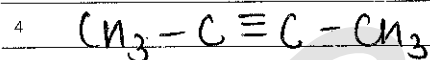
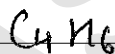
diene

12

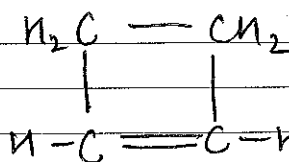
1pm

5) Ring Chain Isomerism

(i)

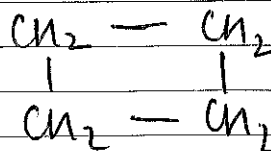
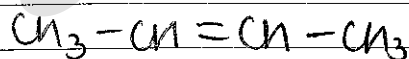


yne

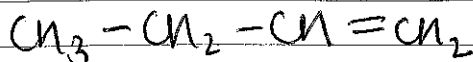


cycloene

6



Birthday / Anniversary



You can't recycle time wasted

FEB 2017						
Mo	Tu	We	Th	Fr	Sa	Su
05	1	2	3	4	5	
06	6	7	8	9	10	11
07	13	14	15	16	17	18
08	20	21	22	23	24	25
09	27	28				

MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su
09	1	2	3	4	5	6
10	7	8	9	10	11	12
11	13	14	15	16	17	18
12	20	21	22	23	24	25
13	27	28	29	30	31	

26

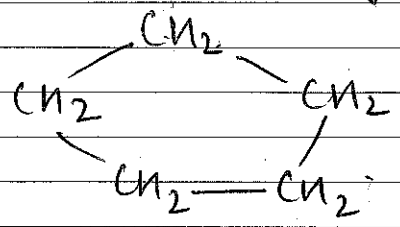
2017

Day (026-339)

January • Thursday

It can't be alkene as alkene will react with Br_2 to decolorise it. $\therefore \text{C}_5\text{H}_{10}$ is not an alkene but an alkane (cyclic)

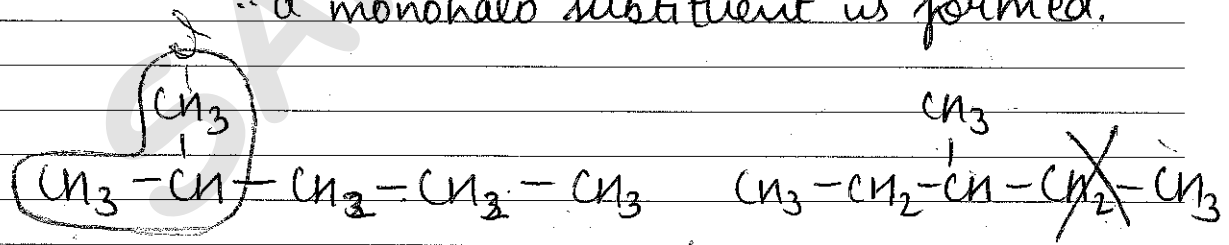
7am $\text{C}_5\text{H}_{10} \xrightarrow{\text{dark}} \text{X}$ independent to light
 8 $\text{C}_5\text{H}_{10} \xrightarrow[\text{light}]{\text{Br}_2}$ monohalo substituent formed.
 9 homolytic cleavage. $\text{NE}(\text{L})\text{PR}$ only one



12 Though there are many more cyclic alkanes with C_5H_{10} but still we will choose only this structure, as the question says that a monohalo substituent is formed.

3 And where ever the Bromine reacts in this compound, it will only form one single comp. [Have same IUPAC name]. No matter to which ever carbon the Bromine reacts naming will start from that carbon itself

\therefore a monohalo substituent is formed.



If CH_3 is attached on 2nd carbon from the terminal then we use iso [L shape]

Birthday / Anniversary

Don't look where you fall, but where you slipped

2017
WK 4

27

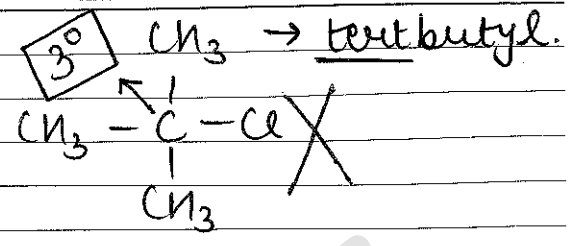
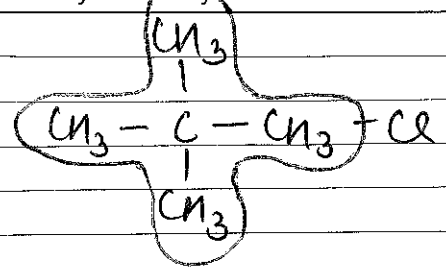
A $\xrightarrow{\text{addition}}$ B
B $\xleftarrow{\text{elimination}}$ A

Day (027-338)

January • Friday

DEC							2016							JAN							2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4	52	30	31														1			
49	5	6	7	8	9	10	11	01	2	3	4	5	6	7	8												
50	12	13	14	15	16	17	18	02	9	10	11	12	13	14	15												
51	19	20	21	22	23	24	25	03	16	17	18	19	20	21	22												
52	26	27	28	29	30	31		04	23	24	25	26	27	28	29												

7am



8

9

When a + shape is formed then we need min 5 carbons are required for neo.

11

Types of Rxns

Substitution	Addition	Elimination
1. always occurs on sigma bond	1. always occurs on π bond	
one element is added & one removed	always even no. of elements can be added or eliminated.	
	only added	only remove

4

Types of Substitution Rxns

1. Nucleophilic substitution. (Haloalkanes show)

6

7

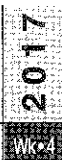
2. Electrophilic substitution. (benzene and its derivatives show)

Birthday / Anniversary

Nothing brings you peace but yourself

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11 12	10	6	7	8	9	10	11 12
07	13	14	15	16	17	18 19	11	13	14	15	16	17	18 19
08	20	21	22	23	24	25 26	12	20	21	22	23	24	25 26
09	27	28					13	27	28	29	30	31	

28
 Day (028-337)
 January • Saturday



3. Free Radical substitution (Talkanes show)

7am
8
9

10 Types of Addition Rxns

11. Nucleophilic Addition [$>C=O$, carboxylic acid]

12
1pm

2 3. Electrophilic Addition (mark, alkene or alkyne)

3
4
5

3. Free Radical Addition (Antimark, alkene or alkyne)

Sunday 29

Birthday / Anniversary

People may doubt what you say, but they will believe what you do.

2017

30

Day (030-335)

Wk 5

January • Monday

DEC

2016

JAN

2017

	Mo	Tu	We	Th	Fr	Sa	Su
48				1	2	3	4
49	5	6	7	8	9	10	11
50	12	13	14	15	16	17	18
51	19	20	21	22	23	24	25
52	26	27	28	29	30	31	

	Mo	Tu	We	Th	Fr	Sa	Su
52	30	31					1
01	2	3	4	5	6	7	8
02	9	10	11	12	13	14	15
03	16	17	18	19	20	21	22
04	23	24	25	26	27	28	29

Types of Elimination Rxns

7am

1. α elimination

8

9

10

2. β elimination [causes unsaturation]

11

12

1pm

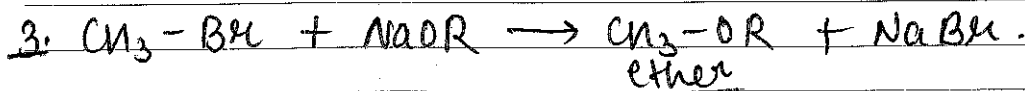
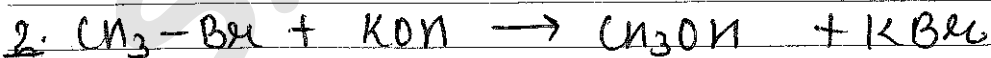
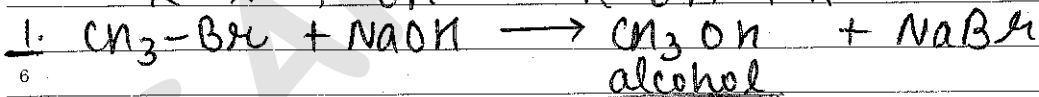
3. γ elimination

2

3

Nucleophilic Substitution

4



Birthday / Anniversary

Never explain. Your freinds do not need it and your enemies will not believe it

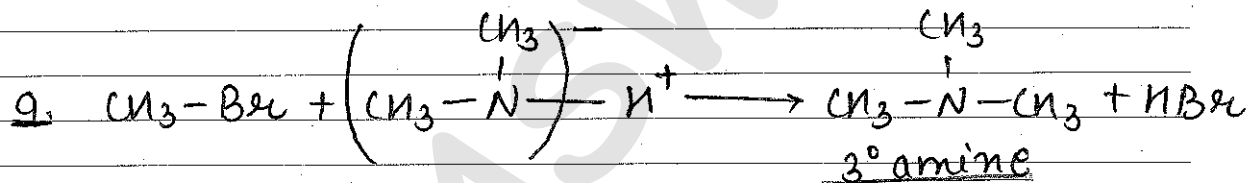
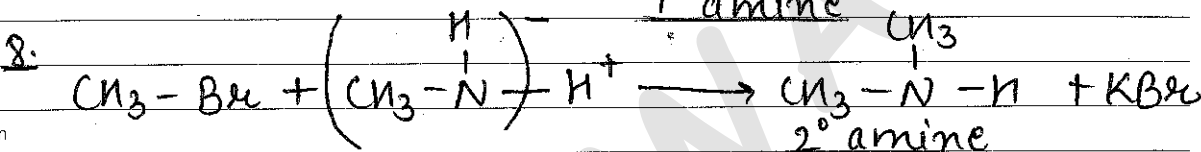
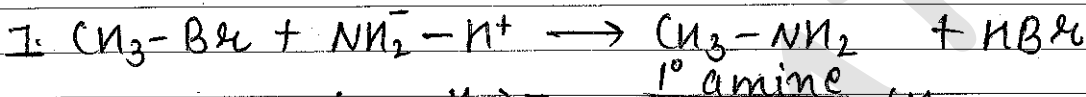
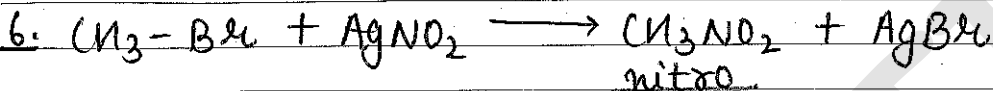
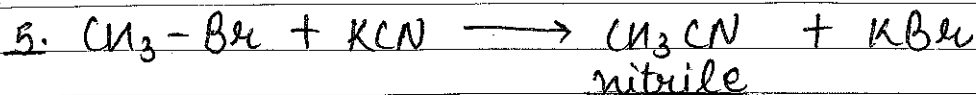
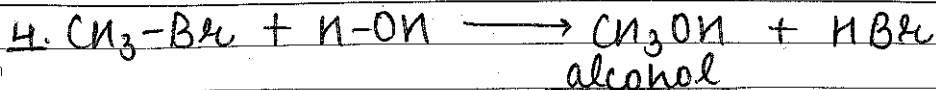
MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5	13					1	2
6	7	8	9	10	11	12	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28	29	30

Day (035-330)

04

2017

February • Saturday



* A nucleophile is substituted by another nucleophile in same compound.

Substitution Nucleophilic [S_N]

Sunday 05

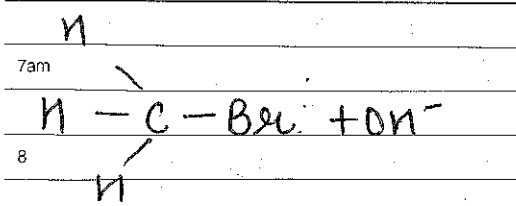
↓
S_N²

1. Bimolecular → speed of rxn depends on conc. of both C & OH⁻

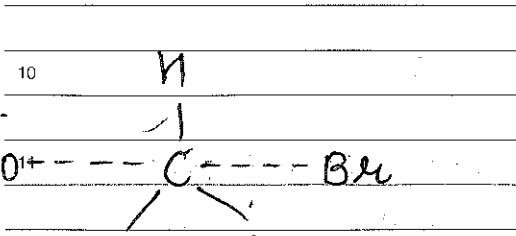
↓
S_N¹

1. Unimolecular → speed of rxn depends only on conc. of OH⁻, as first step is RDS

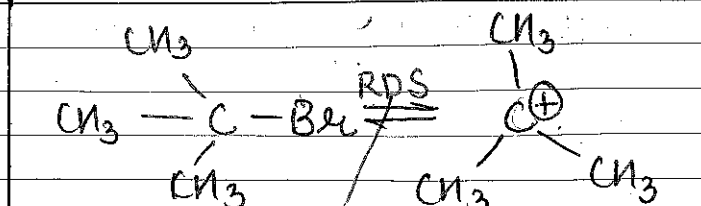
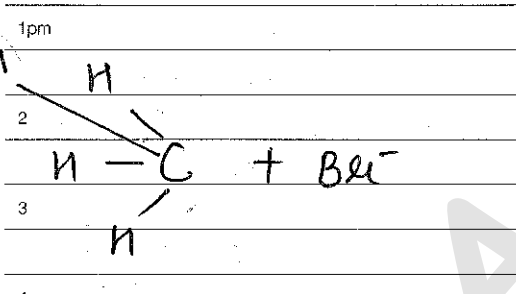
Look at life through the wind-shield, not the rear-view mirror



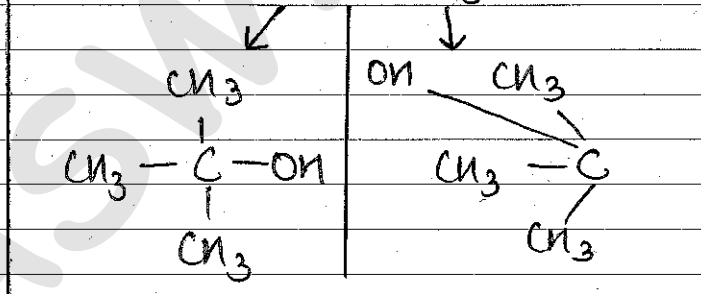
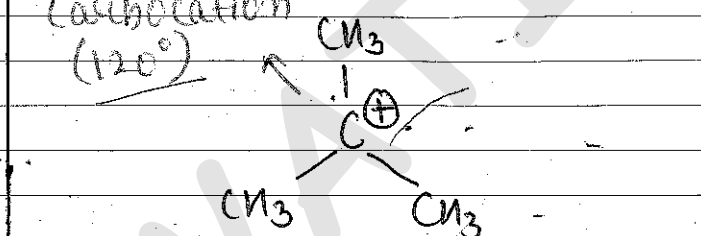
8



12



Rate Determining Step
[slowest step is RDS]



2. Single Step → nucleophile is added or removed in 1 step.

2. double step → nucleophile is added in 1 then removed in 1 step

3. Occurs in those comp. which have less steric hindrance

3. Occurs in those comp. which have stable carbocation

4. Strong nucleophile favoured rxn
[Can't wait for 1st step to take place]

4. weak nucleophile favoured rxn.

Happiness has one advantage over wealth; no one can borrow it

* Inversion & racemisation can be shown ably when reactant is chiral i.e. optically active

MAR	2017							APR	2017						
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
09			1	2	3	4	5	13						1	2
10	6	7	8	9	10	11	12	14	3	4	5	6	7	8	9
11	13	14	15	16	17	18	19	15	10	11	12	13	14	15	16
12	20	21	22	23	24	25	26	16	17	18	19	20	21	22	23
13	27	28	29	30	31			17	24	25	26	27	28	29	30

Day (038-327)

07

2017
WK-6

February • Tuesday

Mostly 1° show SN² whereas 3° show SN¹

1° > 2° > 3°
SN²

Reactant - dextro
Product - 50% → livo
 50% → dextro
no change in plane of light so racemisation

→ SN¹

6. SN² has chance of inversion

6. SN¹ has chance of racemisation.

7. SN² is aprotic solvent favoured

7. SN¹ protic solvent favoured.

Reactant → dextro
Product → livo
Solvent

loose proton eg. H₂O, alcohol
benzene CH₂

These are of 2 types:- (i) Polar (ii) Non-Polar

Polar solvents → Protic → release H⁺

non polar H⁺
ET
dissolve ET
[like dissolves like]

Aprotic

as very much polar.

They are Polar, have some dipole

But not this much that it can loose a proton

* SN² cannot involve protic solvent as then solvent will form ion dipole bond with OH⁻ and the substitution rxn. will become slow.

* SN¹ will have to involve protic solvent as in SN¹ it will react with nucleophile. E₁ rxn. appears to be a reason. (not reactant like in SN²). C⁺ will become more

stable and acc. to Le Chatelier's Principle rxn. will move forward and increase the speed of RDS

2017
08
Day (039-326)
February • Wednesday

2017 JAN							2017 FEB								
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
32	30	31				1		05			1	2	3	4	5
01	2	3	4	5	6	7	8	06	6	7	8	9	10	11	12
02	9	10	11	12	13	14	15	07	13	14	15	16	17	18	19
03	16	17	18	19	20	21	22	08	20	21	22	23	24	25	26
04	23	24	25	26	27	28	29	09	27	28					

Q. Which will show SN^1 & SN^2 ? :-
 CH_3-O OH^- F^-

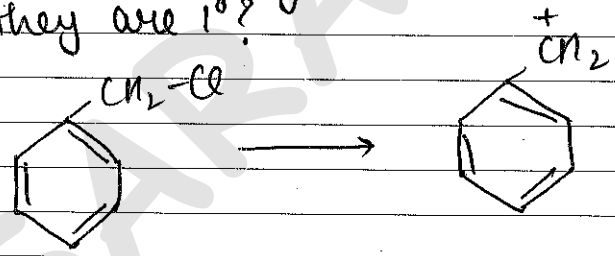
8. In $CH_3 \rightarrow O$, +I effect even intensifies the \ominus chrg on O & becomes a strong nucleophile and undergoes SN^2

and, OH^- is weak nucleophile, so shows SN^1

11. F^- is the weakest nucleophile, so shows SN^1 , as it can carry e^- [since it is a halogen].

* Strong nucleophile is one which cannot handle \ominus ve chrg. due to e^- and it throws the e^- out and weak nucleophile can handle \ominus ve chrg and accept e^-

Q. Benzylhalide & allylic halide show SN^1 though they are 1° ?



7. Here carbocation becomes stable because of resonance. As soon as Cl^- is removed $+CH_2$ can show resonance with benzene. As it is also a stable carbocation so will SN^1 .

Birthday / Anniversary

Imagination is everything. It is a preview of life's coming attractions

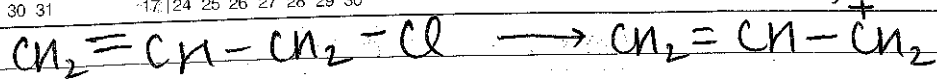
MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29

oh⁻ → C

09

2017
Wk-6

Day (040-325)
February • Thursday



7am

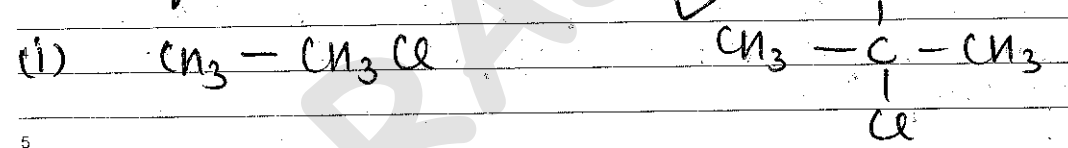
Similarly, here when Cl^- is removed, a resonating structure is formed, which makes the carbocation stable (due to resonance), so it will show SN^1

Resonance is shown by:-

10

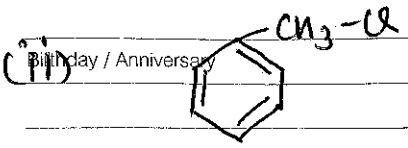
- 1) $\text{CH}_2=\text{CH}-\overset{+}{\text{C}}^-$ charge on C (single bond) & a C with double bond
- 2) $\text{CH}_2=\text{CH}-\overset{\cdot}{\text{N}}$ double bond on N & single bond on C odd no. of e^-
- 3) $\text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$ " " " " " " double bond.
- 4) $\text{CH}_2=\text{CH}-\overset{\cdot\cdot}{\text{Cl}}$ " " " " " " lone pair

Q. Out of these which is hydrolysed easily by aq. KOH?



Since aq. KOH is a protic solvent so SN^1 has to be shown. Therefore 2nd structure is favored as carbocation is more stable

If aq. KOH is not given, we can do either SN^2 in 1st structure as less steric hindrance or SN^1 in 2nd " as has stable C^+ .



Imagination is more important than knowledge. Knowledge is limited

* BENZENE AND ITS DERIVATIVE SHOW ELECTROPHILIC SUBSTITUTION.

2017

10

Day (041-324)

Wk 06

February • Friday

JAN 2017							FEB 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
29	30	31			1		05	6	7	8	9	10	11
01	2	3	4	5	6	7	06	13	14	15	16	17	18
02	9	10	11	12	13	14	07	20	21	22	23	24	25
03	16	17	18	19	20	21	08	27	28				
04	23	24	25	26	27	28	09						

Electrophilic Substitution

7am

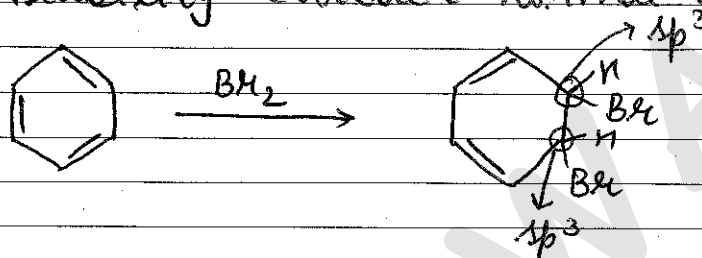
Q¹ Why benzene and its derivatives show substitution reaction?

Because it cannot show addition. Because when an element will be added, then benzene will become sp^3 hybrid i.e. non planar and non resonating so will lose its stability (under normal conditions)

11

12

1pm



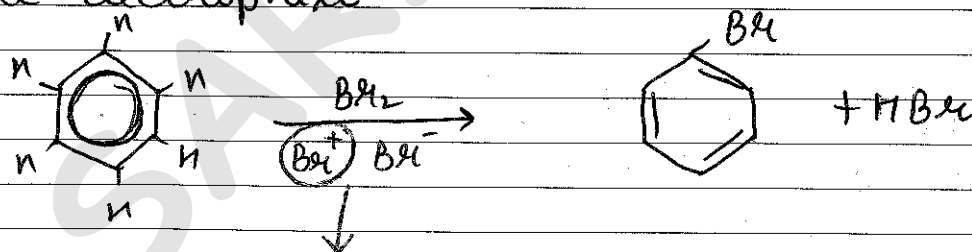
Q² Why benzene and its derivatives show electrophilic substitution?

Because it cannot show nucleophilic substitution as a e^- cloud is present in benzene which will repel the nucleophile but attract the electrophile

5

6

7



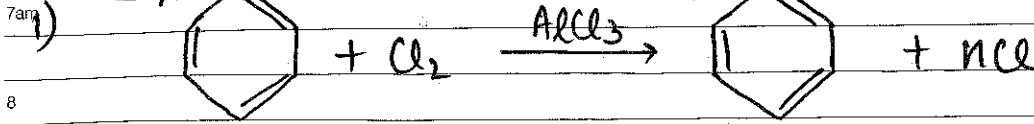
under normal conditions
 BH_2 undergoes heterolytic cleavage

Birthday / Anniversary

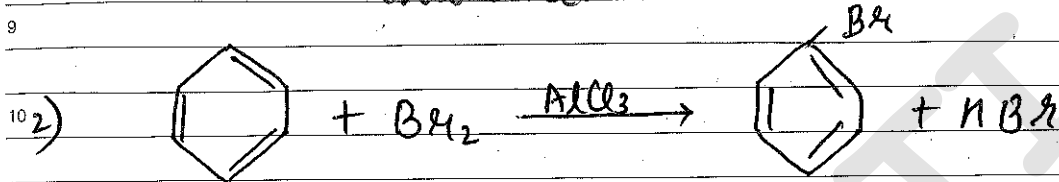
Circumstances does not make a man. It reveals him

MAR 2017							APR 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
09		1	2	3	4	5	13						1	2	
10	6	7	8	9	10	11	12	14	3	4	5	6	7	8	9
11	13	14	15	16	17	18	19	15	10	11	12	13	14	15	16
12	20	21	22	23	24	25	26	16	17	18	19	20	21	22	23
13	27	28	29	30	31			17	24	25	26	27	28	29	30

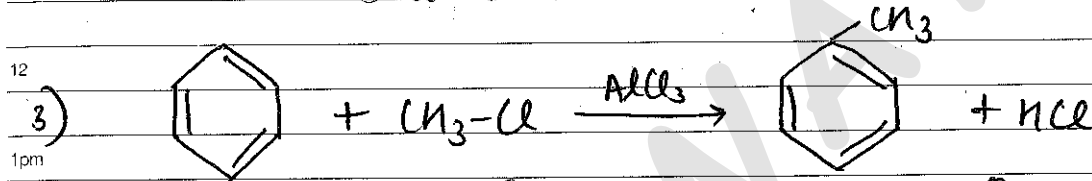
Examples:-



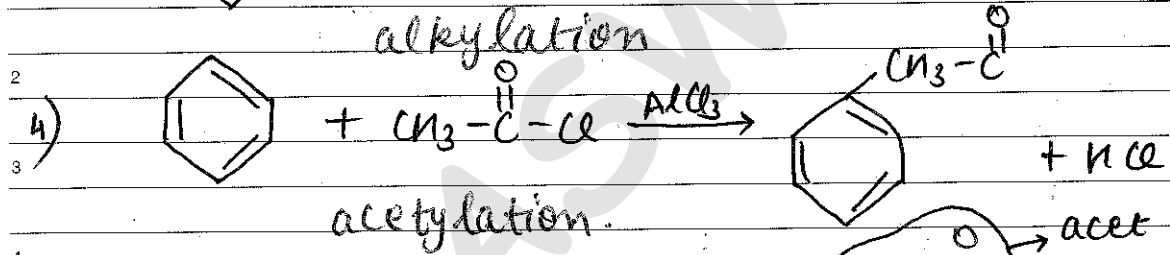
Chlorination



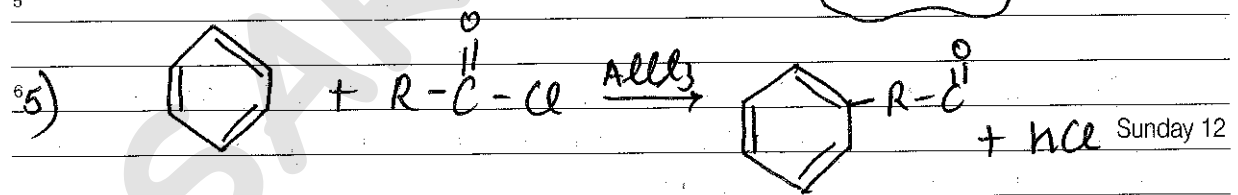
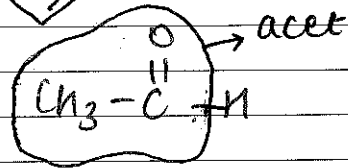
Bromination



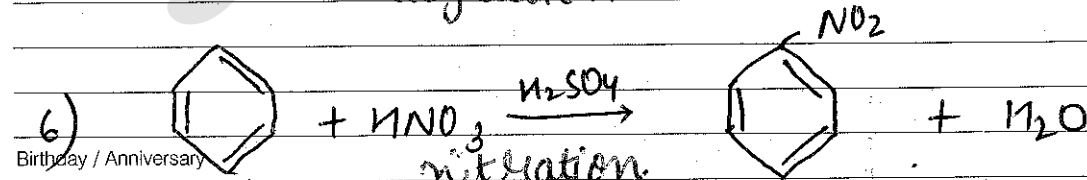
alkylation



acetylation.



acylation



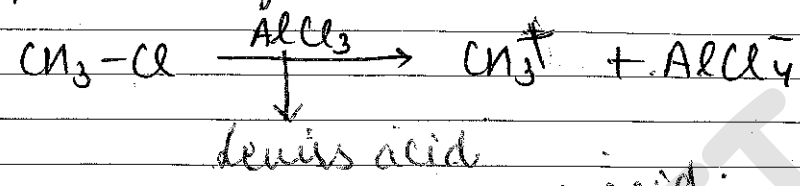
nitration

Here HNO_3 is nitric base because if it will be nitric acid, then will break into H^+ & NO_2^- and benzene had to remove its H & takes H , which is of no use.

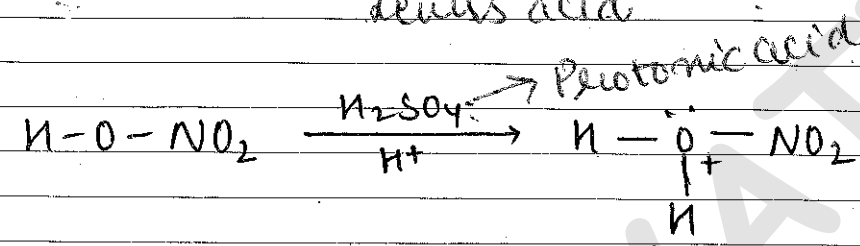
Mechanism

7am

1. Electrophile is formed

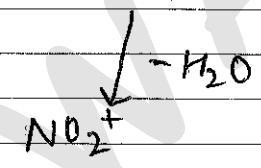


10



12

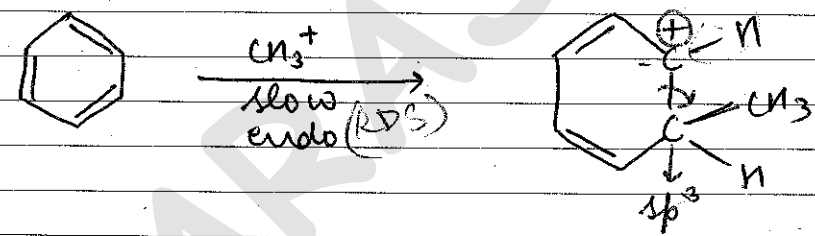
1pm



2

2. Electrophile is attached to benzene

3



4

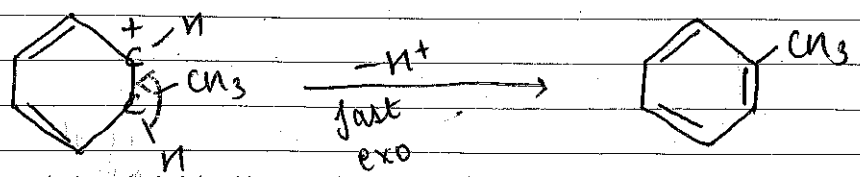
5

Here benzene becomes very unstable, as one of the carbon is sp^3 hybrid so non planar and non resonating.

7

3. Already attached electrophile is removed

Birthday / Anniversary

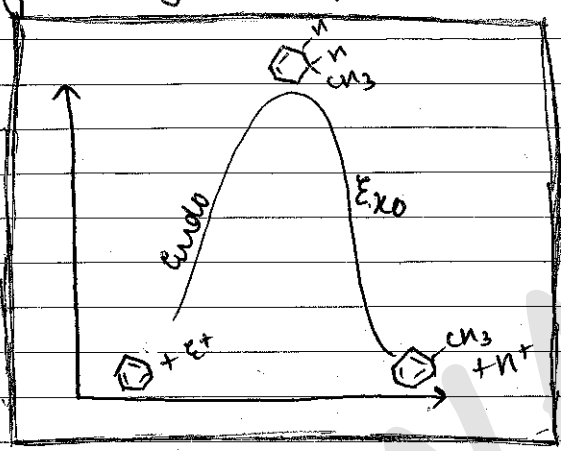


You can't do today's job with yesterday's methods and be in business tomorrow
 benzene gains back resonance & hence stability.

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29

Q1 why $AlCl_3$ is used? electrophile generator

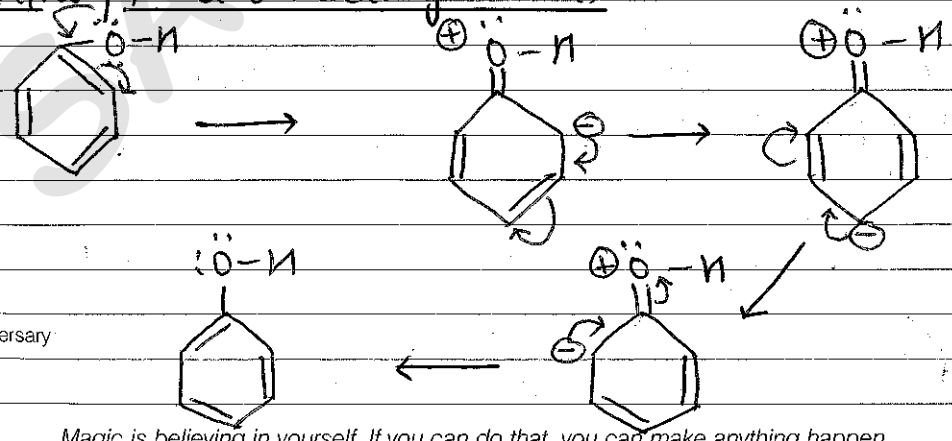
Q2 Is only $AlCl_3$ used? No, not only Lewis acid but also protonic acid is sometimes used. eg: H_2SO_4 .



Q3 which rate of rxn is faster - Bromination or Chlorination?

Rate of rxns of Bromination and Chlorination will be same, because RDS is second step. No matter how fast electrophile is formed, speed of rxn will be determined by RDS i.e. second slow and endothermic process.

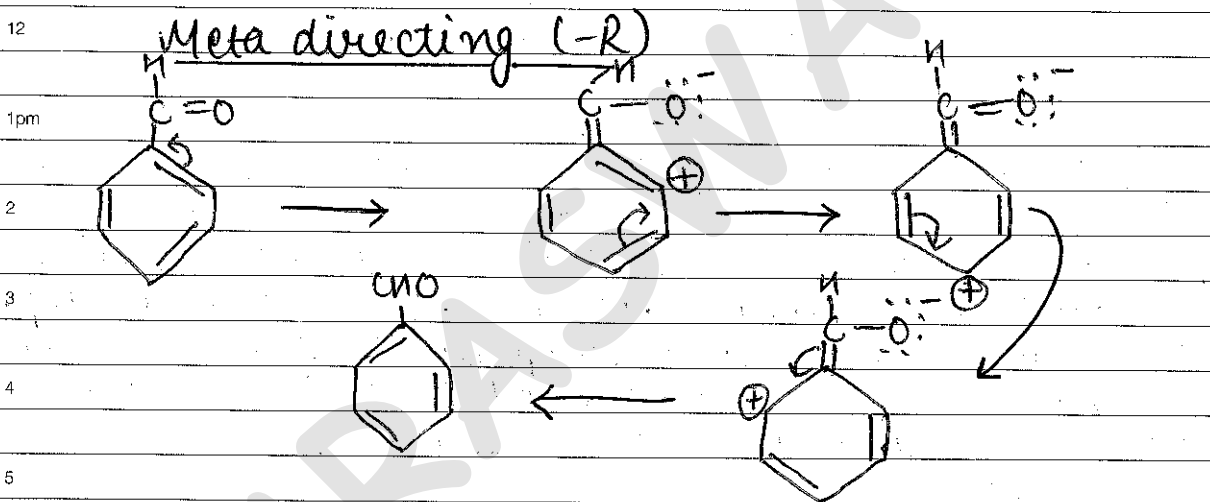
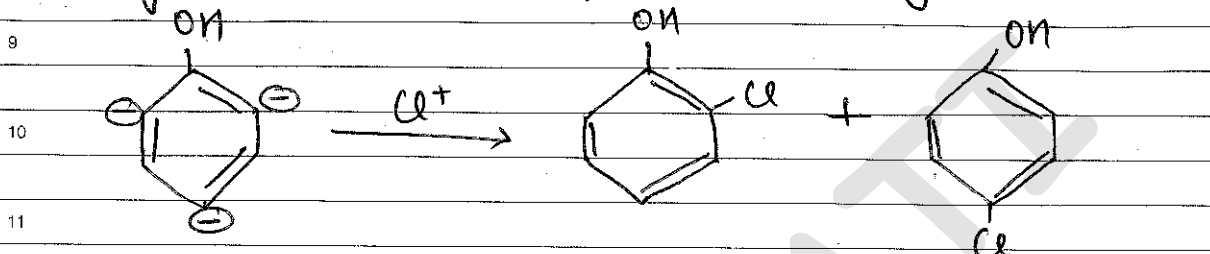
Ortho/Para directing (+R)



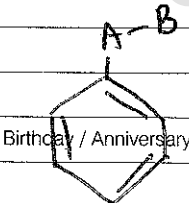
Birthday / Anniversary

Magic is believing in yourself. If you can do that, you can make anything happen

from this we can see that \ominus ve is present only on ortho and para positions, so the electrophile will be attracted towards these 2 position only. \therefore It is ortho / para directing.



As we can see that ortho and para positions have \oplus ve charge on them, so the electrophile will be repelled by them. Hence electrophile feels it preferable to attach on neutral position i.e. meta



If B is more e^- \ominus ve than A then will show -R.

If B is less e^- \ominus ve than B then +R will be shown

Faith and prayers are vitamins of the soul; man cannot live in health without them

TR has \ominus ve chrg on ortho and para positions so electrophile is attracted [Poolside Party]

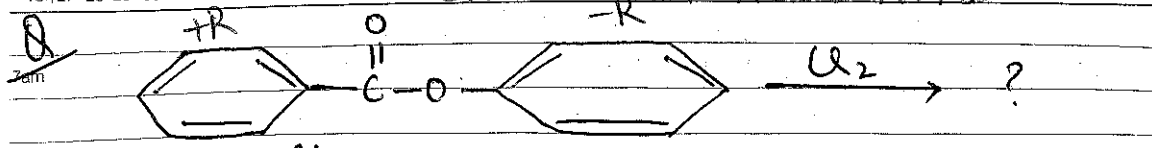
MAR	2017	APR	2017										
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09	1	2	3	4	5	6	09	1	2	3	4	5	6
10	6	7	8	9	10	11	10	6	7	8	9	10	11
11	13	14	15	16	17	18	11	13	14	15	16	17	18
12	20	21	22	23	24	25	12	20	21	22	23	24	25
13	27	28	29	30	31		13	17	18	19	20	21	22

But ion R neutral on meta positions, electrophile goes to meta over ortho & para

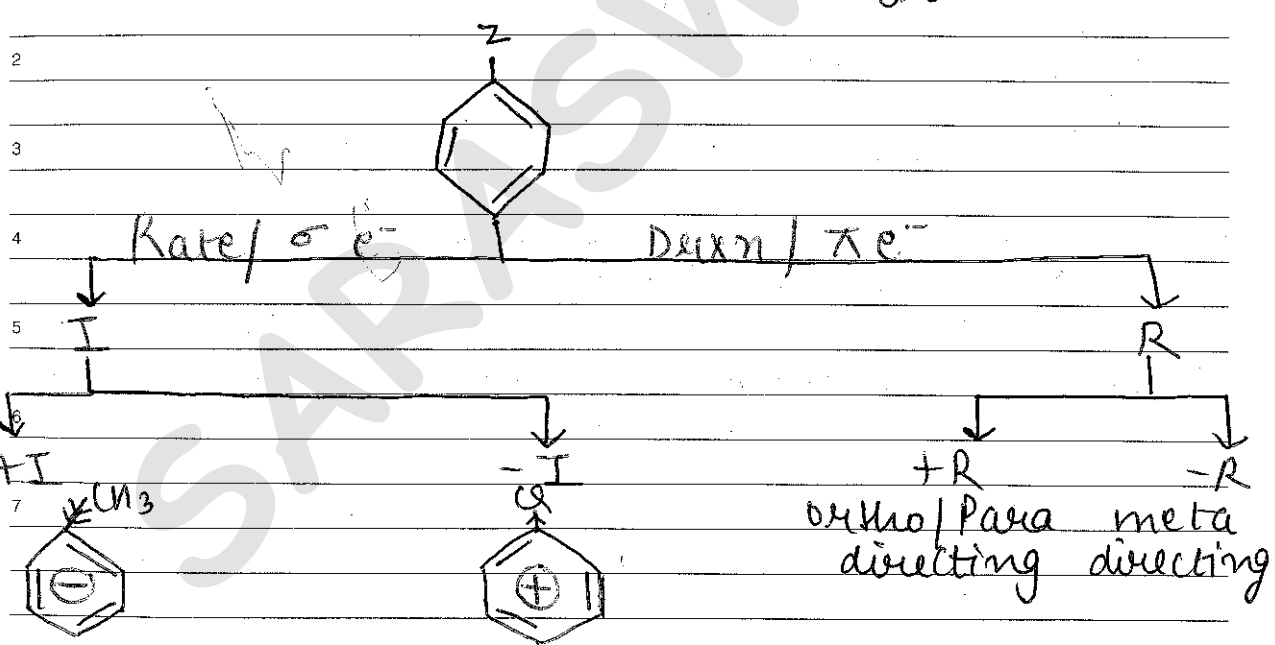
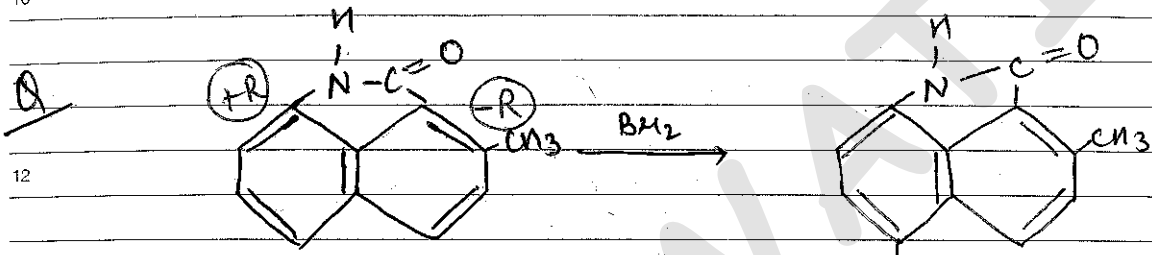
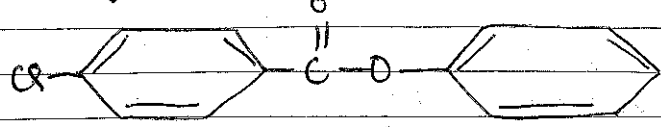
16

2017

February Thursday



Phenyl benzoate



fast
 \ominus ve charge intensifies so attracts electrophile even more fast

slow
 a little \oplus ve chrg is created so doesn't attract electrophile so efficiently

JAN 2017							FEB 2017								
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
52	30	31				1		05		1	2	3	4	5	
01	2	3	4	5	6	7	8	06	6	7	8	9	10	11	12
02	9	10	11	12	13	14	15	07	13	14	15	16	17	18	19
03	16	17	18	19	20	21	22	08	20	21	22	23	24	25	26
04	23	24	25	26	27	28	29	09	27	28					

Q Chloride ion though is e^- withdrawing group, still acts as ortho/para directing?

7am

Because chlorine can give its πe^- to benzene and hence makes it ortho/para directing. whereas it attracts the σe^- from benzene towards itself and making the reactivity of compound a slow process (I effect)

10

Q1 what is the order of chlorination speed?

Toluene

nitrobenzene

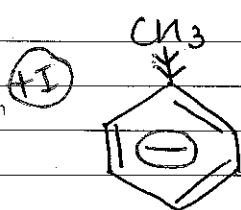
benzene

12

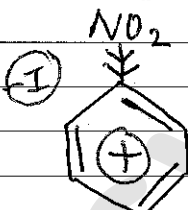
1pm

2

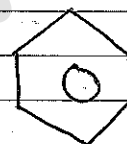
3



(a)



(b)



(c)

$$a > c > b$$

CH_3 gives e^- to benzene and makes it more $\ominus ve$, whereas NO_2 pulls e^- from it & makes it a bit $\oplus ve$, which reduces the speed to the rxn. whereas CH_3 increases the speed of the rxn. (I effect)

7

Birthday / Anniversary

They always say time changes, but you actually have to change them yourself

* Alkanes are also known as paraffins i.e. they are highly stable & do not react under normal conditions

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29

Day (049-316)

18

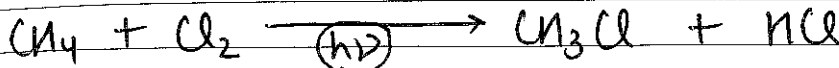
2017

February • Saturday

WK-7

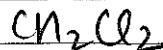
Free Radical Substitution (occurs on σ bond)

7am

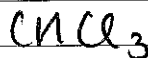


8

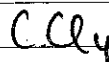
HELPR



[Required to make free radicals]



10



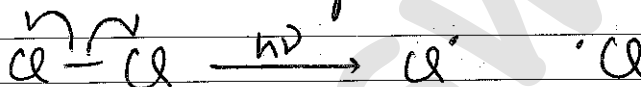
11

Mechanism

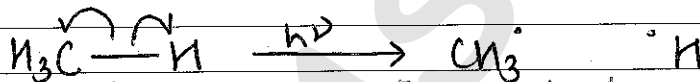
12

1. Chain Initiation
free radical is formed

1pm



2



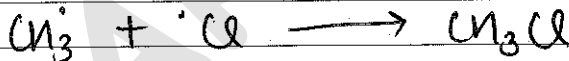
3

Breaking of reactants and formation of free radicals

4

2. Chain propagation

5



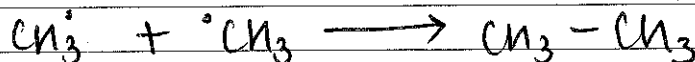
6

alkane reacts with halogen

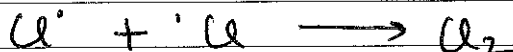
Sunday 19

This is combining of 2 free radicals. Then one more Cl will react to it and so on.

3. Chain termination



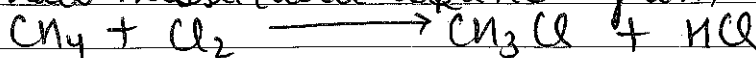
Birthday / Anniversary



2 same free radicals compete and the best in products and the worst in reactants.

JAN 2017							FEB 2017								
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
31	30	31				1		05			1	2	3	4	5
01	2	3	4	5	6	7	8	06	6	7	8	9	10	11	12
02	9	10	11	12	13	14	15	07	13	14	15	16	17	18	19
03	16	17	18	19	20	21	22	08	20	21	22	23	24	25	26
04	23	24	25	26	27	28	29	09	27	28					

Q Why is this process not preferable to form monohalo substituted alkane from alkane?



8

only CH_3Cl will not be formed but all - CH_2Cl_2 , CHCl_3 , CCl_4 will also be formed. i.e. monohalo substituted not formed.

(a mixture of all the above is obtained, diff. to separate)

Q How can a monohalo substituted be formed in excess?

11



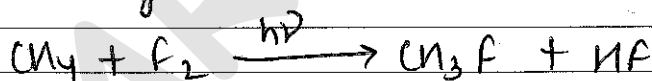
12

take CH_4 in excess then CH_3Cl is formed more than other compounds. If Cl_2 is in excess then CCl_4 is formed more than other compounds.

Q Why fluorination and iodination cannot occur?

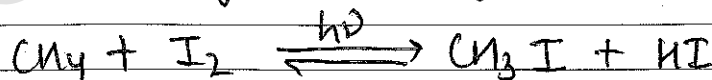
3 fluorine being very small in size and has 3 lone pairs which repel each other very strongly. And we are providing energy to it, so fluorine will blast.

5



6

whereas in case of iodination the rxn is highly reversible, this rxn moves more backward so CH_3I is formed very less in amount.



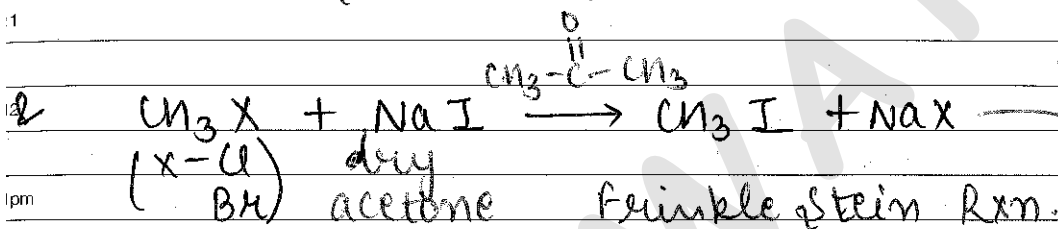
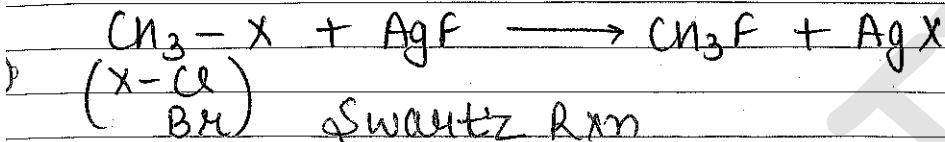
Birthday / Anniversary

Enjoy little things in life for one day you'll look back and realize they were big things

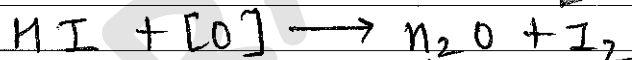
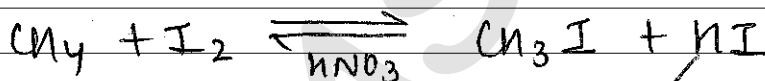
MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31			1	2	3	4	5	6	7

Q How can we form CH_3F & CH_3I ?

1) Halogen Exchange Method.



2) Add oxidising agent



Amount of HI decreases so rxn. moves forward by Le Chatelier's principle & CH_3I is formed more

dry acetone is used because it is covalent, CH_3X is & NaI is also covalent so they will dissolve in dry acetone but NaCl is ionic so will form ppt. and not react further to covalent compounds.

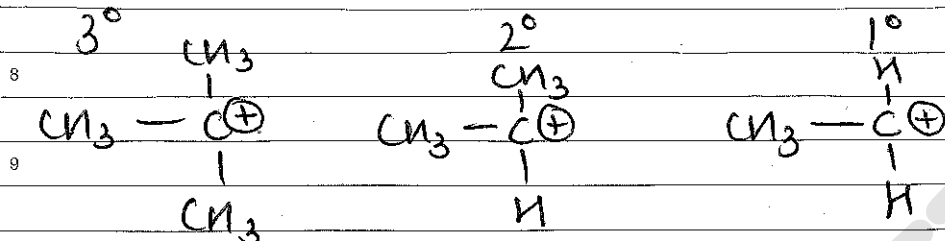
NaCl is ionic because size diff. b/w Na & Cl is less, but NaI is covalent because I is bigger in size than Na so by Fajjan's Rule NaI is covalent

If your plan 'A' doesn't work, the alphabet has 25 more letters

	Mo	Tu	We	Th	Fr	Sa	Su
:52	30	31				1	
:01	2	3	4	5	6	7	8
:02	9	10	11	12	13	14	15
:03	16	17	18	19	20	21	22
:04	23	24	25	26	27	28	29

	Mo	Tu	We	Th	Fr	Sa	Su
:05			1	2	3	4	5
:06	6	7	8	9	10	11	12
:07	13	14	15	16	17	18	19
:08	20	21	22	23	24	25	26
:09	27	28					

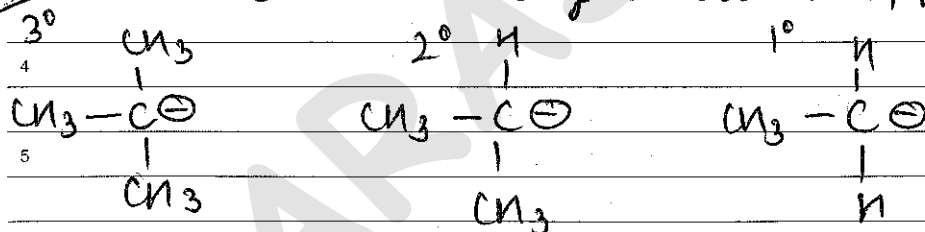
Q 3° > 2° > 1° in case of carbocation, why?



11 If a carbon with ⊕ve charge is attached to 3 carbons then it is 3°, if 2 other carbons then 2° and if 1 then 1°. In 3° 3 carbons

12 start giving their e⁻ to carbon with ⊕ve charge by +I effect and reduces ⊕ve charge on it and making it stable. Whereas in 2° & 1° no. of carbons showing +I are less so stability decreases.

Q 3 1° > 2° > 3° in case of carboanion, why?



7 where +I effect will even denser the ⊖ve charge on carbon having ⊖ve charge, so it will become unstable. 3 carbons will give more e⁻ than 2 & 1, so creating more instability.

Birthday / Anniversary

To live a creative and purposeful life, we must lose out the fear of being wrong

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29

Day (054-311)

23

2017

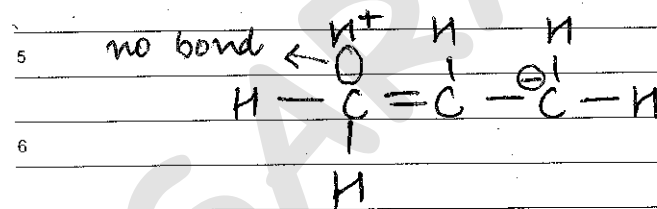
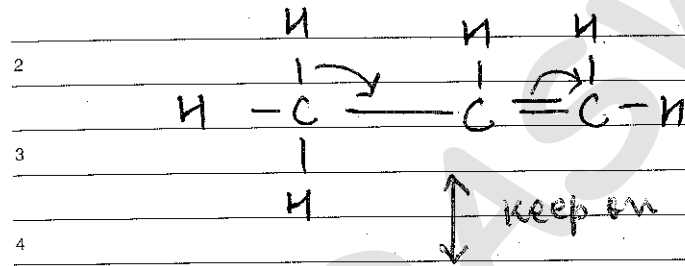
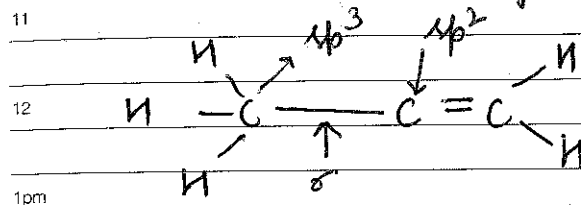
February • Thursday

WK-6

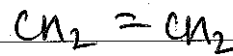
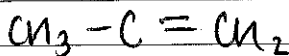
Hyperconjugation. (σ e- की π e- बनाना और π e- की σ e- बनाना)

It is a σ π conjugation also known as Baker nathan effect and no bond effect. Condition necessary for showing hyperconjugation is :-

sp^2 hybrid carbon attached with sp^3 hybrid carbon with σ bond and sp^3 hybrid carbon should have at least one hydrogen.



Q Why propene is more stable than ethene?



Propene is more stable because it has 3 hydrogen which can show hyperconjugation and helps the

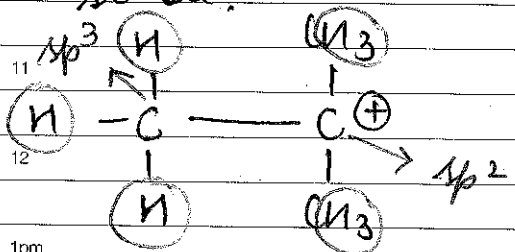
The man who moves mountain begins by carrying away small stones

JAN 2017							FEB 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
29	30	31			1		05		1	2	3	4	5
01	2	3	4	5	6	7	06	6	7	8	9	10	11
02	9	10	11	12	13	14	07	13	14	15	16	17	18
03	16	17	18	19	20	21	08	20	21	22	23	24	25
04	23	24	25	26	27	28	09	27	28				

double to keep on moving, so that no +ve could come and attack it.

whereas in ethane, it cannot show hyperconjugation so double bond remains at one place only and can be easily attacked.

Q Why 3° carbocation & carbo-free radical more stable?

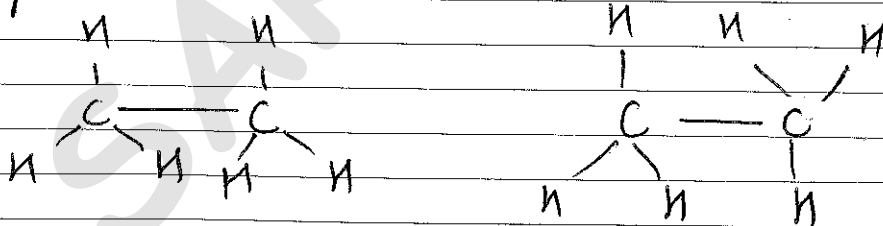


3° has 9 hyperconjugating structures, so +ve charge of carbon is hidden by shifting of bonds.

But in 2° there are only 6 hyperconjugating structures and 1° has 3.

Conformers

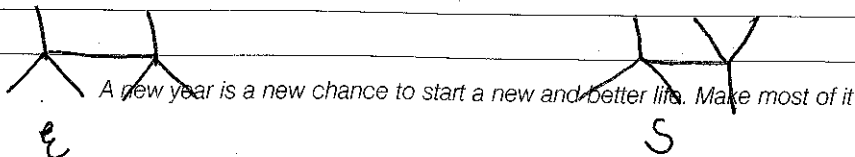
arised due to free rotation of σ bond. Carbon can show mainly 2 forms i.e. staggered and eclipse



There are 2 forms of representation:-

(i) sawhorse

Birthday / Anniversary



MAR 2017							APR 2017									
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su			
			1	2	3	4	5	13					1	2		
09		6	7	8	9	10	11	12	14	3	4	5	6	7	8	9
10	6	7	8	9	10	11	12	15	10	11	12	13	14	15	16	
11	13	14	15	16	17	18	19	16	17	18	19	20	21	22	23	
12	20	21	22	23	24	25	26	17	24	25	26	27	28	29	30	
13	27	28	29	30	31											

25
 Day (056-309)
 February • Saturday
2017
Wk-8

2. newman

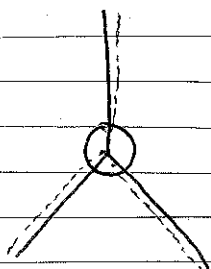
7am

8

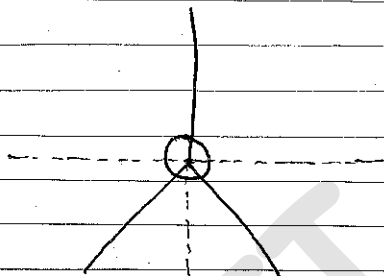
9

10

11



E



S

12

Chain break isomerism starts from butane but actually isomerism starts from ethane i.e. ^{conformer}

2

3

4

5

6

Birthday / Anniversary

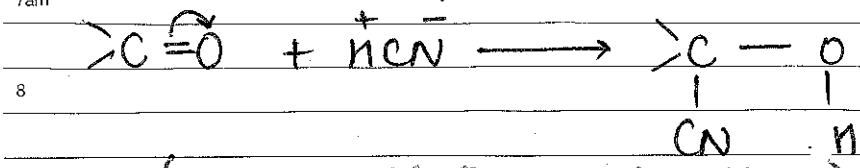
Sunday 26

Knowledge leads you to light, imagination lets you grow

JAN							2017							FEB							2017										
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
52	30	31				1		05			1	2	3	4	5	01	2	3	4	5	6	7	8	06	6	7	8	9	10	11	12
01	2	3	4	5	6	7	8	02	9	10	11	12	13	14	15	07	13	14	15	16	17	18	19	08	20	21	22	23	24	25	26
02	9	10	11	12	13	14	15	03	16	17	18	19	20	21	22	09	27	28						04	23	24	25	26	27	28	29

Nucleophilic Addition

7am



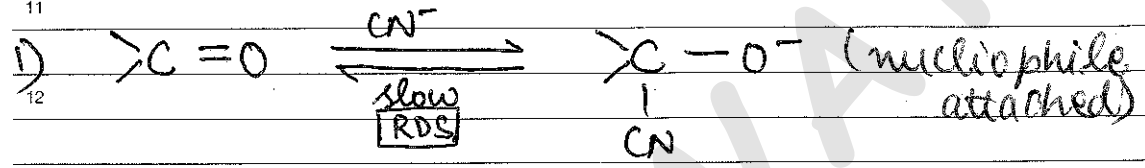
8

9 (Same as electromeric effect)
* occurs in presence of reagent.

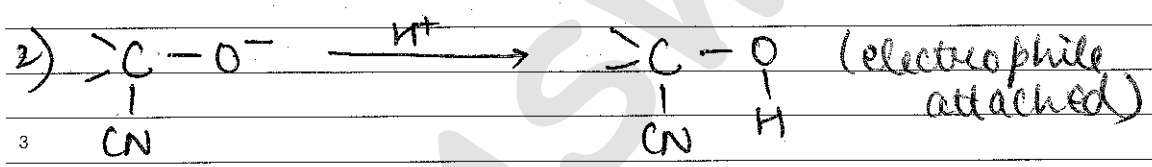
10

Mechanism [Ethanal + HCN → N.A.]

11



12pm



4

Q Why nucleophilic addition is called nucleophilic addition?

5

- Because (i) nucleophile is added first
- (ii) If electrophile is added first then rxn starts moving backward
- (iii) RDS is the step when nucleophile is added i.e. main step

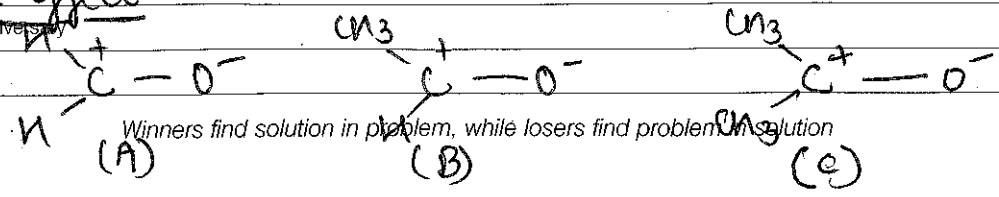
6

7

Q What are factors affecting rate of N.A?

1) I effect

Birthday / Anniversary



Winners find solution in problem, while losers find problem in solution

MAR 2017							APR 2017								
Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
09		1	2	3	4	5	13					1	2		
10	6	7	8	9	10	11	12	14	3	4	5	6	7	8	9
11	13	14	15	16	17	18	19	15	10	11	12	13	14	15	16
12	20	21	22	23	24	25	26	16	17	18	19	20	21	22	23
13	27	28	29	30	31			17	24	25	26	27	28	29	30

methanal

aldehyde

ketone

28

2017
Wk-9

February • Tuesday

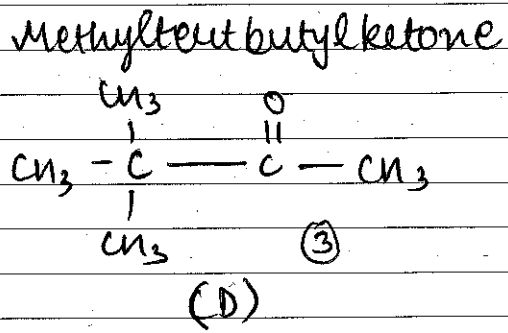
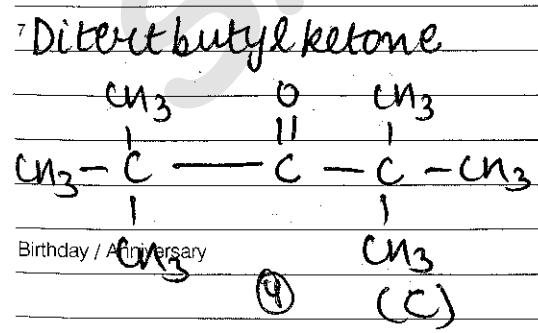
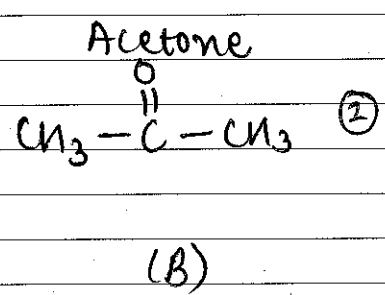
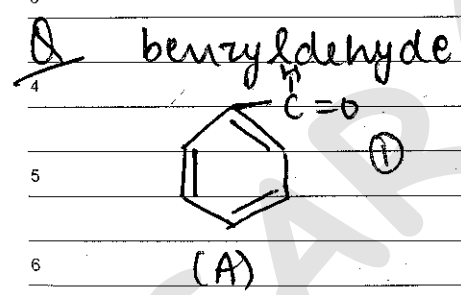
The rxn will happen fastest in (A) because carbon has maximum +ve charge to attract the nucleophile whereas in (B) & (C) CH₃ group will show +I effect and will give some ⊖ve to the carbon, so ⊕ve chrg. decreases and nucleophile will be attracted slowly. Therefore the order of rate of N.A for the three will be:-

A > B > C

11 (as 1st step is RDS, its speed should be more)

12) break hindrance

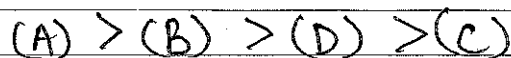
Wherever there will be crowding, nucleophile will not attach there easily, as no space. Therefore nucleophile will be attached fastest in (A) then (B) and lowest rate in (C).



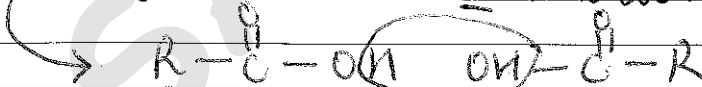
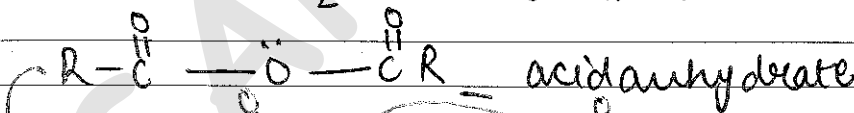
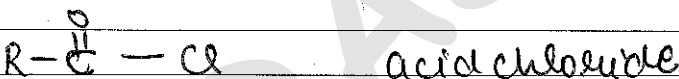
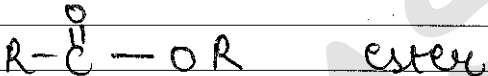
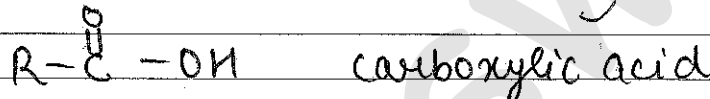
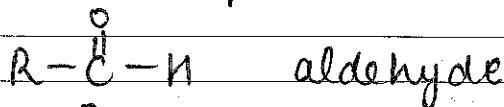
Winners don't do anything different. They do things differently.
Which will react with HCN fastest?

Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

In (A) structure methanal is attached to benzene, so NA. rate will be fastest. Steric hindrance is most in (C) so slowest rate. Then from (B) & (D) steric hindrance is more in (D) therefore the order will



Q Carboxylic acid and its derivatives, why do not do nucleophilic addition



because their bonds become extraordinarily stable due to resonance, so do not easily break. The old strong bonds easily not broken so new bonds cannot be formed. This is the reason that they do not show NA.

Don't go the way life takes you. Take the way you like to go

APR							2017							MAY							2017									
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su			
13					1	2	18	1	2	3	4	5	6	7	23	24	25	26	27	28	29	28	29	30	31					
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14	24	25	26	27	28	29	30	31	29	30	31				
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21	21	22	23	24	25	26	27	28							
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28	22	23	24	25	26	27	28	29							
17	24	25	26	27	28	29	30	22	29	30	31					22	29	30	31											

02

2017

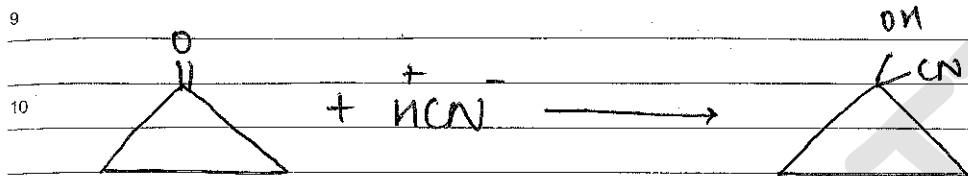
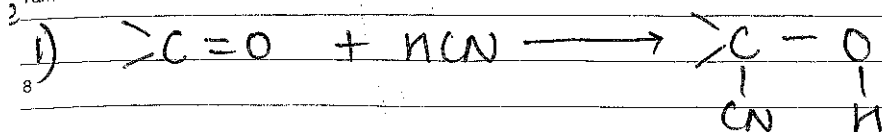
Day (061-304)

March • Thursday

Wk-9

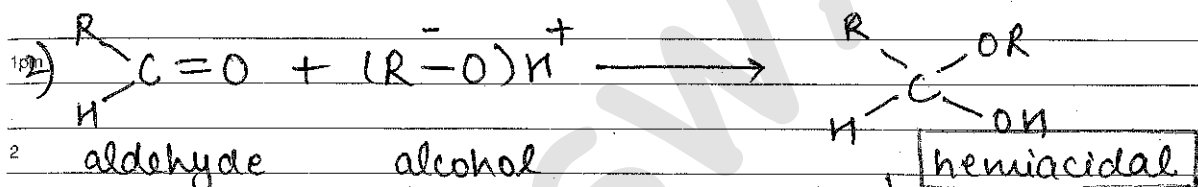
Examples of Nucleophilic Addition

7am



cyclopropanone

cyanoaldehyde

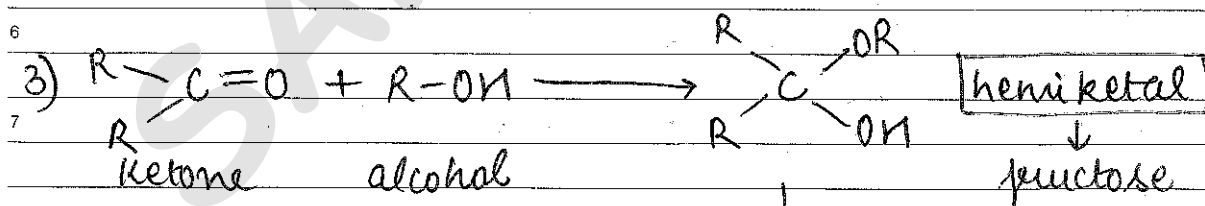
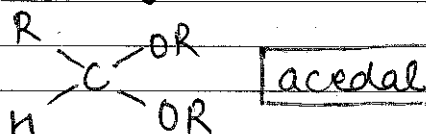


aldehyde

alcohol

hemiacetal

R-OH glucose

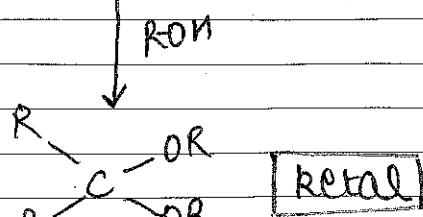


ketone

alcohol

hemiketal

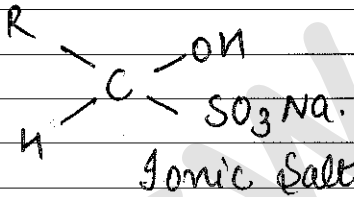
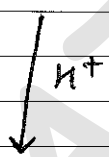
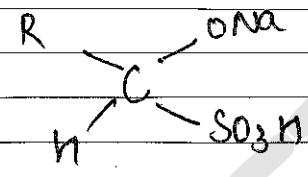
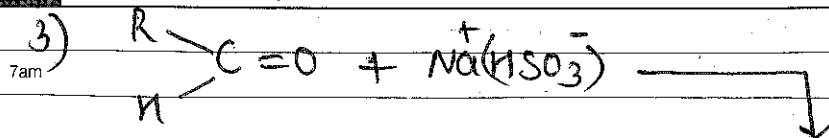
fructose



Birthday / Anniversary

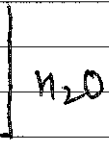
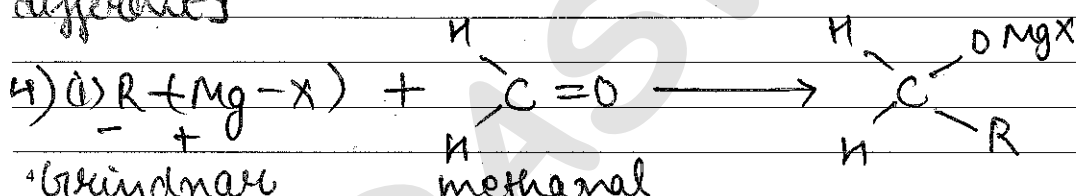
People don't plan to fail, they just fail to plan

FEB							2017							MAR							2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
05		1	2	3	4	5	09		1	2	3	4	5	13	14	15	16	17	18	19	27	28	29	30	31			
06	6	7	8	9	10	11	12	10	6	7	8	9	10	11	12	14	15	16	17	18	19							
07	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19	15	16	17	18	19	20	21	22	23	24	25	26	
08	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26	16	20	21	22	23	24	25	26					
09	27	28						13	27	28	29	30	31			17	27	28	29	30	31							

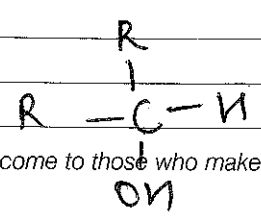
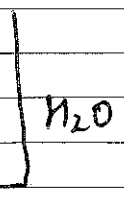
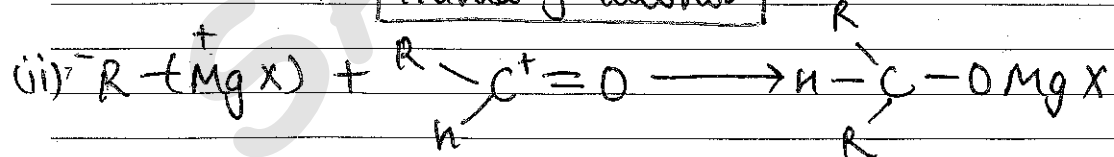


→ used in separation of aldehyde & ketone

Because different M.P & B.P from covalent compounds & solubility also different



$R-CH_2-OH$
Primary alcohol



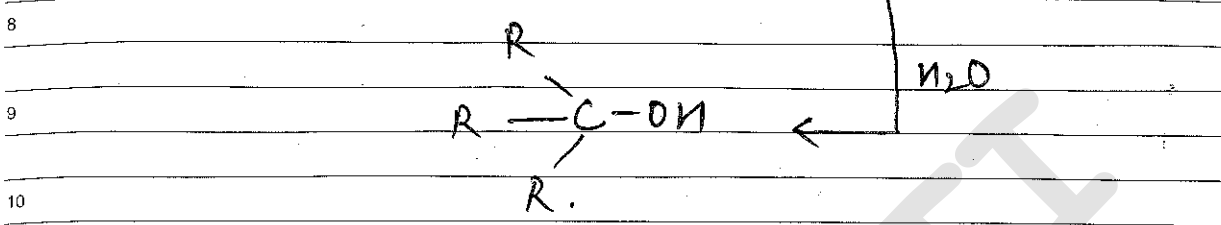
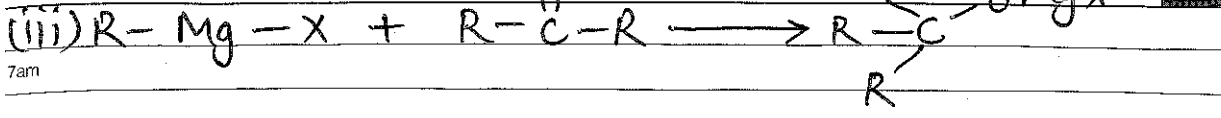
Great opportunities come to those who make the most of small ones



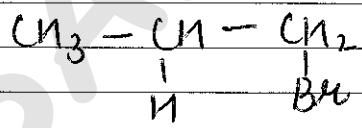
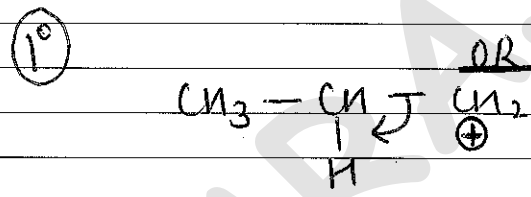
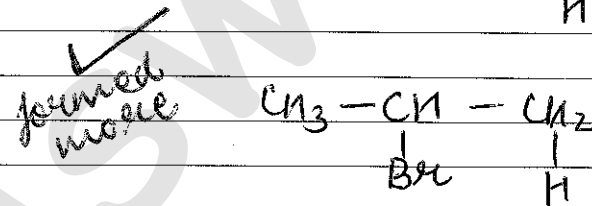
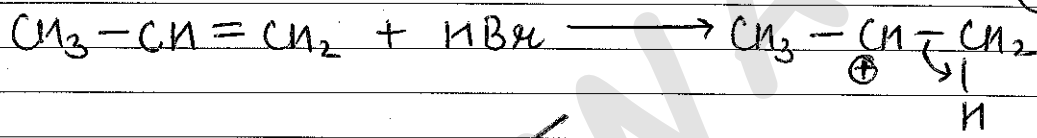
APR							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				



Day (063-302) **4** (unsymm & symm)
 R March Saturday



Electrophilic Addition



We will discuss the case of unsymm. compd added to unsymm. compd. Because symm. & symm or symm & unsymm are added then both the compd formed are same

Both the products will be formed but as 2° carbocation is more stable so it will be formed more

BirthDay / Anniversary This is also known as Markovnikoff's addition. It will be attached there where there are more no. of H earlier. *Mind are like parachutes, they only function when open*

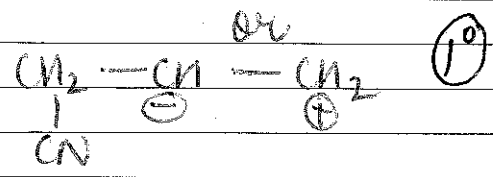
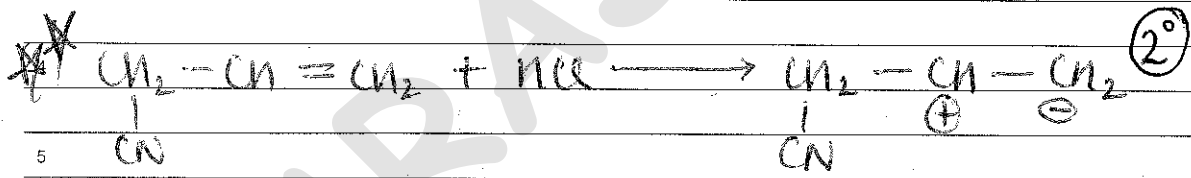
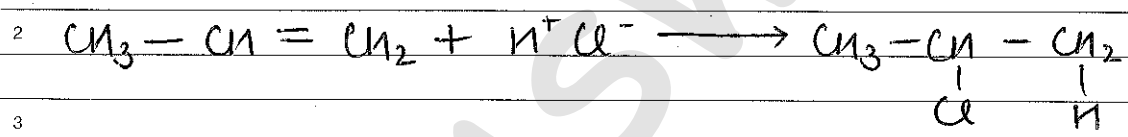
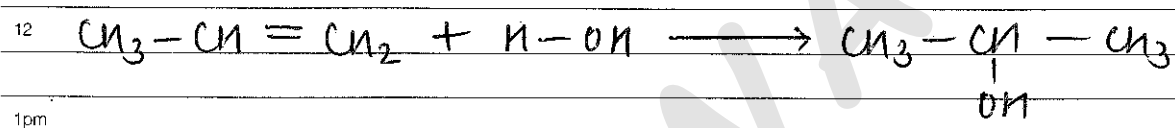
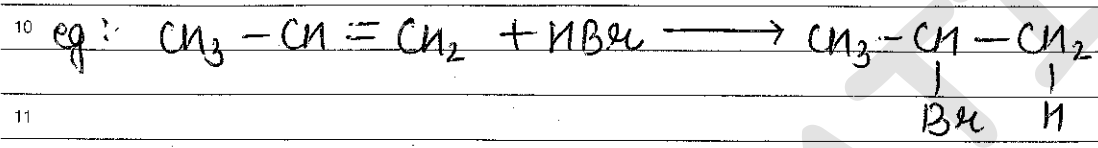
अमीर को अमीर कर दो → Tuka

multiophile will also be added but after electrophile.

2017 FEB							2017 MAR						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

Electrophilic addition is known as electrophilic addition because electrophile is added first, This is because alkene and alkyne have a dense e⁻ cloud due to double and triple bond.

Always stable carbocation is formed more.



Here 1° C⁺ is more stable than 2° C⁺

This is also known as Peroxide effect / Kharach effect / Antimarkovnikov (because products formed as opp to that of mark. i.e. Mark's major product is antimark's minor & Mark's minor product is antimark's major)

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13				1	2		18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

homolytic cleavage

Day (066-299)

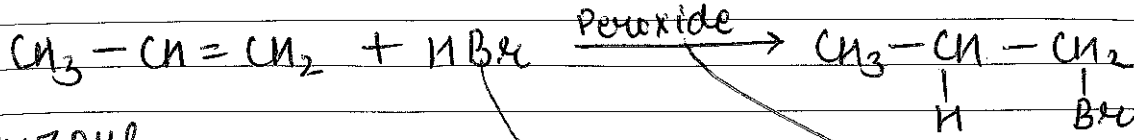
07

2017
WK-10

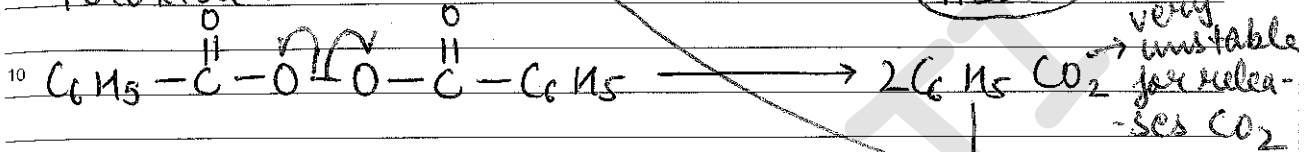
March • Tuesday

Free Radical Addition

7am

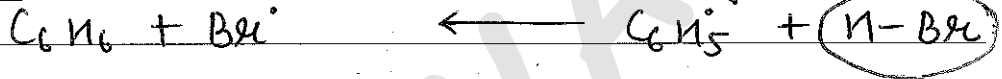


Benzoyl Peroxide:-

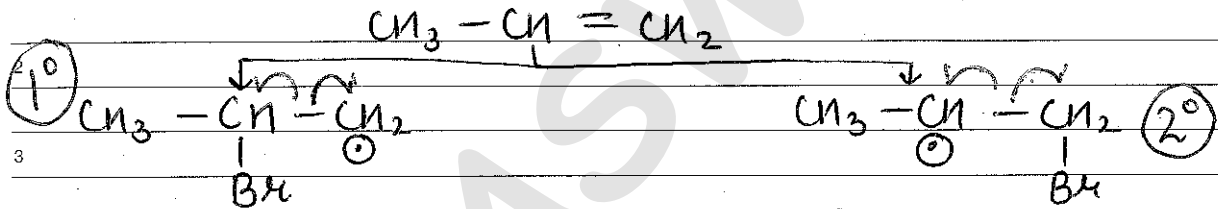


11

12

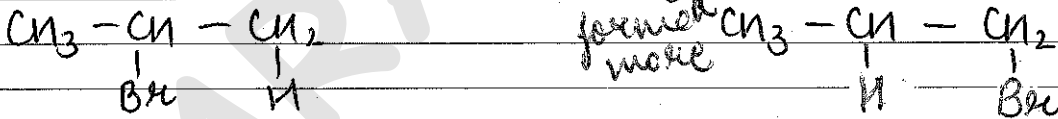


1pm



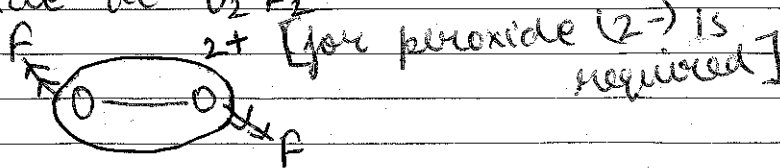
4

5



6

O_2^{2-} is peroxide (O-O), wherever O-O then it is peroxide, except one where O-O doesn't form peroxide i.e. O_2F_2



Birthday / Anniversary

Win as if you were used to it, lose as if you enjoyed it for a change

$1^\circ < 2^\circ < 3^\circ$ by the ratio of 1:5:8

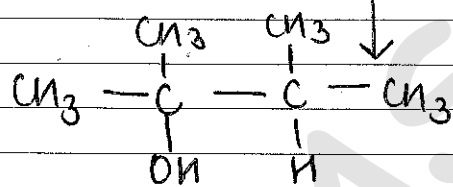
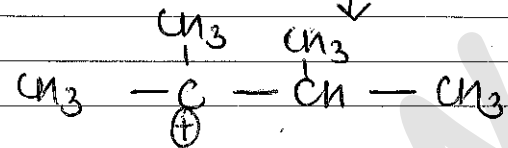
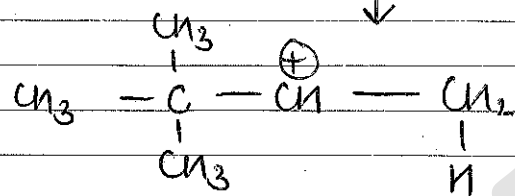
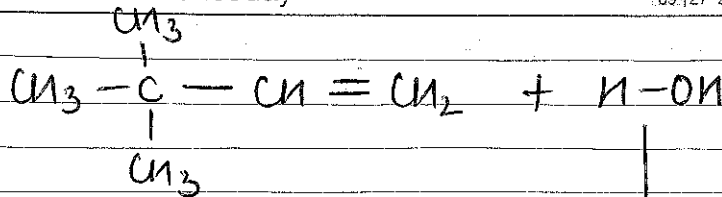
2017
08

08

Day (067-298)

March • Wednesday

FEB							2017							MAR							2017									
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su			
05		1	2	3	4	5	09		1	2	3	4	5	13		1	2	3	4	5	27		27	28	29	30	31			
06	6	7	8	9	10	11	12	10	6	7	8	9	10	11	12	14	13	14	15	16	17	18	19	28	28	29	30	31		
07	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19	15	13	14	15	16	17	18	19							
08	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26	16	20	21	22	23	24	25	26							
09	27	28						13	27	28	29	30	31			17	27	28	29	30	31									

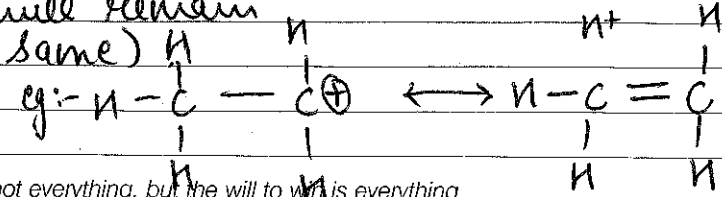


[as 3°C^+ is most stable, and it has a chance of converting to 3° so, it does]

Hyperconjugation is of 2 types:-

sacrificial
(no. of bonds after hyperconv. will be ~~two~~ less than total no. of bonds)

isovalent
(no. of bonds after hyper. will remain same)



Winning is not everything, but the will to win is everything

2017 APR							2017 MAY								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

Day (068-297)

09

2017

March • Thursday

WK-10

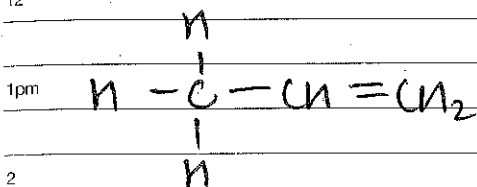
Q Why does hyperconjugation takes place? to attain stability.

Q hyperconjugation - Applications? explains stability of

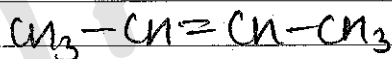
- (i) carbocation
- (ii) carbocation radical
- (iii) alkene

Q Why but-2-ene is more stable than propene & but-1-ene?

12



1pm



2

has 6 hyperconjugating structures

3

has 3 hyperconjugating structures

4



5

has 2 hyperconjugating structures.

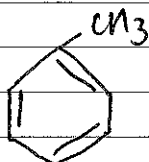
6

Q what are types of hyperconjugation?

hyperconjugation of 2 types:-

- (i) Forward :- e⁻ is given to benzene

Birthday / Anniversary



A man's worth is no greater than the worth of his ambitions

* Carbon attached to functional group is α carbon.

* Carbon besides α carbon is β carbon.

2017
Wk: 10

10th

Day (069-296)

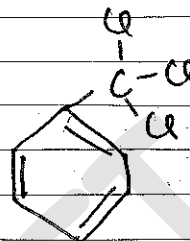
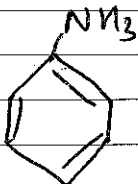
March • Friday

FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
01	02	03	04	05	06	07	08	09	10	11	12	13	14
14	15	16	17	18	19	20	21	22	23	24	25	26	27
27	28						28	29	30	31			

(ii) Reverse :- C^- is taken from benzene.

7am

anilium

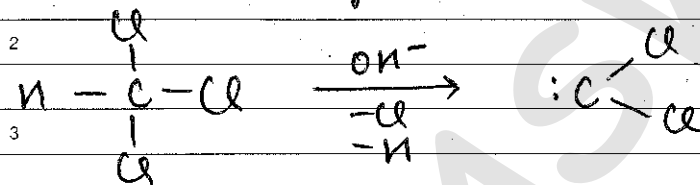


Elimination Reactions

12

α elimination (when both the elements are removed from α carbon only).

1pm



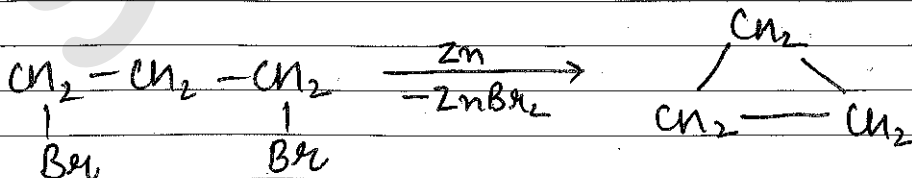
chloroform

carbene

5

γ elimination (when ^{one of} both the elements ~~are~~ is removed from α and other from γ)

7

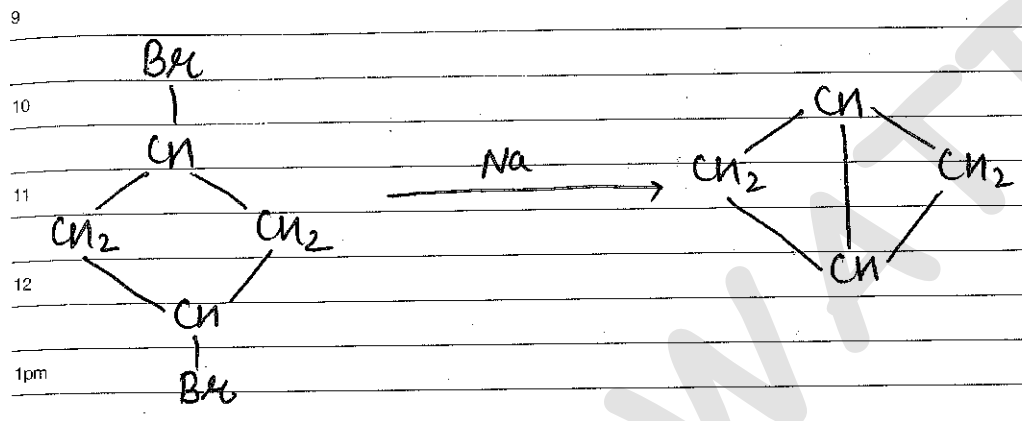
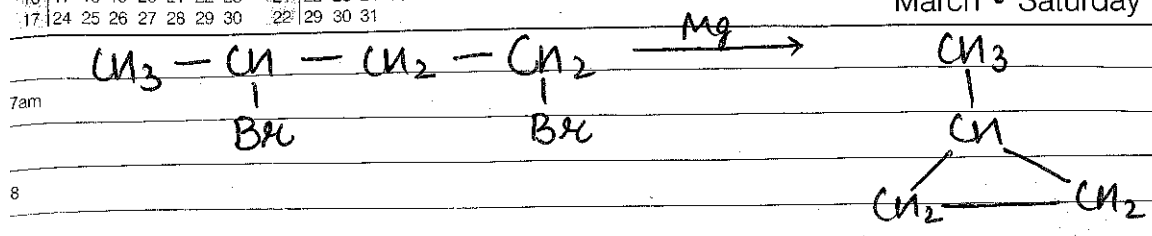


Birthday / Anniversary

Stay focussed on your goals, not on your immediate problems

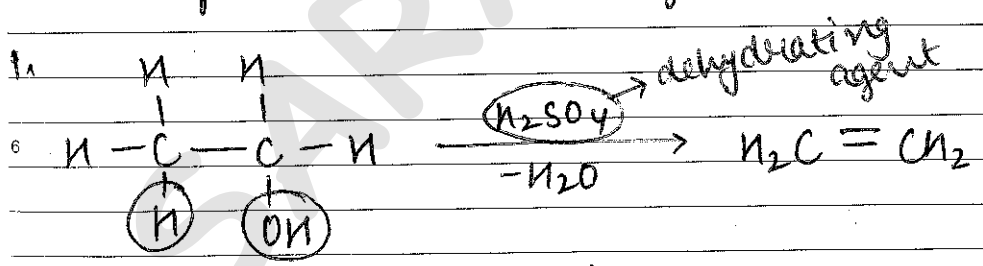
APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

11
Day (070-295)
March • Saturday
WK 10
2017



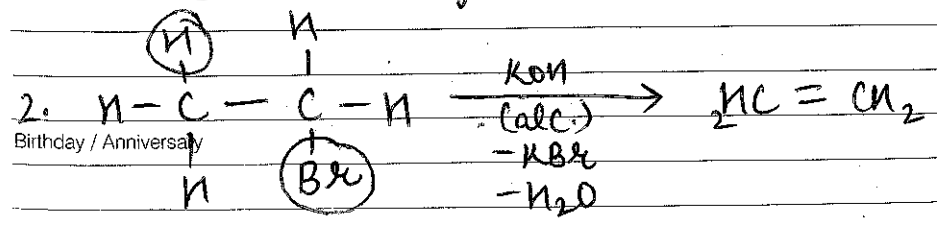
[γ elimination always leads to formation of cyclic compounds]

β elimination (When one carbon element is removed from α and other from β)

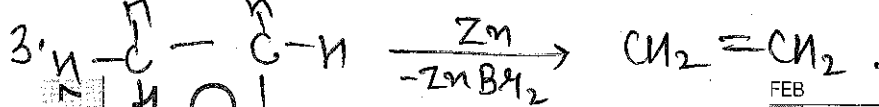


Sunday 12

alcohol. dehydration



A good thing about telling the truth is that you don't have to remember what you said



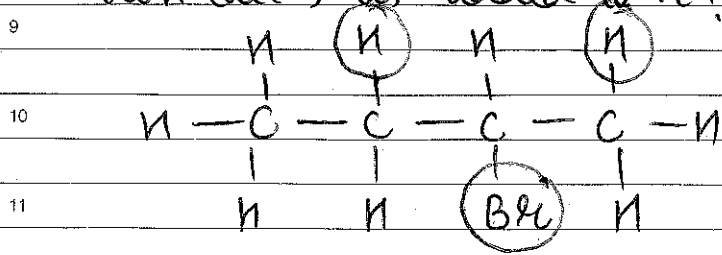
2017
March
Monday

3 Br
3 Br
Pay (0722993)
Normal dihalide

FEB							2017 MAR						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	

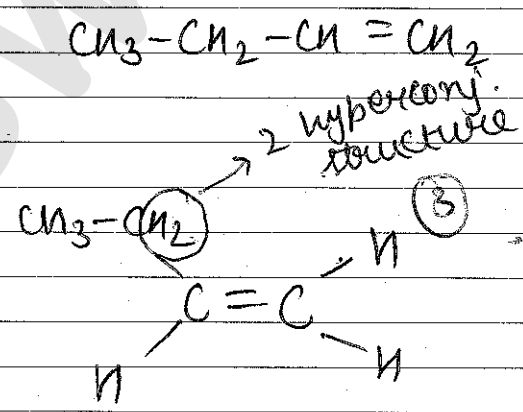
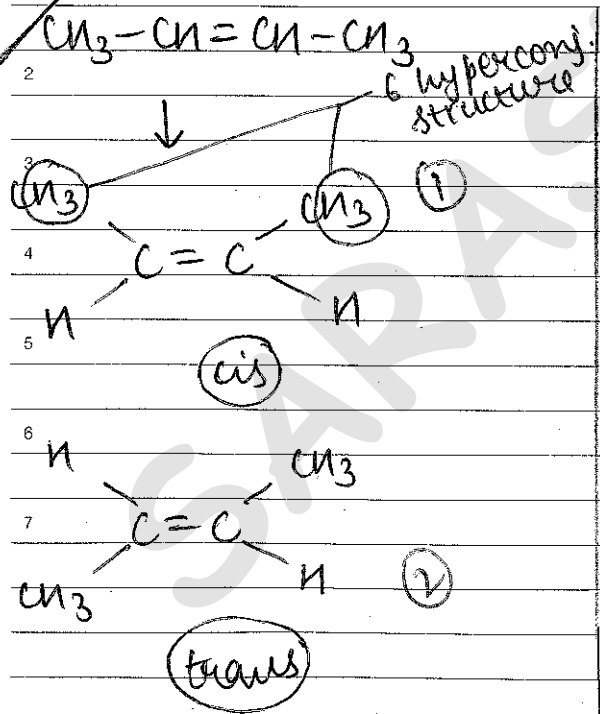
β elimination causes unsaturation
i.e. formation of pi bond.

Q. How many isomers of 2-bromobutane is formed, when (kon calc.) is added to it?



formed more

kon calc.)



Ans: - 3

Birthday / Anniversary

Don't count every hour in the day. Make every hour in the day count

A here geometrical isomer is stable because it can show hyperconjugation (6 struct.)

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

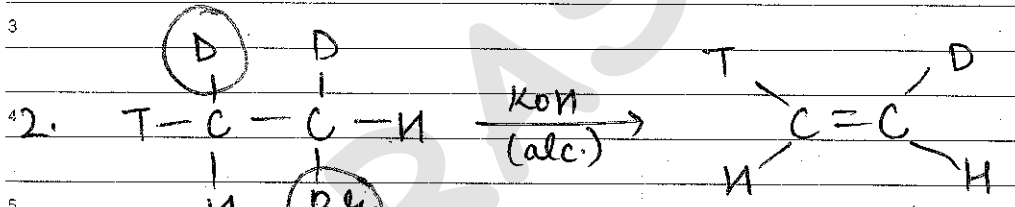
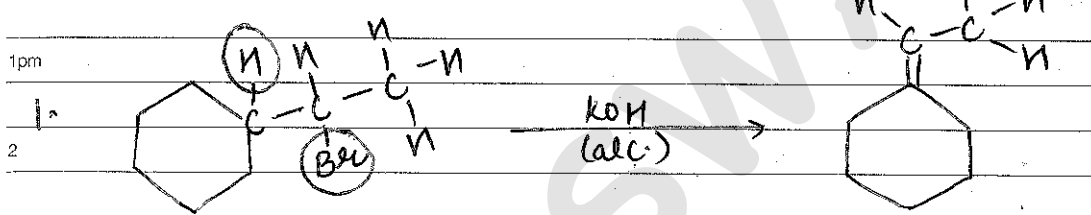
Day (073-292) **14** 2017
 March • Tuesday

Sydjeff's Rule / Saytzeff.

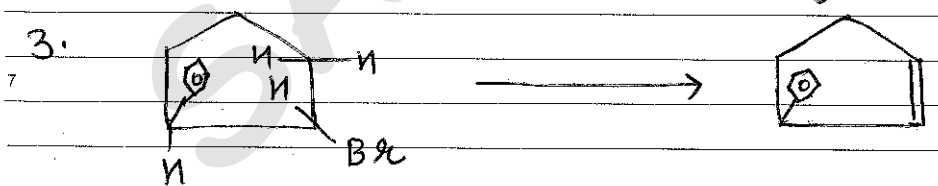
7am

When more than 1 alkene is formed after β -dehydrohalogenation, then that compound is formed more which:-

9. गरीब को गरीब कर दो
10. more symmetrical
11. more alkylated (more alkyl grps).
12. forms geometrical isomerism
13. which has more hyperconjugating structures



[KOH (alc) diagonal attack]



* sydjeff rule is not applied here because 2 alkenes cannot be formed

Birthday / Anniversary

as diagonal H has to be removed, it can be done only from right side as phenol cannot be removed.

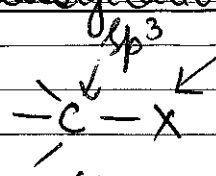
Faith sees the invisible, believes the incredible and receives the impossible

Halalkane and Halocarbones.

7am

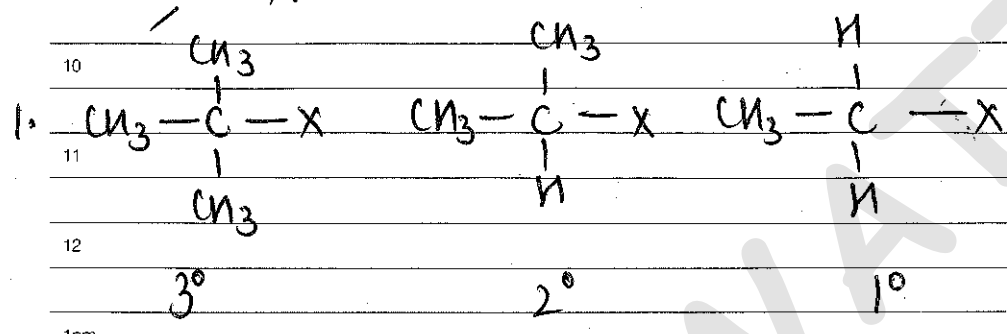
Classification of halogen containing compound

8



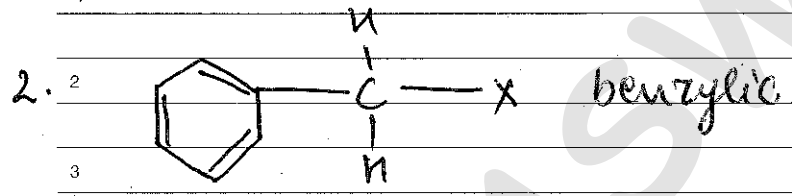
9

10

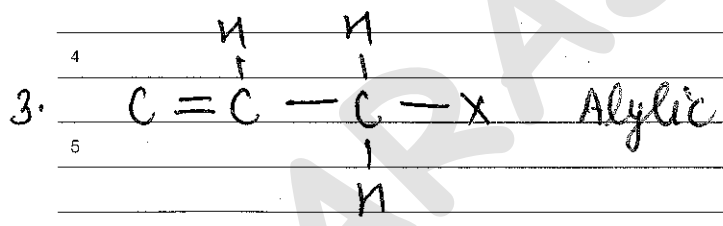


12

1pm



3



5

6

7

Birthday / Anniversary

The purpose of our existence is not to make a living, but to make life

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

Day (075-290)

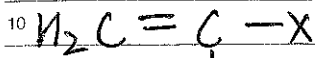
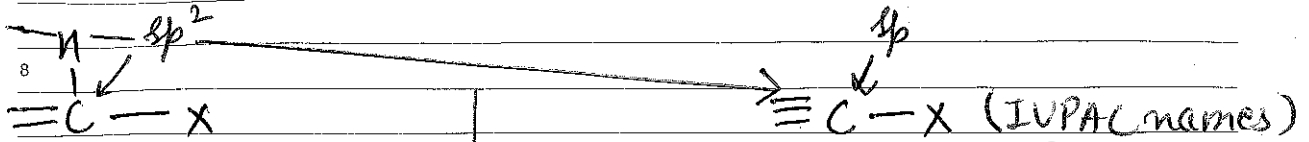
16

2017

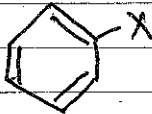
March • Thursday

Wk-11

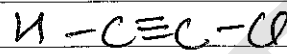
7am



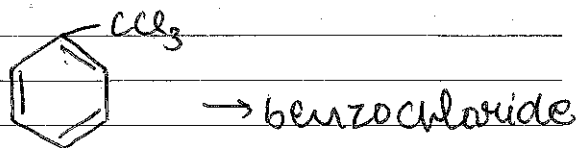
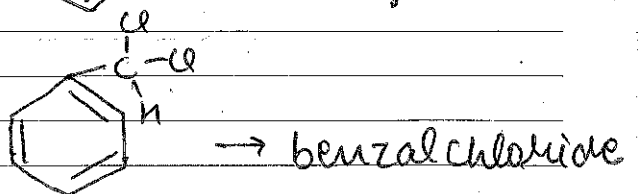
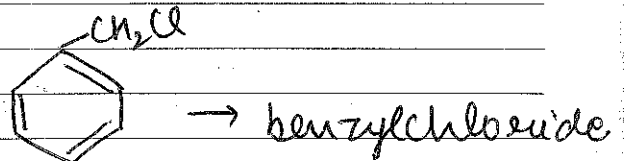
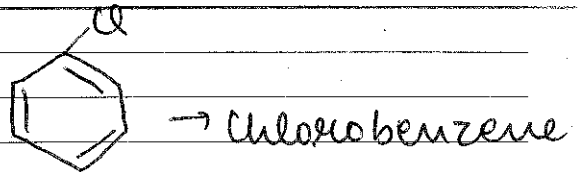
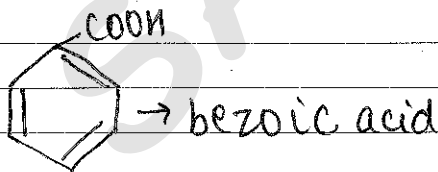
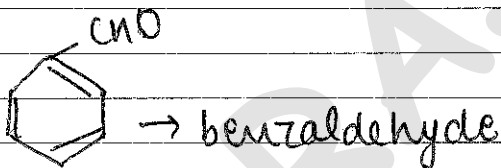
vinylic



allylic



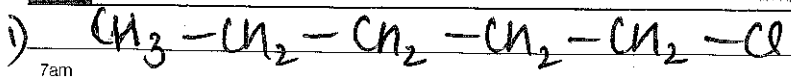
chloroethyne



Birthday / Anniversary

Be a creator... Not a creature of your circumstances

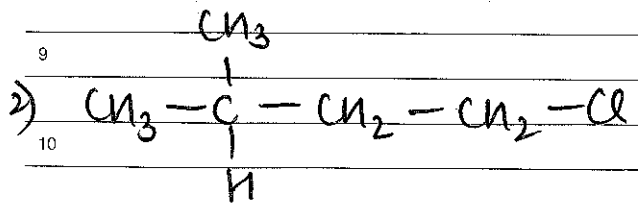
FEB 2017							MAR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11 12	10	6	7	8	9	10	11 12
07	13	14	15	16	17	18 19	11	13	14	15	16	17	18 19
08	20	21	22	23	24	25 26	12	20	21	22	23	24	25 26
09	27	28					13	27	28	29	30	31	



7am

n-Pentyl

8



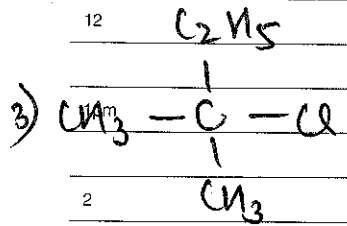
9

10

isopentyl.

11

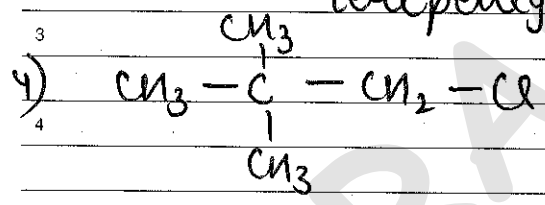
12



2

tertpentyl.

3



4

5

neopentyl

6

Nature of Bond

7

Q CH_3F , CH_3Cl , CH_3Br , CH_3I

- (i) which is more polar?
- * (ii) " has " " ?

Birthday / Anniversary

Truly great people usually don't feel important, they make others feel important

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

Day (077-288)

18

2017

March • Saturday

Wk-11

(i) $\text{CH}_3\text{-F}$, as F is highly e^- \ominus ve

7am

(ii) $\text{CH}_3\text{-Cl}$, as F being less in size shows small bond length through can create max. chrg. whereas Cl is also e^- \ominus ve and has bigger bond length.

10

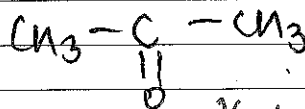
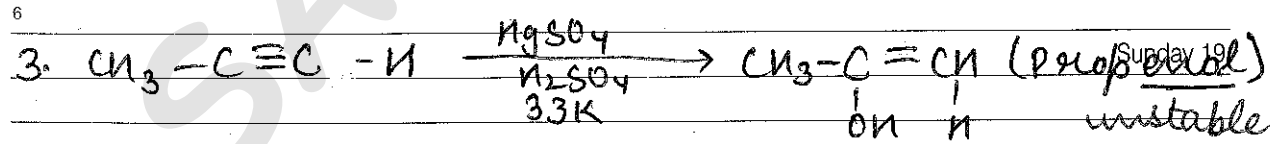
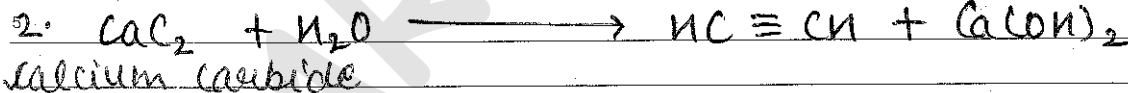
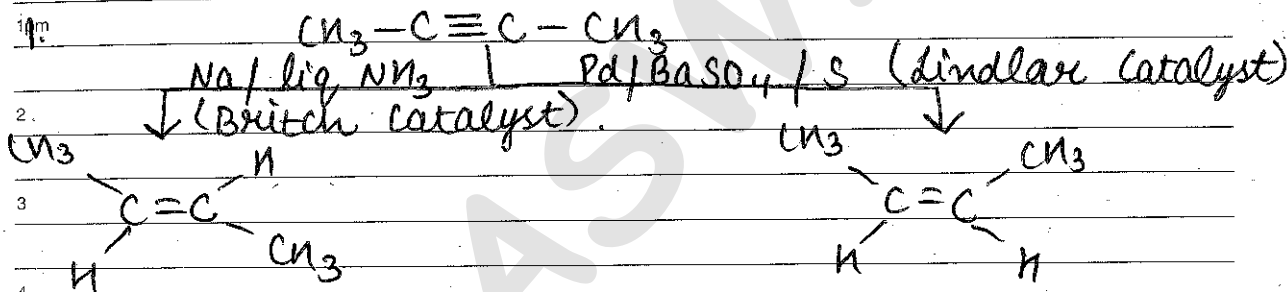
$\therefore \mu = C \times d$

Overall product of charge and density for chloromethane will be maximum.

12

Important Conversions

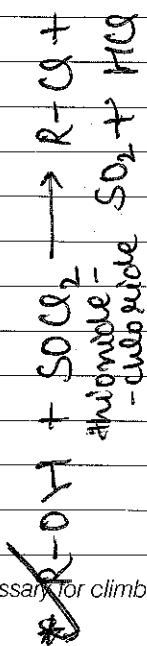
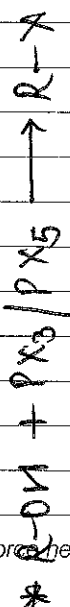
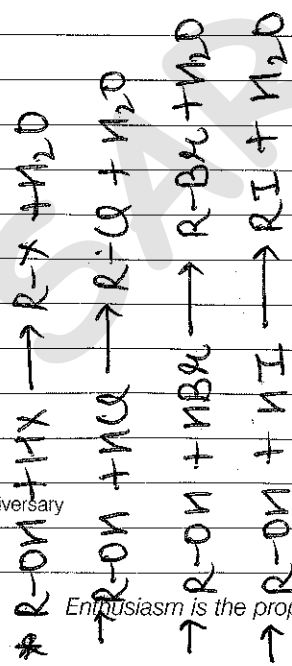
11m



Love is never wasted, it always comes back to you a hundred times over

Preparation of Haloalkanes (R-X)

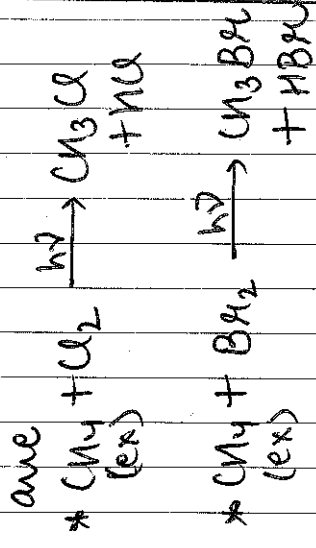
from alcohol



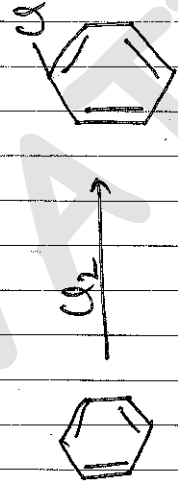
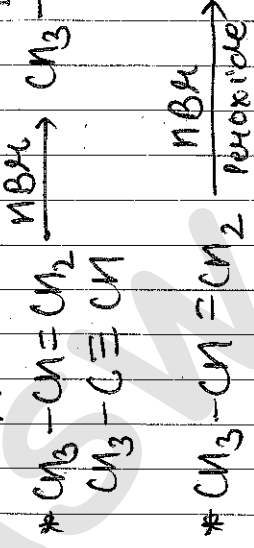
Best way because it leads to the formation of purest RCl , as SO_2 and HCl are gases and will be released into air. DARZANN PROCESS

Disadvantage:- can form only $R-Cl$ & not RBr or RI as $SOBr_2$ and SOI_2 do not exist (not stable)

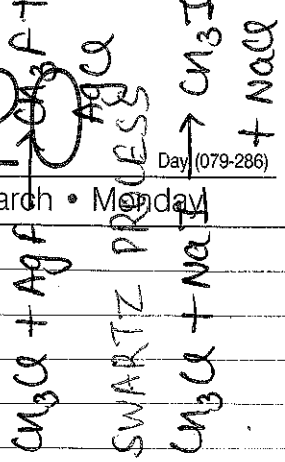
from hydrocarbons



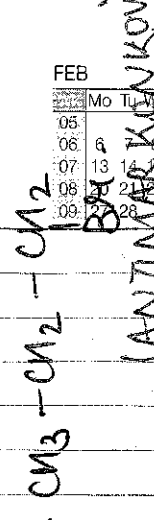
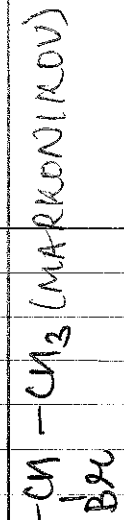
ene/yne



from halogen exchange



FRINKLE STEIN RXN.



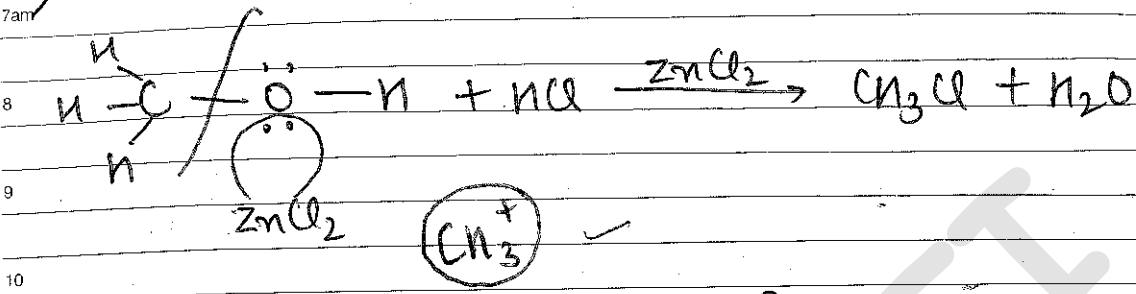
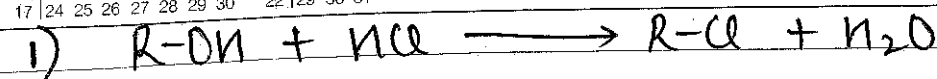
March • Monday
 Day (079-286)

FEB 2017							MAR 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
05			2	3	4	5	09		1	2	3	4	5		
06	6						10	6	7	8	9	10	11	12	
07	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19
08	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26
09	27	28	29				13	27	28	29	30	31			

* Any other Lewis acid other than $ZnCl_2$ can be used but its mixture with HCl will not be a Groove's reagent. the process will not be 'Lucas Test'.

APR	2017							MAY	2017						
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
13						1	2	18	1	2	3	4	5	6	7
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

Day (080-285) **21**
 March • Tuesday



Q what is Groove's reagent?
 11 1:1 mixture of HCl and $ZnCl_2$

Q what is the role of $ZnCl_2$?
 12 $ZnCl_2$ is a very good Lewis Acid, so it goes and attaches to the lone pair of oxygen of alcohol and leads to breaking of bond and formation of carbocation *

Q what is the order?
 4 $3^\circ > 2^\circ > 1^\circ$ [because of stability order]

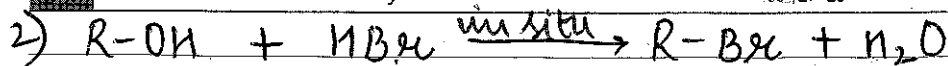
Q what is the use of Lucas Test?
 6 Chemical test for alcohol.

Compound	Test	Observation	Reason
1. 3°	Lucas	reacts fastest	C^+ is most stable
2. 2°		reacts after 5 min	stable than 1° but not as 3°
3.		doesn't reacts at room temperature	least stable C^+

Birthday / Anniversary

Leadership isn't about being the best, it's about bringing out the best in others
 PPT formed after completion of rxn.

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
05			1	2	3	4	5	09		1	2	3	4	5	
06	6	7	8	9	10	11	12	10	6	7	8	9	10	11	12
07	13	14	15	16	17	18	19	11	13	14	15	16	17	18	19
08	20	21	22	23	24	25	26	12	20	21	22	23	24	25	26
09	27	28						13	27	28	29	30	31		



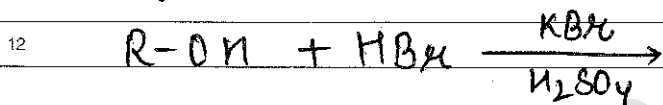
7am

8 HBr doesn't exist in nature, so it has to be formed in situ for the rxn to take place

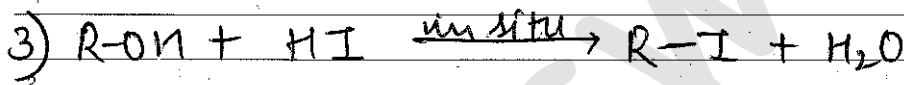
Q⁹ what is in situ?

10 "In Situation". If any reagent is formed at a particular situation and used within that moment.

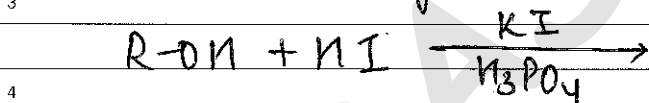
11 eg: In above rxn H-Br is formed in situ:-



1pm



3 Even HI is formed in situ as:-



Q⁵ Why H₂SO₄ is not used with KI?

6 Because H₂SO₄ will oxidise KI to form I₂ as H₃PO₄ is not a very good oxidising agent as H₂SO₄

7

Birthdays / Anniversaries

One of the great pleasures of life is doing things that others say you cannot do

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

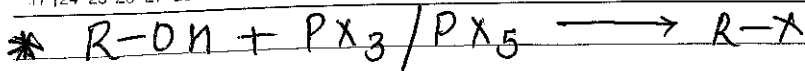
Day (082-283)

23

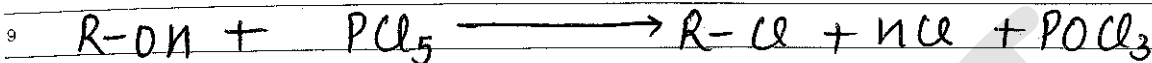
2017

March • Thursday

Wk-12



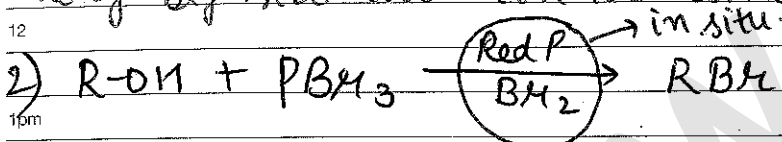
7am



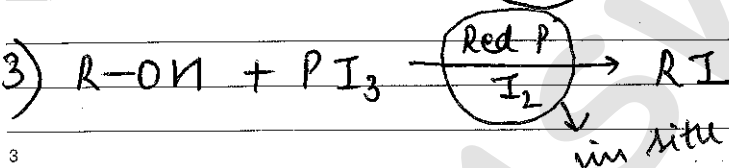
10

PI_5 , PBr_5 , PBr_3 and PI_3 doesn't exist because of steric hindrance, they are of (B & I) very big size and cannot come across Phosphorous.

12



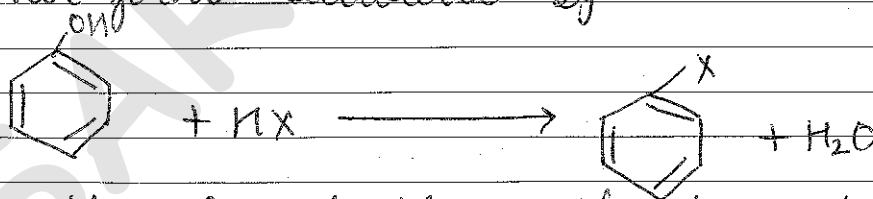
1pm



3

[Phosphorous can catch fire in normal air, but only white phosphorous]
 we cannot form haloarene by:-

5



6

7 Because phenol is highly stable due to resonance, so the old bonds do not break and hence new are not formed under normal conditions.

Preparation of Haloarene

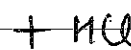
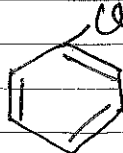
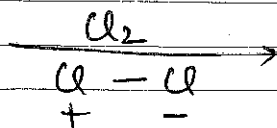
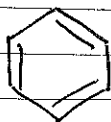
Birthday / Anniversary

You never get a chance to make a first good impression

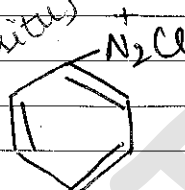
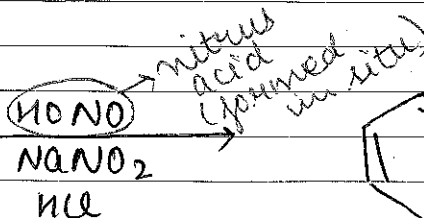
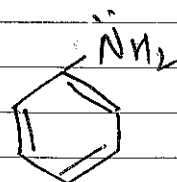
Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5
06	6	7	8	9	10	11
07	13	14	15	16	17	18
08	20	21	22	23	24	25
09	27	28				

Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5
10	6	7	8	9	10	11
11	13	14	15	16	17	18
12	20	21	22	23	24	25
13	27	28	29	30	31	

7am



ii)

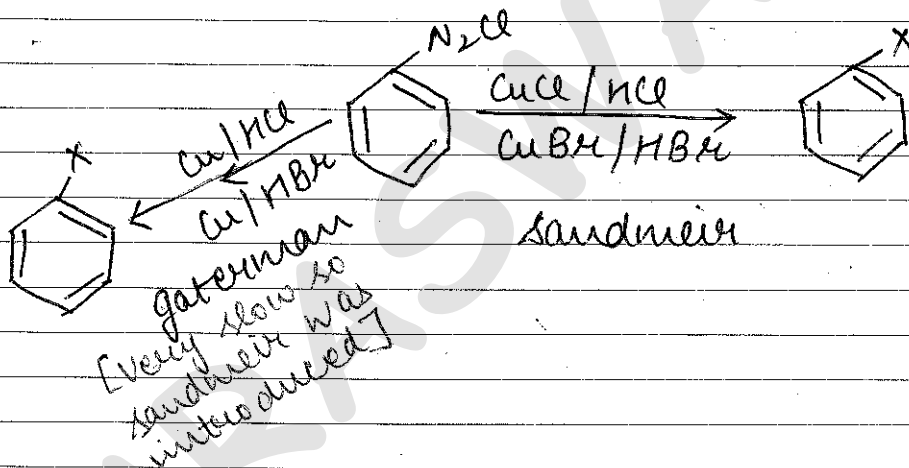


chloride

aniline

(0° to 5°C)

benzenediazonium salt



**

Q What is sandmeyer rxn?

Rxn of benzenediazonium salt with copper salt in which copper salt replaces it's nucleophile with benzene

Birthday / Anniversary

Do not allow anything to be an obstacle. See everything as a stepping stone to victory

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

Day (084-281)

25

2017

March • Saturday

WK-12

Reactions of Haloalkanes

7am

1) Nucleophilic Substitution

SN¹

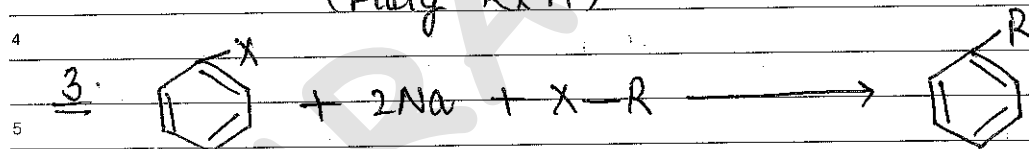
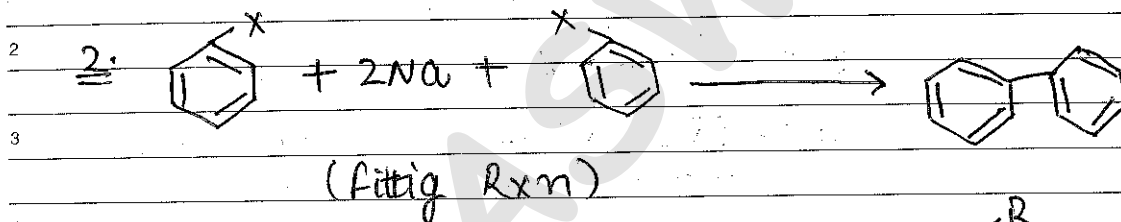
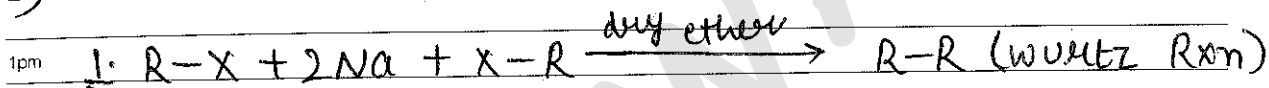
SN²

(depends on conc. of haloalkane)

(depends on conc. of haloalkane as well nucleophile)

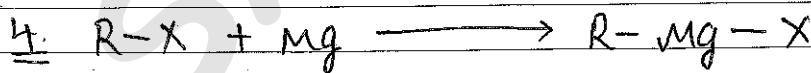
2) β elimination.

3) Reaction with metal



(Wurtz Fittig Rxn)

Sunday 26



(Grignard Rxn)

Birthday / Anniversary

Failure teaches men many more things than success ever can

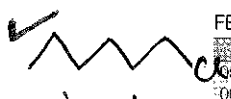
Q which of the 2 will show SN²?

2017 FEB 27 (11) 2017 MAR 2017

Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su

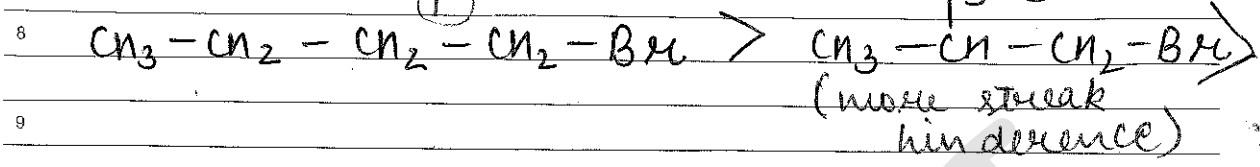
05 6 7 8 9 10 11 12 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

March Monday



because (i) structure can form carbocation (ii) 1° will show SN¹, but (ii) can show SN²

* Q Arrange the isomers of Bromobutane in the increasing order of SN².



Reactions of Haloarenes.

*** Q why haloarenes are less reactive towards nucleophilic substitution rxn?

Ans:- There are 5 reasons:-



haloarenes have sp²-Cl, as sp² C is acidic so Cl cannot pull the e⁻ completely towards itself, as C will stop it (e⁻). So the bond is less polar, hence strong bond and doesn't break easily.

more polar, as sp³ C is not acidic so Cl attracts the e⁻ cloud towards itself and creates polarity.

(ii) sp² C has small bond length so bond is stronger bond & doesn't break easily (old bonds not break easily so new not formed)

sp³ C has longer bond length, so forms a weak bond. i.e. easily breakable.

(iii) resonance stabilises this haloarene, so it resembles properties that of double bond, and double bond is more stable than single, so doesn't break easily.

The toughest thing about success is that you have got to keep on being a success

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
					1	2	18	1	2	3	4	5	6	7	
13							19	8	9	10	11	12	13	14	
14	3	4	5	6	7	8	9	20	15	16	17	18	19	20	21
15	10	11	12	13	14	15	16	21	22	23	24	25	26	27	28
16	17	18	19	20	21	22	23	22	29	30	31				
17	24	25	26	27	28	29	30								

28

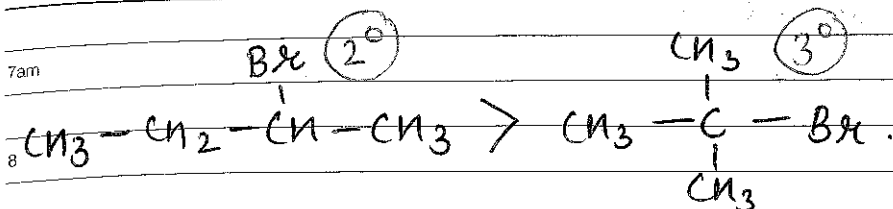
2017

Day (087-278)

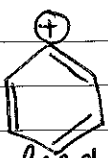
March • Tuesday

Wk-13

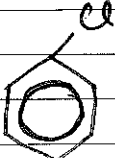
7am



9

(iv)  Phenyl carbocation is highly unstable. if any how, in any abnormal conditions the nucleophile attached is removed then will lead to the formation of highly unstable phenyl carbocation. So prefers not to break the bond.

12

(v)  Benzene has a e^- cloud revolving into it due to resonance, so it never attracts nucleophile towards itself, but rather will show electrophilic substitution faster. The $\ominus ve$ e^- cloud will attract electrophile & not nucleophile.

1pm

2

3

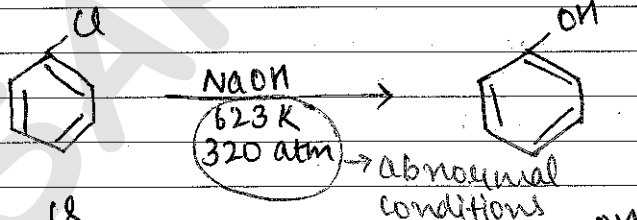
4

Nucleophilic Substitution BY HALOARENES

5

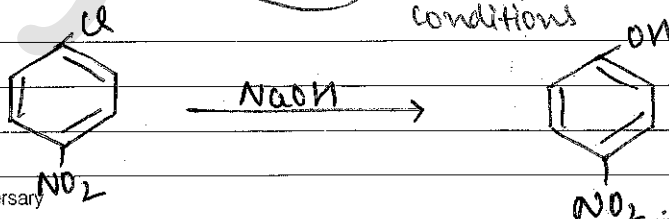
SN^2

(i)



7

(ii)

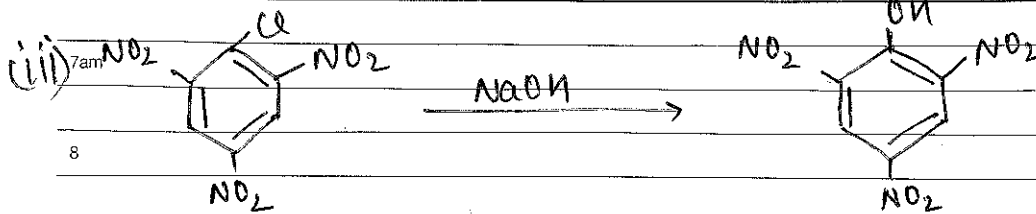


Birthday / Anniversary

Success comes in "Cans" and Failures comes in "Can'ts"

Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5
06	6	7	8	9	10	11
07	13	14	15	16	17	18
08	20	21	22	23	24	25
09	27	28				

Mo	Tu	We	Th	Fr	Sa	Su
09	1	2	3	4	5	
10	6	7	8	9	10	11
11	13	14	15	16	17	18
12	20	21	22	23	24	25
13	27	28	29	30	31	



If we cannot create such extreme temperature & pressure as in eq. (i), then there is another alternative, which says that attach a electron withdrawing group on its para position, then it will react at a lower temperature. But if we attach the e^- withdrawing group on its ortho positions as well then it will show nucleophilic substitution even on lower temperatures. This occurs because, the e^- withdrawing group starts taking the πe^- revolving in it.

eg: If we attach a nitro group, it can show $-R$ effect. i.e. starts withdrawing πe^- , taking part in resonance.

Also nitro can show $-I$ effect i.e. it can also withdraw the sigma e^- .

And hence \ominus ve chrg decreases, now nucleophile can come and react with haloarene.

\therefore More the no. e^- withdrawing grp, faster will be the rxn nucleophilic at room normal condition itself.

Birthday / Anniversary

* If the e^- withdrawing grp is at meta, then πe^- cannot be pulled, as the e^- doesn't come in meta pos. during resonance. So only σe^- can be pulled. \therefore it is less

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
					1	2	18	1	2	3	4	5	6	7	
13							19	8	9	10	11	12	13	14	
14	3	4	5	6	7	8	9	20	15	16	17	18	19	20	21
15	10	11	12	13	14	15	16	21	22	23	24	25	26	27	28
16	17	18	19	20	21	22	23	22	29	30	31				
17	24	25	26	27	28	29	30								

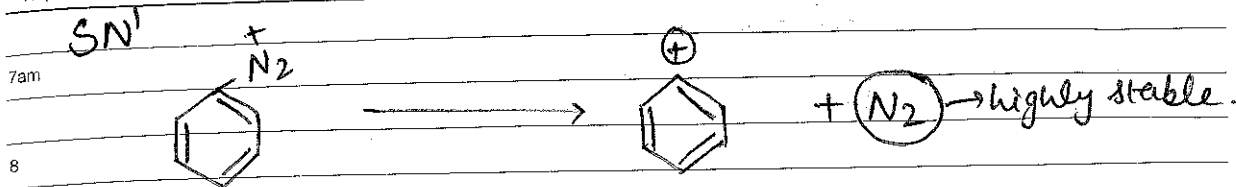
Day (089-276)

30

2017

March • Thursday

Wk-13



9 diazonium chloride salt will show SN^1 because it is very reactive as the N_2 attached on benzene is highly stable, when it separates. i.e. N_2 kept alone is highly stable, therefore for gaining its stability, it separates itself and forms a highly unstable phenyl carbocation. This carbocation will now react with nucleophile very easily so as to be stable again by gaining resonance.

10

11

12

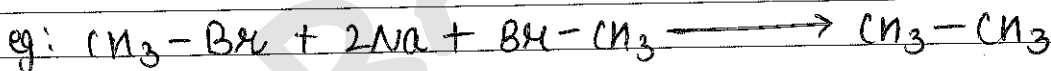
1pm

Step Up Reactions

2

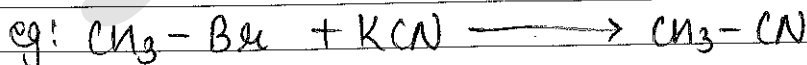
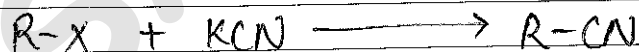
1) Increasing the number of carbons by 2 :-

3



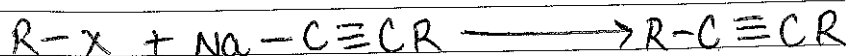
2) Increasing the number of carbon by 1 :-

7



3) Increasing the number of carbon, by any number :-

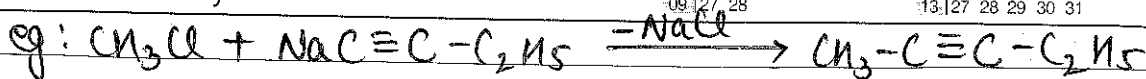
Birthday / Anniversary



Plan as if you are going to live forever. Live as if you were going to die tomorrow

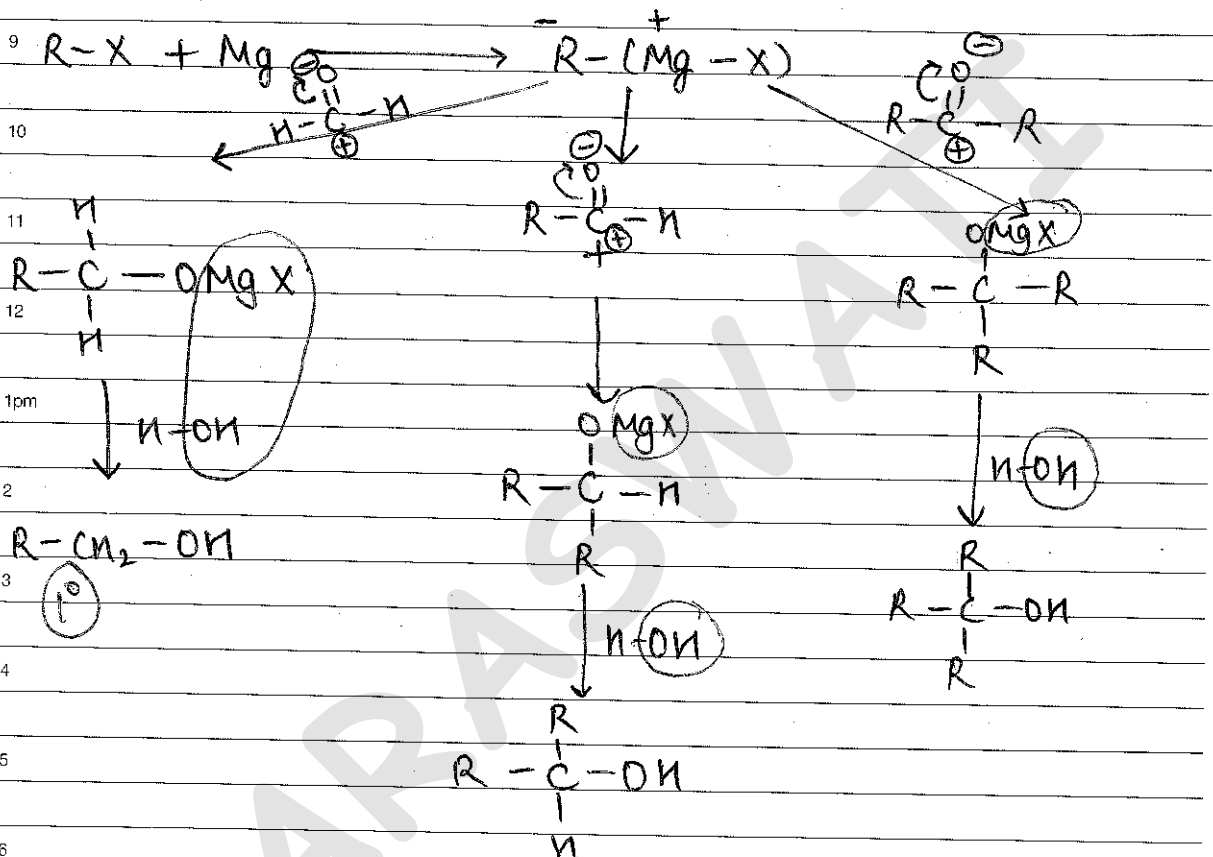
effective.

FEB							2017 MAR						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
05		1	2	3	4	5	09		1	2	3	4	5
06	6	7	8	9	10	11	10	6	7	8	9	10	11
07	13	14	15	16	17	18	11	13	14	15	16	17	18
08	20	21	22	23	24	25	12	20	21	22	23	24	25
09	27	28					13	27	28	29	30	31	



7am

4) Increasing carbon by any number, along with oxygen.



Grignard Rxn.

Birthday / Anniversary

The art of negotiation is to give people what they want, while getting what you want

APR 2017							MAY 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
					1	2	18	1	2	3	4	5	6	7	
13	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
14	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
15	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
16	24	25	26	27	28	29	30	22	29	30	31				
17															

01

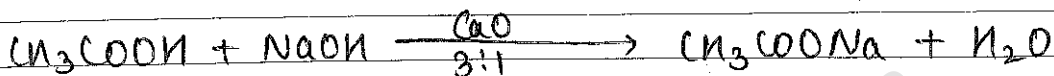
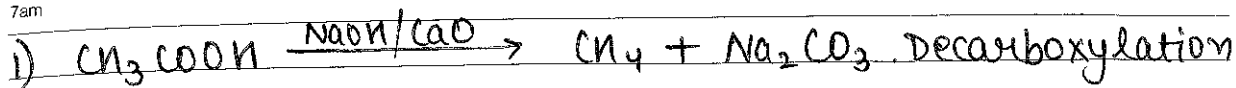
2017

Day (091-274)

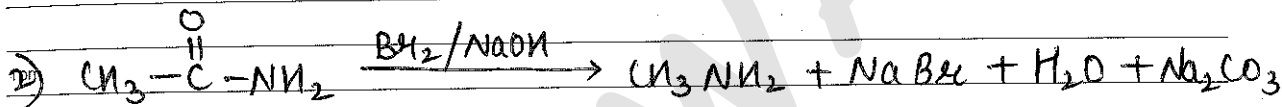
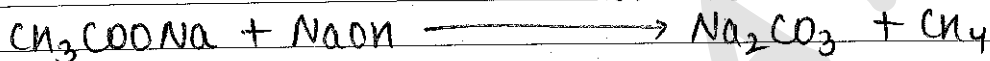
April • Saturday

Step Down Reactions

7am



* 3:1 mixture of NaOH & CaO is known as sodalime.
 * CaO is added, because it absorbs H₂O and makes the rxn move forwards by Le Chatelier Principle (as above is a reversible reaction)



Hoffman Bromide Degradation Rxn.

* Hoffman Bromide Degradation Rxn is a type of decarboxylation rxn.

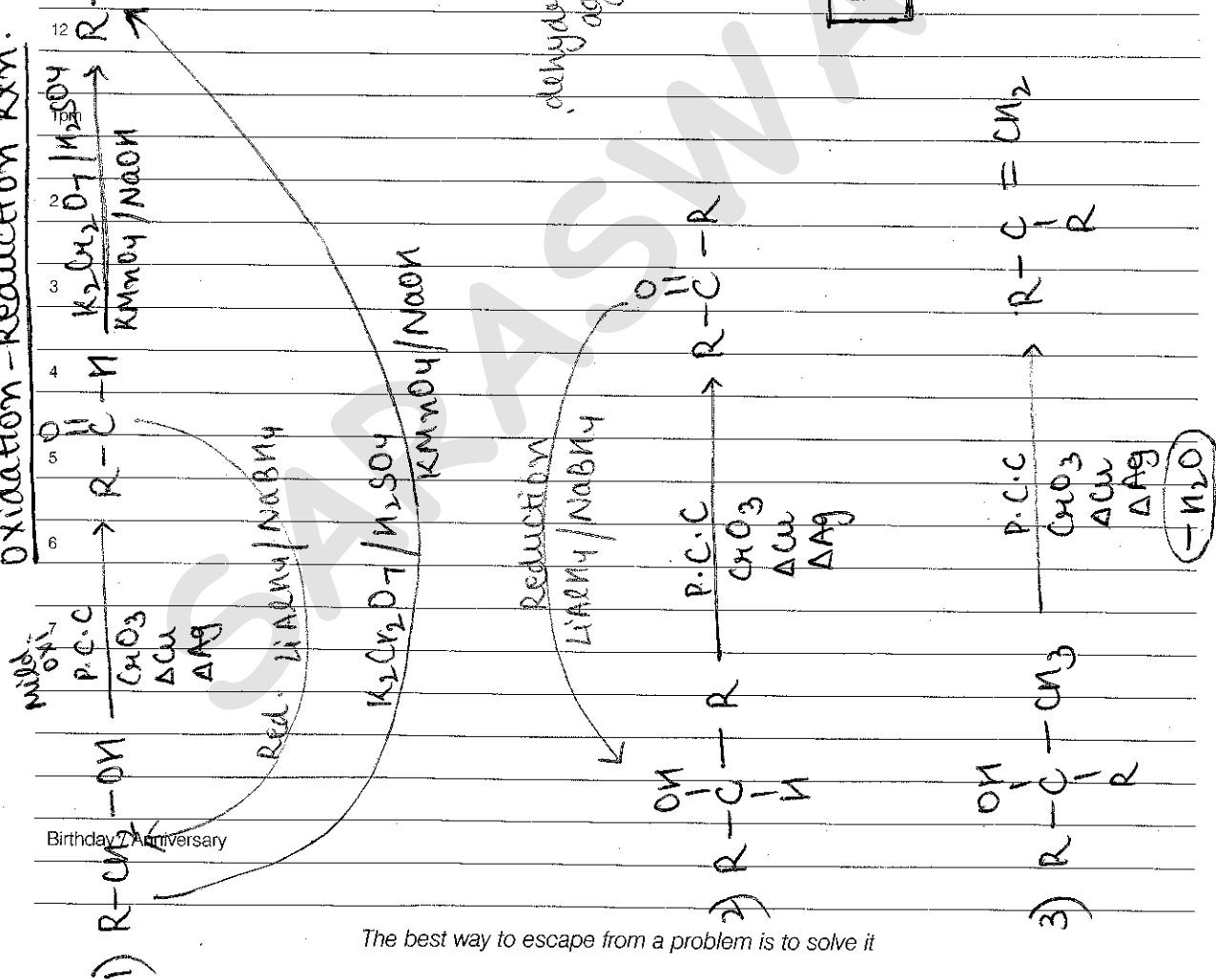
Birthday / Anniversary

Watch out for big problems - they may hide big opportunities

2017
03
April - Monday
Day (093-272)

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13				1	2	
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29

Oxidation - Reduction Rxn.



The best way to escape from a problem is to solve it

P.C.C. → Pyridine Chloro Chromate

MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22							
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

Day (094-271)

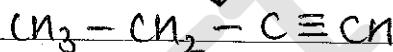
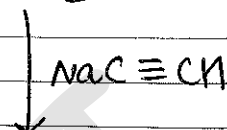
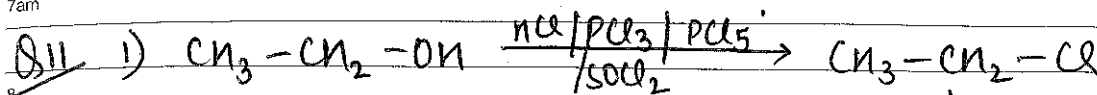
04

2017

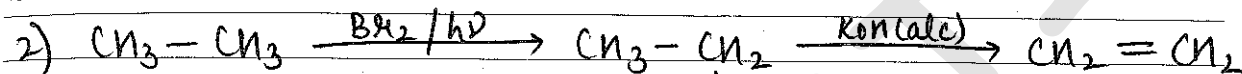
April • Tuesday

Back Exercise

7am



10

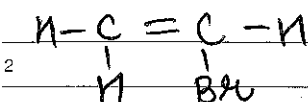


11

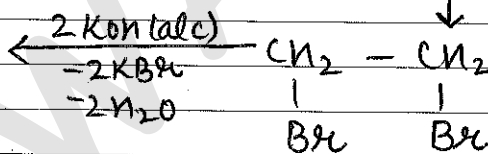
12



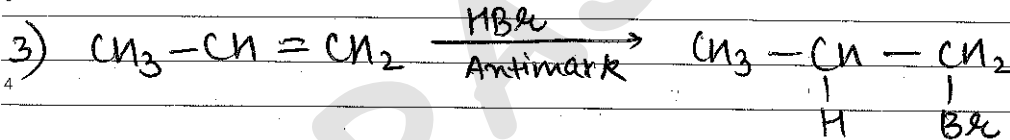
1pm



2

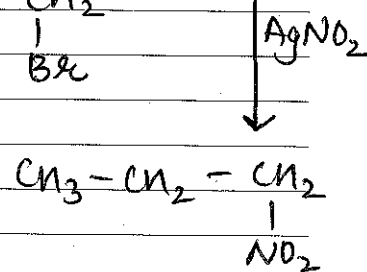


3

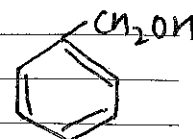
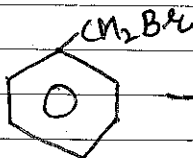
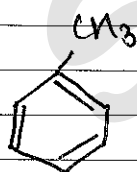


5

6



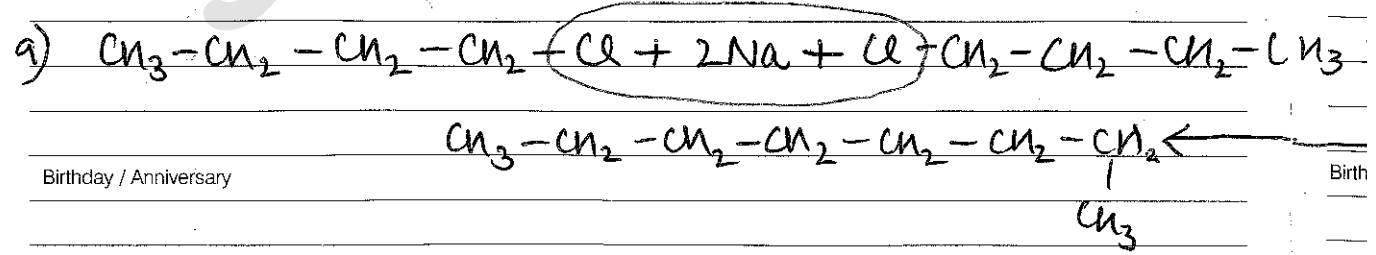
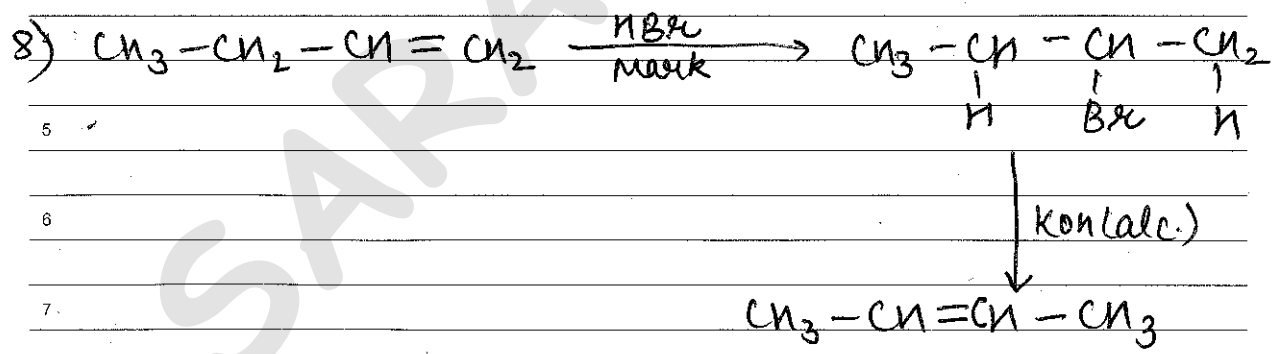
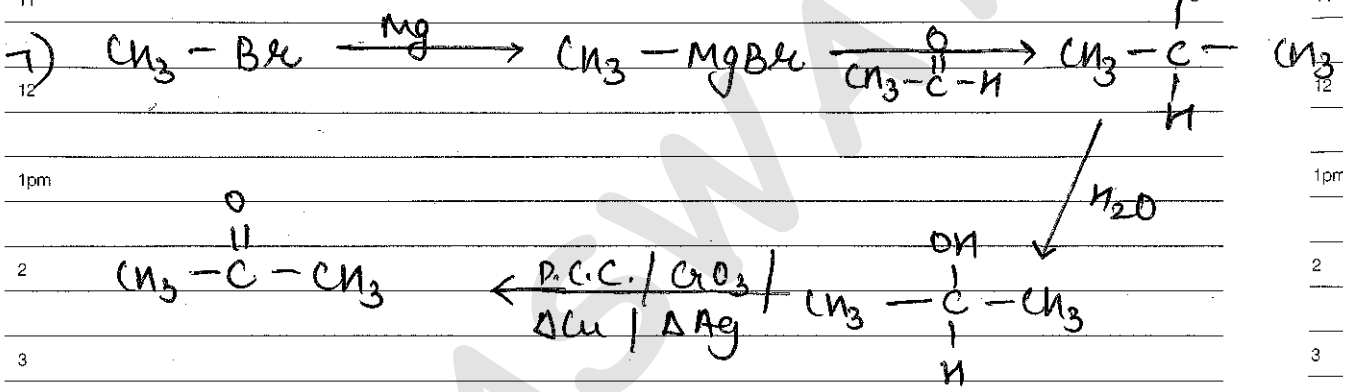
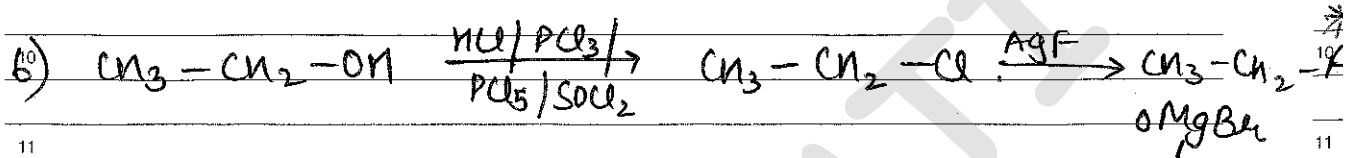
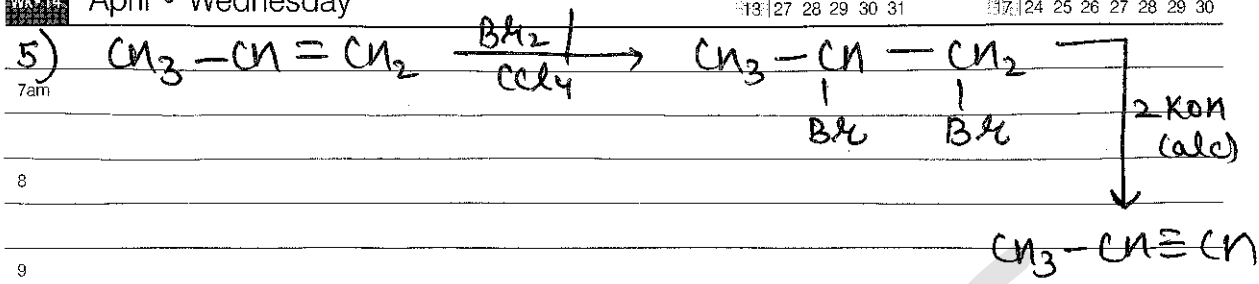
4)



Birthday / Anniversary

The beauty of all things lies in your ability to appreciate them

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11	14	3	4	5	6	7	8
11	13	14	15	16	17	18	15	10	11	12	13	14	15
12	20	21	22	23	24	25	16	17	18	19	20	21	22
13	27	28	29	30	31		17	24	25	26	27	28	29



Birthday / Anniversary

It is the hour of trail that makes men great, not the hour of triumph

MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22			1	2	3	4	
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

Day (096-269)

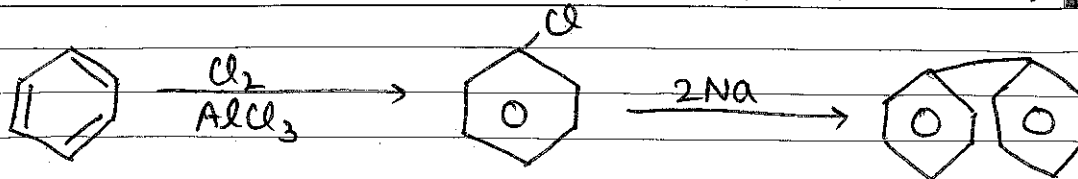
06

2017

April • Thursday

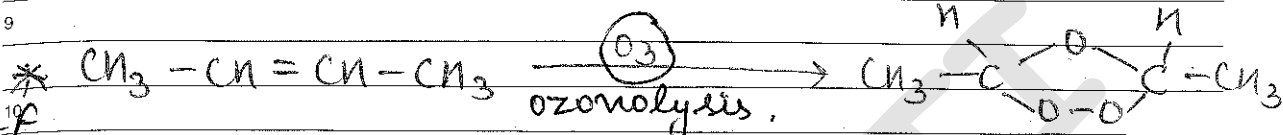
10)

7am



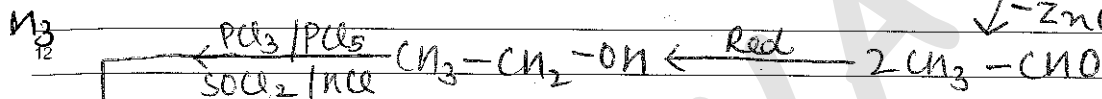
8

9



10

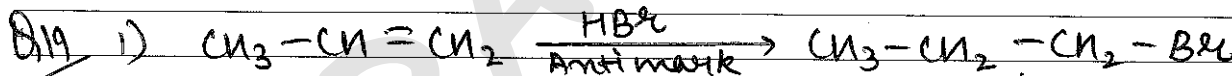
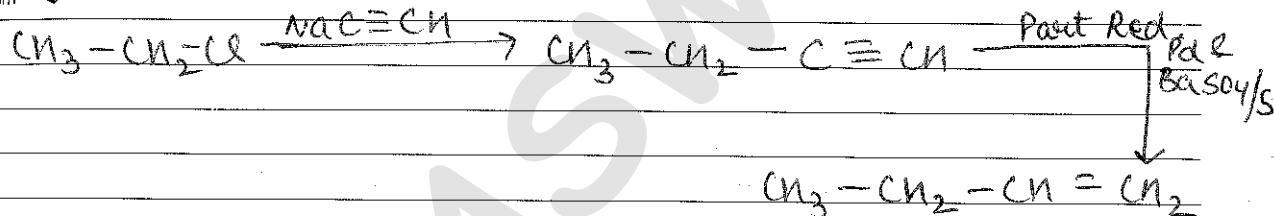
11



1pm

2

3



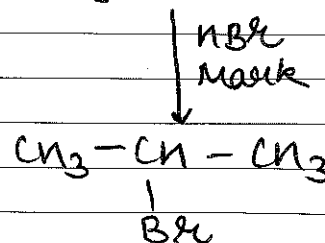
5

6

7



13

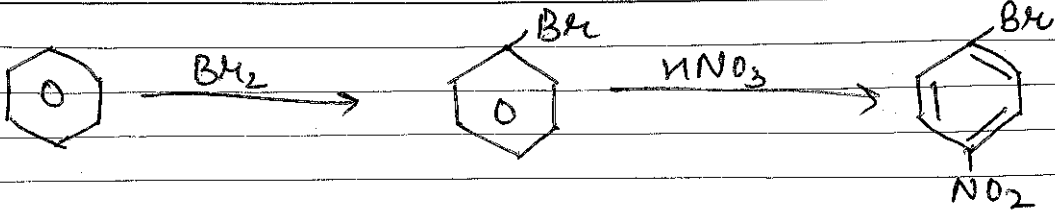


Birthday / Anniversary

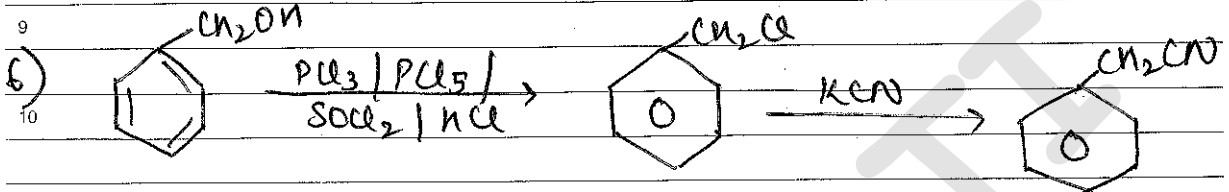
Enthusiasm is the fuel of life, it helps you to get where you're going

	Mo	Tu	We	Th	Fr	Sa	Su
09			1	2	3	4	5
10	6	7	8	9	10	11	12
11	13	14	15	16	17	18	19
12	20	21	22	23	24	25	26
13	27	28	29	30	31		

	Mo	Tu	We	Th	Fr	Sa	Su
13						1	2
14	3	4	5	6	7	8	9
15	10	11	12	13	14	15	16
16	17	18	19	20	21	22	23
17	24	25	26	27	28	29	30

5
7am

8



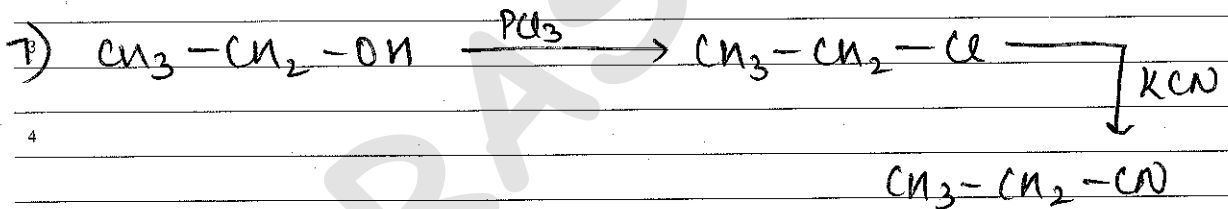
10

11

12

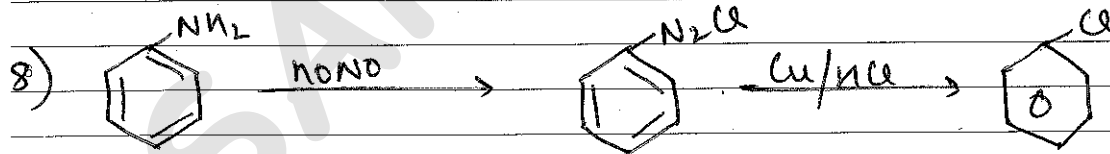
1pm

2



4

5



7

Birthday / Anniversary

We shouldn't let what we can't do stop us from doing what we can ...

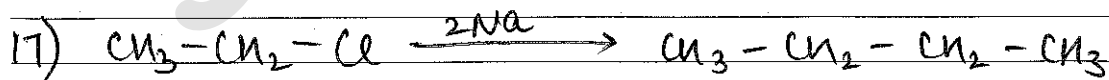
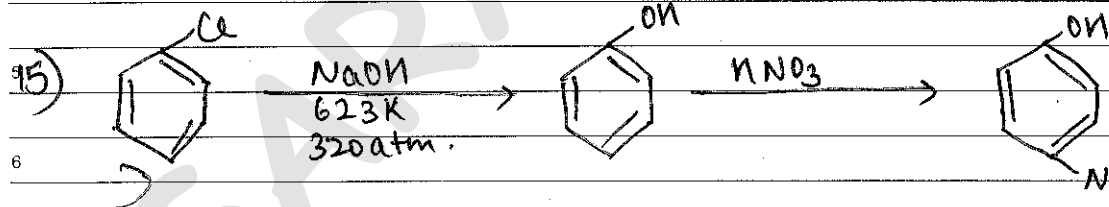
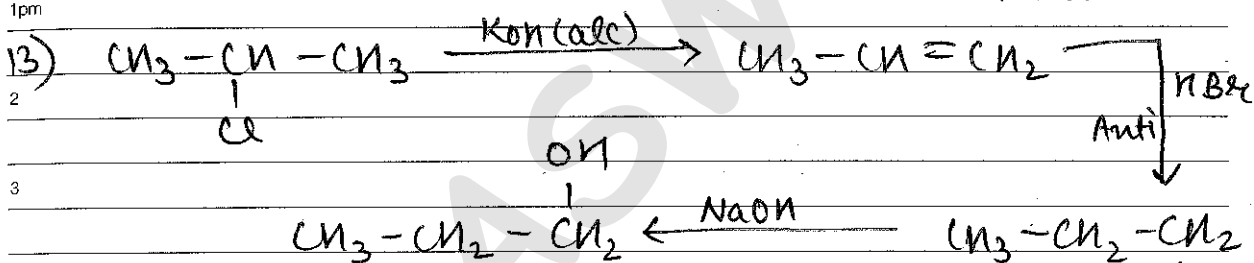
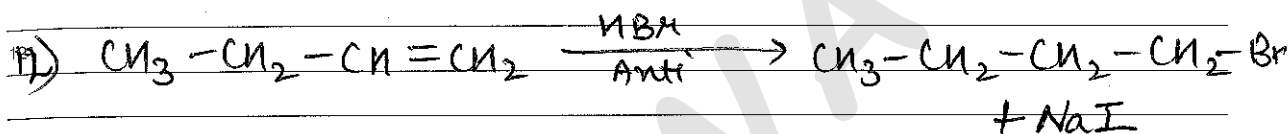
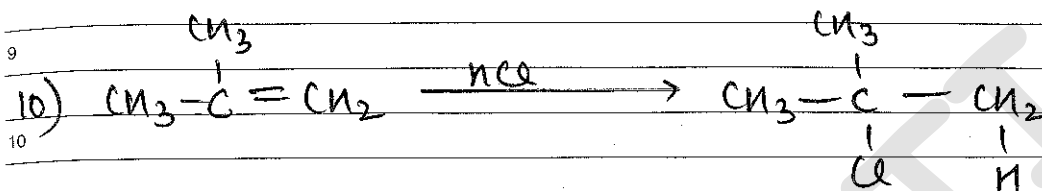
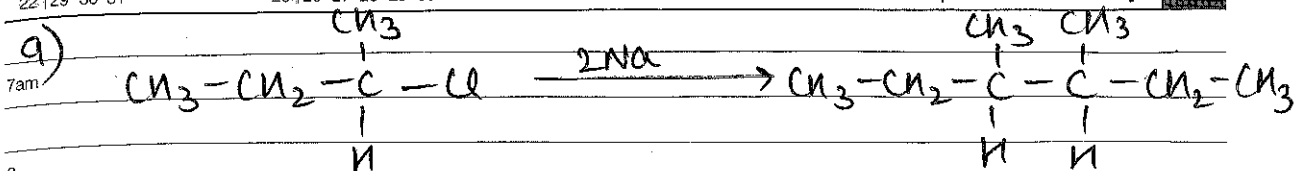
MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22			1	2	3	4	
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

08

2017

Day (098-267)

April • Saturday



Birthday / Anniversary

If you don't know where you're going how do you expect to get there ?

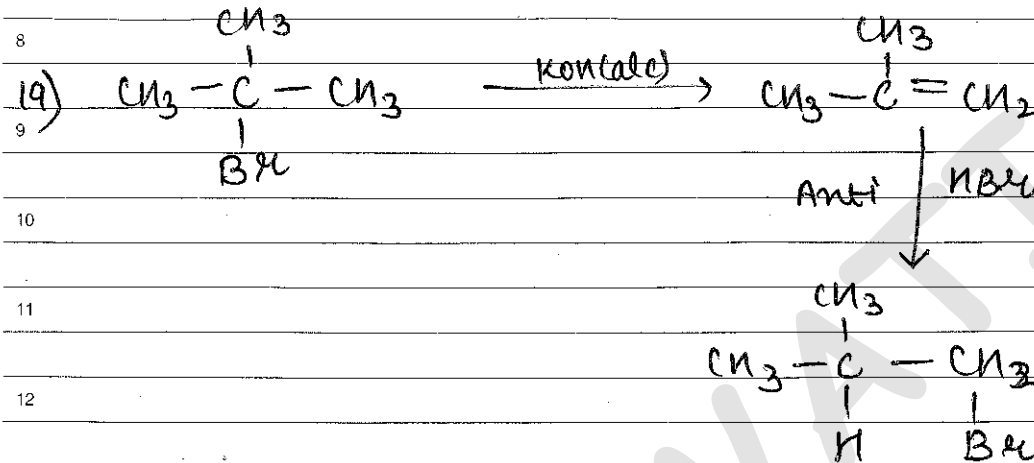
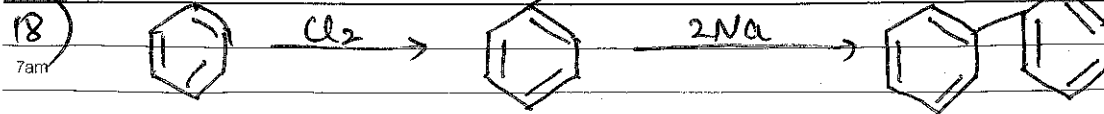
2017
WK-15

10

Day (100-265)

April • Monday

MAR							2017 APR							2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
09		1	2	3	4	5	13						1	2								
10	6	7	8	9	10	11	12	14	3	4	5	6	7	8	9							
11	13	14	15	16	17	18	19	15	10	11	12	13	14	15	16							
12	20	21	22	23	24	25	26	16	17	18	19	20	21	22	23							
13	27	28	29	30	31			17	24	25	26	27	28	29	30							



1pm

2

3

4

5

6

7

Birthday / Anniversary

A wise man does not need advice and a fool won't take it

* NH_3 , H_2O , Cl etc. are monodent, as only one element can give lone pair.

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

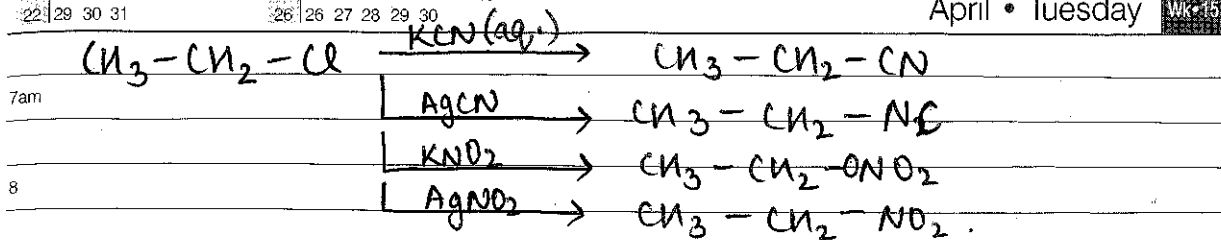
Day (101-264)

11

2017

April • Tuesday

Wk-15



Whenever KCN(aq.) is added to a haloalkane, then the carbon chain always goes and attaches to carbon of CN , this is because aqueous KCN is ionic in nature hence it breaks into K^+ & CN^- ions. Hence $\text{C}\equiv\text{N}^-$ is a ambident nucleophile (i.e. it can form bonds from both the sides either from C or N as both can give lone pair) Therefore carbon can either attach to carbon or nitrogen, so it goes and attaches to carbon because C-C is much more stable than C-N .

But in case of AgCN , AgCN is a covalent in nature so has only one binding site, hence the carbon chain goes and attaches to nitrogen (which is the only one that can give lone pair).

* But if AgCN is aqueous then it will also break as ionic compound and hence the carbon chain can attach to carbon of CN .

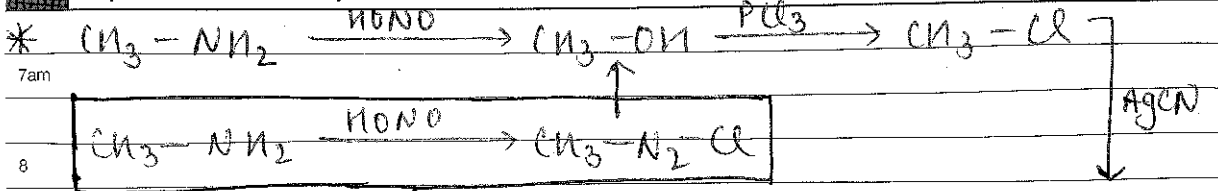
And when KCN is also not aqueous but normal, then it will also be a covalent compound and will have only one binding site i.e. from the nitrogen.

Birthday / Anniversary

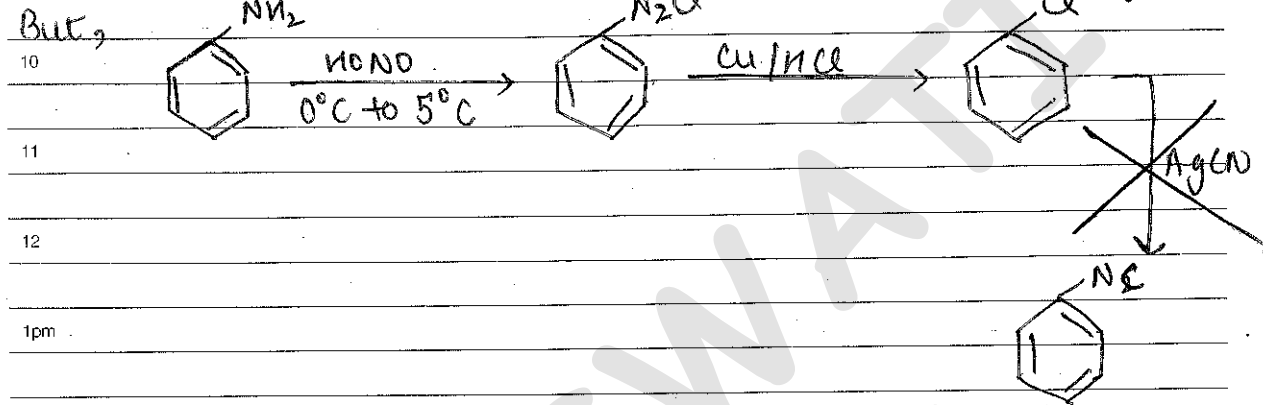
That's secret to life ...replace one worry with another ...

Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5
10	6	7	8	9	10	11
11	13	14	15	16	17	18
12	20	21	22	23	24	25
13	27	28	29	30	31	

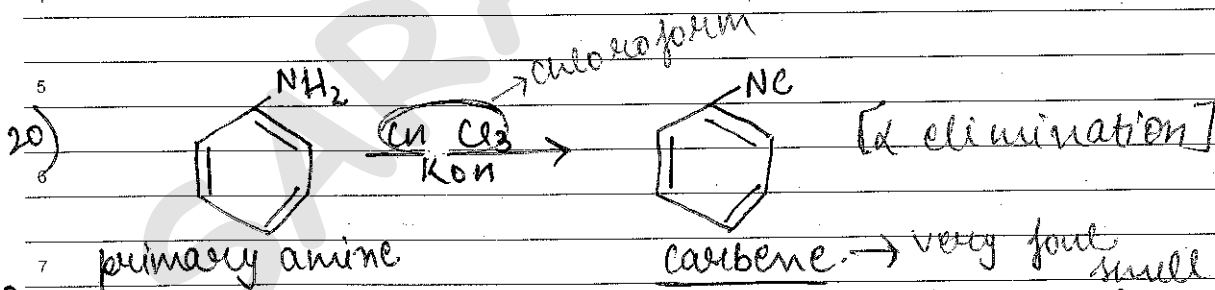
Mo	Tu	We	Th	Fr	Sa	Su
13					1	2
14	3	4	5	6	7	8
15	10	11	12	13	14	15
16	17	18	19	20	21	22
17	24	25	26	27	28	29



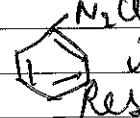
* This step also takes place but it highly unstable, so chngs to al^k



Here the last step of AgCN cannot take place because haloaromatics are less reactive towards nucleophilic substitution reactions (by the five reasons discussed earlier). So the conversion can be carried out as:-



Q. Why Aliphatic diazonium chloride are less stable than aromatic diazonium chloride?

A. $\text{CH}_3\text{-N}_2\text{Cl}$ is highly unstable, but  is still a little stable because of resonance. Resonance still stabilises the aromatic dia. chlg. whereas $\text{CH}_3\text{-N}_2\text{Cl}$ has no resonance so highly unstable

Teamwork ...means never having to take all the blame yourself

MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22			1	2	3	4	
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

13

2017

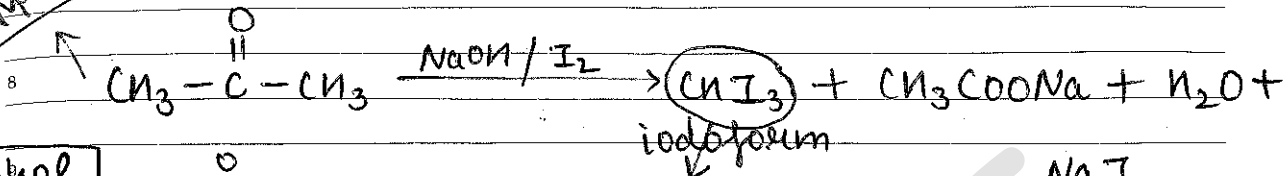
Day (103-262)

April • Thursday

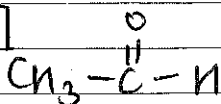
Wk-15

Methyl/Keto grp

Iodoform Test

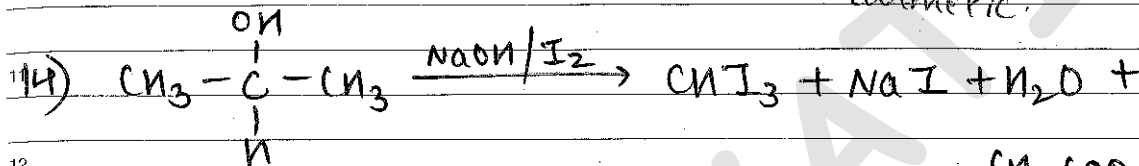


control.



yellow. (eg. betadine)
turmeric.

10



12

1pm

* $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}$ is necessarily required for showing iodoform
test

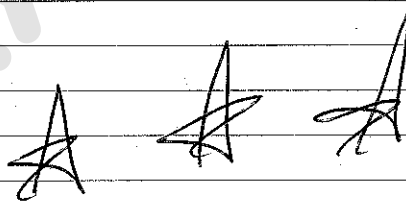
2

3

In 99.99% cases oxygen carrying compounds show Iodoform Test.

4

5



6

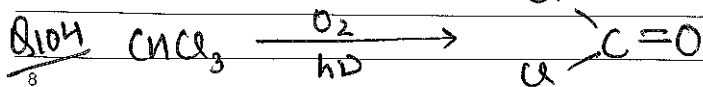
7

Birthday / Anniversary

We make a living by what we get, we make a life by what we give

10 Years - Book

7am

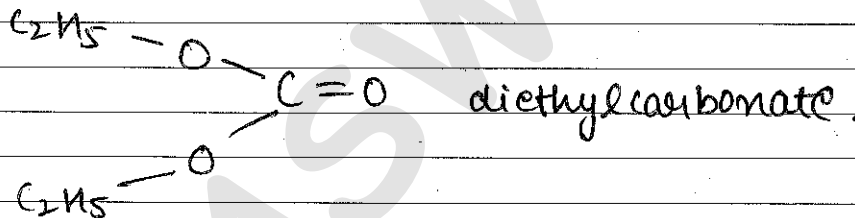


phosgene → poisonous gas

as the CnCl_3 is reacting with O_2 & $\text{h}\nu$ so it is stored in a black container, so that light doesn't reach it and it is filled upto the brim so that there is no air in it.

As the container is not always filled upto the brim so alcohol ($\text{C}_2\text{H}_5\text{OH}$) is added to it about - 4:1 so that it converts to

1pm



2

3

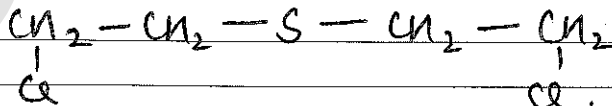
4

as soon as phosgene is formed.

** Q5 Name the Cl containing poisonous gases.

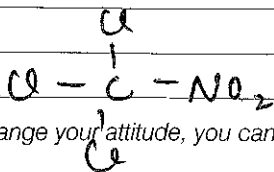
1) phosgene

2) mustard gas



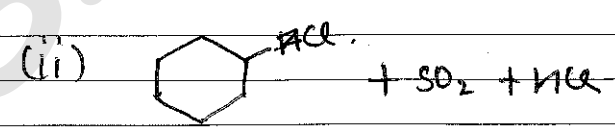
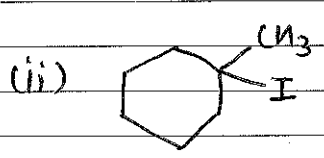
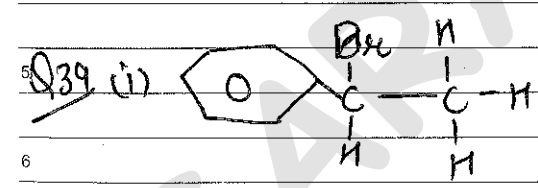
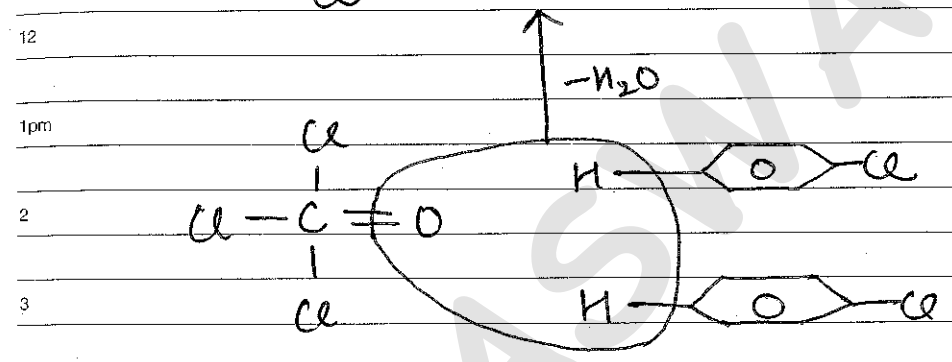
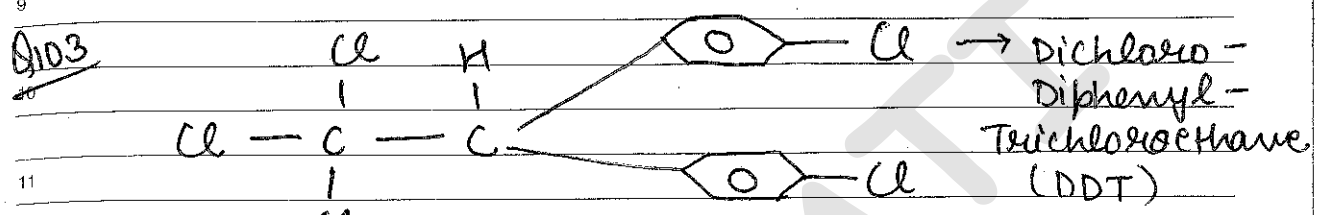
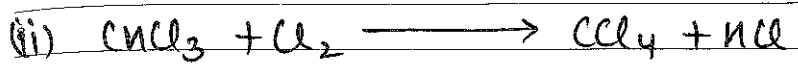
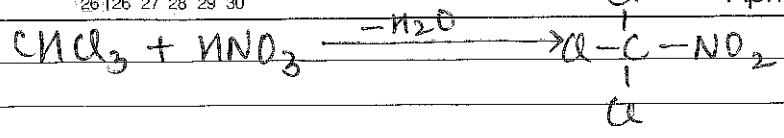
Birthday / Anniversary

3) tear gas



Change your attitude, you can change your life

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		



Birthday / Anniversary

A person who never makes mistakes never makes anything

2017

17

Day (107-258)

Wk 16

April • Monday

MAR 2017							APR 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5	13					1	2
10	6	7	8	9	10	11 12	14	3	4	5	6	7	8 9
11	13	14	15	16	17	18 19	15	10	11	12	13	14	15 16
12	20	21	22	23	24	25 26	16	17	18	19	20	21	22 23
13	27	28	29	30	31		17	24	25	26	27	28	29 30

7am

What is the IUPAC name of DDT?

8

9

10

11

12

1pm

2

3

4

5

6

7

Birthday / Anniversary

It is better to light a candle than to curse the darkness

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

Day (108-257)

18

2017

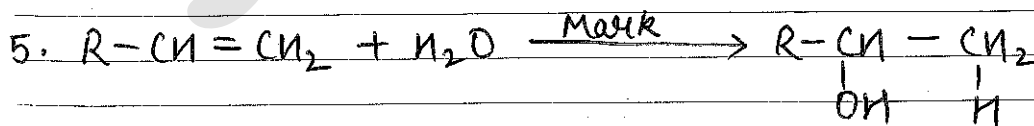
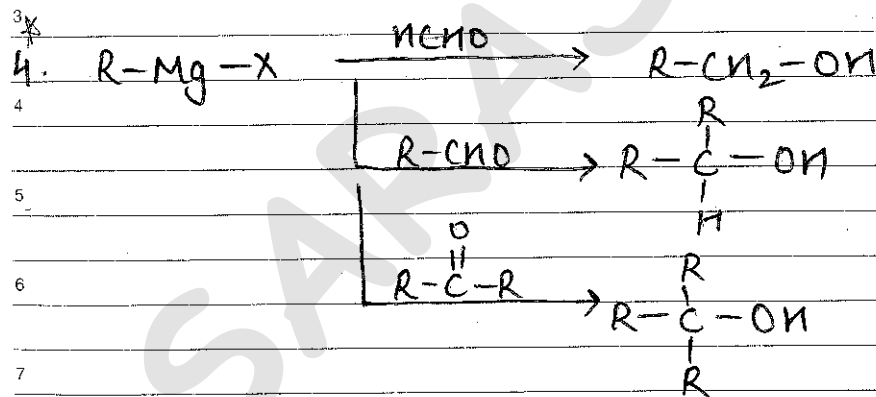
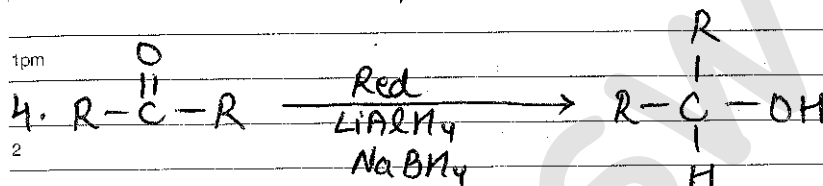
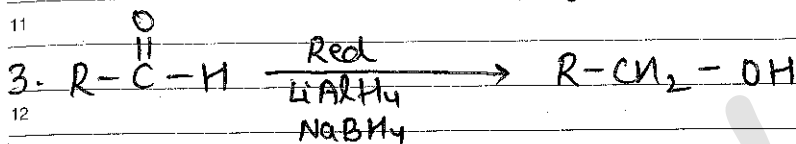
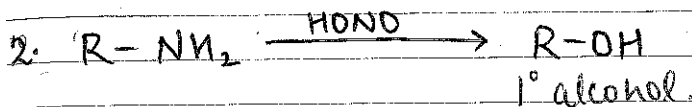
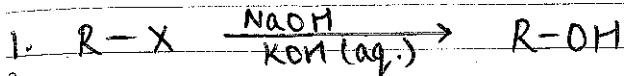
April • Tuesday

Wk-16

Alcohols (R-OH)

7am

Preparation of Alcohols



Birthday / Anniversary

Freindship doubles your joys and divides your sorrows

Reactions of Alcohols

7am

$R-OH$	$R-OH$	$R-OH$
ALCOHOL AS NUCLEOPHILE	ALCOHOL AS ELECTROPHILE	CH_3-CH_2-OH
$CH_3-CH_2-OH + Na$	CH_3-CH_2-OH	$\downarrow H_2SO_4$ $\downarrow -H_2O$ $CH_2=CH_2$
\downarrow $CH_3-CH_2-ONa + H_2$	$\downarrow PCl_3 / PCl_5 / HCl / SOCl_2$ CH_3-CH_2-Cl	
$R-OH < H_2O$ (ACIDIC)	$3^\circ > 2^\circ > 1^\circ$	
$1^\circ > 2^\circ > 3^\circ$	\downarrow	
<p>Because if there are more no. of carbons, then more +I effect, deficiency of oxygen will be fulfilled by C so it will not attract the e^- from hydrogen, so $O-H$ bond will be less polar and will not break easily.</p>	<p>also proved by Lucas Test that 3° alcohol reacts the fastest, then 2° and then 1°</p>	

∴ Primary alcohol is more acidic than secondary alcohol

Birthday / Anniversary

You are a wise man today if you have learned from yesterday's blunders

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

Day (110-255)

20

2017

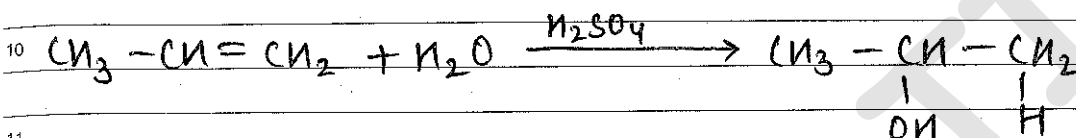
April • Thursday

Wk 16

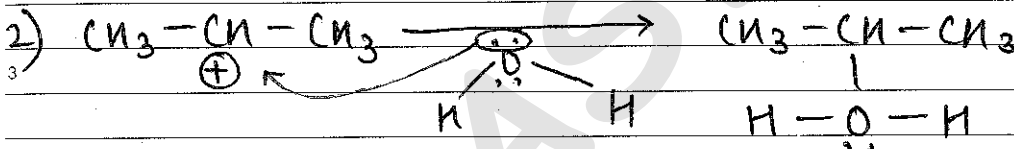
Write the mechanism of hydration of alkene.

for writing any mechanism:- (that occurs in presence of acid)

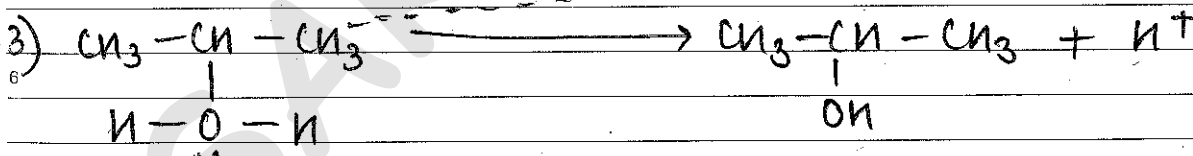
- 1) add H^+
- 2) IUCIAD
- 3) remove H^+



Protonation



Addition. Removal of water.



Deprotonation.

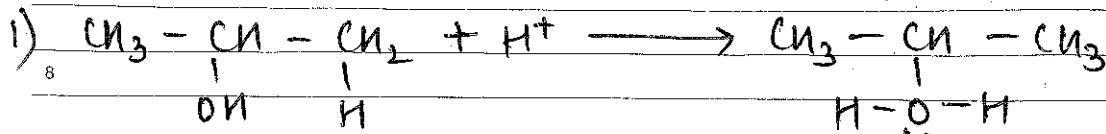
Birthday / Anniversary

If we don't stand for something, we may fall for anything

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su	
09			1	2	3	4	5	13							1	2
10	6	7	8	9	10	11	12	14	3	4	5	6	7	8	9	
11	13	14	15	16	17	18	19	15	10	11	12	13	14	15	16	
12	20	21	22	23	24	25	26	16	17	18	19	20	21	22	23	
13	27	28	29	30	31			17	24	25	26	27	28	29	30	

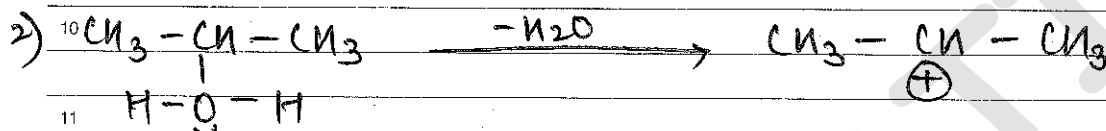
Q Write the mechanism of dehydration of alcohol

7am



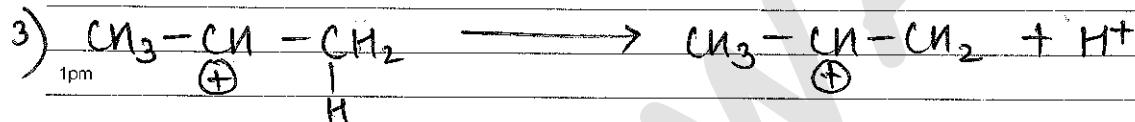
9

Protonation



11

Removal of water



1pm

2

Deprotonation.

3

4

5

6

7

Birthday / Anniversary

Unless you give your customers what they want, you won't get what you want

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

Phenols ()

7am

Phenols are also known as 'Carbolic Acid'

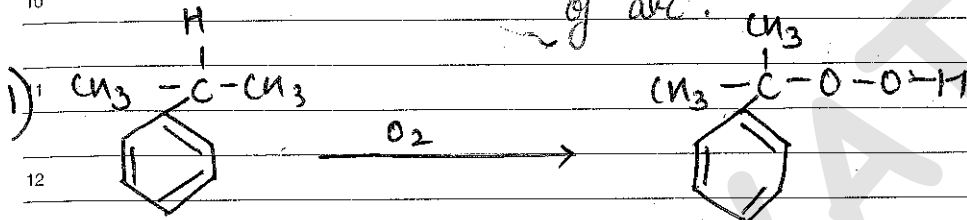
8

↓
 extracted from wood taar!

9

taar is produced when any plant product is burnt in absence of air.

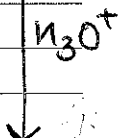
10



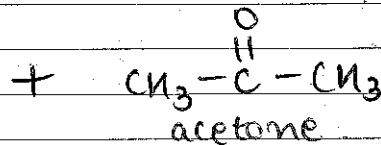
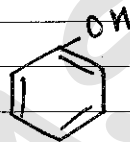
1pm

quinone

quinonehydrogenperoxide



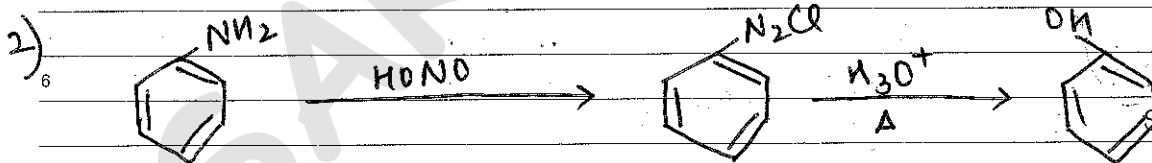
2



3

Commercial preparation of phenol.

5



Sunday 23

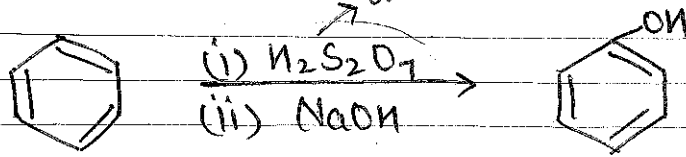
Industrial preparation of phenol.

Birthday / Anniversary

Every mistake is an opportunity to learn something new

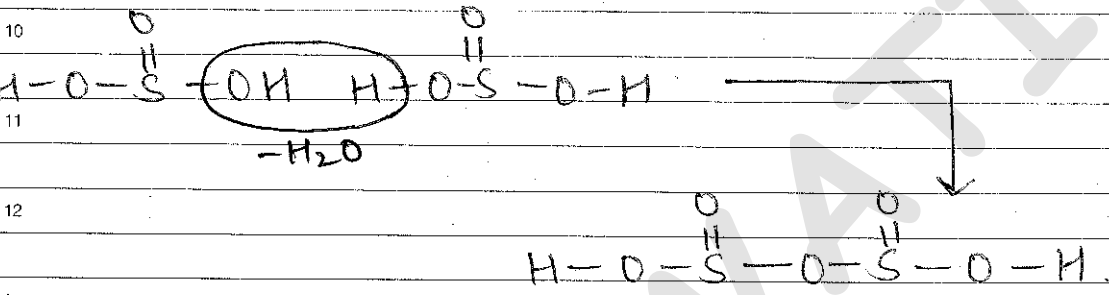
3)

7am



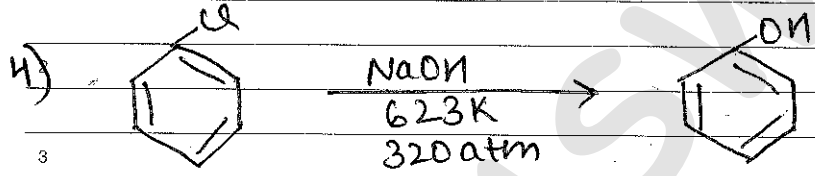
8

olium is formed as :-



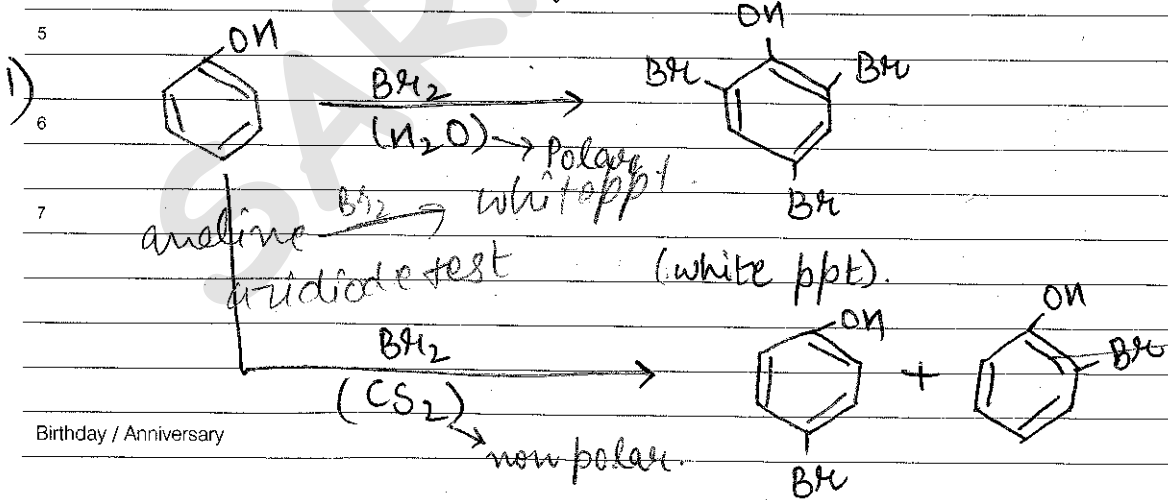
12

1pm



3

Reactions of Phenols.



Birthday / Anniversary

Life is 10% how 'U' make it... And 90% how you take it

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

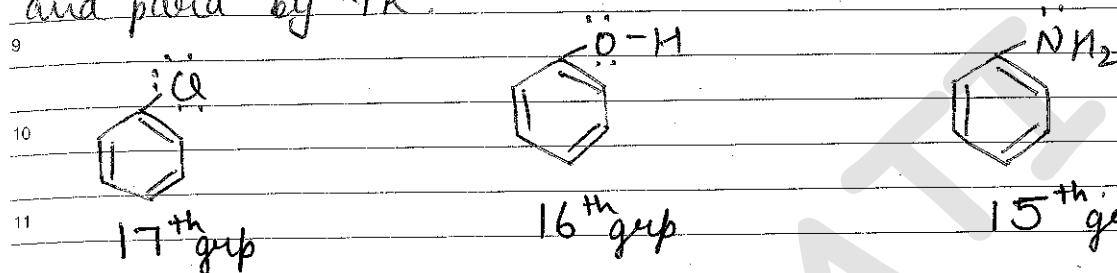
Day (115-250)

25

2017

April • Tuesday

Here we can see that Br is attached on all ortho and para positions because oxygen belongs to 16th grp and has tendency of losing e⁻ pair. So it gives high amounts of \ominus ve chrg on ortho and para by +R.



11

12 Here we can think that since Cl has 3 L.P. so it show better resonance and give more \ominus ve chrg. by +R than O₂ & N₂. But this is not so, as Cl is of 17th grp and 17th grp has a tendency of gaining e⁻ and not losing so it doesn't give much \ominus ve chrg. whereas N₂ & O₂ are of (15th & 16th grp) and they can loose e⁻ efficiently. So N₂ gives all the \ominus ve chrg present on it, so this flow of \ominus ve chrg cannot be controlled and there is high amounts of \ominus ve charge on o/p \therefore Br attaches to all of them. But in case of Cl \ominus ve chrg on o/p is very less so 2 products are formed [ortho-ortho & major-para]. O₂ lies b/w the two it gives \ominus ve chrg but not every high or low rates, so the flow can be controlled.

→ Here C₂, a non polar solvent is added which doesn't help in heterolytic cleavage of Br₂, so less amount of electrophiles are formed and are attached less in no. But if polar solvent H₂O is added then it helps in cleavage and produces more no. of Br⁺, so it attaches on all o/p. position.

Aim at the stars... for even if you fall short, you will land on the moon

2017

26

Day (116-249)

Wk-17

April • Wednesday

MAR

2017

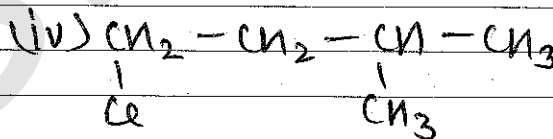
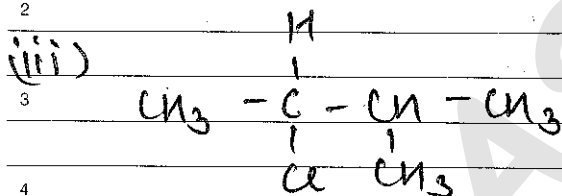
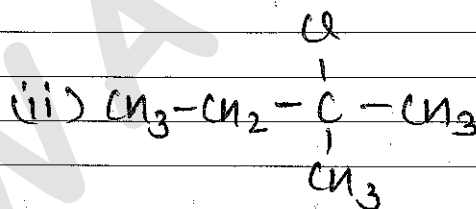
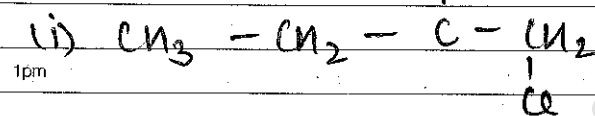
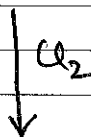
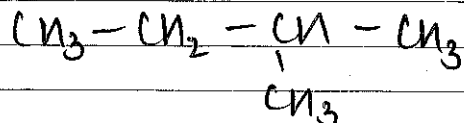
APR

2017

	Mo	Tu	We	Th	Fr	Sa	Su
09			1	2	3	4	5
10	6	7	8	9	10	11	12
11	13	14	15	16	17	18	19
12	20	21	22	23	24	25	26
13	27	28	29	30	31		

	Mo	Tu	We	Th	Fr	Sa	Su
13						1	2
14	3	4	5	6	7	8	9
15	10	11	12	13	14	15	16
16	17	18	19	20	21	22	23
17	24	25	26	27	28	29	30

Q When chlorination is done of the following compound, then how many mixtures are formed after its fractional distillation.



Birthday / Anniversary

Have patience, you get the chicken by hatching the egg, not by smashing it

MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22			1	2	3	4	
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

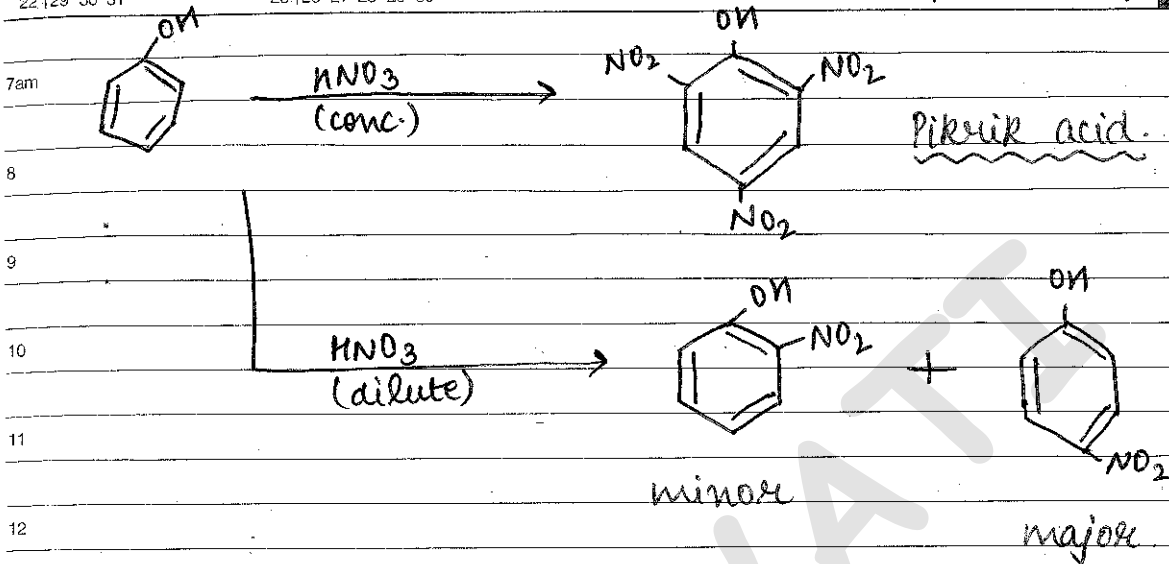
27

2017

Day (117-248)

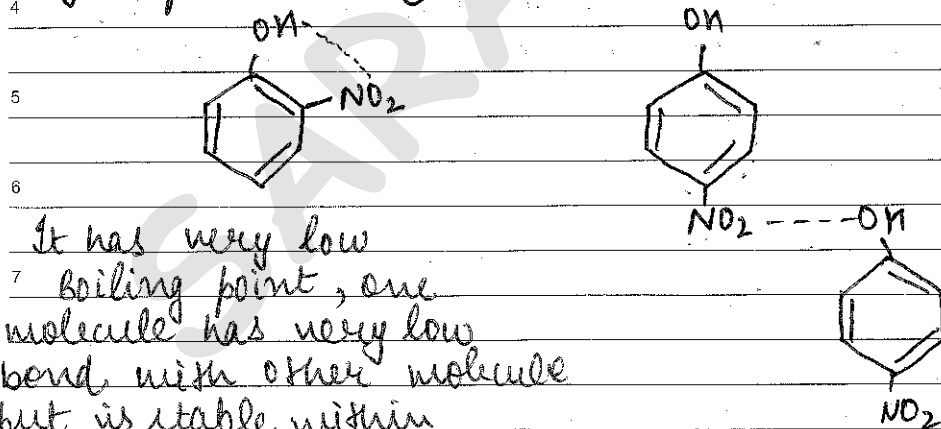
April • Thursday

WK-17



Q Why is orthonitrophenol steam volatile whereas paranitrophenol is not?

Because orthonitrophenol has intramolecular hydrogen bonding, But paranitrophenol has intermolecular hydrogen bonding.



It has very low boiling point, one molecule has very low bond with other molecule but is stable within itself, so is easily evaporated.

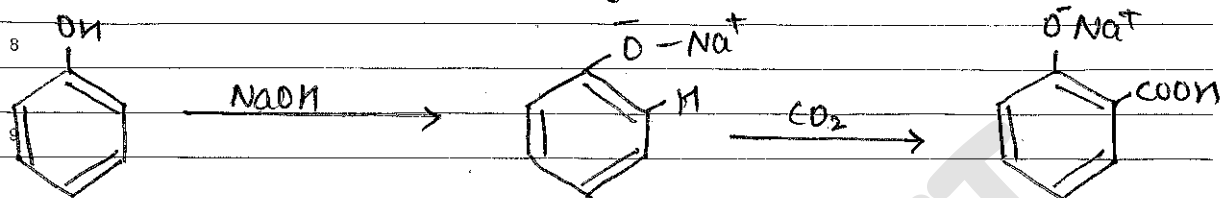
one molecule has strong hydrogen bonding with other so difficult to separate these two, hence higher boiling point.

To change is difficult. Note to change

Mo	Tu	We	Th	Fr	Sa	Su
09		1	2	3	4	5
10	6	7	8	9	10	11
11	13	14	15	16	17	18
12	20	21	22	23	24	25
13	27	28	29	30	31	

Mo	Tu	We	Th	Fr	Sa	Su
13						1
14	3	4	5	6	7	8
15	10	11	12	13	14	15
16	17	18	19	20	21	22
17	24	25	26	27	28	29

Phenol doesn't react with CO_2 directly though it is a ~~weak~~ ^{7am} electrophile (very weak)



10 Phenoxide

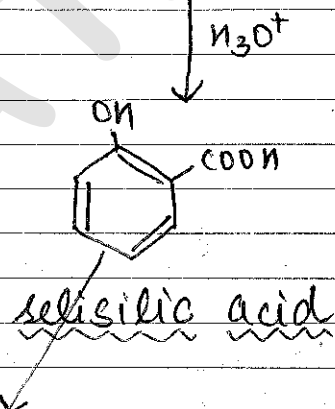
CO_2 doesn't react with phenol, but reacts with phenoxide

12

1pm

2

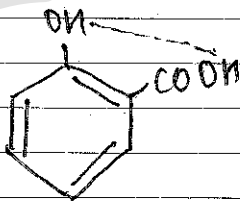
* Kolbe's Reaction



3 Only ortho compound is formed, this is because of intramolecular hydrogen bond b/w OH & COOH. Para compound is not formed at all as this is highly stable.

6

7



Q What is Kolbe's rxn?

A It is proof that phenol doesn't react with a weak electrophile like CO_2 but when it is converted to phenoxide ion, then it shows the rxn i.e. reacts with a weak electrophile like CO_2 .

Birthday Anniversary

Knowing is not enough; we must apply. Willing is not enough; we must do

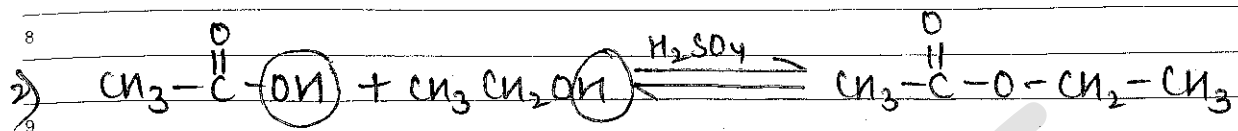
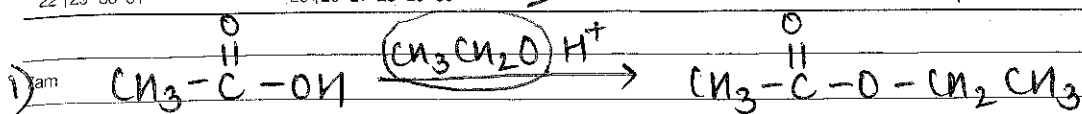
MAY 2017							JUN 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
18	1	2	3	4	5	6	22			1	2	3	4	
19	8	9	10	11	12	13	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	25	19	20	21	22	23	24	25
22	29	30	31				26	26	27	28	29	30		

Day (119-246)

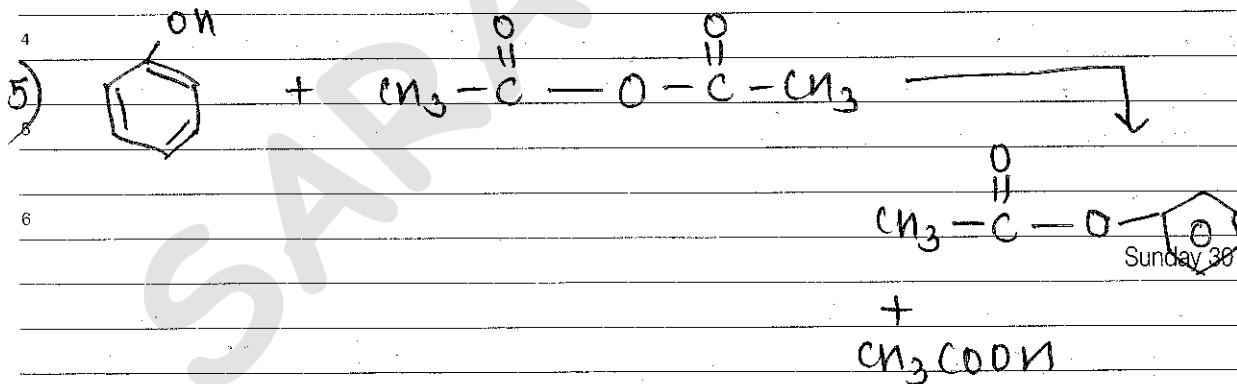
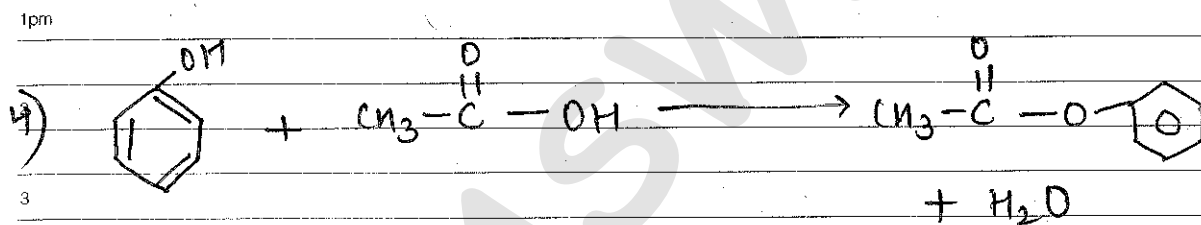
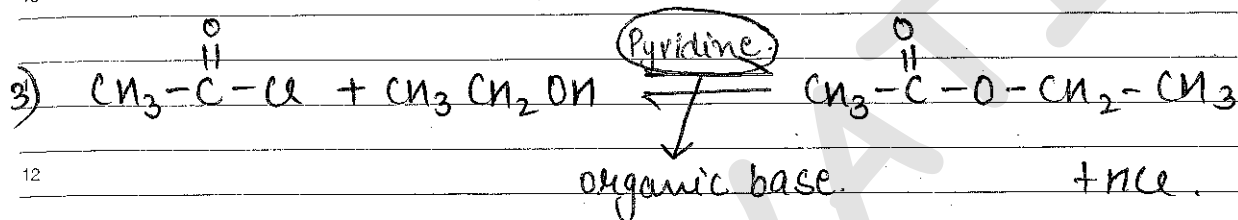
29

2017
Wk-17

April • Saturday



esterification rxn. + H₂O



* In esterification rxn, it is compulsory that H⁺ will be released from alcohol & carboxylic acid will be releasing OH⁻ ion.

Many things can be done in a day if you don't always make that tomorrow

Q What is the order of rxn of alcohol in esterification rxn?

A $1^\circ > 2^\circ > 3^\circ$

Because alcohol is releasing H^+ ion, whereas through carboxylic acid is a acid, still it releases OH^- ion & not H^+ ion.

This all is because:-

ESTERIFICATION IS A EXAMPLE OF NUCLEOPHILIC SUBSTITUTION OF CARBOXYLIC ACID.

i.e. carboxylic acid loses its OH^- nucleophile and takes alcohol's nucleophile i.e. $CH_3-CH_2-O^-$

This is a type of nucleophilic substitution in which first nucleophile is eliminated and then other nucleophile is added.

Not only carboxylic acid but all its derivatives eg: acetamide, acetyl chloride etc. do the same rxn with alcohol. (formation of acetamide, acetyl chloride, acetanhydride etc. are all nucleophilic substitution rxns)

The 3rd rxn the best rxn will be under the use of organic base as it will neutralise HCl and rxn will move forward.

Also in 2nd rxn we can keep on removing H_2O so that rxn moves forward.

Remember, only a King rules. Be the one to lead and leave trails for others to follow

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

Day (122-243)

02

2017

May • Tuesday

Wk-18

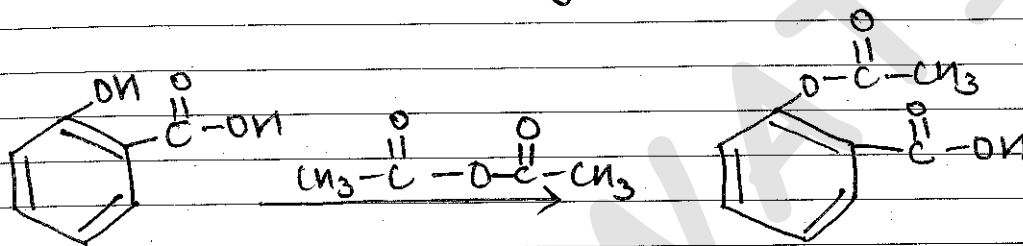
Q why should we not take medicine like aspirin
7am empty stomach

A aspirin (is a painkiller so it thins down our blood and increases supply of blood in complete body) as it is made of salicylic acid, so when it reaches stomach, it again breaks down to salicylic acid. This acid can cause ulcers in stomach, if we have eaten it empty stomach

11

12

1pm



Aspirin

[thins the blood]

2

3

4

5

6

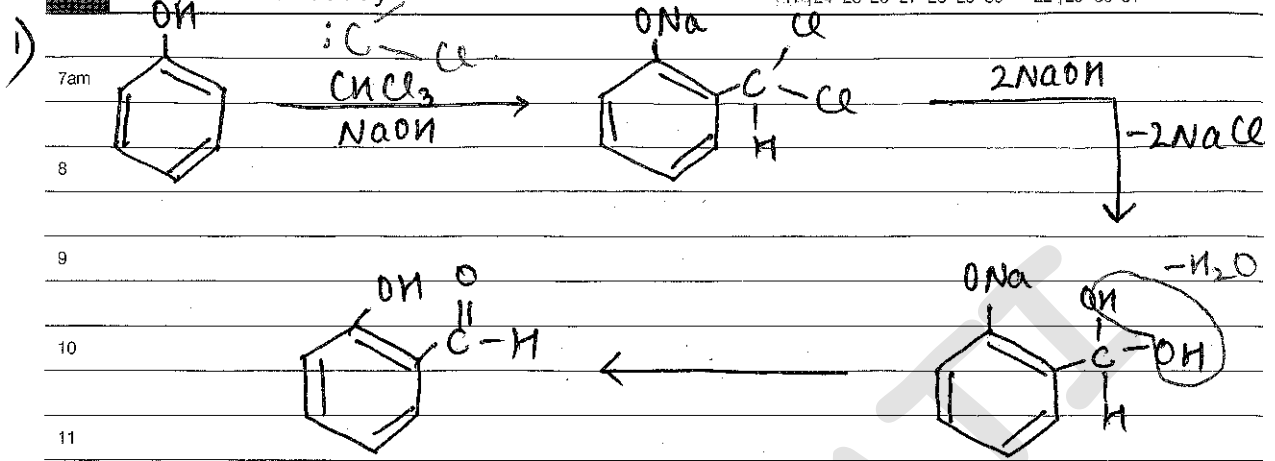
7

Birthday / Anniversary

To be successful in life, stick like a postage stamp till you reach your destination

formed.
↑
Day (123-242)

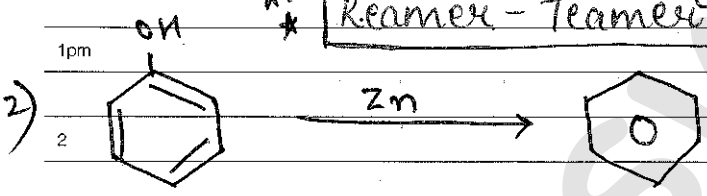
APR							2017							MAY							2017									
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su			
13					1	2	18	1	2	3	4	5	6	7	23	24	25	26	27	28	29	30	31							
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14	20	15	16	17	18	19	20	21							
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21	21	22	23	24	25	26	27	28							
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28	22	22	23	24	25	26	27	28							
17	24	25	26	27	28	29	30	22	29	30	31					22	29	30	31											



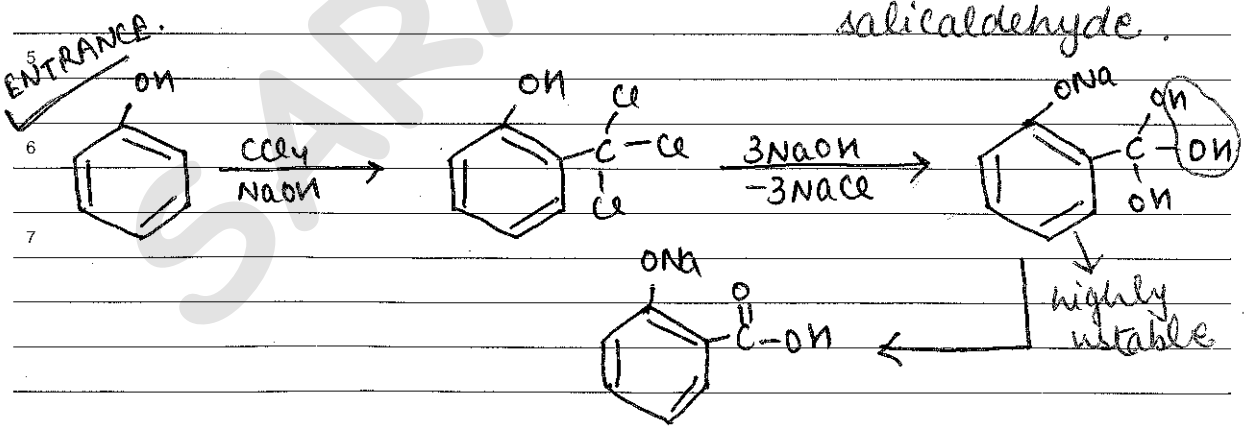
Salicylaldehyde

2 -OH grp with carbon are highly unstable.

Reimer-Tiemann Rxn.



* Kolbe's Rxn forms \rightarrow silicic acid
 Reimer-Tiemann rxn \rightarrow silicic acid and salicylaldehyde.



This shows the formation of silicic acid from Reimer-Tiemann rxn.

Teamwork is the fuel that allows common people to attain uncommon results

JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
			1	2	3	4	26	31				1	2		
22							27	3	4	5	6	7	8	9	
23	5	6	7	8	9	10	11	28	10	11	12	13	14	15	16
24	12	13	14	15	16	17	18	29	17	18	19	20	21	22	23
25	19	20	21	22	23	24	25	30	24	25	26	27	28	29	30
26	26	27	28	29	30										

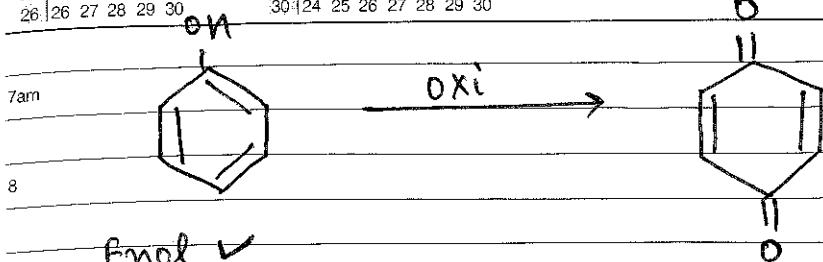
04

2017

Day (124-241)

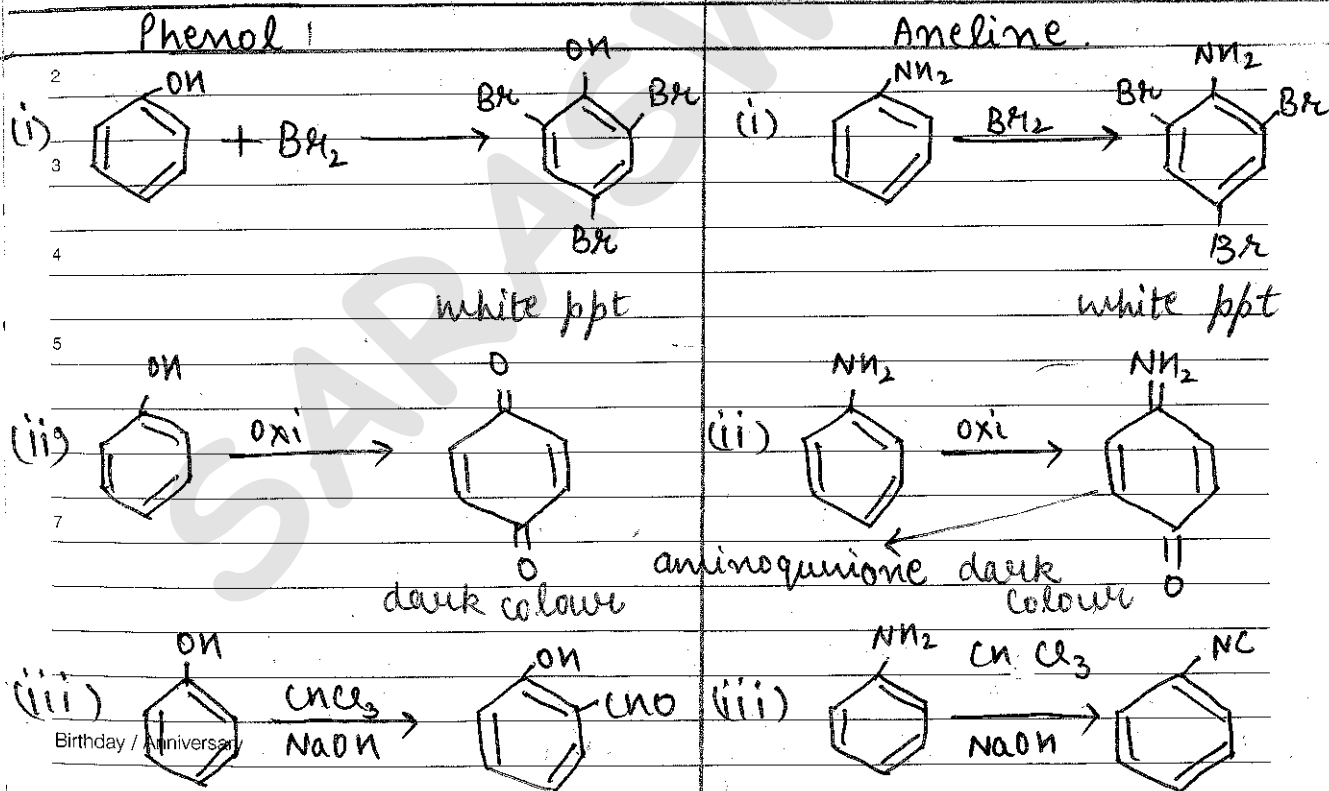
May • Thursday

Wk-18



Benzalquinone and aminoquinone are the only ketones which do not have enol form. And phenol is the only enol which does not have keto form i.e. do not show TAUTOMERISM

1pm



* This shows that both can react which with CCl_4 in the presence of $NaOH$.

Life is like a rainbow. You need both the sun and the rain to make it's color appear.

(iv) Rxns given below are azoide test i.e. test for nitrogen and are also known as coupling rxn.

2017
Wk-18

05

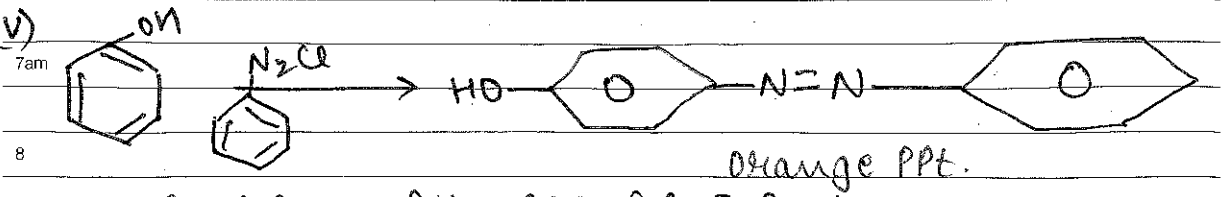
Day (125-240)

May • Friday

APR							MAY								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
13					1	2	18	1	2	3	4	5	6	7	
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

P

(iv)

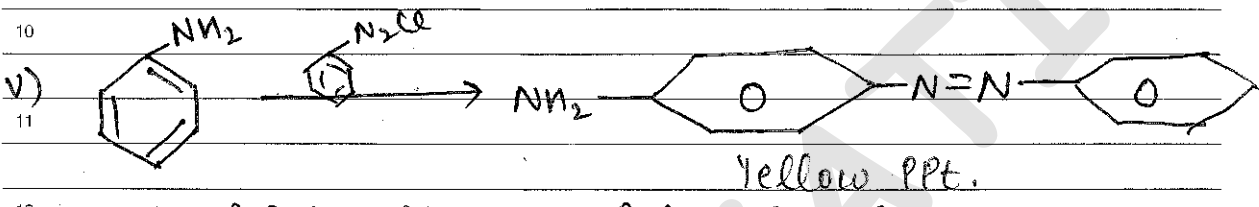


CONFIRMATORY TEST FOR PHENOL

9

A

(iv)



CONFIRMATORY TEST FOR ANILINE

12

Q Write chemical test b/w aromatic & aliphatic diazonium chloride test.

A Add phenol → orange ppt. & Add aniline → Yellow ppt.

* These 2 are the tests for phenol, aniline and benzene-diazonium chloride salt.

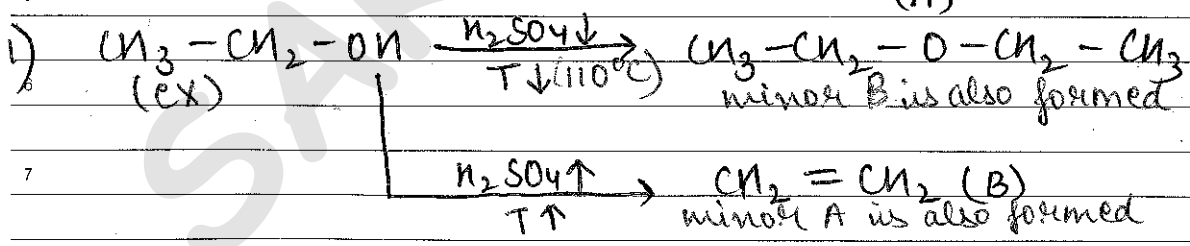
3

(R-O-R) Ether.

4

Preparation

5



When the amount of H_2SO_4 is less and temperature is also low then it leads to formation of ether. But when amount of H_2SO_4 is more and temperature then it leads to the formation of alkene.

Excellence is not a exception, it is a prevailing attitude

JUN 2017							JUL 2017							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
			1	2	3	4	26	31				1	2	
22		5	6	7	8	9	27	3	4	5	6	7	8	9
23	5	6	7	8	9	10	28	10	11	12	13	14	15	16
24	12	13	14	15	16	17	29	17	18	19	20	21	22	23
25	19	20	21	22	23	24	30	24	25	26	27	28	29	30
26	26	27	28	29	30									

Day (126-239)

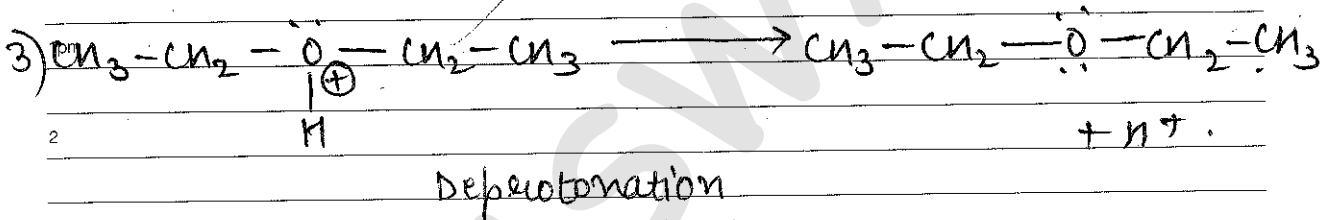
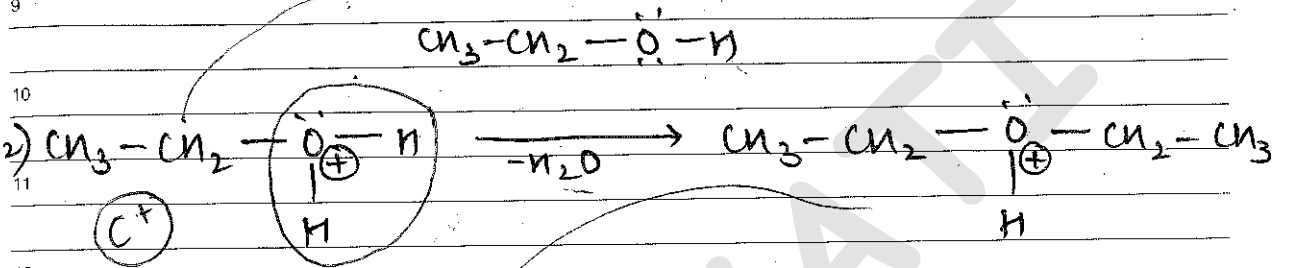
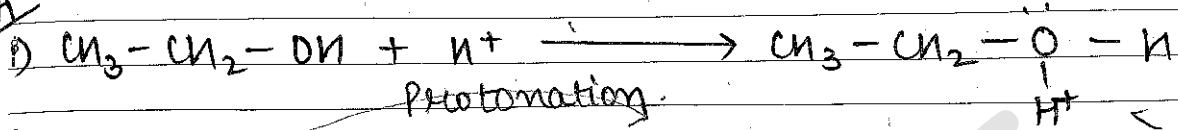
06

2017

May • Saturday

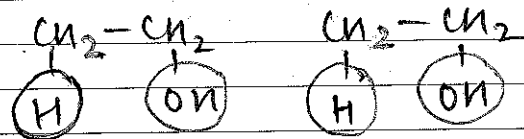
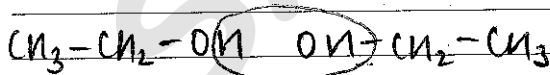
Q What is mechanism of formation of (A)?

A



When amount of H_2SO_4 is more, it takes out 2 H_2O i.e. 1 from one alcohol and other H_2O from other alcohol so it leads to formation of alkene. But less amount of H_2SO_4 takes out OH from one alcohol & H from other alcohol i.e. overall only one H_2O and leads to formation of $\text{R}-\text{O}-\text{R}$.

Sunday 07



$\text{H}_2\text{SO}_4 \downarrow, T \downarrow$

Birthday / Anniversary

Substitution

$\text{H}_2\text{SO}_4 \uparrow, T \uparrow$

Elimination

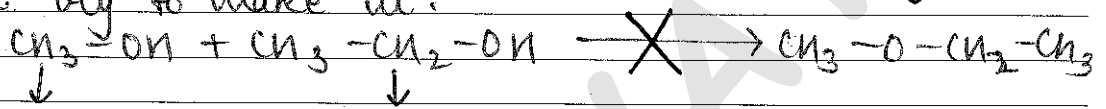
Efficiency is doing things right; effectiveness is doing the right things

Q. What is the biggest limitation of the rxn of formation of R-O-R by R-OH?

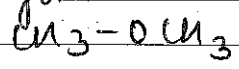
A. we can form only symmetrical ether by this ether and not unsymmetrical

i.e. we can form:- ethoxy ethane
methoxy methane
propoxy propane
butoxy butane

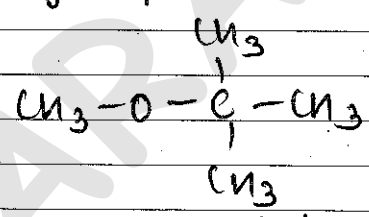
but cannot form:- methoxy ethane or ethoxy butane if we try to make it:-



methanol will react with itself to form:-
ethanol will react with itself to form:-



Q³ What are the limitations that do not lead to the formation of $\text{CH}_3\text{-O-C(CH}_3)_3$ by the above method?



(i) It is a unsymmetrical compound, and the above rxn is not applicable for unsymmetrical compound.

(ii) The mechanism of this rxn involves the formation of carbocation, and this compound will lead to the formation of 3°C^+ , which is highly stable so it undergoes the following rxn:-

Winning isn't always getting ahead of others, it is getting ahead of yourself

JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
			1	2	3	4	26	31				1	2		
22							27	3	4	5	6	7	8	9	
23	5	6	7	8	9	10	11	28	10	11	12	13	14	15	16
24	12	13	14	15	16	17	18	29	17	18	19	20	21	22	23
25	19	20	21	22	23	24	25	30	24	25	26	27	28	29	30
26	26	27	28	29	30										

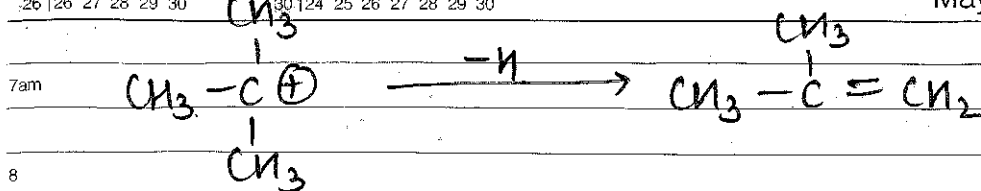
09

2102

Day (129-236)

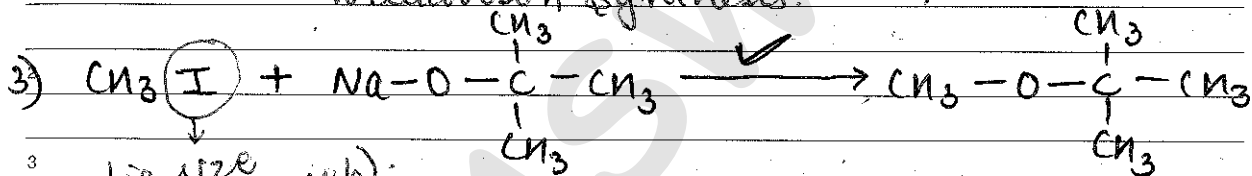
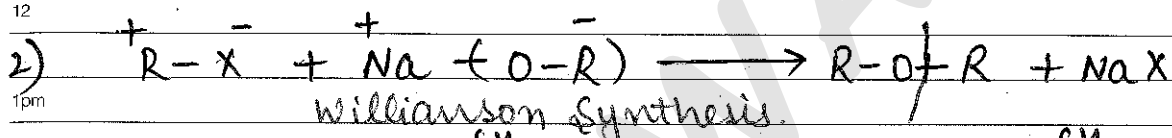
May • Tuesday

Wk-19

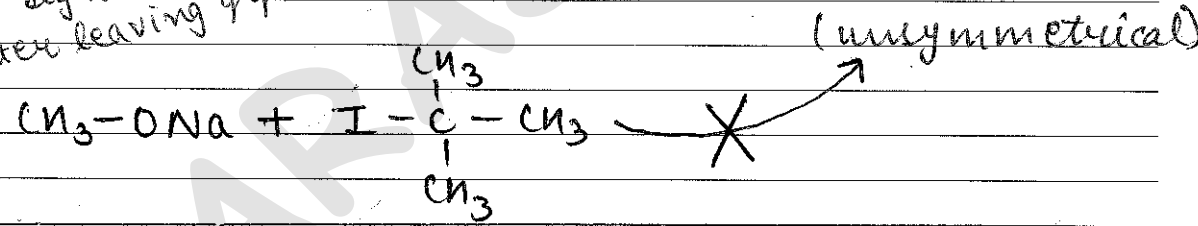


∴ It will lead to the formation of alkene but we were trying to make R-O-R.

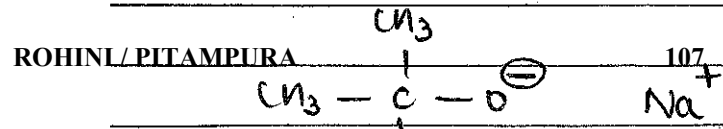
∴ This technique is used to make only symmetrical and primary ether.

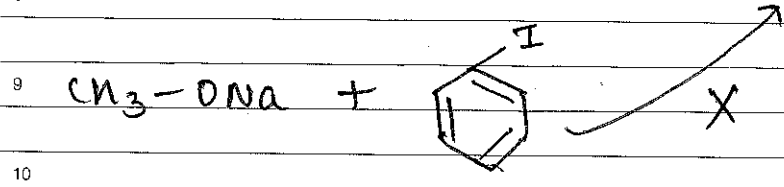
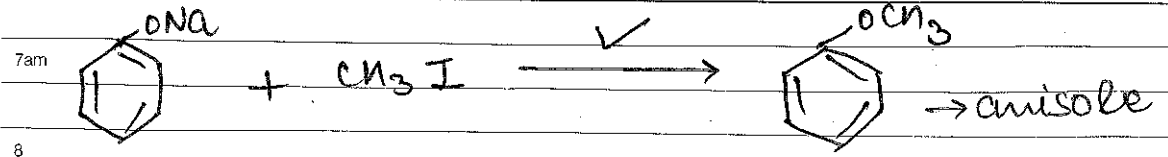


big size (better leaving grp).

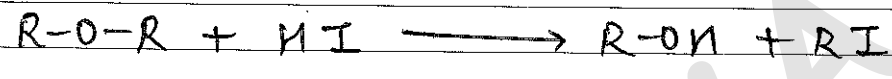


** Williamson synthesis is a rxn that follows $\text{S}_{\text{N}}2$ mechanism so for the 3rd rxn to take place we need to create proper conditions for $\text{S}_{\text{N}}2$. Therefore we choose a 1° C⁺ with halogen that has less steric hindrance and also for $\text{S}_{\text{N}}2$ to occur we require a strong nucleophile ∴ 3° C⁺ is taken with oxygen, so that all the 3 carbons would show +I effect and give more ⊖ve chrg to O and hence making the ⊖ve chrg denser ∴ strong nucleophile

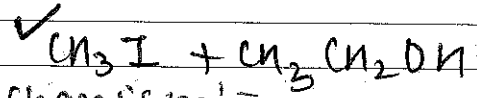
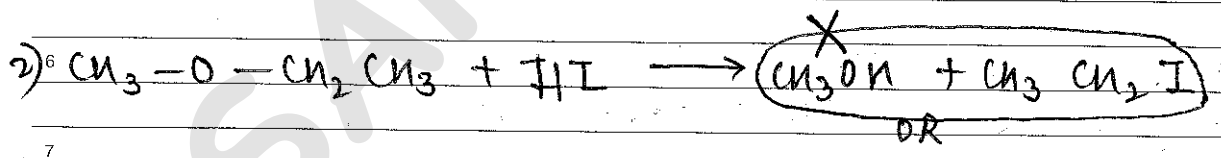
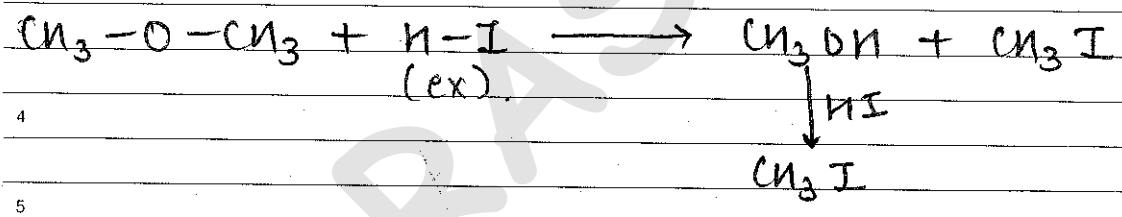




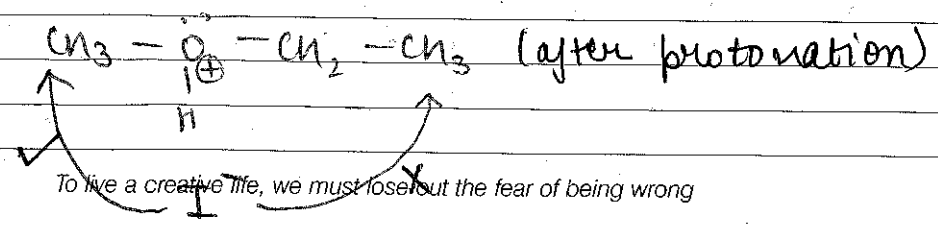
Reactions of Ether



12
 converse of Williamson Synthesis



5
 Because according to SN^2 mechanism!



7
 To live a creative life, we must lose out the fear of being wrong

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

11

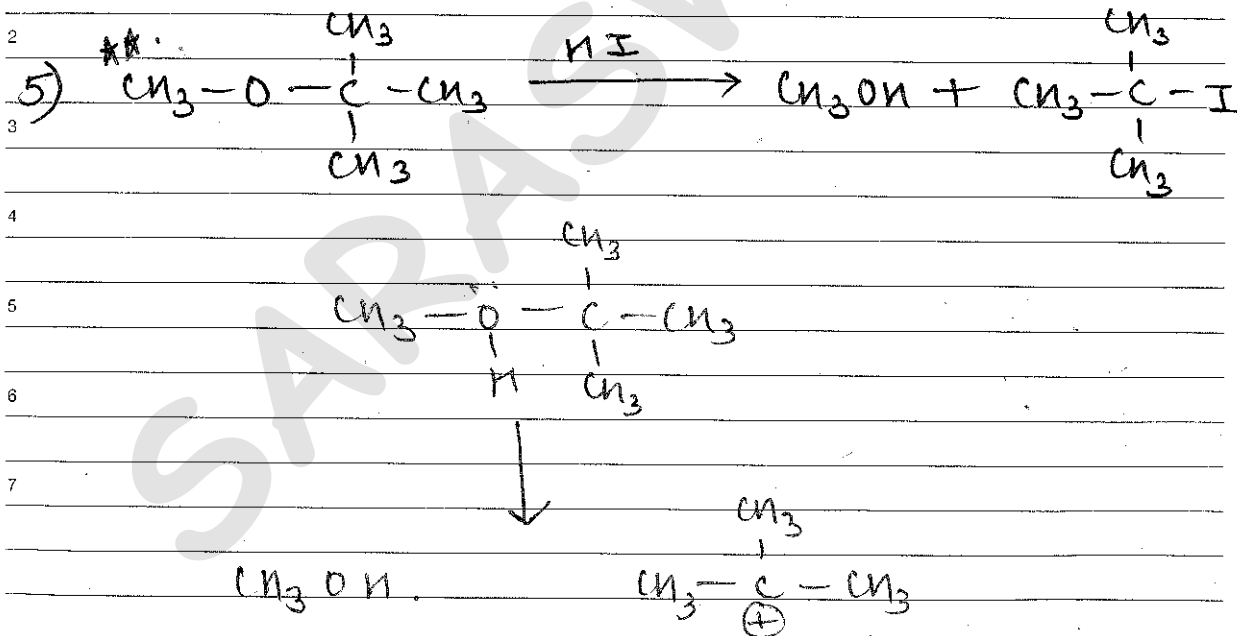
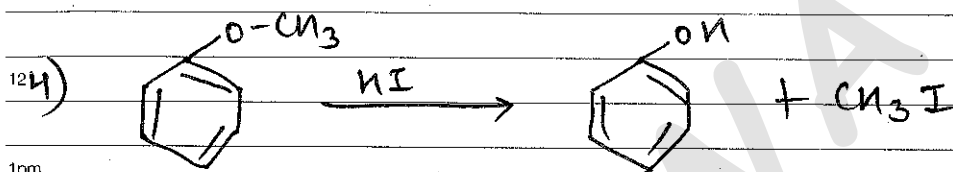
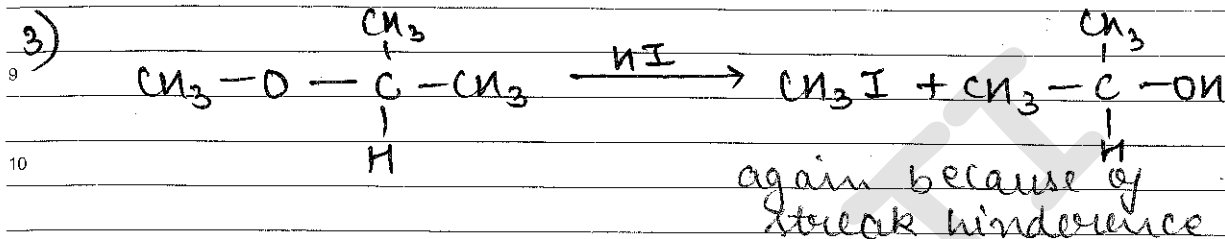
2017

Day (131-234)

May • Thursday

Wk-19

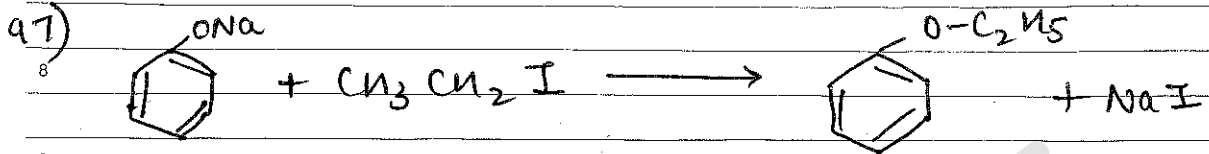
7am S_N2 occurs with the halogen that has less steric hindrance so I goes towards CH_3 and not CH_2-CH_3



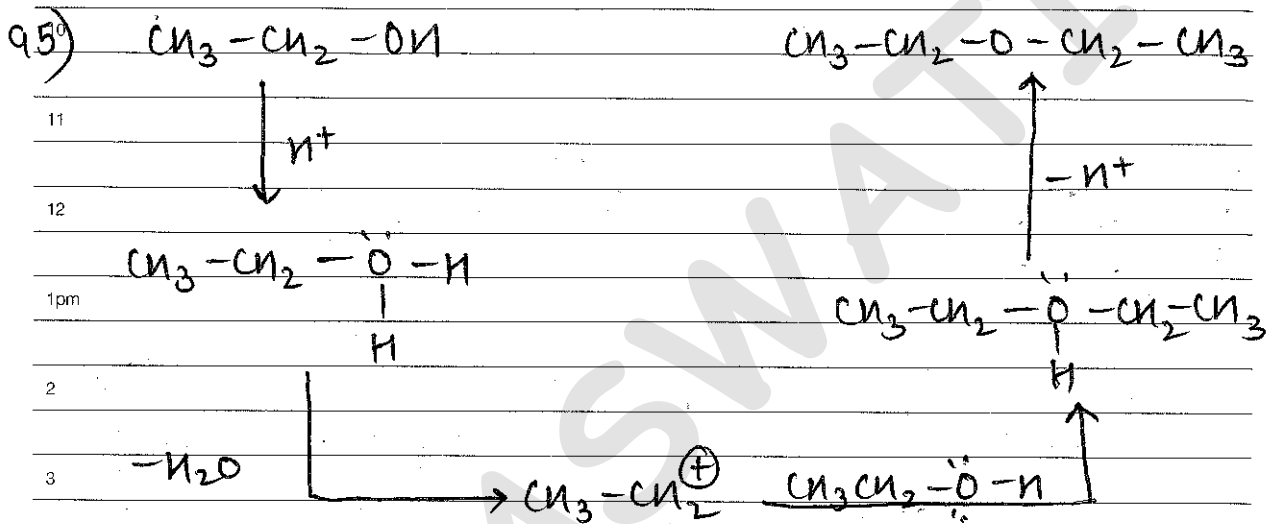
*Here though there is steric hindrance still, I attaches to $3^\circ C$. Because when H attaches on lone pair, then the $3^\circ C$ separates itself from methanol as it is stable itself now when I^- comes in the direction of you (I guess it is more stable) so I can only attach to $3^\circ C$.

10 Years-Book

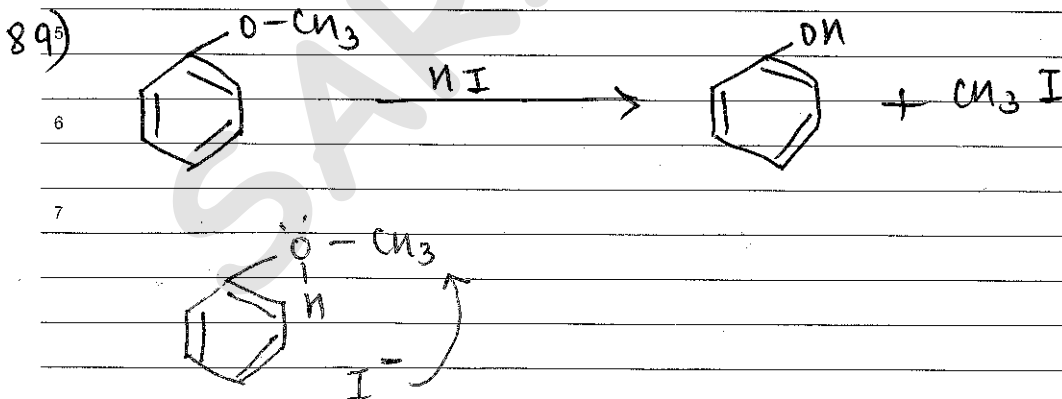
7am



9



4



Birthday / Anniversary

Life isn't about finding yourself. Life is about creating yourself

JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
			1	2	3	4	26	31				1	2		
22		5	6	7	8	9	27	3	4	5	6	7	8	9	
23	12	13	14	15	16	17	18	28	10	11	12	13	14	15	16
24	19	20	21	22	23	24	25	29	17	18	19	20	21	22	23
25	26	27	28	29	30		30	24	25	26	27	28	29	30	

Day (133-232)

13

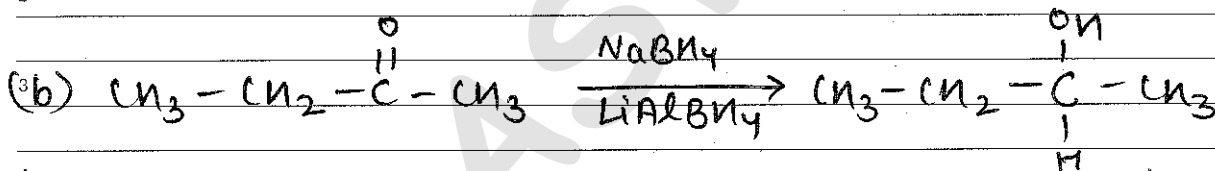
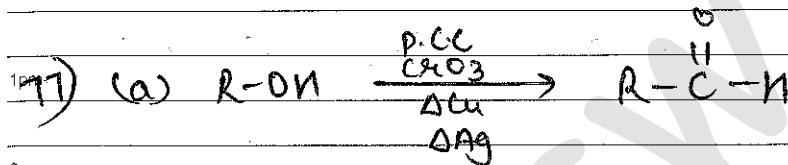
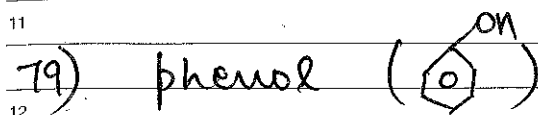
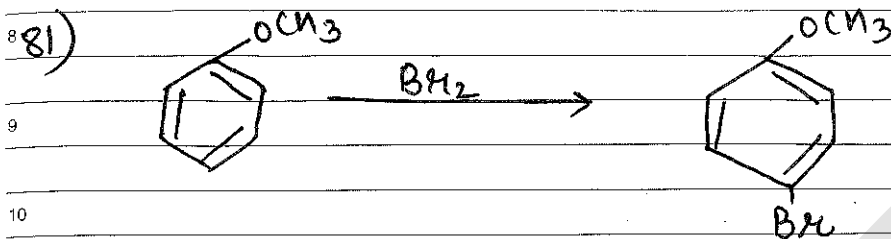
2017

May • Saturday

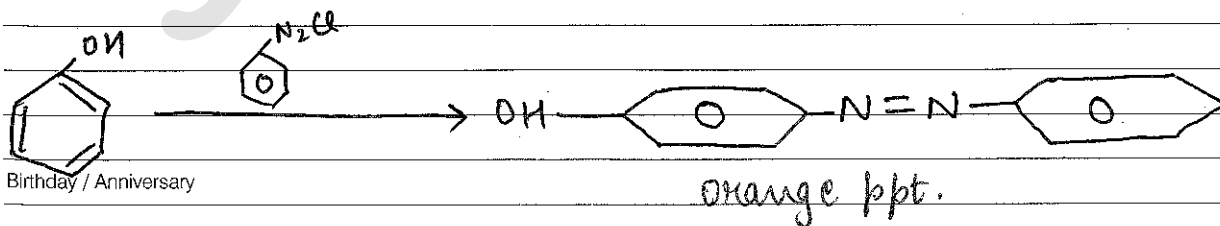
Wk-19

85) 1-Ethoxy-2-nitrocyclohexane

7am



75) (b)	Compound	Test	observation	Rxn.
	<chem>C2H5OH</chem>		X	X
	<chem>Oc1ccccc1</chem>	azodide	orange ppt.	Sunday 14



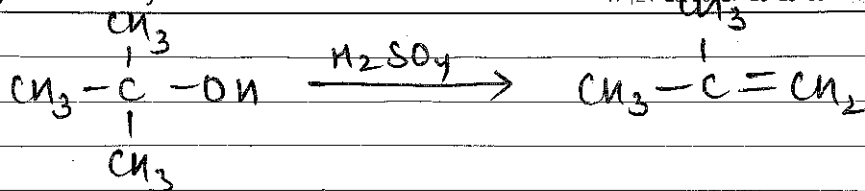
Birthday / Anniversary

If there was nothing wrong in this world, there wouldn't be anything for us to do

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su	
13						1	2		18	1	2	3	4	5	6	7
14	3	4	5	6	7	8	9		19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16		20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23		21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30		22	29	30	31				

73)

7am

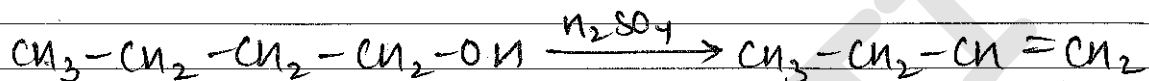


8

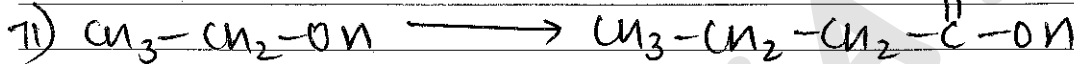
3° c⁺ stable, so loses H⁺ & forms alkene

9

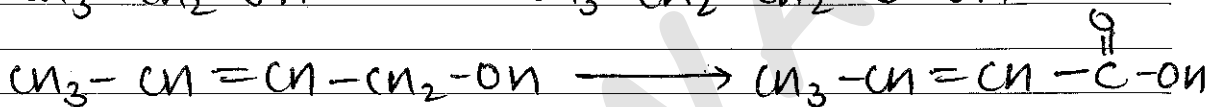
10



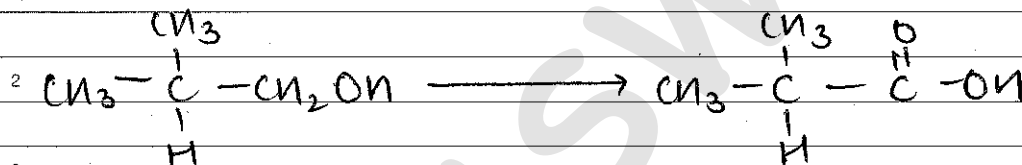
11



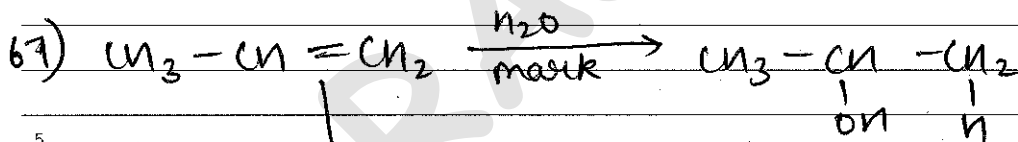
12



1pm

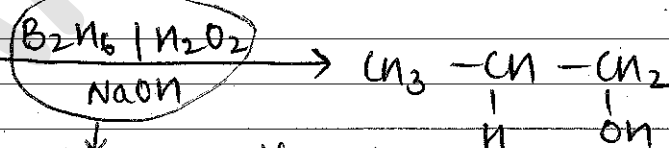


3



5

6



7

gives the product, as if H₂O is added anti-mark.

Hydro Bromination

Birthday / Anniversary

Be the change you want to see in the world

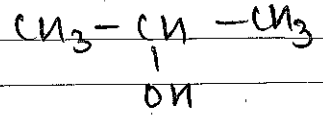
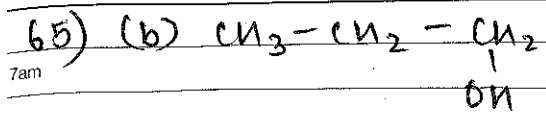
JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
			1	2	3	4	26	31				1	2		
22							27	3	4	5	6	7	8	9	
23	5	6	7	8	9	10	11	28	10	11	12	13	14	15	16
24	12	13	14	15	16	17	18	29	17	18	19	20	21	22	23
25	19	20	21	22	23	24	25	30	24	25	26	27	28	29	30
26	26	27	28	29	30										

16

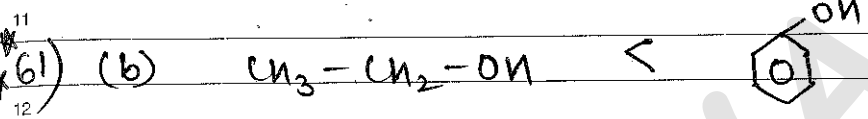
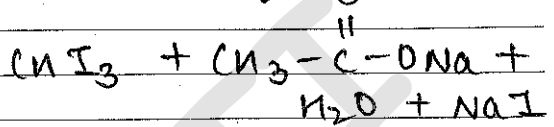
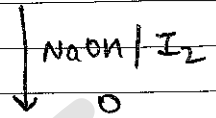
2017
WK-20

Day (136-229)

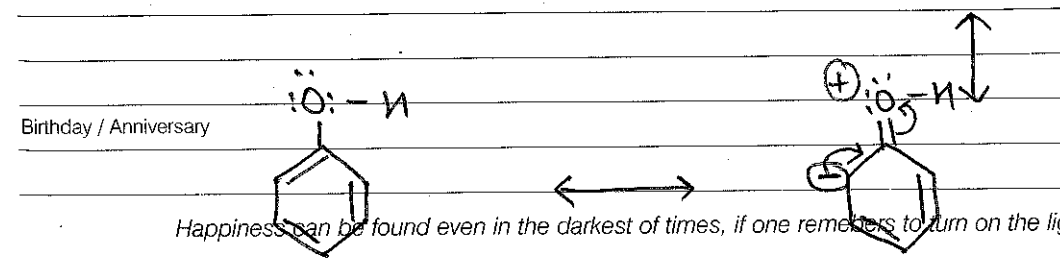
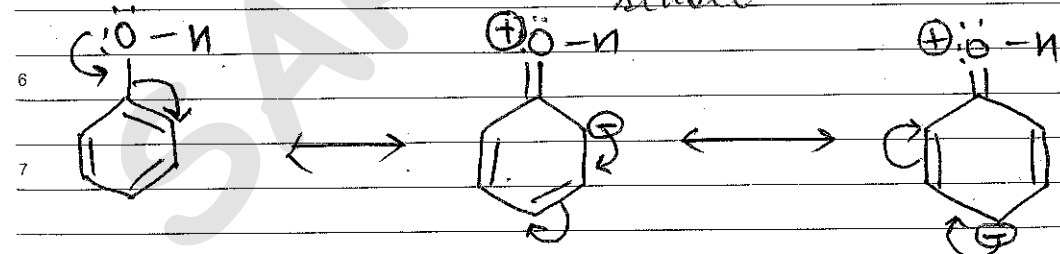
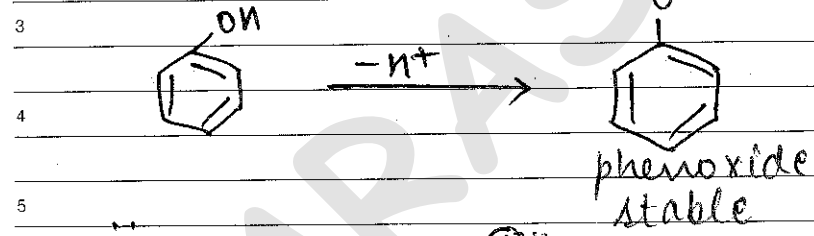
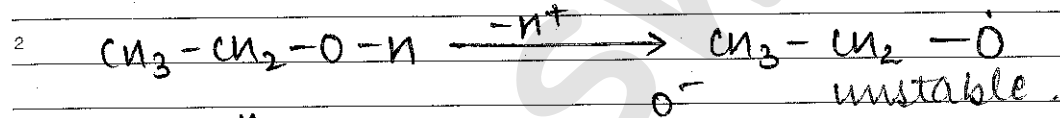
May • Tuesday



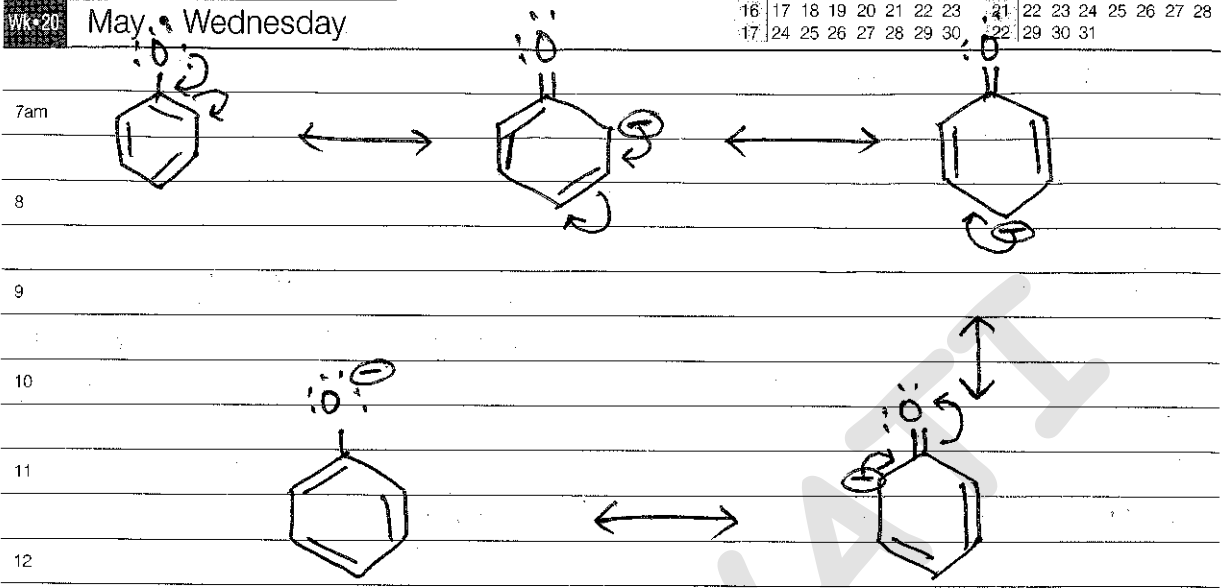
8 Either Lucas Test or Iodoform Test.



Better acid is the one which feels stable after the removal of H^+ .

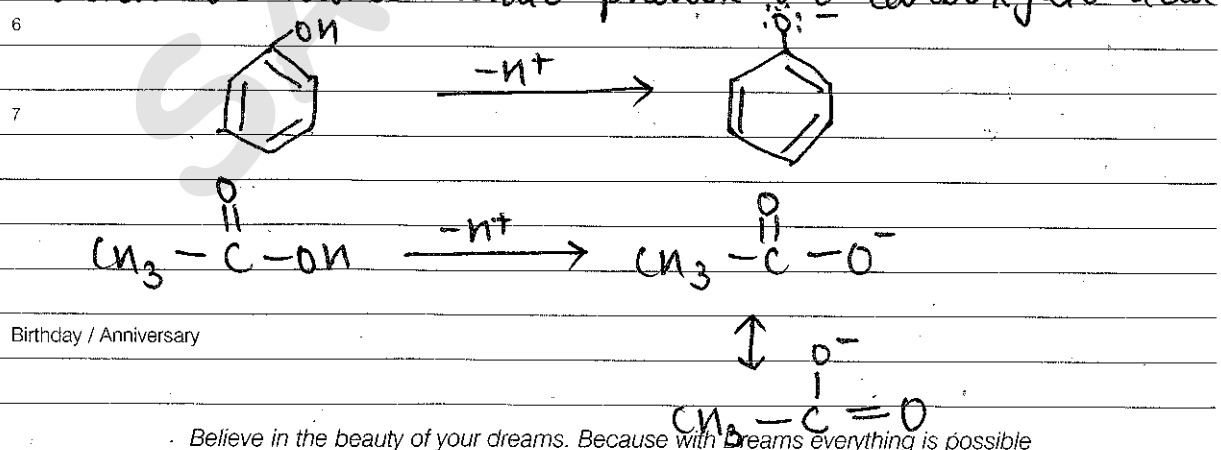


Happiness can be found even in the darkest of times, if one remembers to turn on the light



Phenol has 5 resonating structures but with 2 chrgs on it, but in case of phenoxide there is only one chrg in 5 resonating structures only. Since the charge distribution is more in case of phenol therefore phenoxide is more stable than phenol and hence more active toward electrophilic substitution. So phenol after losing H^+ becomes stable whereas ethanol becomes unstable after losing H^+ . Therefore phenol is more acidic than ethanol.

*Q which is more acidic phenol or carboxylic acid?



Believe in the beauty of your dreams. Because with dreams everything is possible

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

18

2017

Day (138-227)

May • Thursday

Wk-20

only

Carboxylic acid is more acidic, though it has 2 resonating structure, but still the negative charge is present on that element which is more $e^- \ominus ve$.

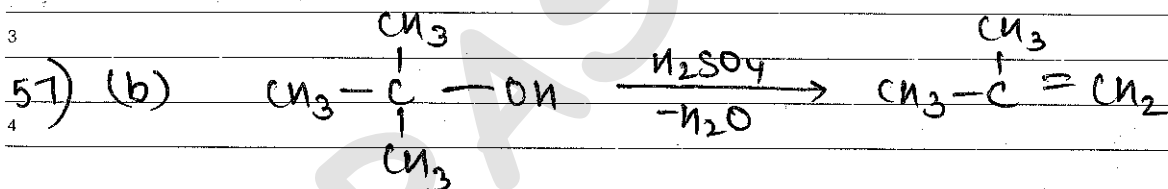
Therefore the resonance of carboxylic acid is more stable (oxygen can bear charge on it, but carbon cannot)

Whereas in phenol though there are 5 resonating struct. (It should be more stable resonance) but still, it is not so stable resonance as carboxylic acid as it phenol $\ominus ve$ charge is present on carbon which cannot bear more $\ominus ve$ charge on it. Therefore carboxylic acid is more acidic than phenol.

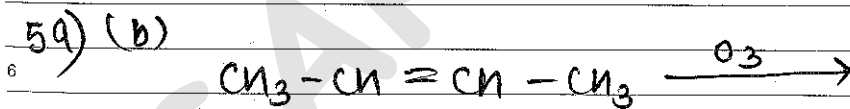
12

* That resonance is more stable in which!-

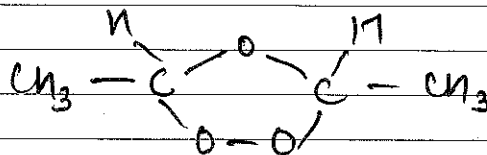
- (i) There are more no. of resonating structures
- (ii) less charge distribution among resonating structures.
- (iii) Charge is present on $e^- \ominus ve$ element.



5



7



Birthday / Anniversary



Rose

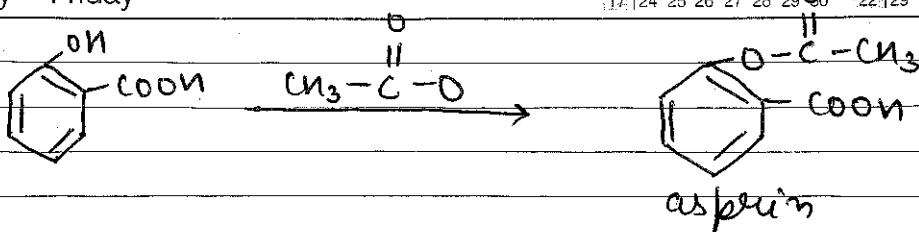


If your Plan "A" doesn't work, the alphabet has 25 more letters. Stay cool

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
13						1	2	18	1	2	3	4	5	6	7
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30	22	29	30	31				

17)

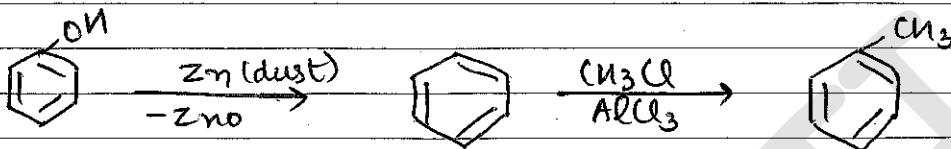
7am



8

22)

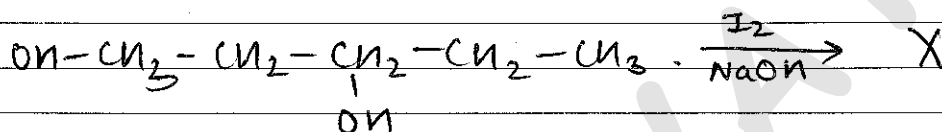
10



11

23)

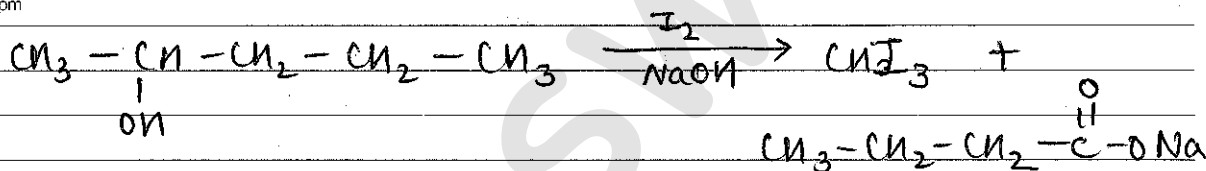
12



1pm

2

3

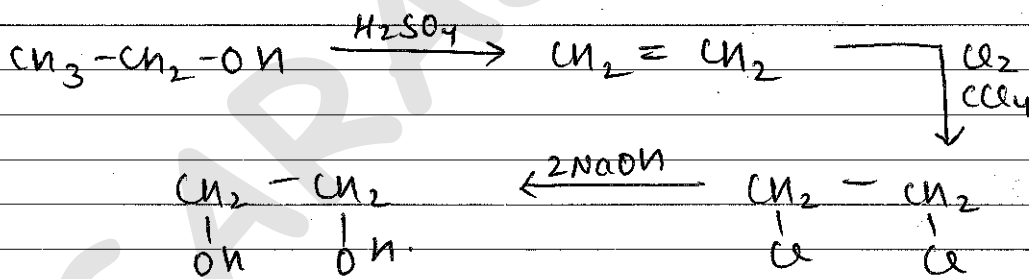


25)

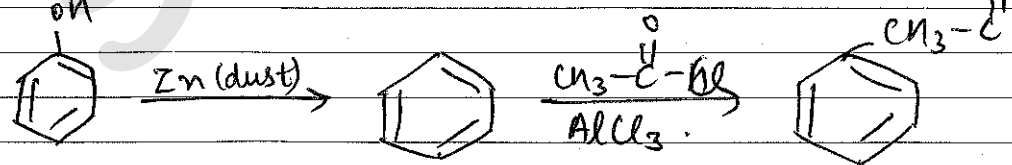
5

6

7



26)



Birthday / Anniversary

. It is better to be a failure at something you love than a success at something you hate

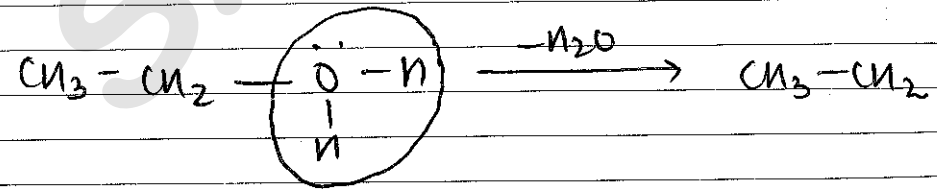
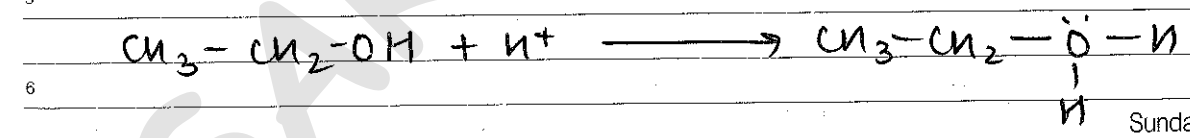
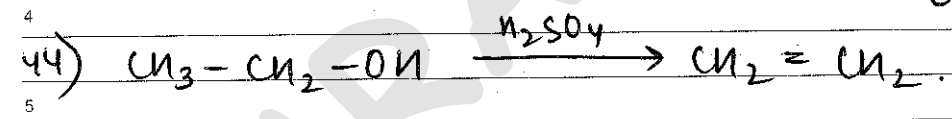
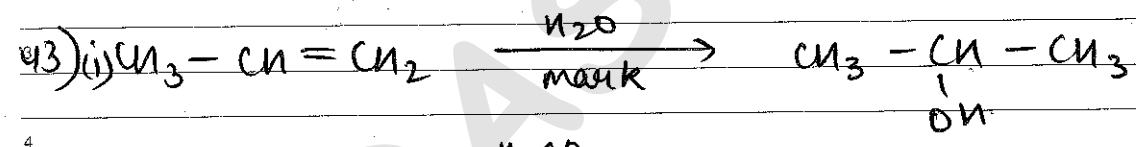
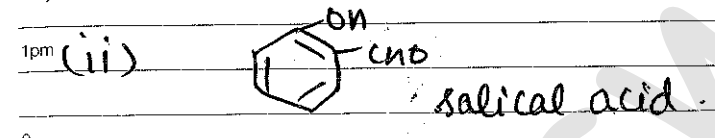
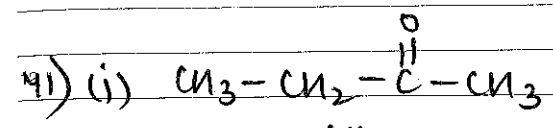
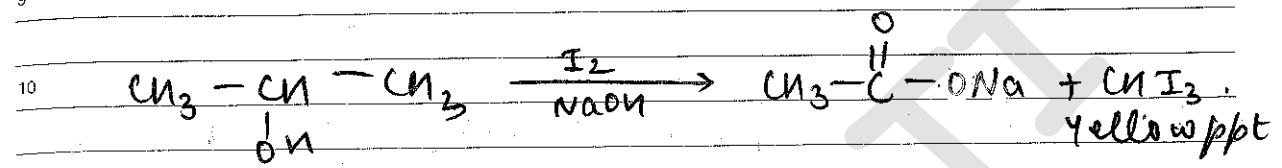
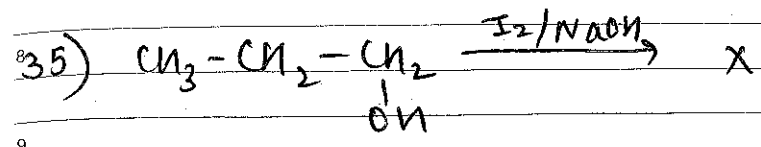
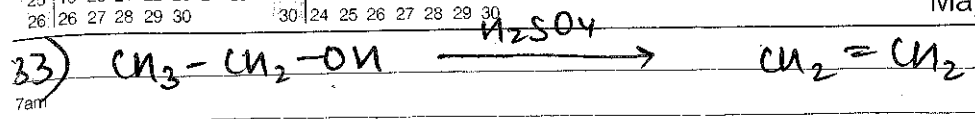
JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
			1	2	3	4	26	31				1	2		
22							27	3	4	5	6	7	8	9	
23	5	6	7	8	9	10	11	28	10	11	12	13	14	15	16
24	12	13	14	15	16	17	18	29	17	18	19	20	21	22	23
25	19	20	21	22	23	24	25	30	24	25	26	27	28	29	30
26	26	27	28	29	30										

20

2017

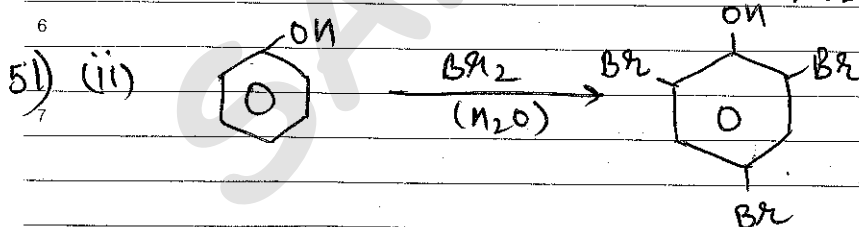
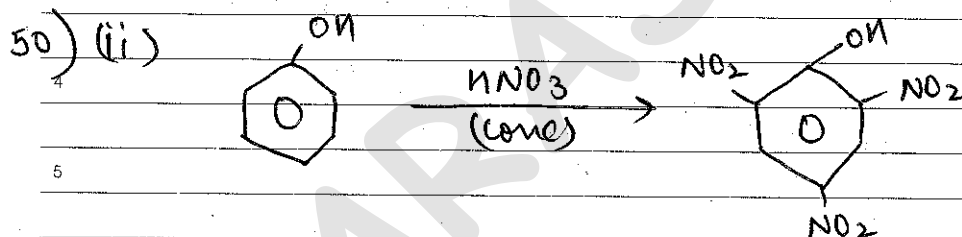
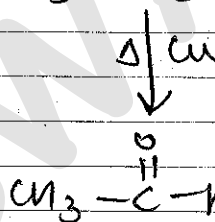
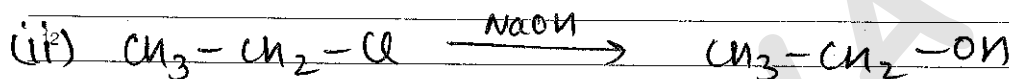
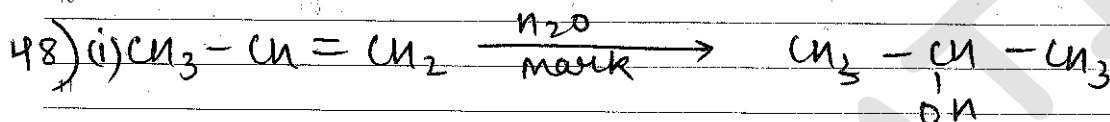
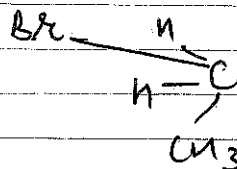
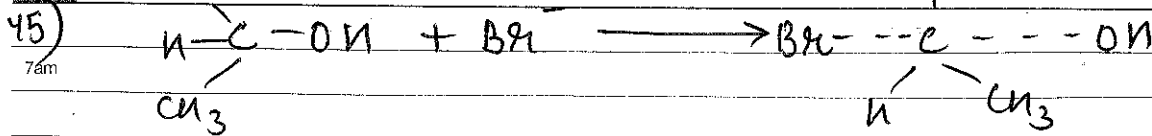
Day (140-225)

May • Saturday



The world is smaller than you think, and the people on it are more beautiful than you think

APR							2017							MAY							2017									
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su			
13					1	2	18	1	2	3	4	5	6	7	23	24	25	26	27	28	29	30	31							
14	3	4	5	6	7	8	9	19	8	9	10	11	12	13	14															
15	10	11	12	13	14	15	16	20	15	16	17	18	19	20	21															
16	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28															
17	24	25	26	27	28	29	30	22	29	30	31																			



Birthday / Anniversary

Being yourself is being the person everyone else wants you to be

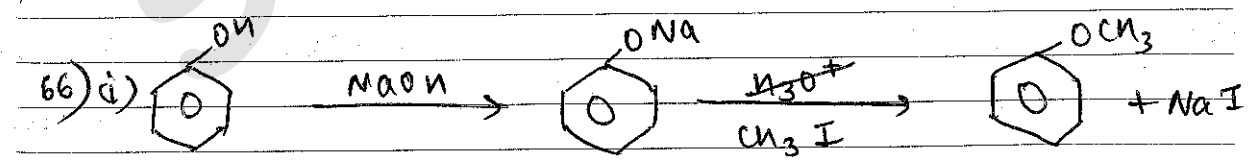
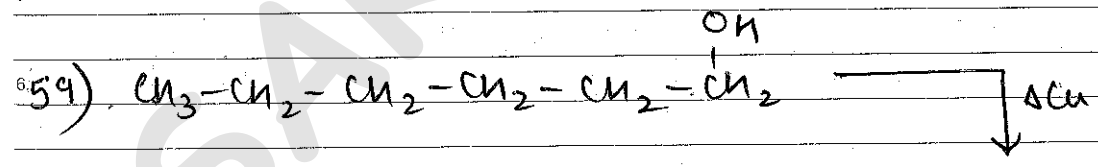
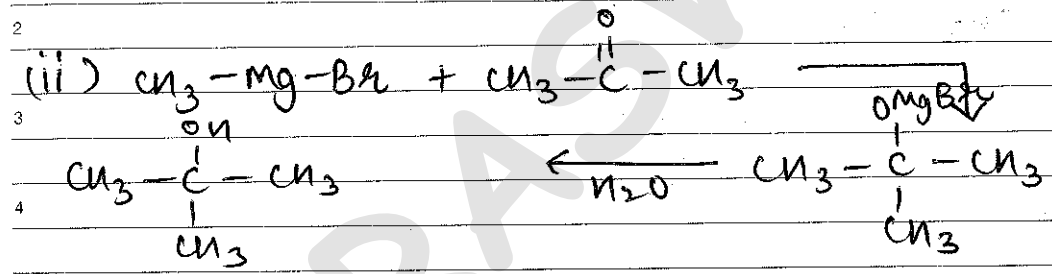
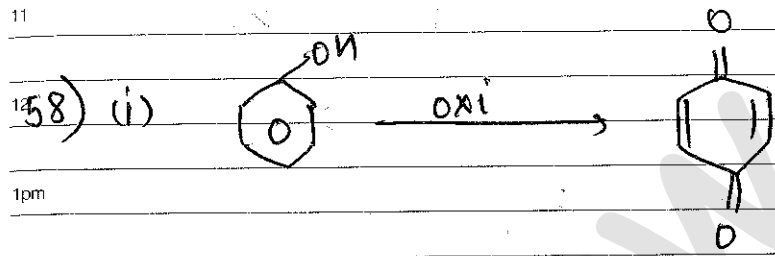
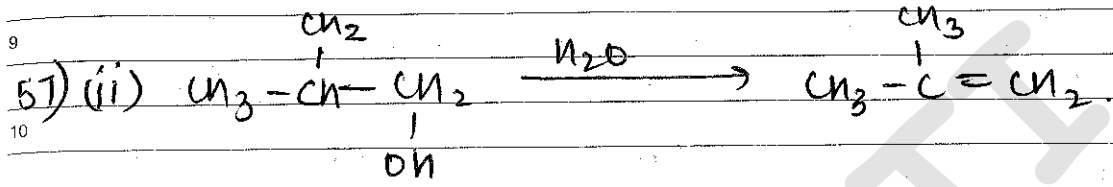
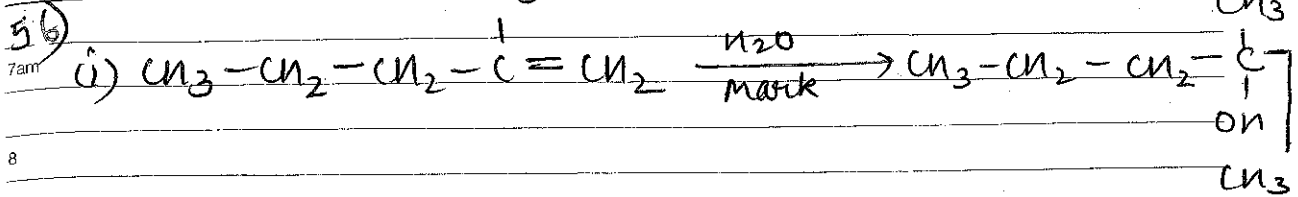
JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

23

2017

Day (143-222)

May • Tuesday

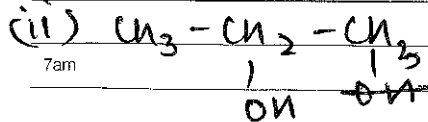


Birthday / Anniversary

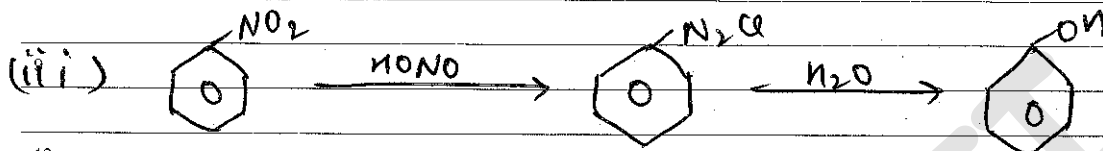
Try not to become a man of success but rather to become a man of value

Mo	Tu	We	Th	Fr	Sa	Su
13					1	2
14	3	4	5	6	7	8
15	10	11	12	13	14	15
16	17	18	19	20	21	22
17	24	25	26	27	28	29

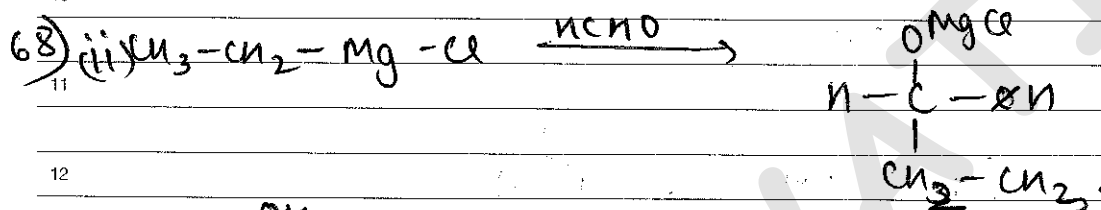
Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6
19	8	9	10	11	12	13
20	15	16	17	18	19	20
21	22	23	24	25	26	27
22	29	30	31			



8

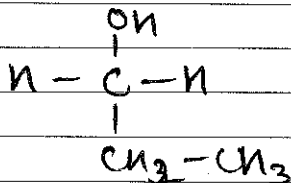


10

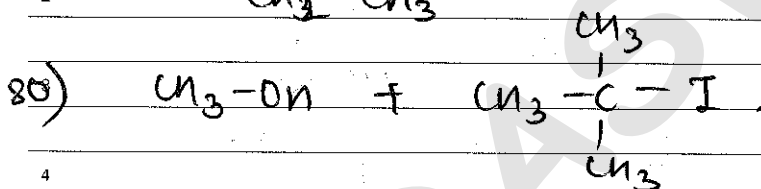


12

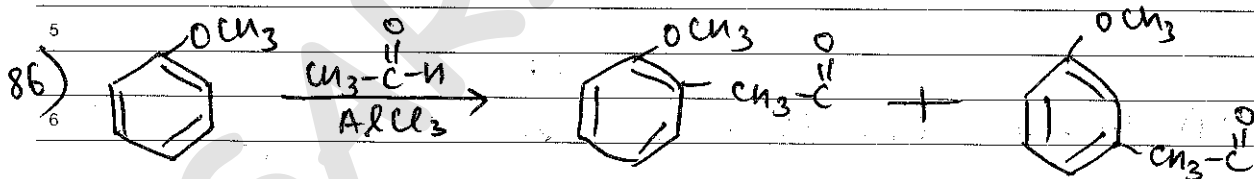
1pm



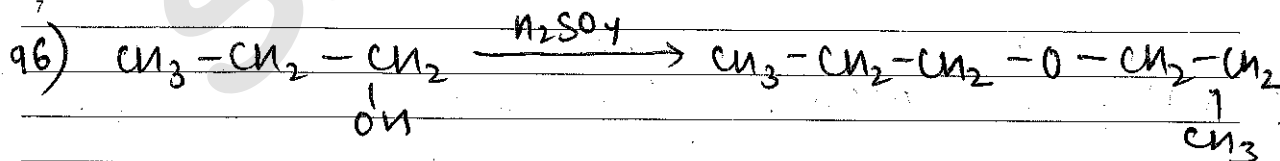
2



4



7



Birthday / Anniversary

Life is a lesson you'll learn it when you're through

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

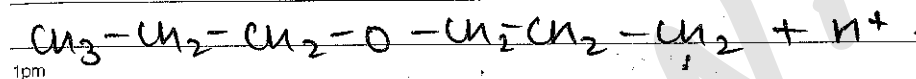
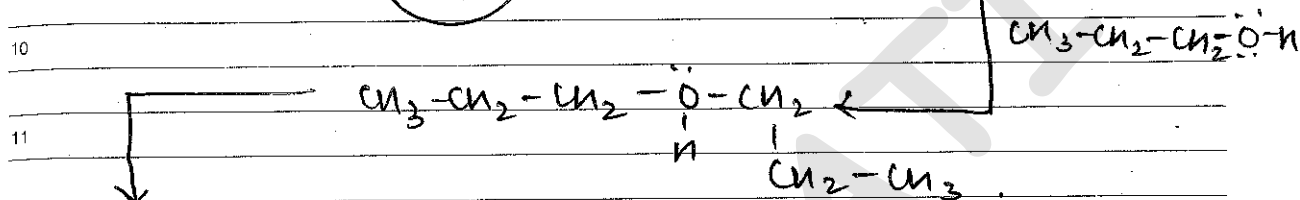
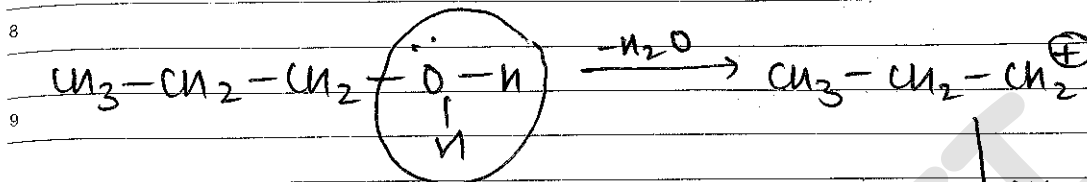
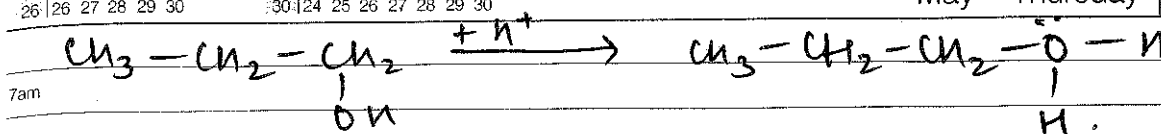
25

2017

Day (145-220)

May • Thursday

Wk-21

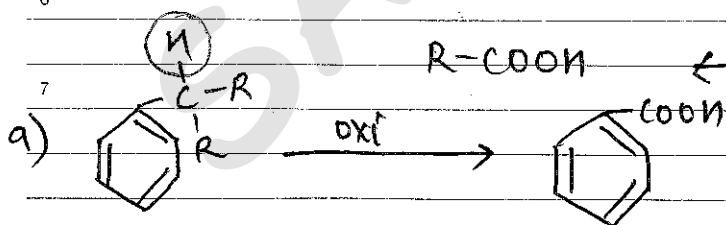
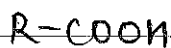
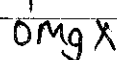
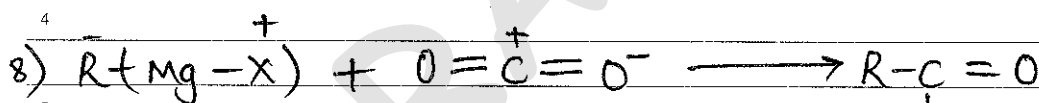
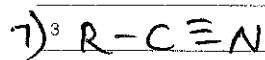
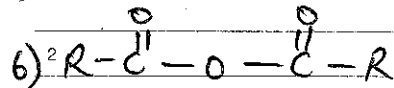
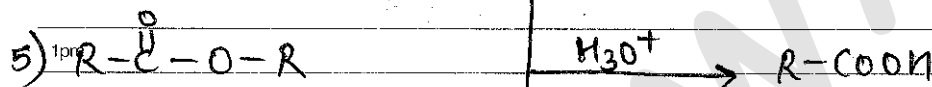
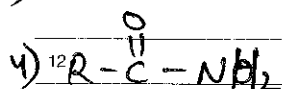
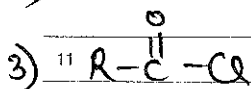
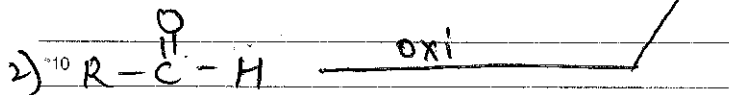
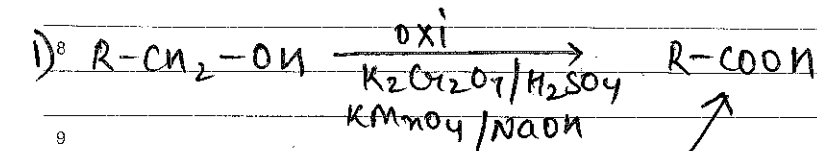


Birthday / Anniversary

We are what we repeatedly do. Excellence then, is not an act, but a habit

Carboxylic Acid (R-C(=O)-OH)

7am



Birthday / Anniversary

A man is not finished when he is defeated, he is finished when he quits

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

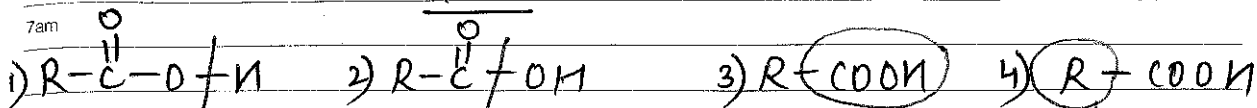
Day (147-218)

27

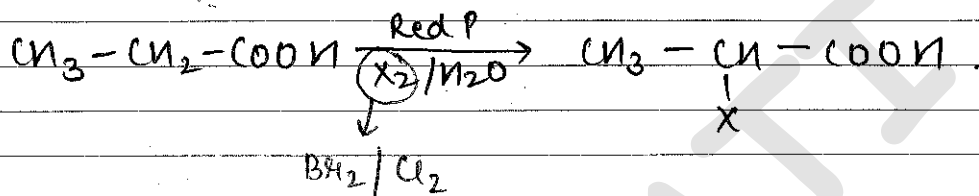
2017
WK-21

May • Saturday

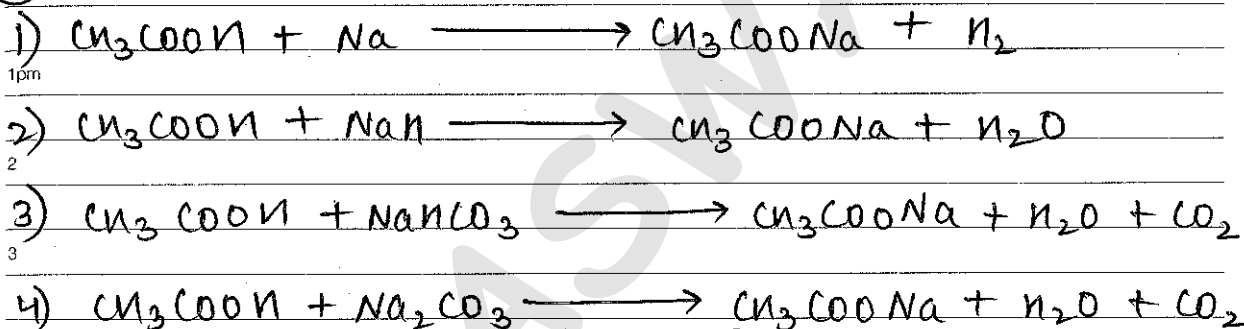
Rxns



HVZ [Hell Volhard Zelinsky]

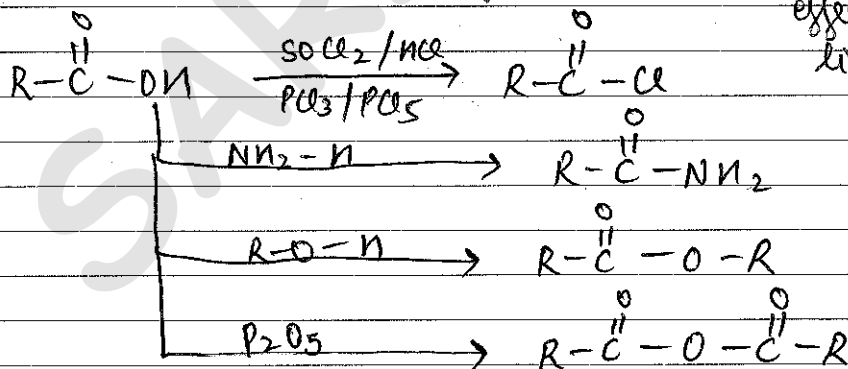


I



* 3rd & 4th rxns are test for $R-\overset{\overset{O}{\parallel}}{C}-ON$, releases brisk effervescence & turns lime water milky.

II



Sunday 28

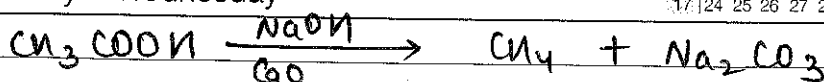
Birthday / Anniversary

A person can grow only as much as his horizon allows

	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su	
13						1	2		18	1	2	3	4	5	6	7
14	3	4	5	6	7	8	9		19	8	9	10	11	12	13	14
15	10	11	12	13	14	15	16		20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	23		21	22	23	24	25	26	27	28
17	24	25	26	27	28	29	30		22	29	30	31				

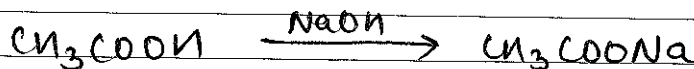
III

7am

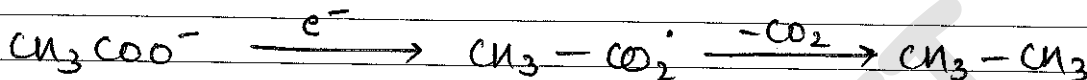


Decarboxylation.

8



9



10

Kolbe's electrolysis

11

Aldehyde and KetoneChemical Rxns1. ^{1pm} Nucleophilic addition

2. Nucleophilic addition with elimination of water

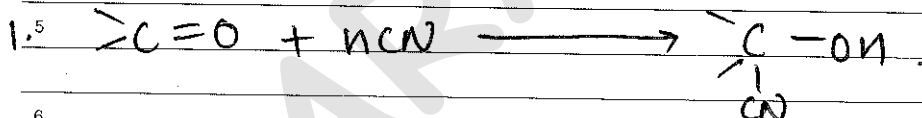
3. Reduction

4. Oxidation

5. Rxn due to acidic α -hydrogen (aldol condensation)6. Rxn due to absence of acidic α -hydrogen

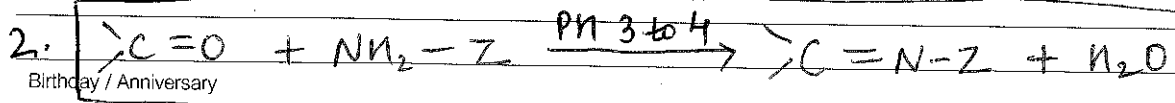
(Cannizzaro Rxn)

4



6

Rxns of hemiacetal, acetal, hemiketal and ketal are also included here, (written under nucleophilic addition)



Birthday / Anniversary

Victory is always possible for the person who refuses to stop fighting

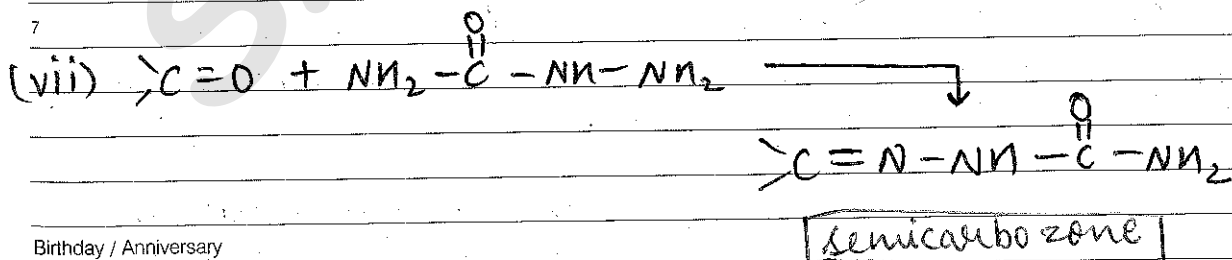
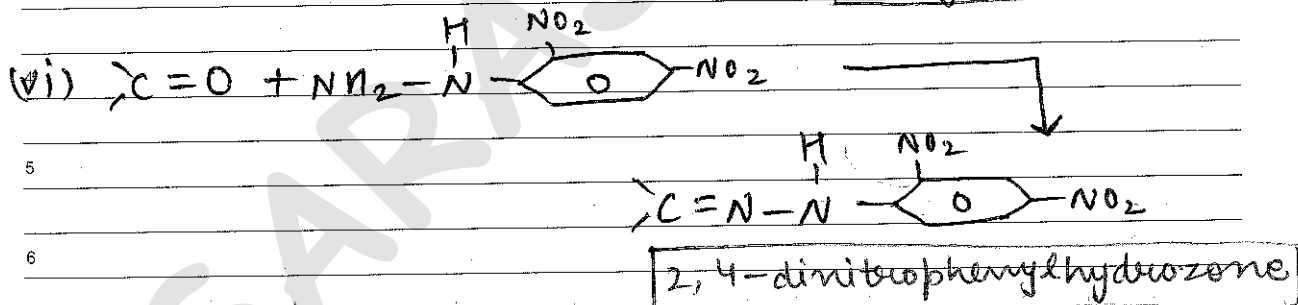
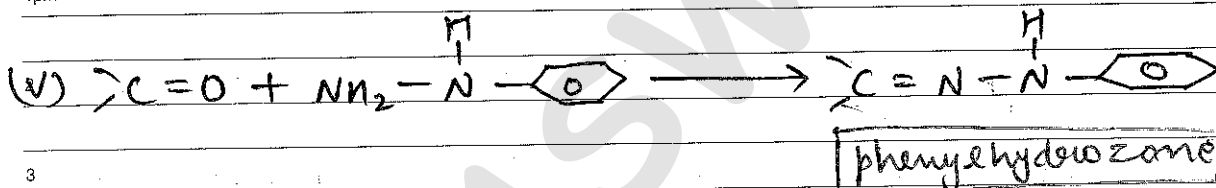
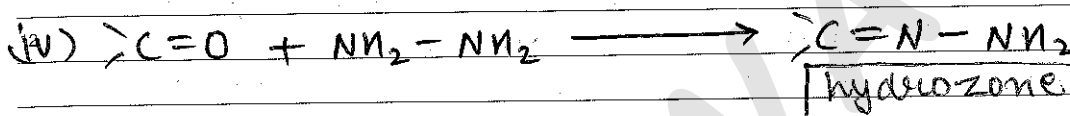
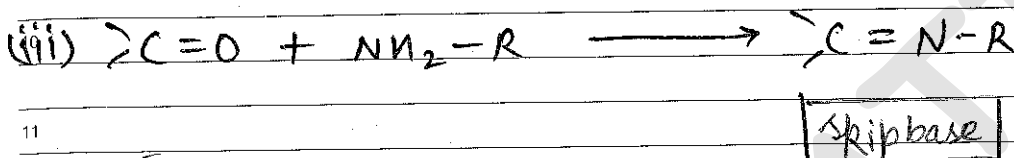
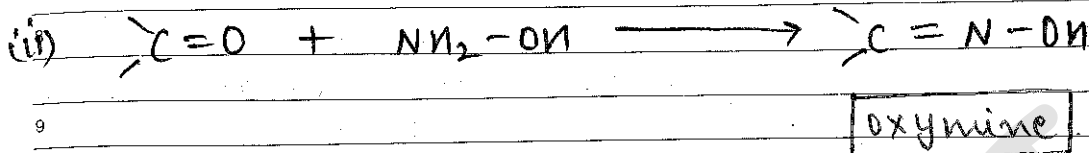
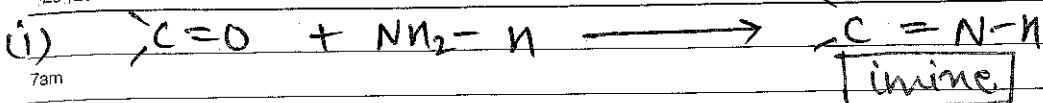
JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

Day (152-213)

01

2017

June • Thursday

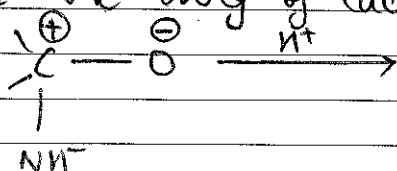


Birthday / Anniversary

Dream as if you live forever. Live as if you'll die today

** Q why is acidic medium created for the previous rxns?

A Because when acidic medium is created, then H^+ induces $C=O$ to break its double bond. Hence creating +ve & -ve charge of each element, that can lead to nucleophilic addition.

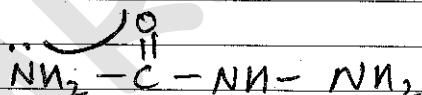
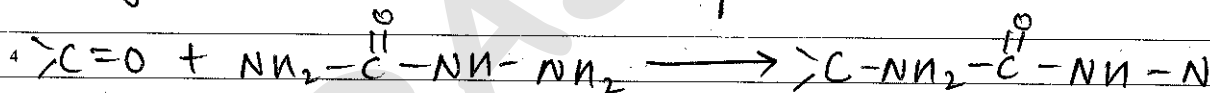


** Q Why is pH not taken below 3 to create acidic medium?

A Because then H^+ will react with the base i.e. NH_2 from NH_2-Z . And the further rxn will not take place.

** Q $C=O + NH_2-C(=O)-NH-NH_2 \longrightarrow C=N-NH-C(=O)-NH_2$

why does this rxn takes place and not :-



A Resonance is created b/w lone pair and double bond so it is highly stabilised so it is attacked from opposite side. as this side would not like to loose its resonance and form a bond.

** 2, 4 DNP Test \rightarrow shown by both aldehyde & ketone
 Birthday Anniversary
 If there is very dark red, yellow or orange colour obtained in test tube, then 2, 4 DNP Test has been cleared \rightarrow Test tube contains aldehyde / ketone
 \rightarrow use of (vi) rxn

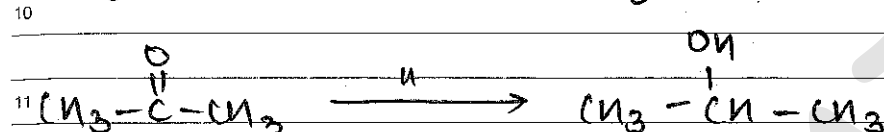
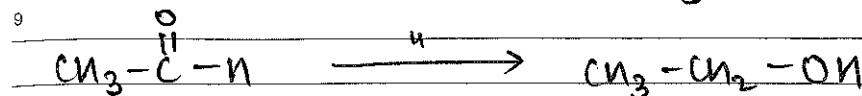
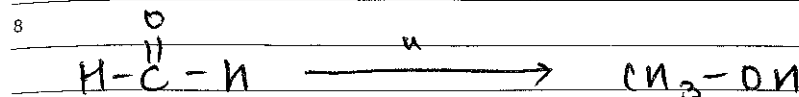
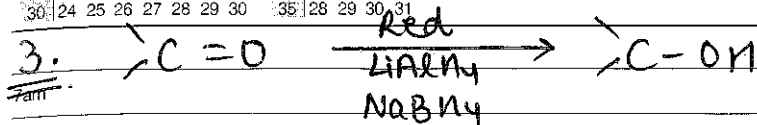
2017 JUL							2017 AUG						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31			1	2		31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

Day (154-211)

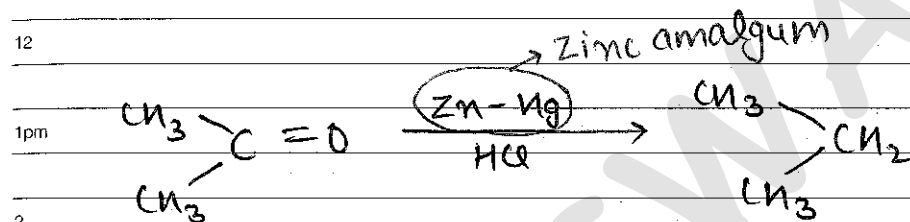
03

2017
WK-22

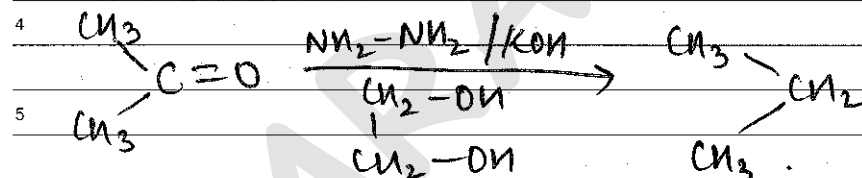
June • Saturday



Partial Reduction



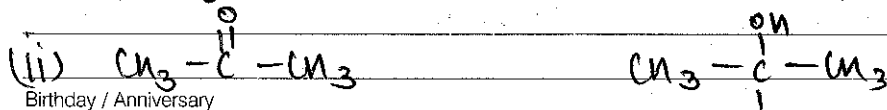
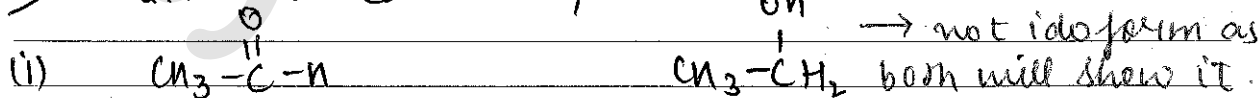
Clemmensen Reduction



Wolff Kishner Reduction

This will show iodoform because it can oxidise to form CH_3CO

A write chemical test b/w



Birthday / Anniversary

A 2, 4 DNP Test (i) aldehyde shows

Count your age with friends but not with years

(ii) ketone shows

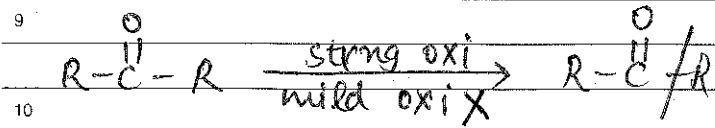
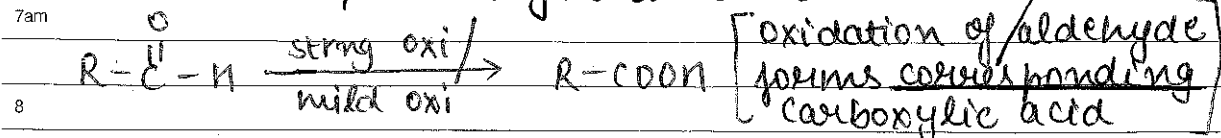
~~alcohol~~



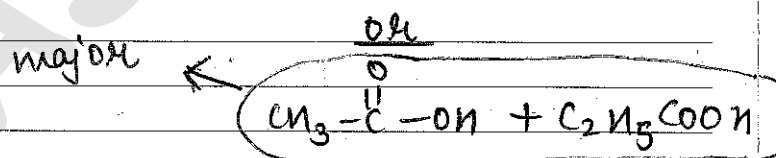
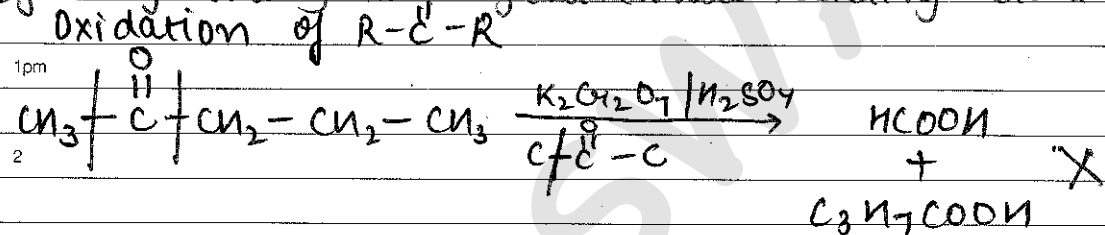
2017
05
Day (156-209)
June • Monday

MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
16	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30	31	

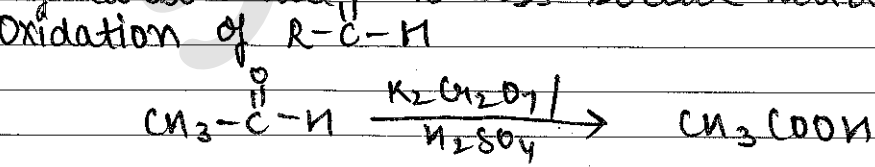
Chemical Test b/w Aldehyde and Ketone:-



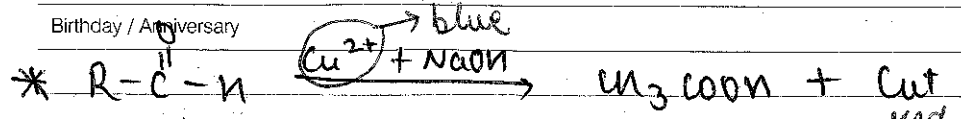
All the rxns that are shown by aldehyde are also shown by ketone, but the oxidation rxn, aldehyde can be oxidised by strong as well as mild oxid. agent but ketone is oxidised by only strong oxid. agent (while reacting ketone breaks)



* Here according to Pop-off rule whenever there is a oxidation of unsym ketone, then the ketone breaks in a way such that functional grp moves along with less no. of carbon due to less steric hindrance.



Birthday / Anniversary



Failure is the tuition you pay for success

Beetle Test

(Test). Shown only by aldehyde & not ketone

JUL 2017							AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31				1	2	31						6
27	3	4	5	6	7	8	1	2	3	4	5	6	7
28	10	11	12	13	14	15	8	9	10	11	12	13	14
29	17	18	19	20	21	22	15	16	17	18	19	20	21
30	24	25	26	27	28	29	22	23	24	25	26	27	28
							29	30	31				

Silver mirror test

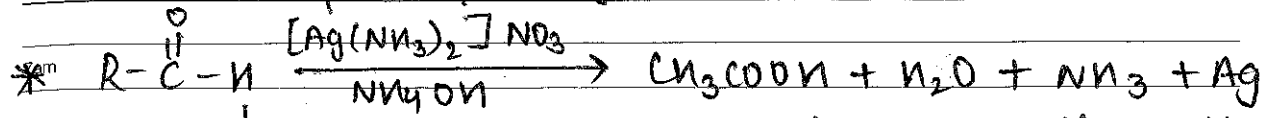
Prepared in situ by adding $\text{AgNO}_3 + \text{NH}_4\text{OH}$ (excess)

06

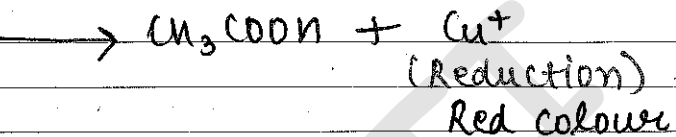
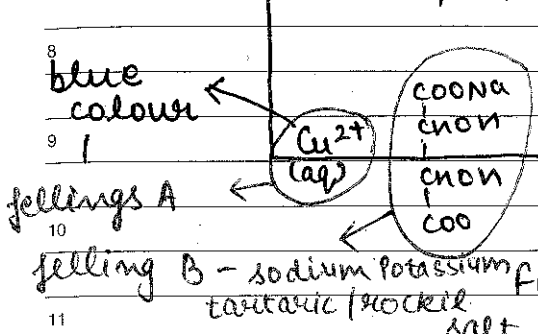
2017
Wk-23

Day (157-208)

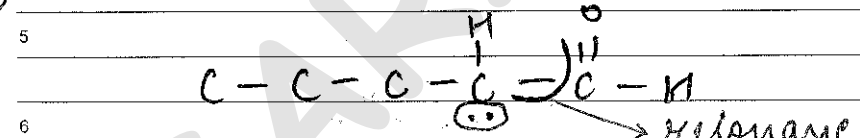
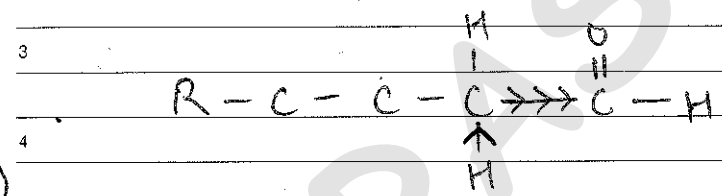
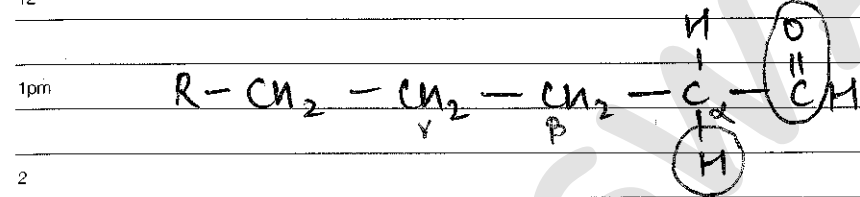
June • Tuesday



Tollene Rxn / Diamine silver nitrate test

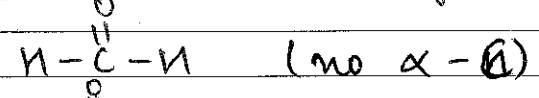


Reduction due to Acidic α -H

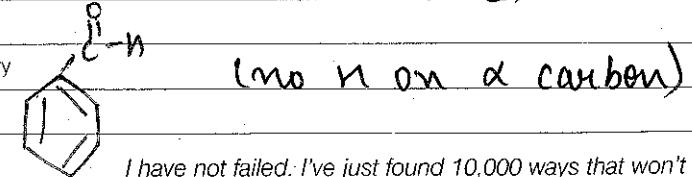


enolate ion (very stable due to resonance)

* This rxn is not shown by :-

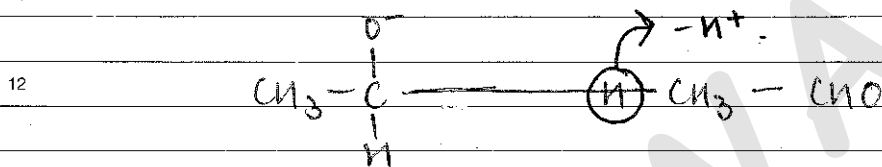
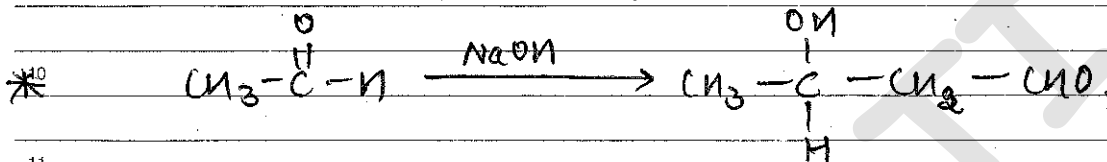
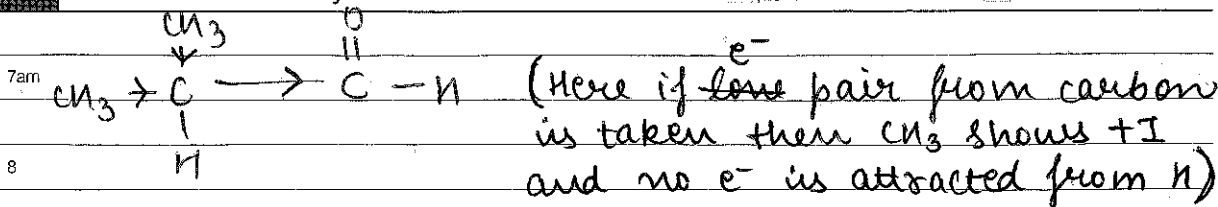


Birthday / Anniversary

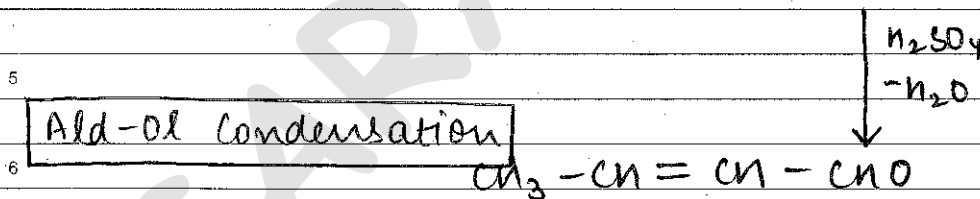
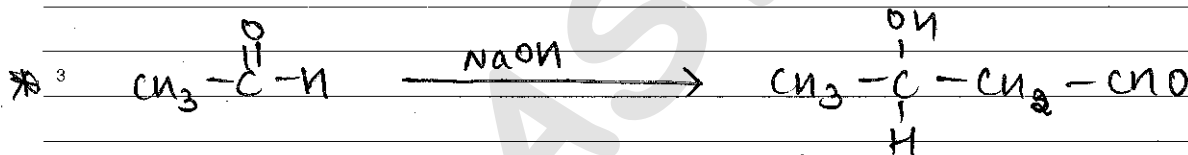


I have not failed. I've just found 10,000 ways that won't work

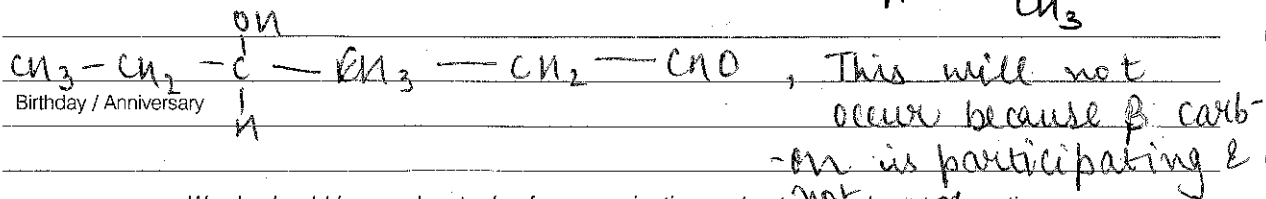
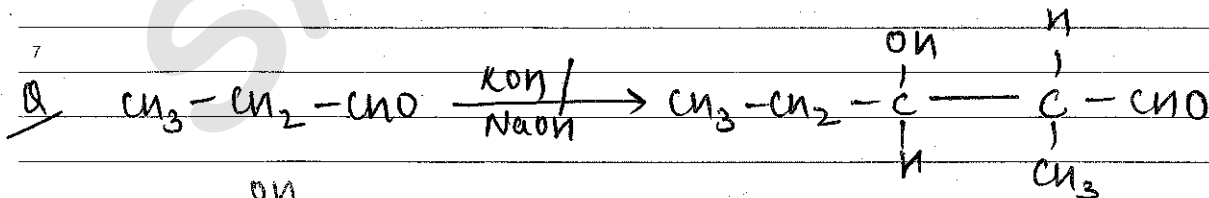
MAY							2017 JUN								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		



Ald-ol Rxn



Ald-ol Condensation



Words should be used as tools of communication and not as a substitute for action

* α -H 1) Acidic \rightarrow Aldol

2) Not Acidic \rightarrow Cannizzaro

JUL 2017

Mo	Tu	We	Th	Fr	Sa	Su
26	31				1	2
27	3	4	5	6	7	8
28	10	11	12	13	14	15
29	17	18	19	20	21	22
30	24	25	26	27	28	29

AUG 2017

Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6
32	7	8	9	10	11	12
33	14	15	16	17	18	19
34	21	22	23	24	25	26
35	28	29	30	31		

Day (159-206)

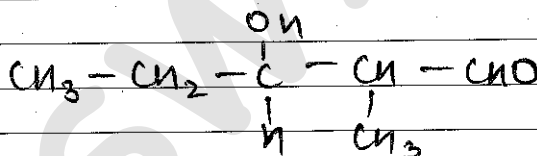
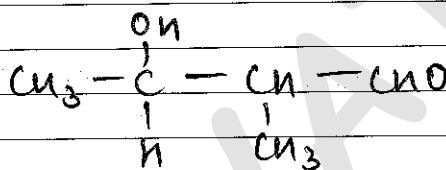
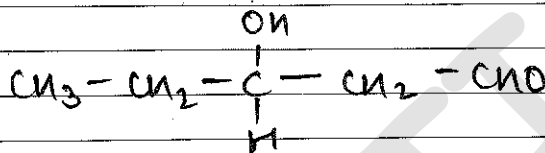
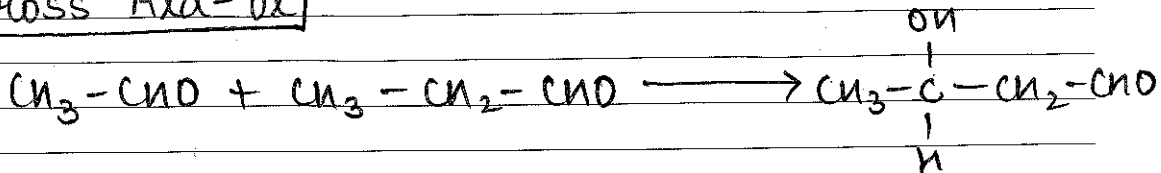
08

2017

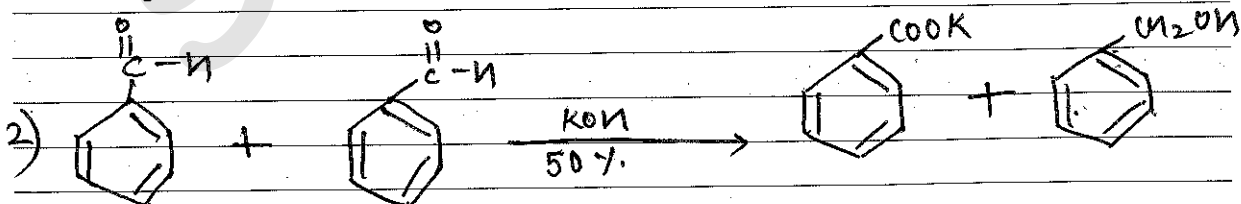
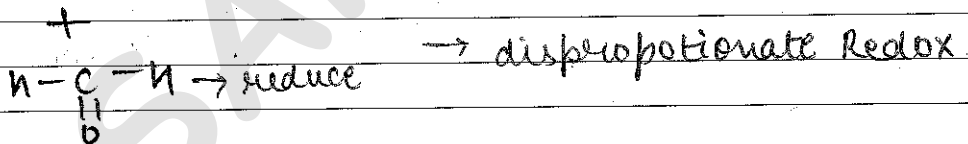
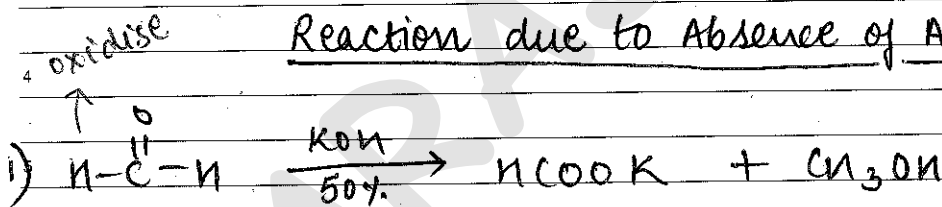
June • Thursday

Wk-23

Cross Ald-ol



Reaction due to Absence of Acidic Hydrogen.

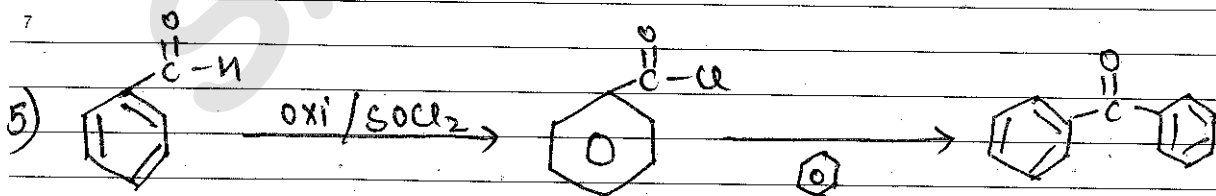
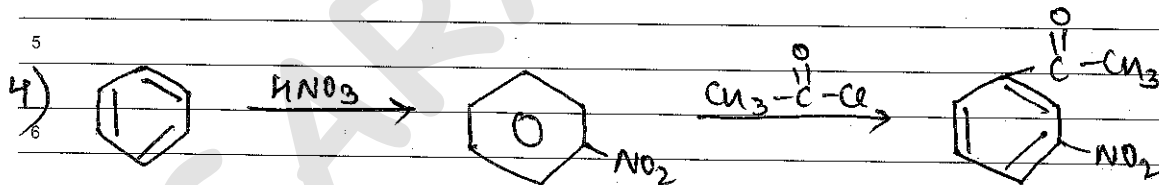
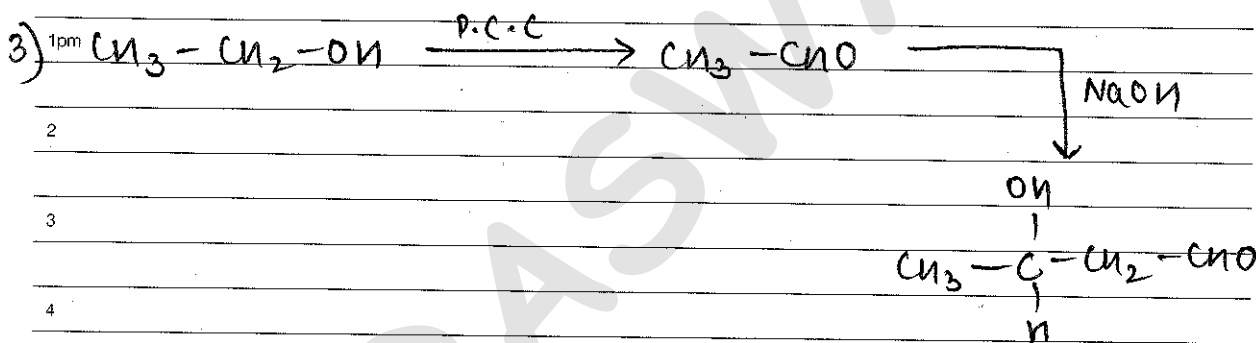
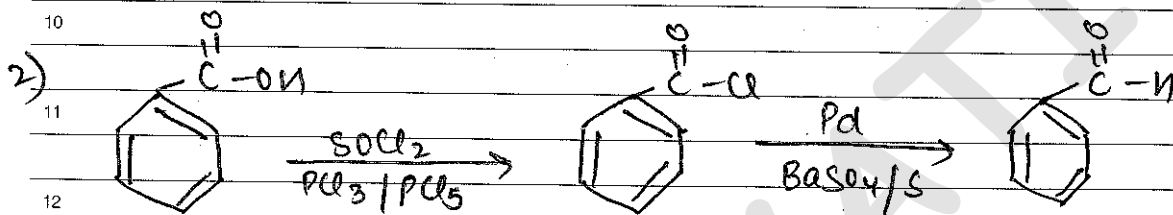
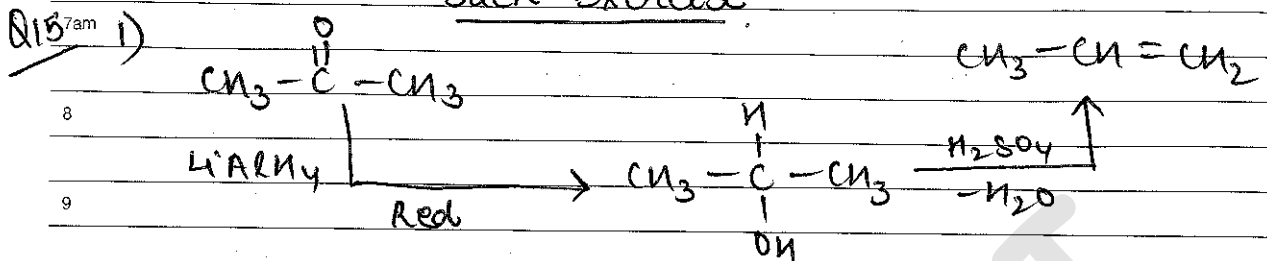


Birthday / Anniversary

Cannizzaro Rxn

Innovation is the ability to see change as opportunity - not a threat

Back Exercise

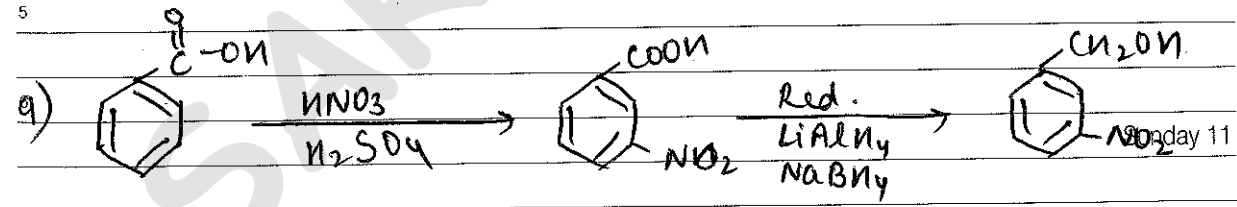
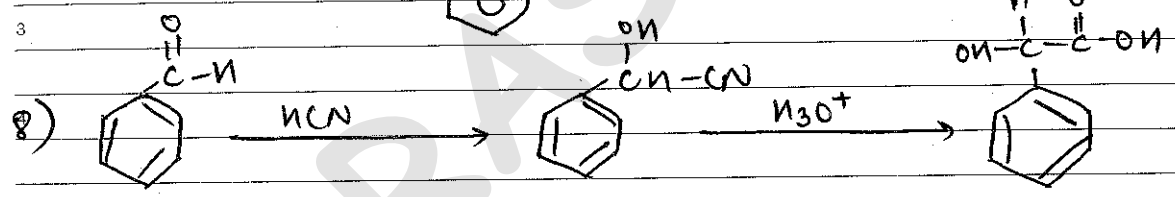
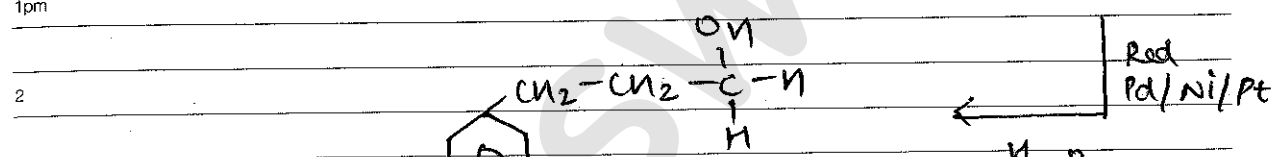
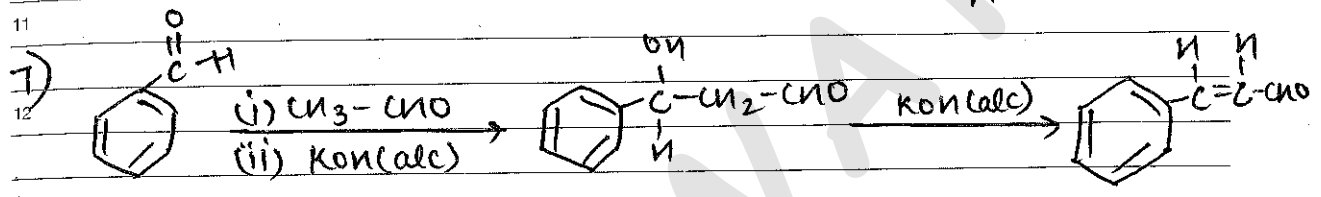
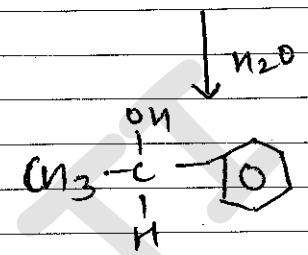
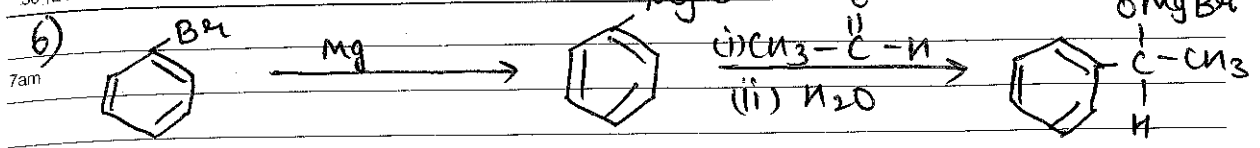


Birthday / Anniversary

Obstacles are things a person see when he takes his eyes off his goal

JUL 2017							AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31			1	2		31	1	2	3	4	5	6
27	3	4	5	6	7	8	32	7	8	9	10	11	12
28	10	11	12	13	14	15	33	14	15	16	17	18	19
29	17	18	19	20	21	22	34	21	22	23	24	25	26
30	24	25	26	27	28	29	35	28	29	30	31		

Day (161-204) **10** 2017
 June • Saturday



Birthday / Anniversary

Success is not final, failure is not fatal; it is the courage to continue that counts

2017
WK-24

12

Day (163-202)

June • Monday

MAY 2017

	Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6	7
19	8	9	10	11	12	13	14
20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
22	29	30	31				

JUN 2017

	Mo	Tu	We	Th	Fr	Sa	Su
23				1	2	3	4
24	5	6	7	8	9	10	11
25	12	13	14	15	16	17	18
26	19	20	21	22	23	24	25
27	26	27	28	29	30		

7am

8

9

10

11

12

1pm

2

3

4

5

6

7

Birthday / Anniversary

A dream with courage is innovation... A dream without courage is delusion

2017 JUL							2017 AUG						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31				1	2	31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

Day (164-201)

13

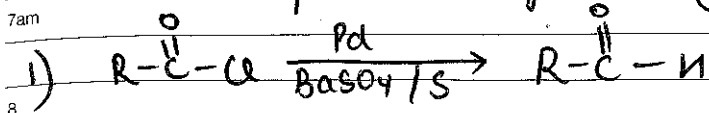
2017

June • Tuesday

WK-24

Preparations of Aldehyde & Ketones.

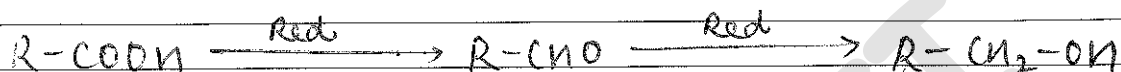
7am



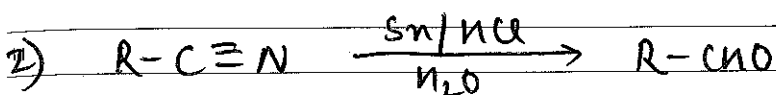
8

Rosenmund Reduction

9



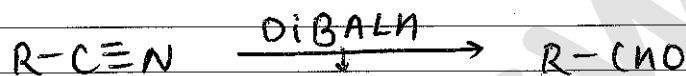
10



12

Stephen reduction

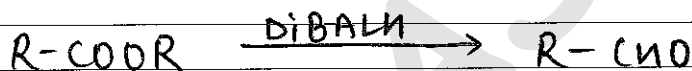
1pm



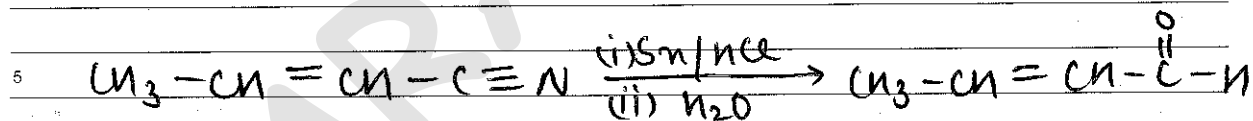
2

Di iso butyl Aluminium hydride

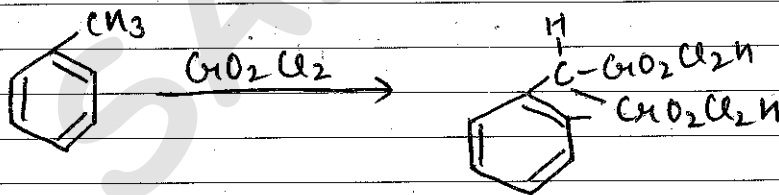
3



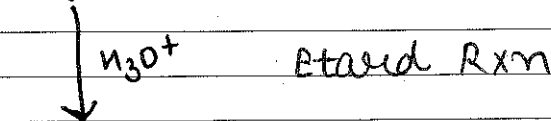
4



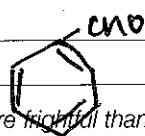
6



7



Birthday / Anniversary



There is nothing more fruitful than ignorance in action

2017

14

Day (165-200)

June • Wednesday

MAY

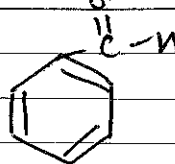
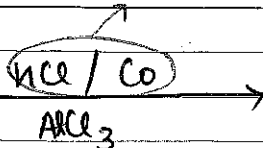
2017

JUN

2017

Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

7am



8

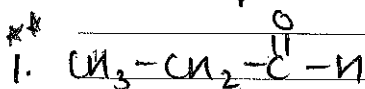
Friedel-Crafts Nitration Rxn

9

Q13

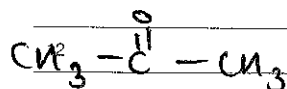
Compound	Test	Observation	Rxn
1. $\text{CH}_3\text{-CH}_2\text{-C(=O)-H}$	Iodoform	X	
$\text{CH}_3\text{-C(=O)-CH}_3$		Yellow ppt.	$\text{CH}_3\text{-C(=O)-CH}_3$
2.	Iodoform	Yellow ppt.	
3.		X	
3.		orange ppt.	+
	azodide	X	

**

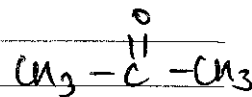


Iodoform

X

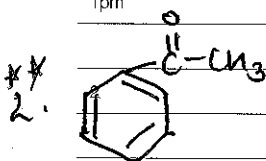


Yellow ppt.



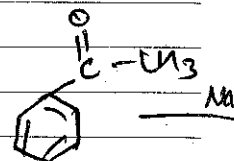
1pm

**

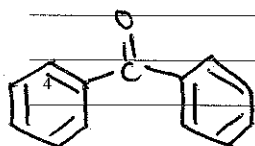


Iodoform

Yellow ppt.

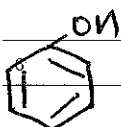


3

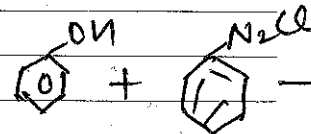


X

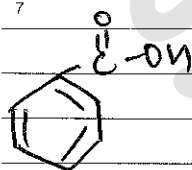
3.



orange ppt.



7



azodide

X

Birthday / Anniversary

If we did all the things we are capable of, we would literally astound ourselves

JUL 2017							AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31				1	2	31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

15

2017

Day (166-199)

June • Thursday

Wk: 24

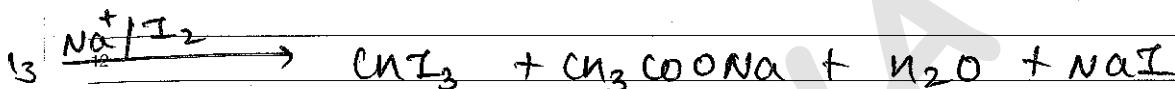
7am

8

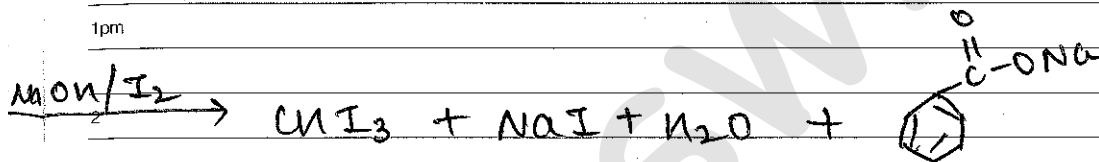
9

10

11



1pm



3

4

5



7

Birthday / Anniversary

To achieve great things we have first to believe it

2017

16

Day (167-198)

Wk-24

June • Friday

MAY

2017

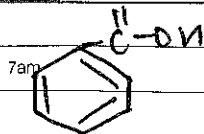
JUN

2017

	Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6	7
19	8	9	10	11	12	13	14
20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
22	29	30	31				

	Mo	Tu	We	Th	Fr	Sa	Su
22				1	2	3	4
23	5	6	7	8	9	10	11
24	12	13	14	15	16	17	18
25	19	20	21	22	23	24	25
26	26	27	28	29	30		

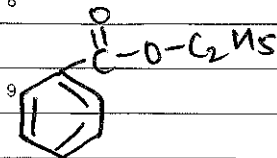
4.



brisk effervescence
 & turns lime
 water milky.

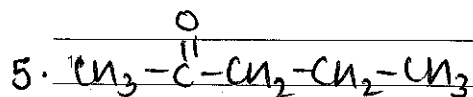
NaCO₃ test.

8



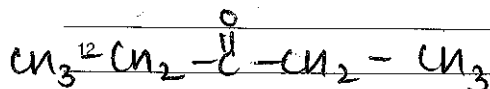
X

10



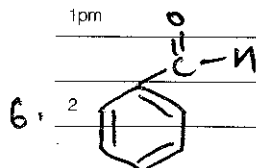
Yellow ppt.

Iodoform



X

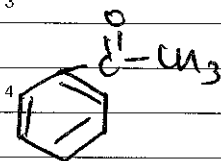
1pm



X

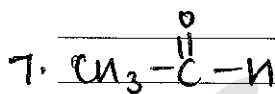
Iodoform

3



Yellow ppt.

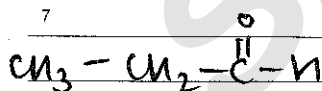
5



Yellow ppt.

Iodoform

7



X

Birthday / Anniversary

Possibilities arise when you open new doors. Have a vision and conviction to make it happen

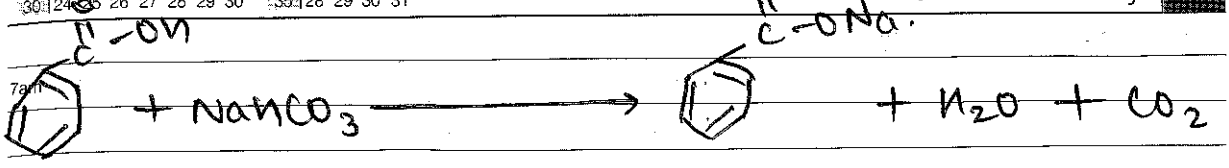
JUL 2017							AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31			1	2		31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

17

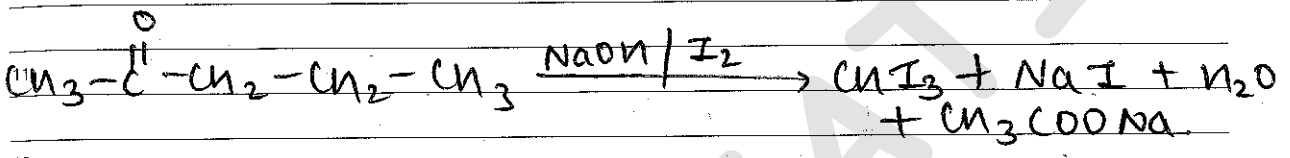
2017
WK 24

Day (168-197)

June • Saturday

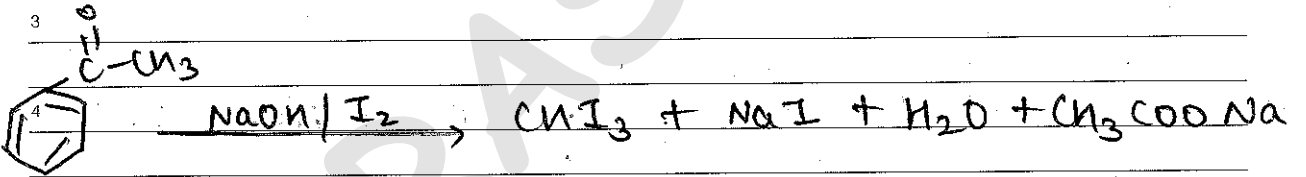


8
9
10

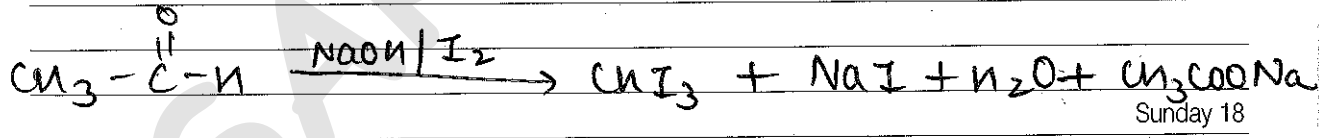


12
1pm

2
3



5



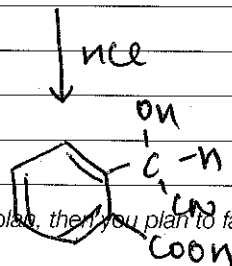
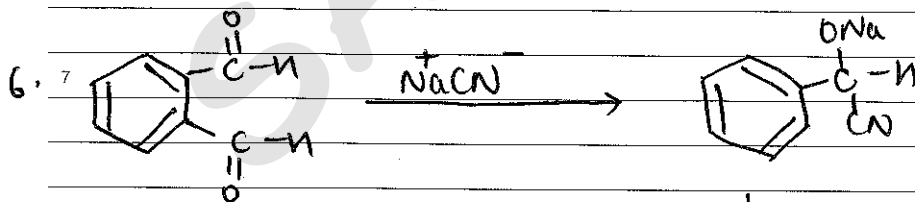
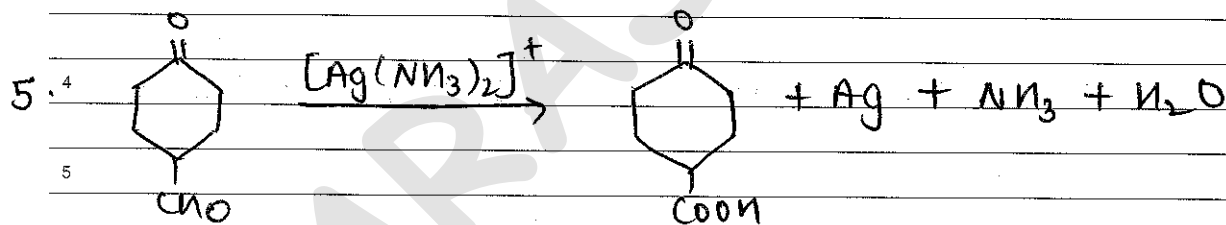
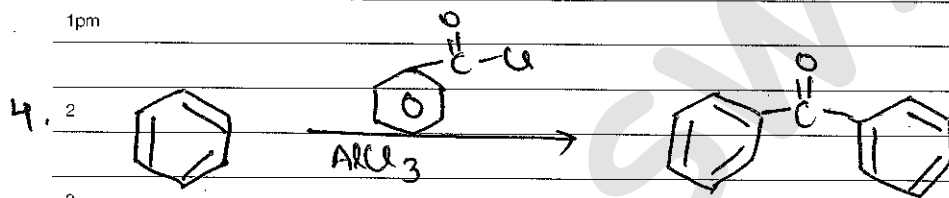
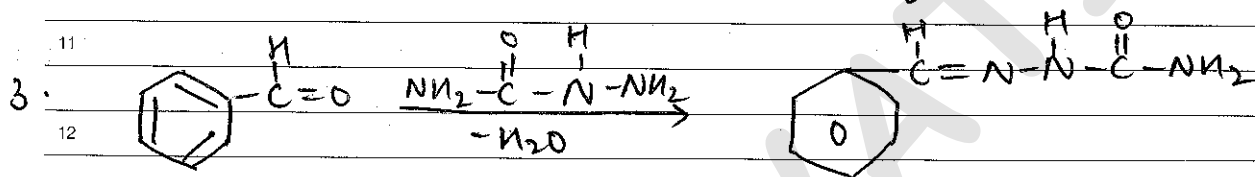
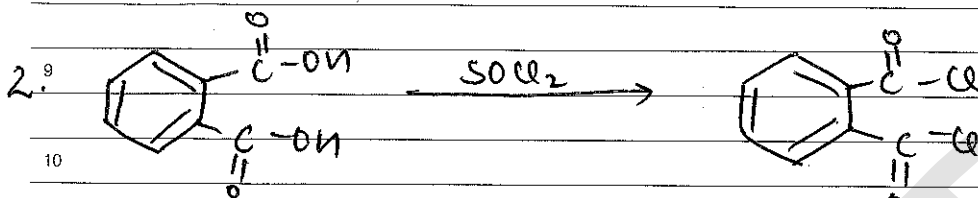
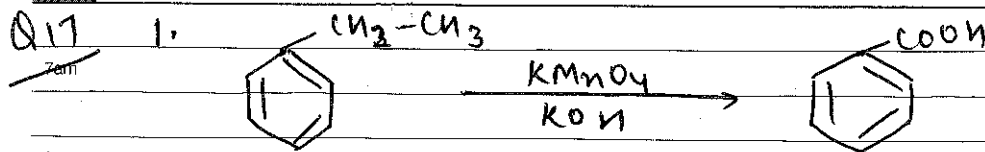
Sunday 18

Birthday / Anniversary

A quitter never wins and a winner never quits

Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6
19	8	9	10	11	12	13
20	15	16	17	18	19	20
21	22	23	24	25	26	27
22	29	30	31			

Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4
23	5	6	7	8	9	10
24	12	13	14	15	16	17
25	19	20	21	22	23	24
26	26	27	28	29	30	

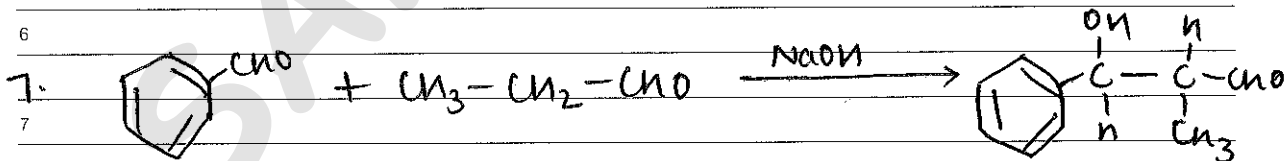
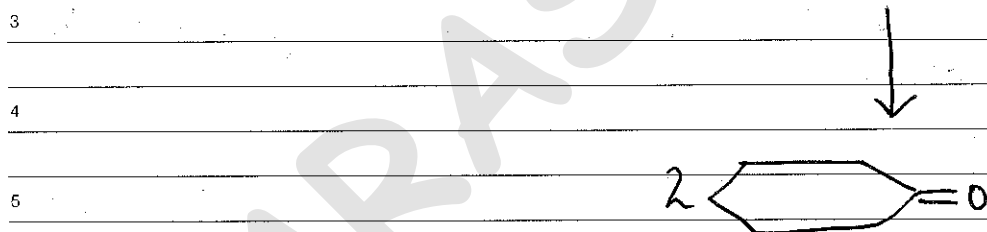
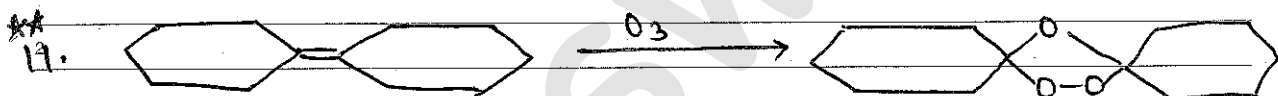
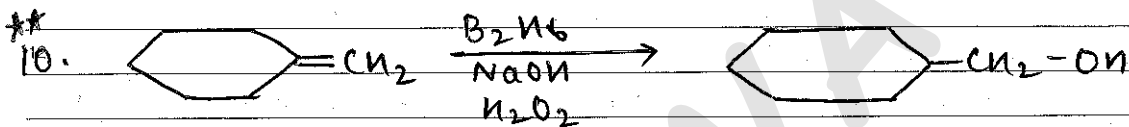
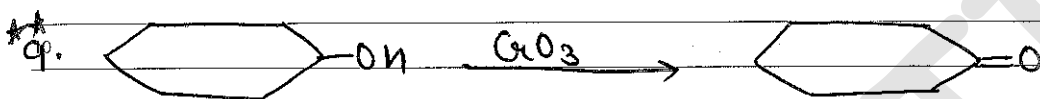
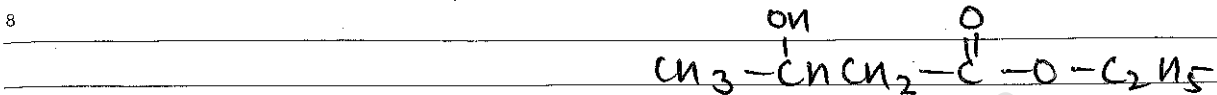
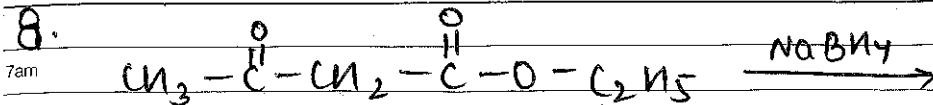


Birthday / Anniversary

Plan to succeed. If you fail to plan, then you plan to fail

JUL 2017							AUG 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
26	31				1	2	31	1	2	3	4	5	6		
27	3	4	5	6	7	8	9	32	7	8	9	10	11	12	13
28	10	11	12	13	14	15	16	33	14	15	16	17	18	19	20
29	17	18	19	20	21	22	23	34	21	22	23	24	25	26	27
30	24	25	26	27	28	29	30	35	28	29	30	31			

Day (171-194) **20** 2017
 June • Tuesday Wk-25

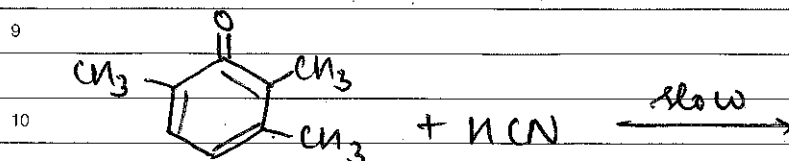
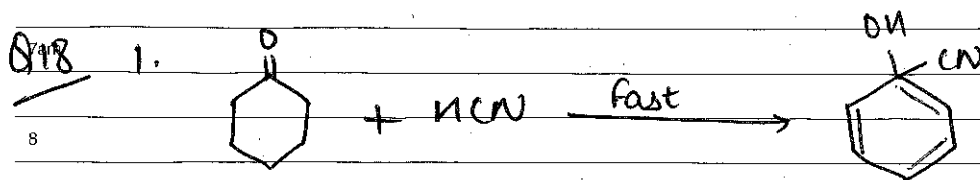


Birthday / Anniversary

To conquer the world is not difficult, if you conquer yourself

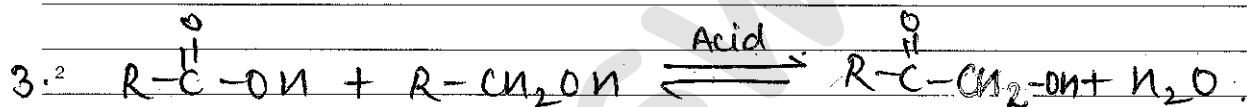
	Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6	7
19	8	9	10	11	12	13	14
20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
22	29	30	31				

	Mo	Tu	We	Th	Fr	Sa	Su
22				1	2	3	4
23	5	6	7	8	9	10	11
24	12	13	14	15	16	17	18
25	19	20	21	22	23	24	25
26	26	27	28	29	30		



¹¹ Because this is a nucleophilic substitution rxn and there is a large amount of steric hindrance ¹²so the second rxn is slow, while there is no steric hindrance in first so rxn occurs fast.

1pm



³ Water is removed so that rxn may move in forward dirxn.

5

6

7

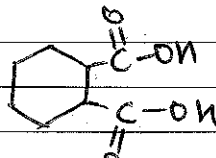
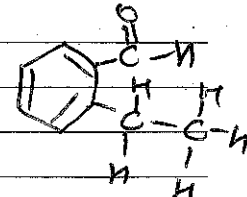
Birthday / Anniversary

A man must be big enough to admit mistakes, smart enough to correct and profit from them

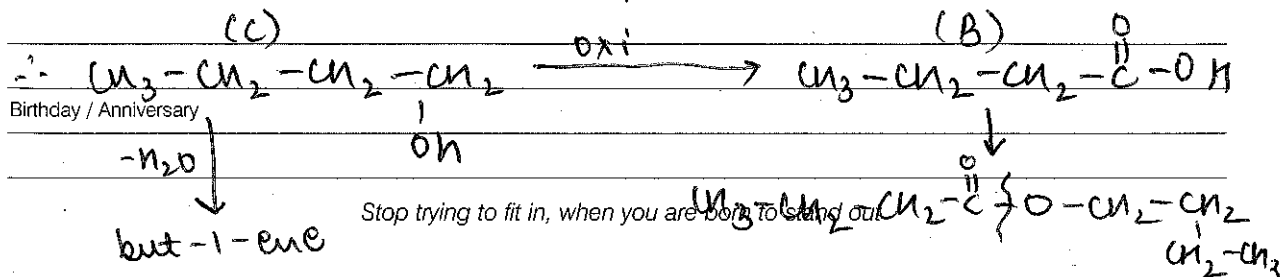
JUL 2017							AUG 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
26	31				1	2	31		1	2	3	4	5	6	
27	3	4	5	6	7	8	9	32	7	8	9	10	11	12	13
28	10	11	12	13	14	15	16	33	14	15	16	17	18	19	20
29	17	18	19	20	21	22	23	34	21	22	23	24	25	26	27
30	24	25	26	27	28	29	30	35	28	29	30	31			

10 Years - Book

7am

	Statement	Inference
8	Q97	
9	1. forms 2,4-DNP derivative	Compound is aldehyde or ketone
10	2. reduces Tollen's reagent	Compound is aldehyde.
11	3. undergoes Cannizzaro's rxn.	There is no acidic α -H.
12	4. on oxi. gives 	Compound is 
1pm		
2		

	Statement	Inference
4	1. On hydrolysis gives carboxylic acid and alcohol	Compound is ester.
5	2. oxidation of alcohol gives carboxylic acid.	carboxylic acid and alcohol have same no. of carbon.
6	3. C is produced by dehydra. of but-1-ene	compound contains 4 carbon.



MAY 2017							JUN 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4	
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25
22	29	30	31					26	26	27	28	29	30		

Q98

7am

1. Orange-red ppt
with 2,4-DNP Test

Compound is either
aldehyde or ketone.

2. Gives Iodoform Test

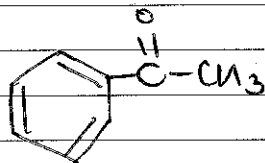
Contains $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-$

3. neither reduces Tollen's
nor Fehling's reagent.

it is a ketone and
not aldehyde.

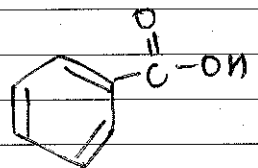
4. doesn't decolourise
bromine water

it is not a unsatura-
ted carbon chain but
a benzene comp.

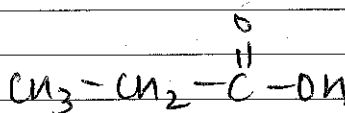
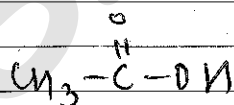
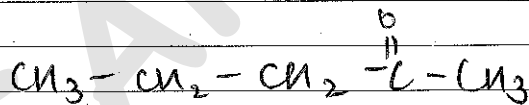


oxi

→



Q101



Birthday / Anniversary

Teamwork is the ability to work together. When we all work together, we all win together

JUL 2017							AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31			1	2		31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

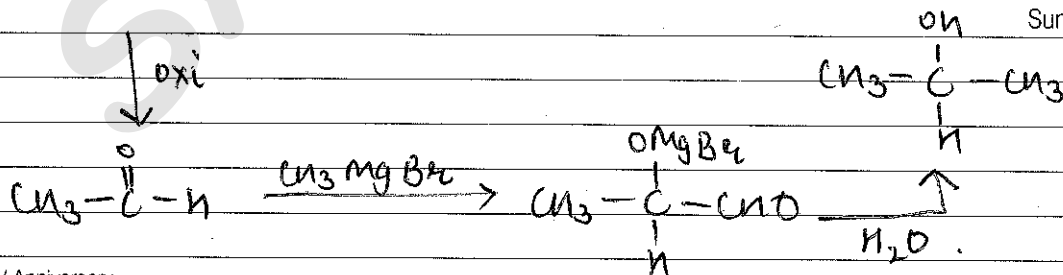
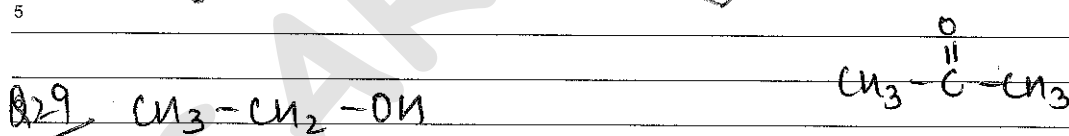
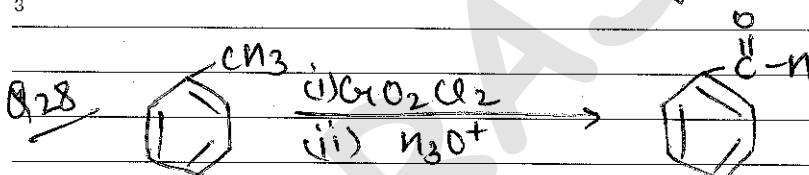
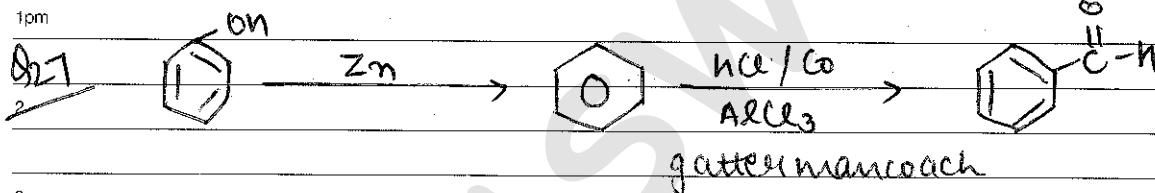
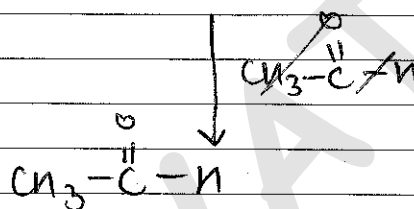
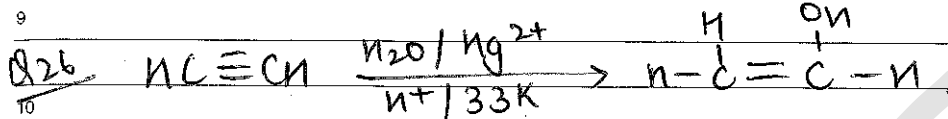
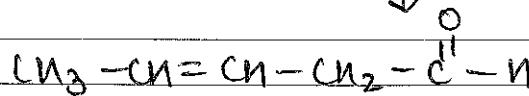
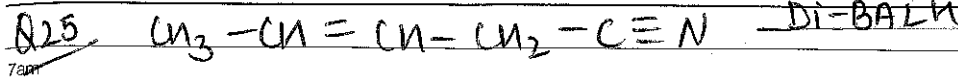
Day (175-190)

24

2017

June • Saturday

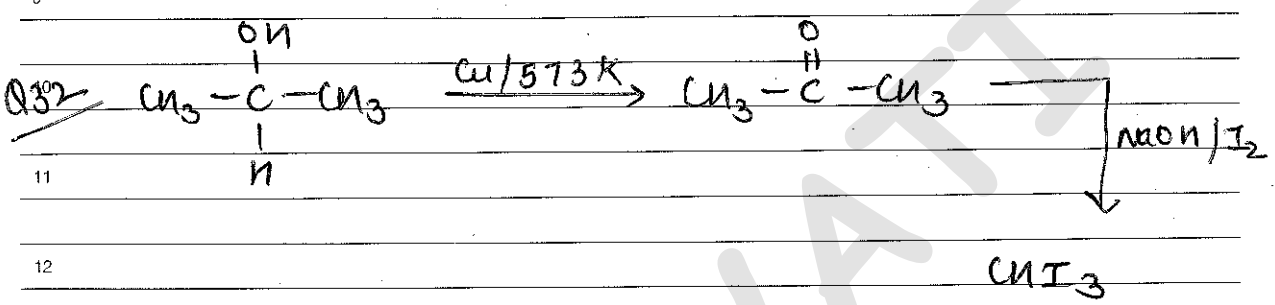
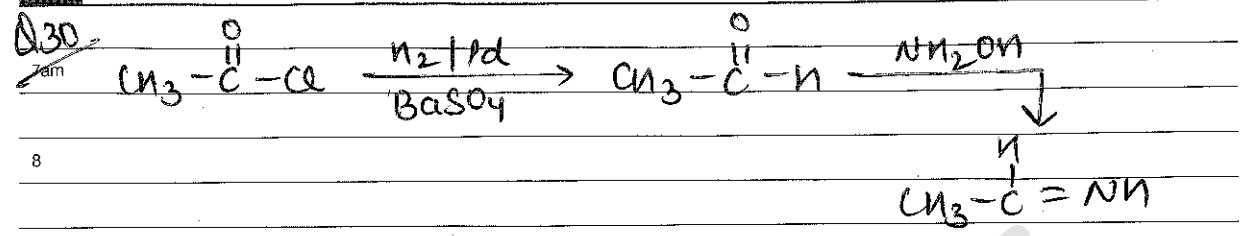
Wk-23



Sunday 25

Birthday / Anniversary

Teamwork is less me and more we. Teamwork divides the task and doubles the success



1pm	statement	Inference.
1.	B does not reduce fehling sol ⁿ .	compound is not aldehyde but ketone
2.	B gives iodoform test.	compound is ketone
3.	A on treatment with ΔCu give B → ketone	A is secondary alcohol.
4.	C is yellow ppt. of iodoform rxn	CHI ₃ .
7		
	Birthday / Anniversary	

When there is teamwork and collaboration, wonderful things can be achieved

JUL 2017							AUG 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
26	31				1	2	31	1	2	3	4	5	6		
27	3	4	5	6	7	8	9	32	7	8	9	10	11	12	13
28	10	11	12	13	14	15	16	33	14	15	16	17	18	19	20
29	17	18	19	20	21	22	23	34	21	22	23	24	25	26	27
30	24	25	26	27	28	29	30	35	28	29	30	31			

Day (178-187)

27

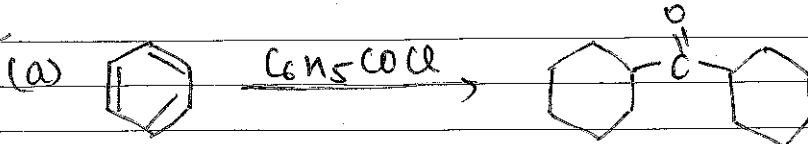
2017

June • Tuesday

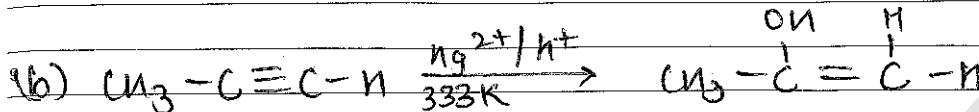
Wk 26

Q33

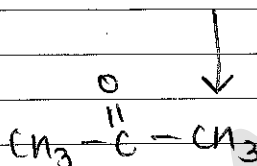
7am



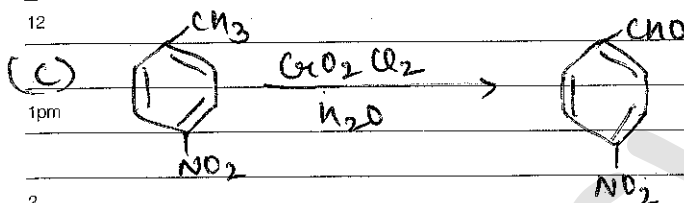
8



10



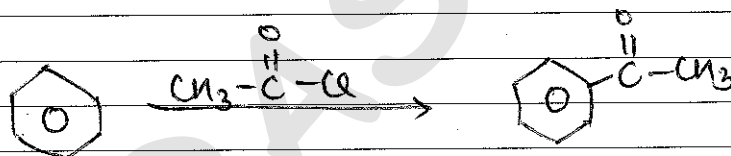
11



2

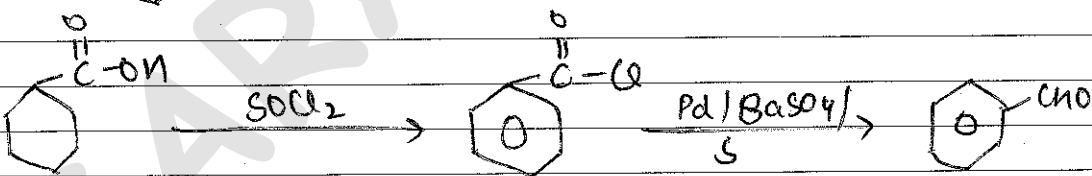
Q34

2)



4

3)



6

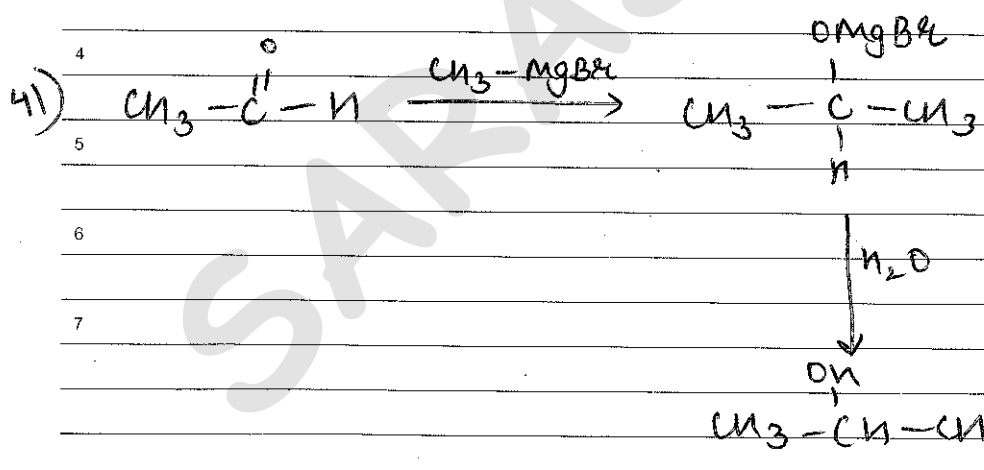
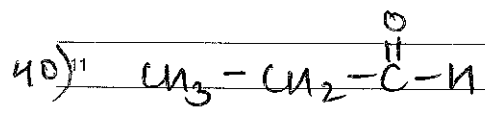
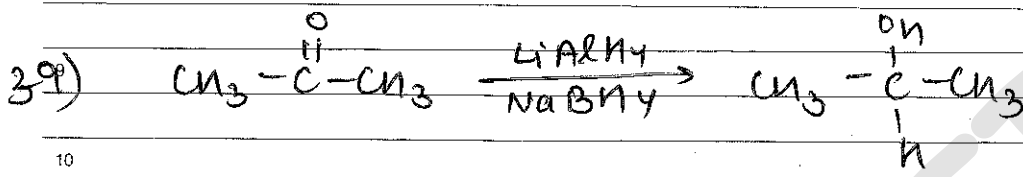
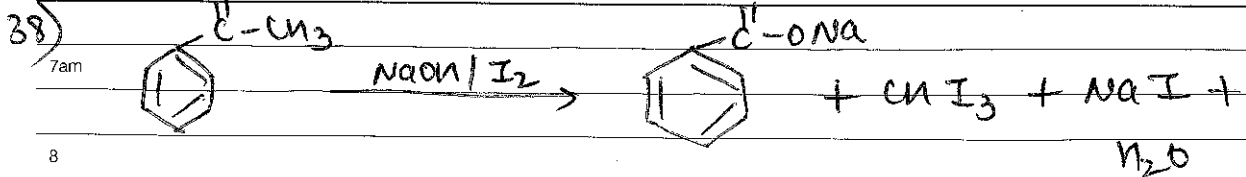
7

36) R

Birthday / Anniversary

The starting point of all achievement is desire

MAY							2017 JUN							2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
18	1	2	3	4	5	6	7	22			1	2	3	4								
19	8	9	10	11	12	13	14	23	5	6	7	8	9	10	11							
20	15	16	17	18	19	20	21	24	12	13	14	15	16	17	18							
21	22	23	24	25	26	27	28	25	19	20	21	22	23	24	25							
22	29	30	31					26	26	27	28	29	30									



Birthday / Anniversary

The key to success is to learn to do something right, then do it right every time

JUL							AUG						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
26	31			1	2		31	1	2	3	4	5	6
27	3	4	5	6	7	8	7	8	9	10	11	12	13
28	10	11	12	13	14	15	14	15	16	17	18	19	20
29	17	18	19	20	21	22	21	22	23	24	25	26	27
30	24	25	26	27	28	29	28	29	30	31			

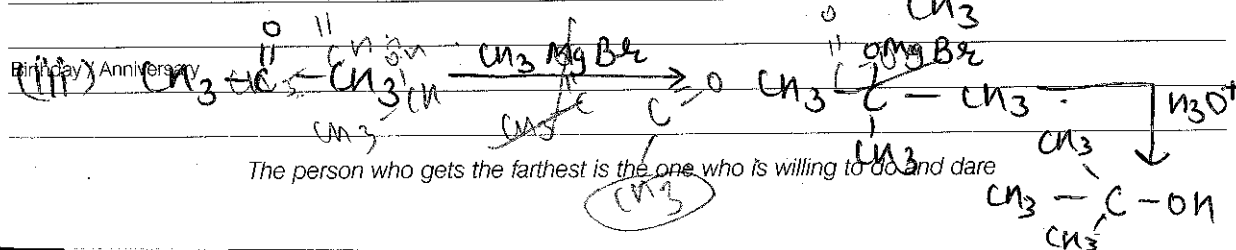
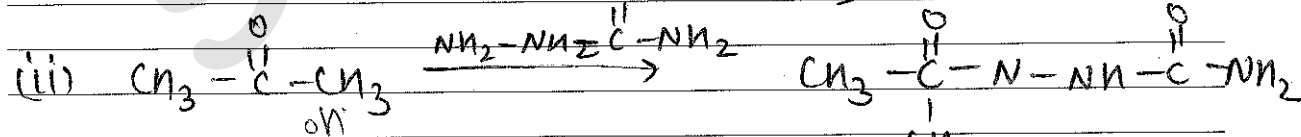
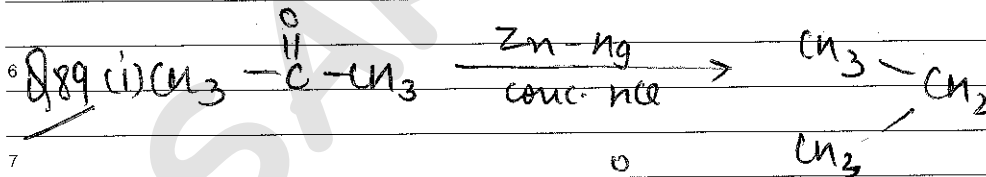
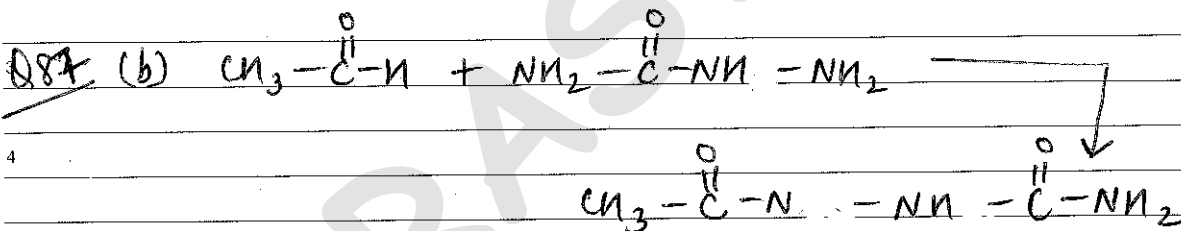
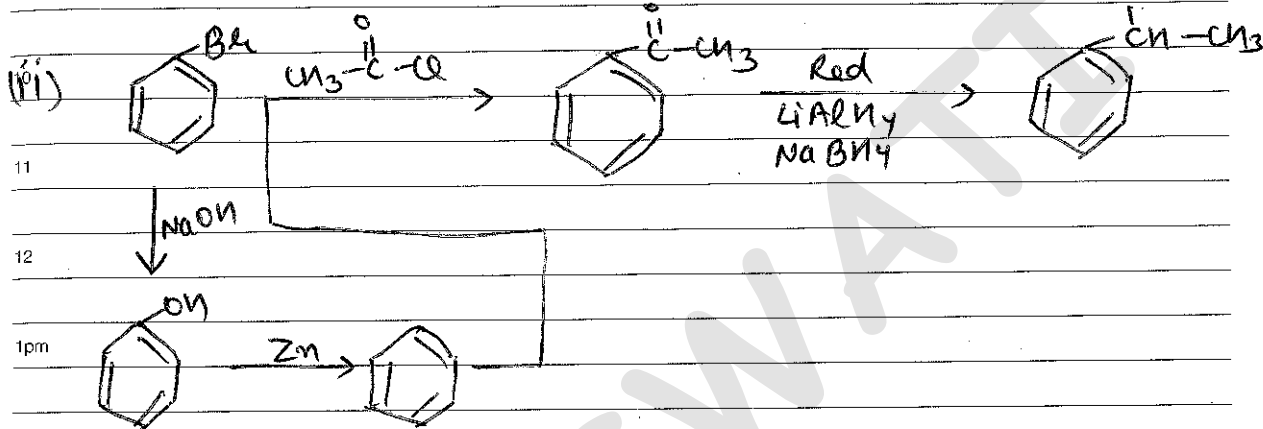
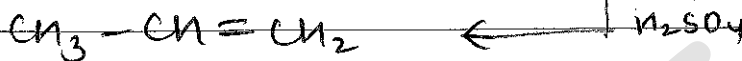
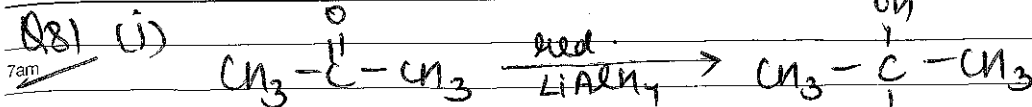
Day (180-185)

29

2017

June • Thursday

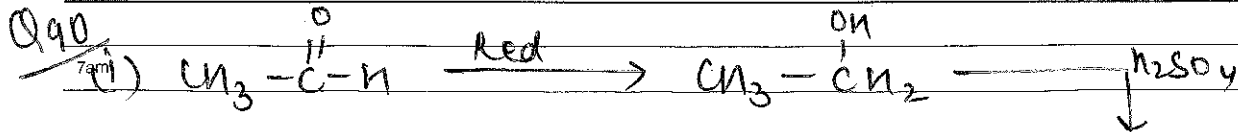
Wk-26



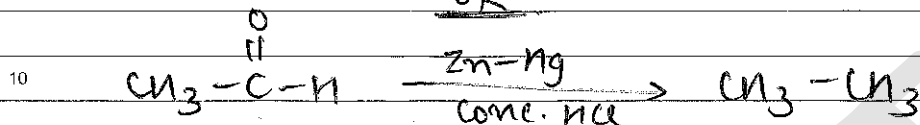
The person who gets the farthest is the one who is willing to do and dare

Mo	Tu	We	Th	Fr	Sa	Su
18	1	2	3	4	5	6
19	8	9	10	11	12	13
20	15	16	17	18	19	20
21	22	23	24	25	26	27
22	29	30	31			

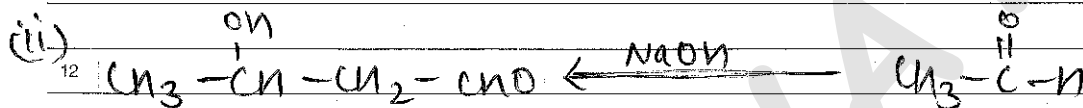
Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4
23	5	6	7	8	9	10
24	12	13	14	15	16	17
25	19	20	21	22	23	24
26	26	27	28	29	30	



9

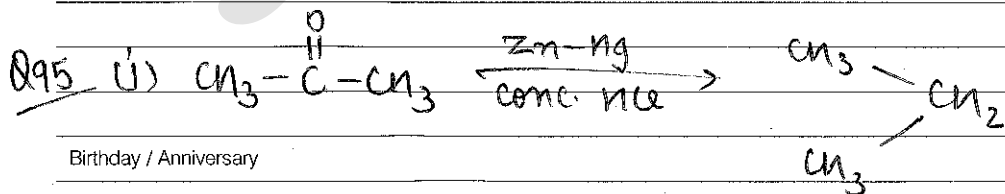
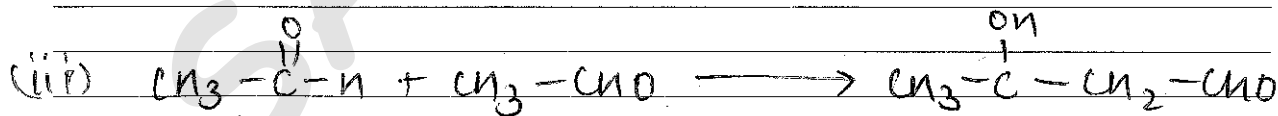
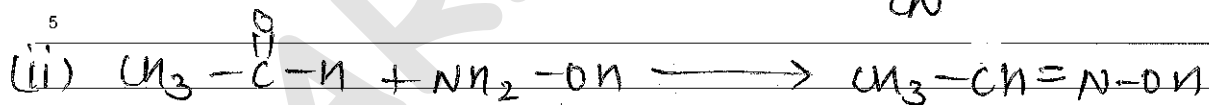
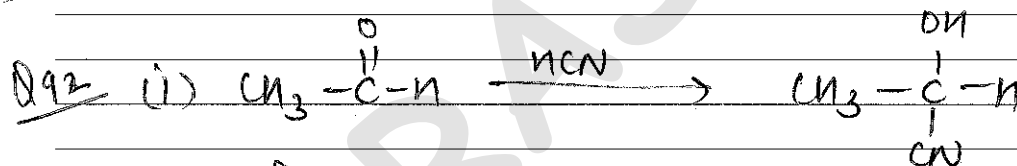
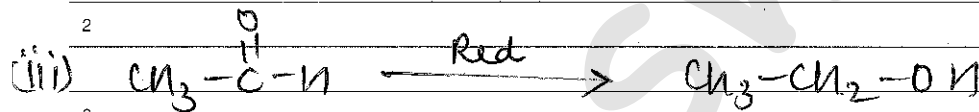


11



1pm

Ald-ol



Birthday / Anniversary

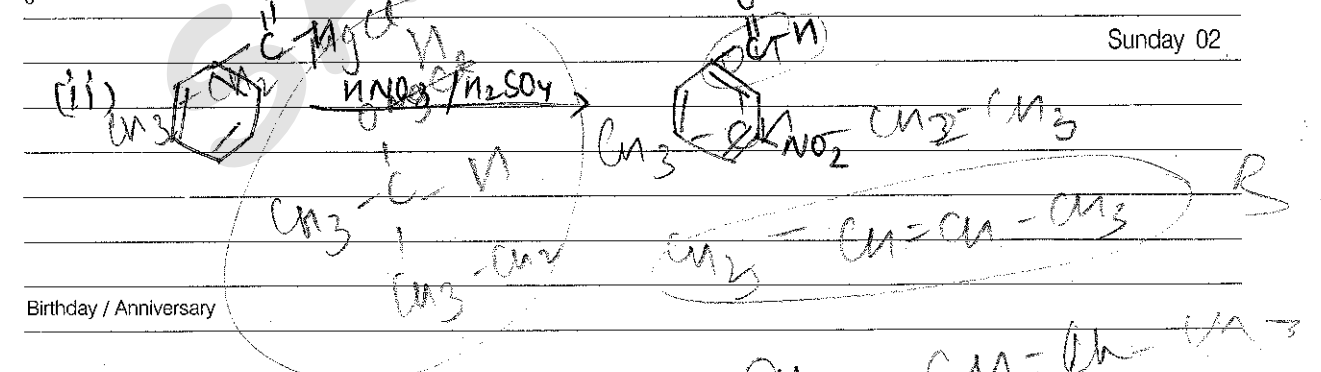
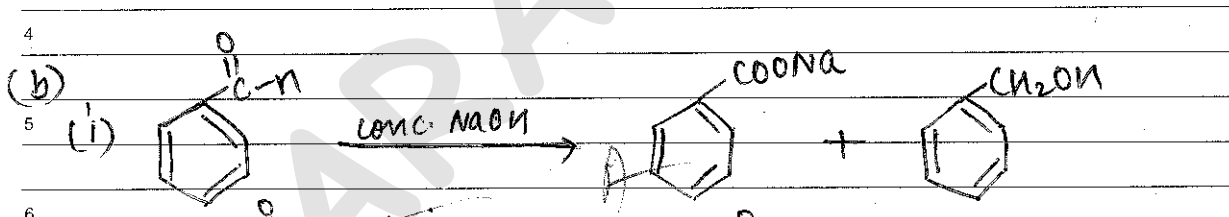
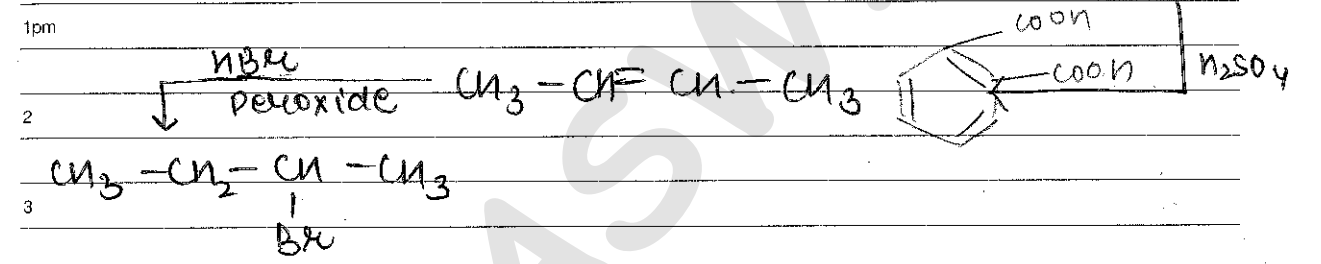
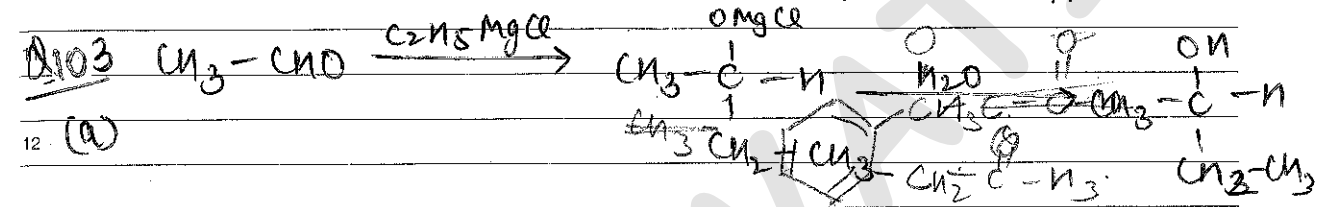
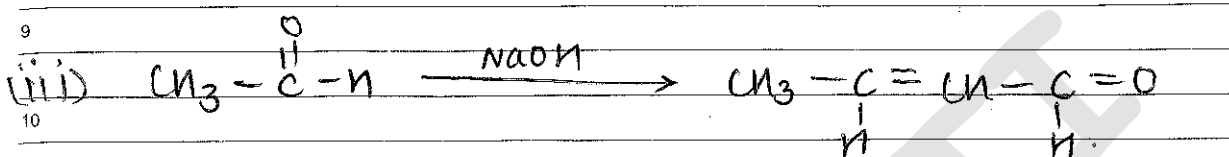
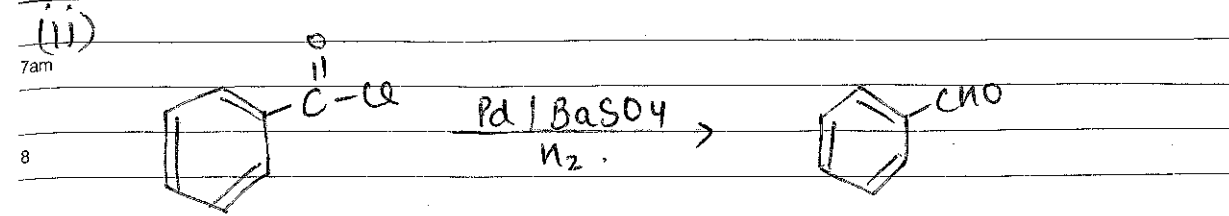
You must be the change you want to see in the world

JUL 2017							AUG 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
26	31				1	2	31	1	2	3	4	5	6		
27	3	4	5	6	7	8	9	32	7	8	9	10	11	12	13
28	10	11	12	13	14	15	16	33	14	15	16	17	18	19	20
29	17	18	19	20	21	22	23	34	21	22	23	24	25	26	27
30	24	25	26	27	28	29	30	35	28	29	30	31			

OH
|
C₆H₅ → NaOH →

09
2017
Day (182-183)
July • Saturday
WK-26

JUL



Birthday / Anniversary

Remove all negative thinking that hinder your way to success. Optimism changes everything

BH



JUN 2017							JUL 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
22			1	2	3	4	26	31					1	2	
23	5	6	7	8	9	10	11	27	3	4	5	6	7	8	9
24	12	13	14	15	16	17	18	28	10	11	12	13	14	15	16
25	19	20	21	22	23	24	25	29	17	18	19	20	21	22	23
26	27	28	29	30			30	24	25	26	27	28	29	30	

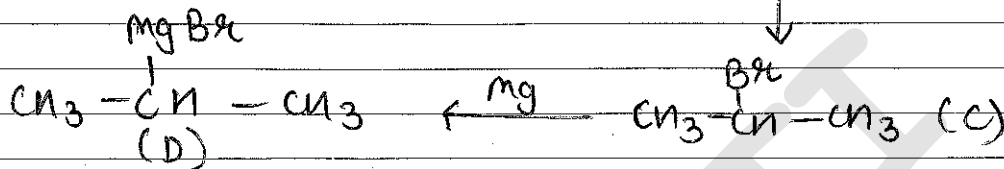
Q107
7am



8

9

10

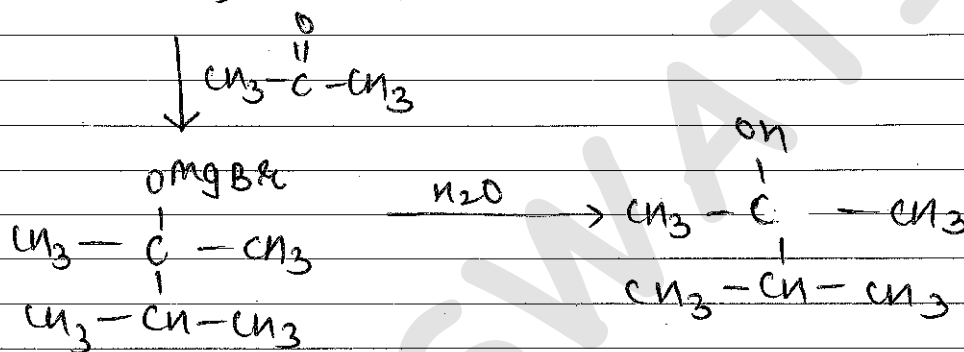


11

12

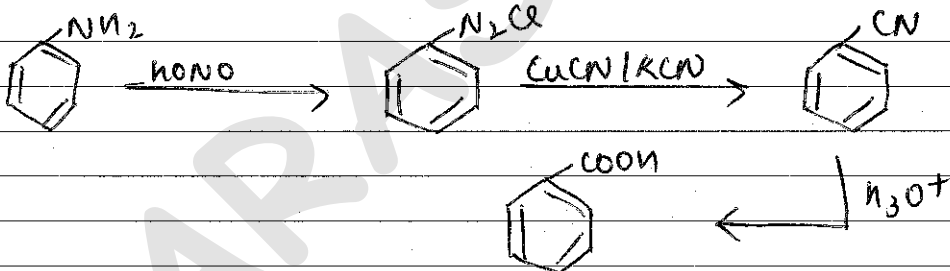
1pm

2



3

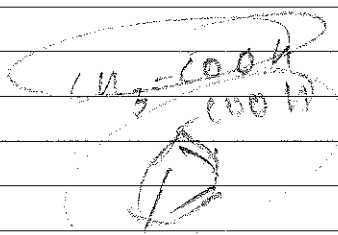
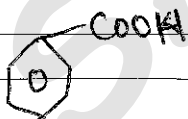
Q114
4



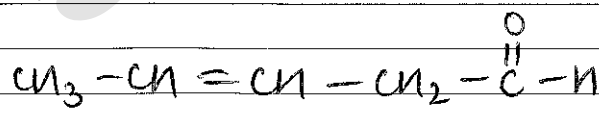
5

6

Q115



Q120



Birthday / Anniversary

The only way to find the limits of the possible is by going beyond them to the impossible

CH_3-CH_2-CN

AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

CH_3-CH_2-COOH

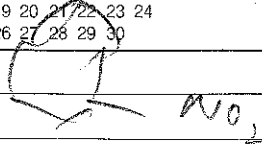
04

2017
WK-27

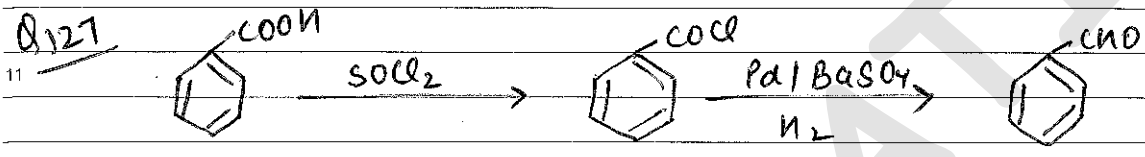
Day (185-180)

July • Tuesday

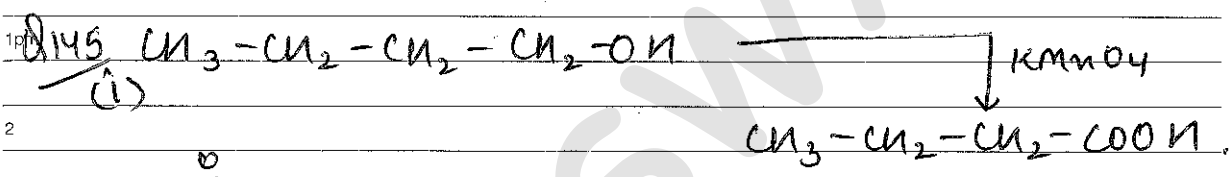
Q130
7am



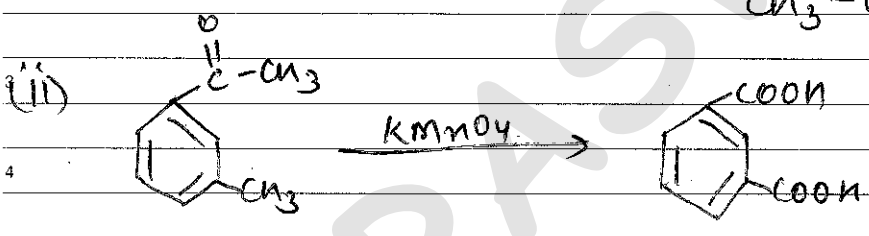
8
9
10



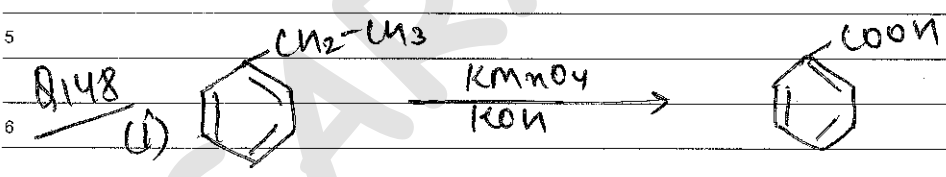
12



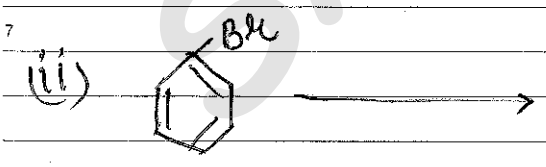
2



4



6



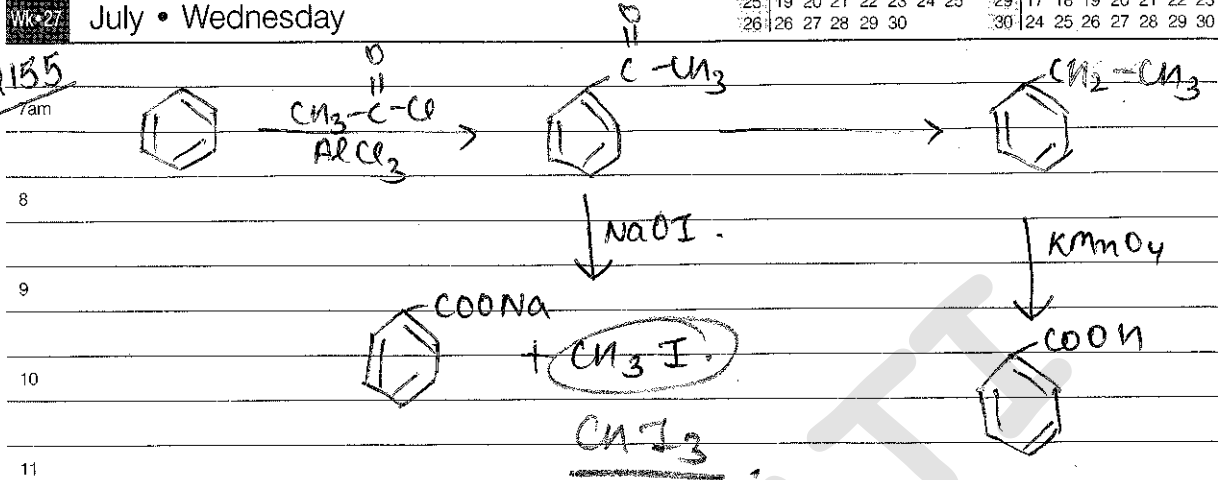
7

Birthday / Anniversary

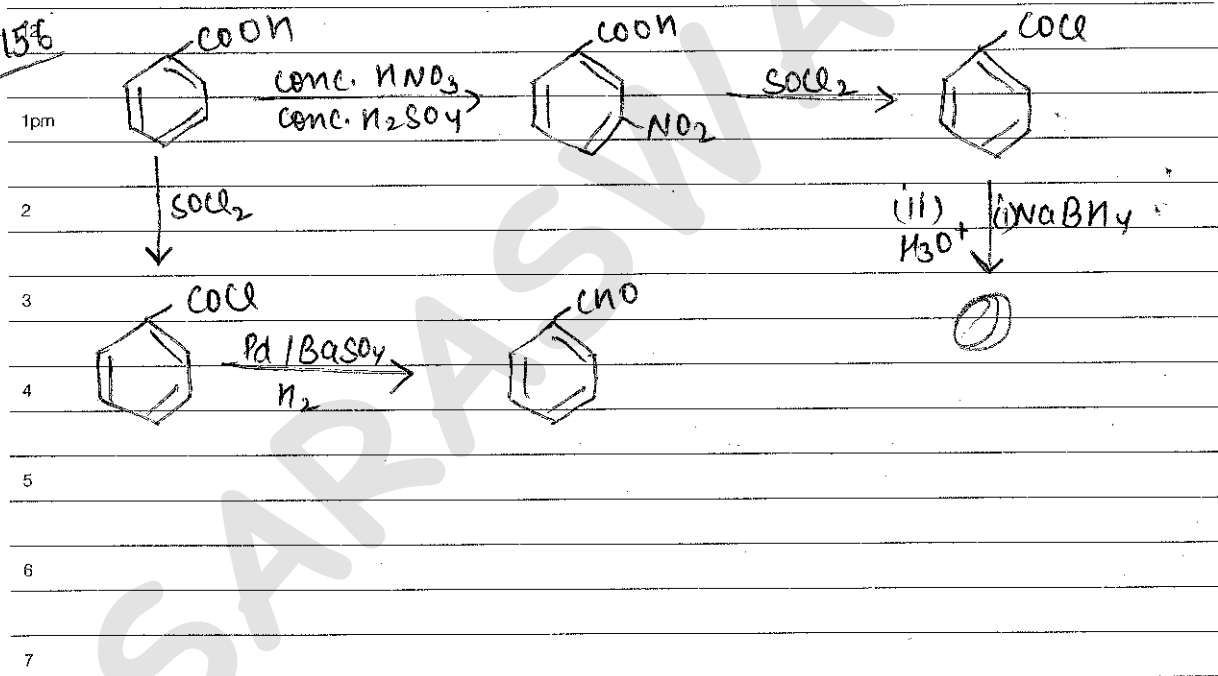
It is amazing how much you can accomplish when it doesn't matter who gets the credit

JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10 11	27	3	4	5	6	7	8 9
24	12	13	14	15	16	17 18	28	10	11	12	13	14	15 16
25	19	20	21	22	23	24 25	29	17	18	19	20	21	22 23
26	26	27	28	29	30		30	24	25	26	27	28	29 30

Q135
7am



Q136
1pm



Birthday / Anniversary

If everyone is moving forward together, then success takes care of itself

AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

Day (187-178)

06

2017

July • Thursday

Wk-27

Diazonium Chloride

7am

8

9

10

11

12

1pm

2

3

4

5

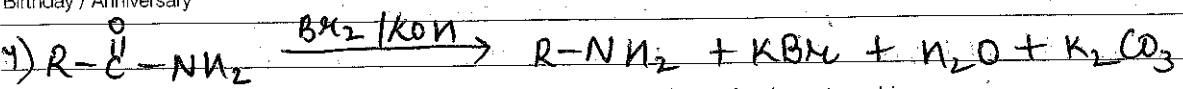
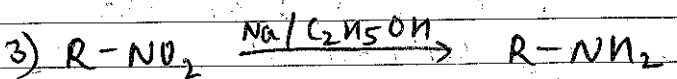
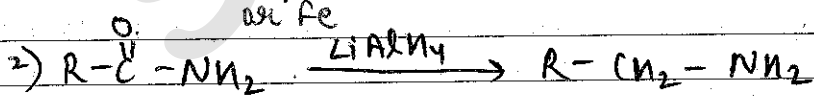
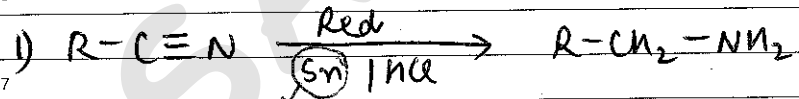
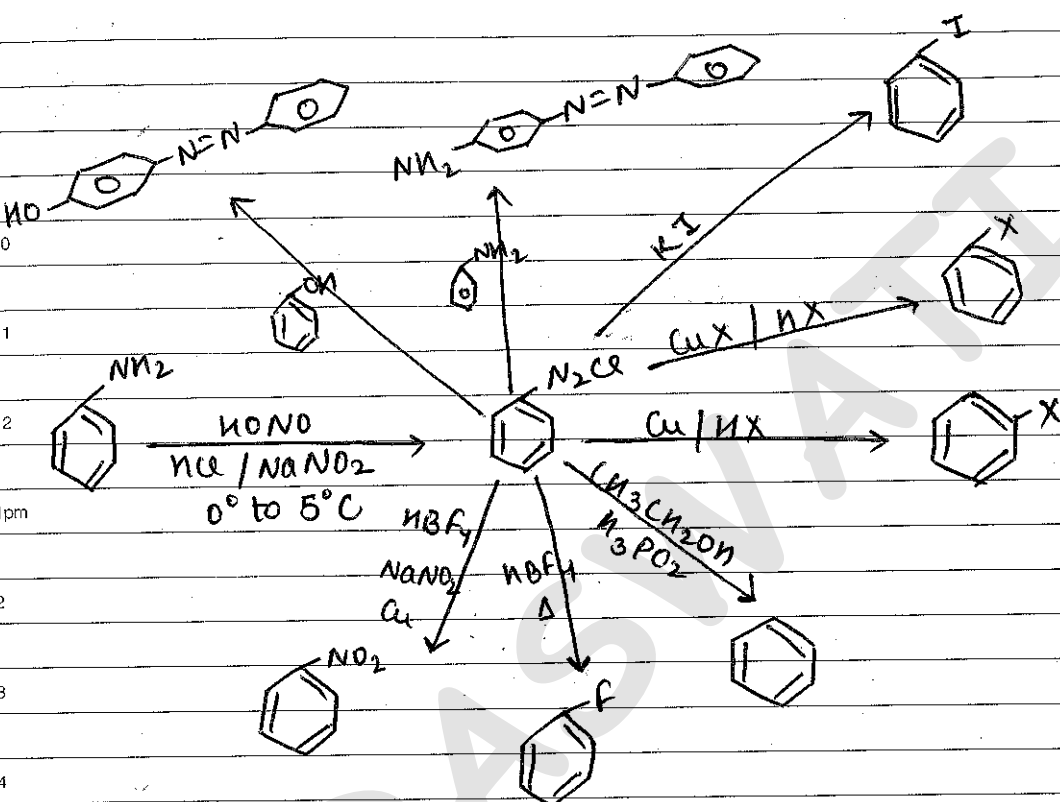
6

7

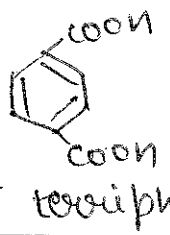
Birthday / Anniversary

9

Amine

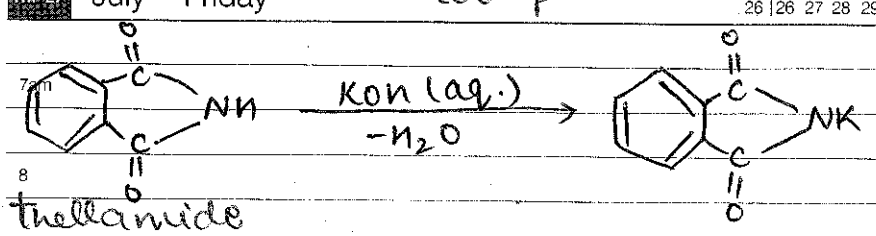


Keep yourself charged. Curiosity keeps the enthusiasm to achieve more.
Hoffman Bromide degradation rxn.

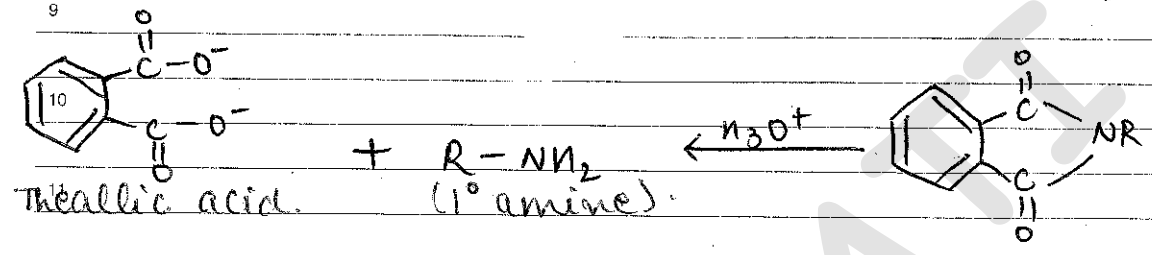


JUN 2017							JUL 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
22			1	2	3	4	26	31				1	2
23	5	6	7	8	9	10	27	3	4	5	6	7	8
24	12	13	14	15	16	17	28	10	11	12	13	14	15
25	19	20	21	22	23	24	29	17	18	19	20	21	22
26	26	27	28	29	30		30	24	25	26	27	28	29

5)



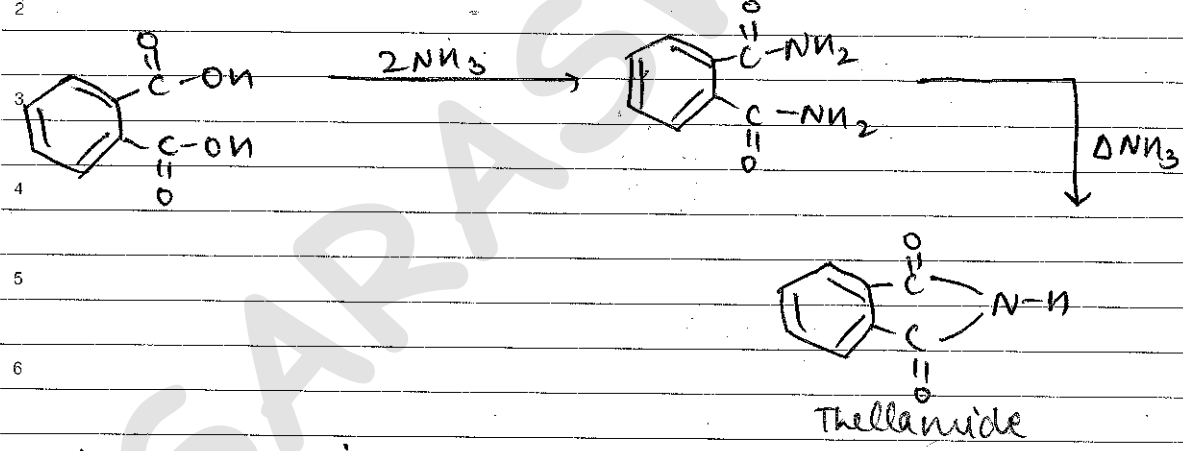
(1°) $\boxed{SN^2}$
-KX



Carabial Thallamide Synthesis

12
11
10
9
8
7
6
5
4
3
2

H₂O
1pm



Q 7 what is the disadvantage of this rxn?
 A we cannot form aniline using this process, because if we want to form aniline then we will have to add haloarene in place R-X, but that rxn will not take place because haloarene are less reactive nucleophilic substitution. Therefore we cannot form 2° & 3° amine also, as they will not undergo SN².

The achievements of an organization are the results of the combined efforts of each individual

AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

Day (189-176)

08

2017

July • Saturday

WK-27

Q what is the advantage of this rxn?

A By products of this rxn are recyclable.

As we can see that thollamide is produced as a product again in Gabriel Thollamide synthesis and the rxn can start again. Therefore we can see that it is recyclable rxn.

10

11 R-NH₂, Chemical Rxns.

12 Basic



2 Amine is more basic than ammonia, because basic is the compound which can donate its lone pair. Here we can see that in amine, there will be +I effect so it will not become e⁻ deficient even after losing lone pair, so amine easily gives its lone pair.

**



Since aniline cannot give its lone pair, because as soon as it will give its lone pair the resonance will be finished, so it is not basic but amine can easily donate lone pair (+I effect) so amine is more basic.

Sunday 09

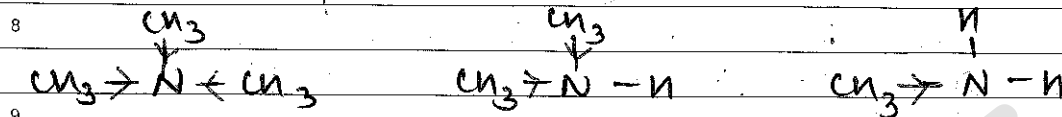
** Q Out of aniline and amine, which has more PK_b?

PK_b ↑ Kb ↓ Basic ↓

Compound having less basic char., has less Kb value and hence it will have more value of PK_b. Since aniline is less basic in nature, so it has higher PK_b value.

7am

$3^\circ > 2^\circ > 1^\circ$ (gas)



* 3° has max (+I effect) so is most basic, then 2° & then 1°

* in aqueous

(i) +I

$3^\circ > 2^\circ > 1^\circ$

more the +I effect, more the basic will be compd as it will not be e⁻ deficient even after losing lone pair.

(ii) steric hinderence

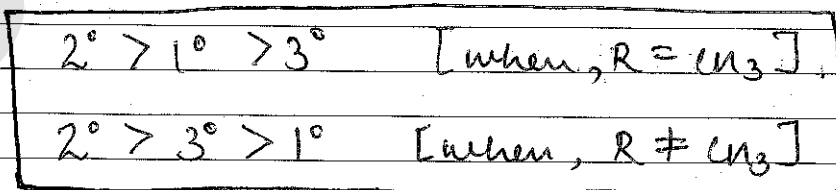
$1^\circ > 2^\circ > 3^\circ$

That compound will be basic, that is soluble in water & that will be more soluble which loses lone pair easily. The compound that has more steric hinderence, water mol. will not come near to it to react & hence it will not lose lone pair.

(iii) n-Bond

$1^\circ > 2^\circ > 3^\circ$

Since 1° compound has more no. of hydrogen so they can form more hydrogen bonds and hence will be more soluble in water, since more soluble so are more basic in nature



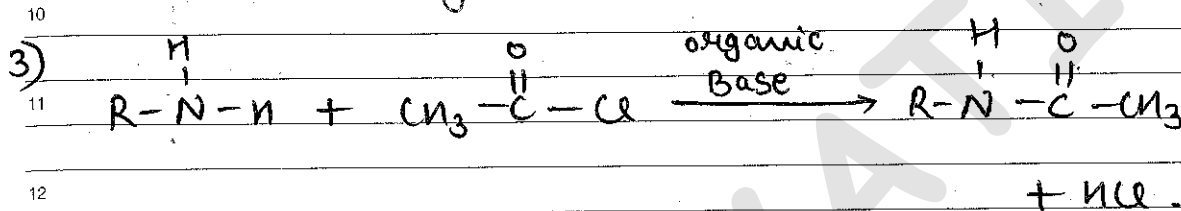
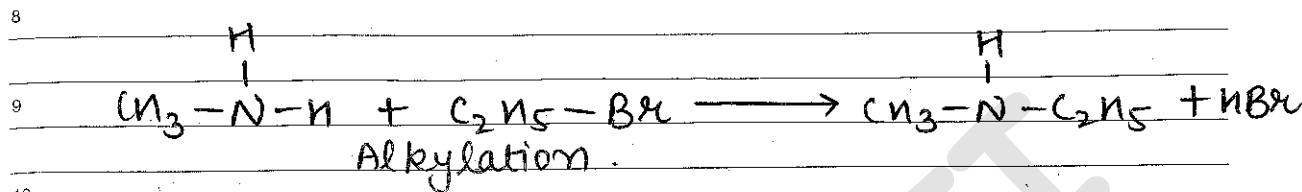
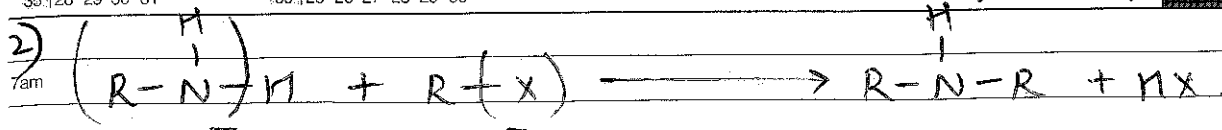
Birthday / Anniversary

known experimentally for aqueous solutions

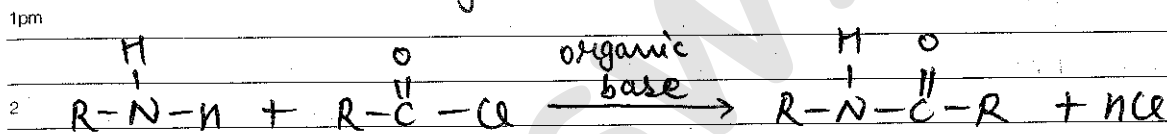
Never doubt that a small group of thoughtful, committed people can change the world

AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

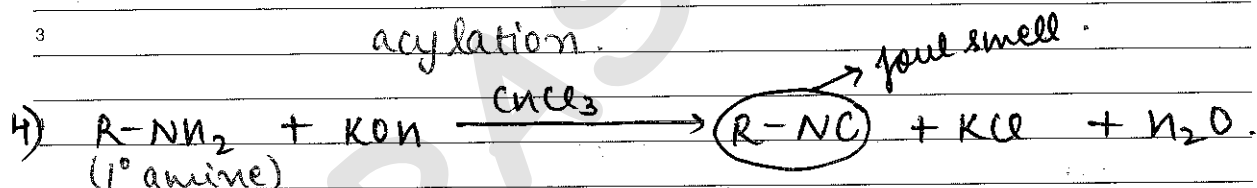
11
2017
Day (192-173)
July • Tuesday WK-28



acetylation.



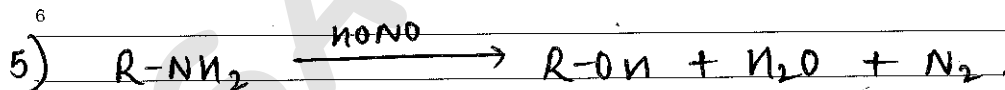
acylation.



→ foul smell.

Carbalamine, isonitrile or isocyanide rxn.

* It is used as a test between 1° amine with 2° or 3° amine



Uses:-

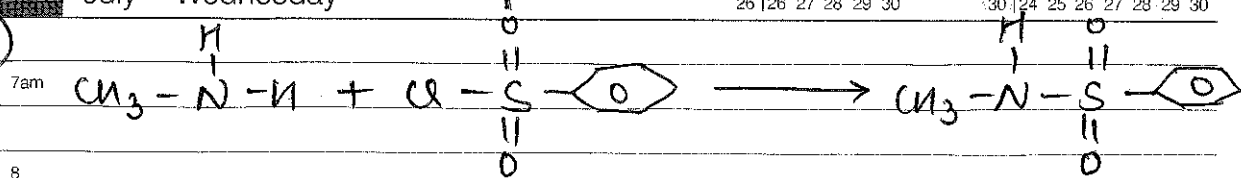
There are how many amines in a particular amino acid, we can know this by tybation of nitrogen.

Birthday / Anniversary

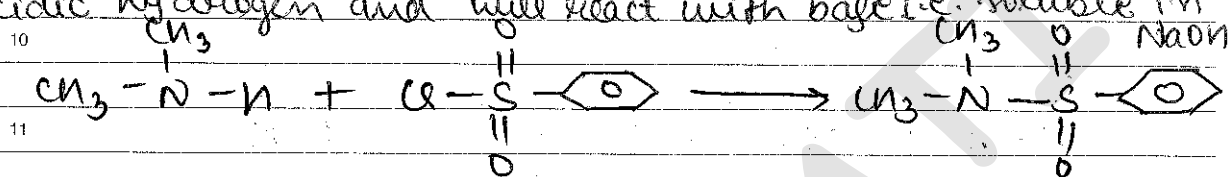
Action may not always bring happiness but there is no happiness without action

JUN 2017							JUL 2017								
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
22				1	2	3	4	26	31					1	2
23	5	6	7	8	9	10	11	27	3	4	5	6	7	8	9
24	12	13	14	15	16	17	18	28	10	11	12	13	14	15	16
25	19	20	21	22	23	24	25	29	17	18	19	20	21	22	23
26	26	27	28	29	30			30	24	25	26	27	28	29	30

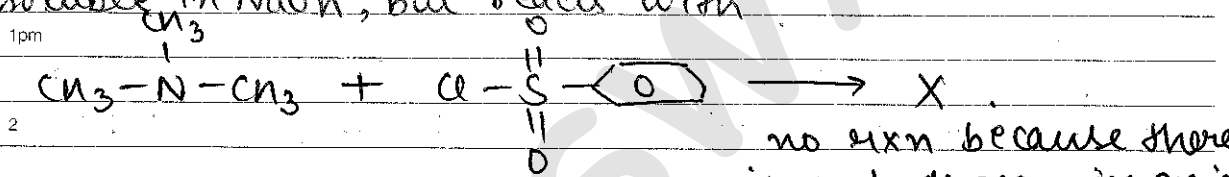
**6)



since oxygen, sulphur & nitrogen all are (soluble in NaOH) so they start taking e⁻ from hydrogen, hence it will become acidic hydrogen and will react with base i.e. soluble in NaOH

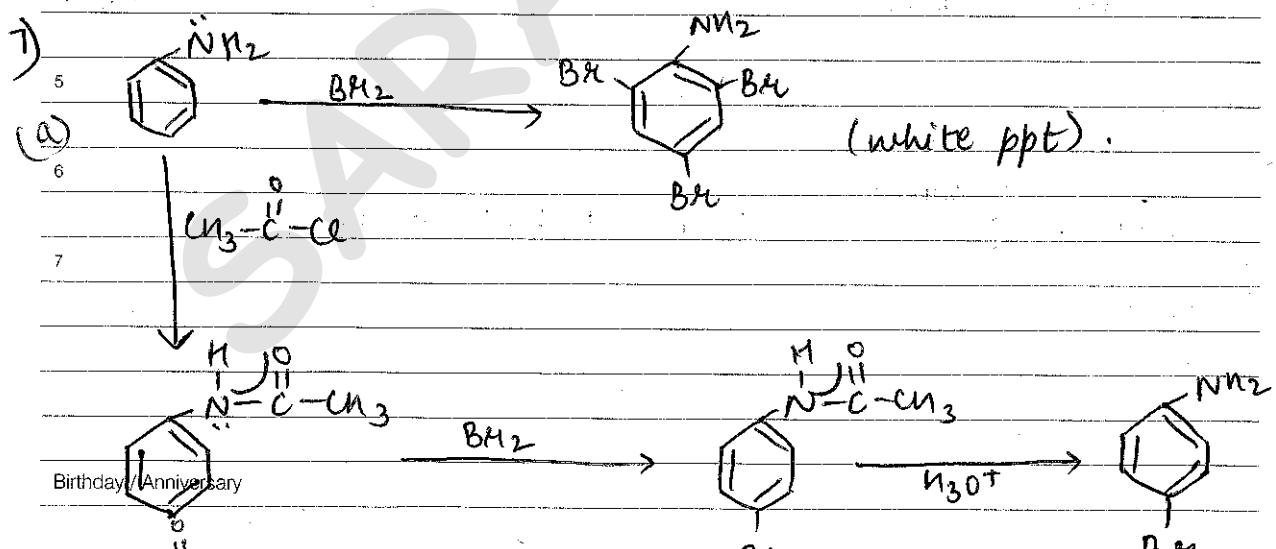


In² secondary there is no acidic hydrogen, so it will not be soluble in NaOH, but reacts with



no rxn because there is no hydrogen in amine

* Test b/w all 1°, 2° & 3° amines
Heinsberg test



when C-CH₃ only the lone pair attacks and you do not get resonance between lone pair & double bond and hence N doesn't give all the

e^- pair to benzene ring, and hence less charge goes on ortho and para positions & hence para compound is formed

AUG 2017						
Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6
32	7	8	9	10	11	12
33	14	15	16	17	18	19
34	21	22	23	24	25	26
35	28	29	30	31		

SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su
35				1	2	3
36	4	5	6	7	8	9
37	11	12	13	14	15	16
38	18	19	20	21	22	23
39	25	26	27	28	29	30

13

2017

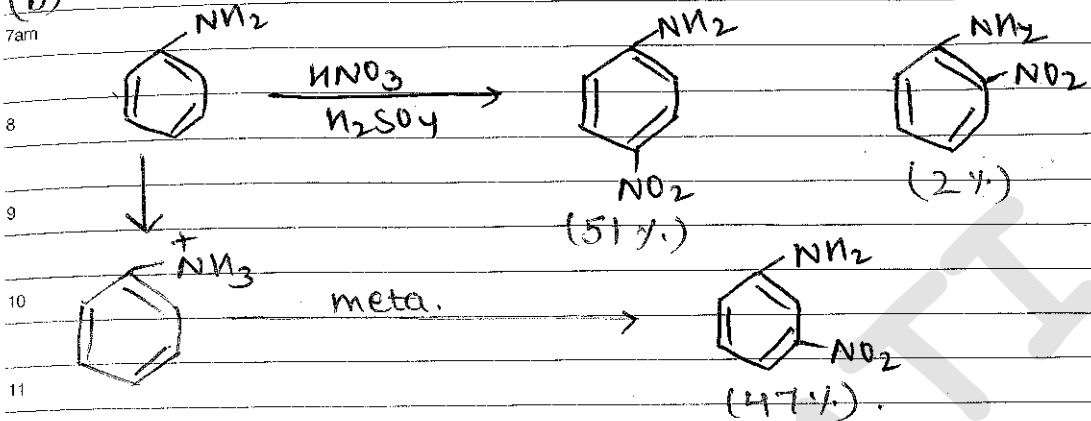
Day (194-171)

July • Thursday

Wk-28

(b)

7am

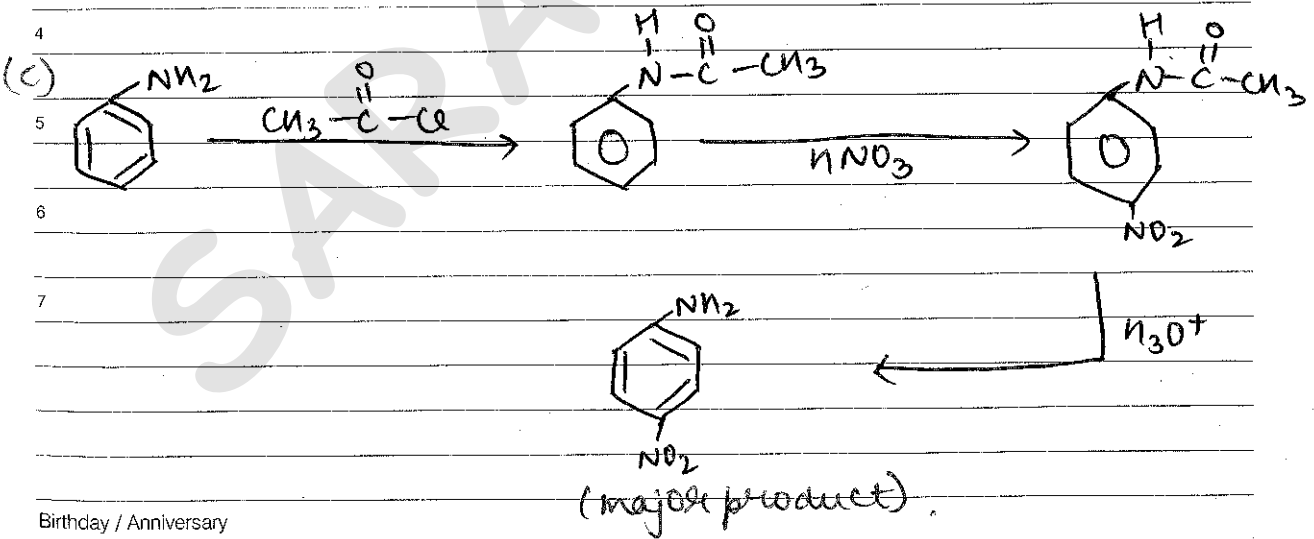


(because of reverse hyperconjugation)

Here, aniline is a very poor base but H_2SO_4 is a very good acid and hence gives it a H^+ and leads to the formation of anilium, which is meta directing because of reverse hyperconjugation.

3

4



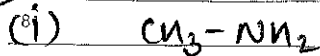
Birthday / Anniversary

Don't fear the obstacles, they make you nervous but can never stop you from winning

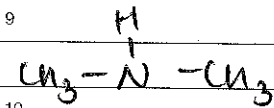
Back Exercise

7am

Q2

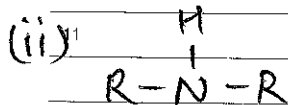


foul smell of CH_3-NH_2

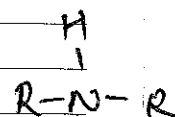


carbalamine
($KOH + NCl_3$)

X

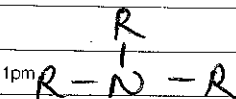


reacts



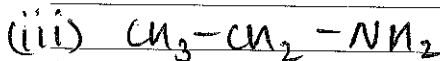
12

Heinsberg
Test



no reaction

2

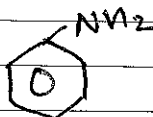


X

3

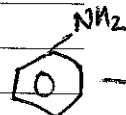
azodide

4

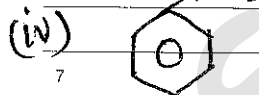


yellow ppt.

5



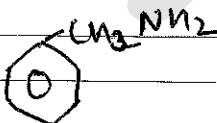
6



yellow
ppt

7

azodide

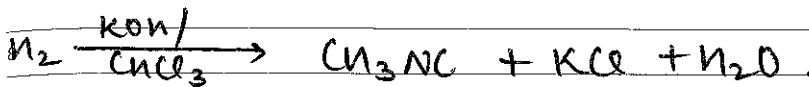


Birthday / Anniversary

Enthusiasm give you high spirits and charges you, without it nothing great is ever achieved

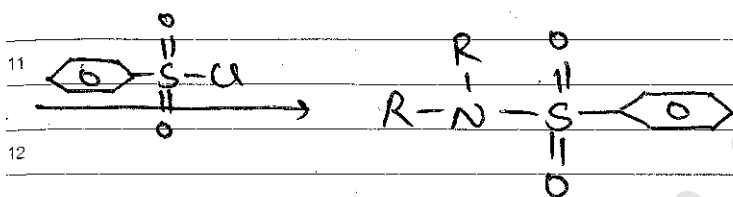
AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

7am



9

10

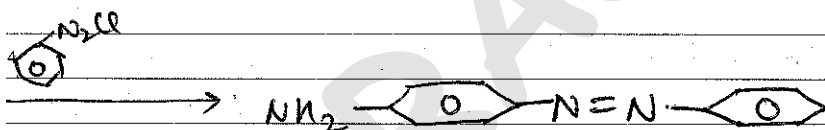


12

1pm

2

3



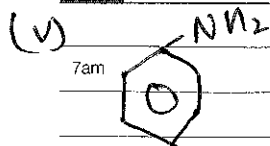
5

6

7

Birthday / Anniversary

Success is going from failure to failure without losing enthusiasm

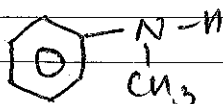


azodide

yellow ppt.

8

9



X

10

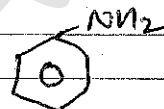
11

Q3 (i) done

12

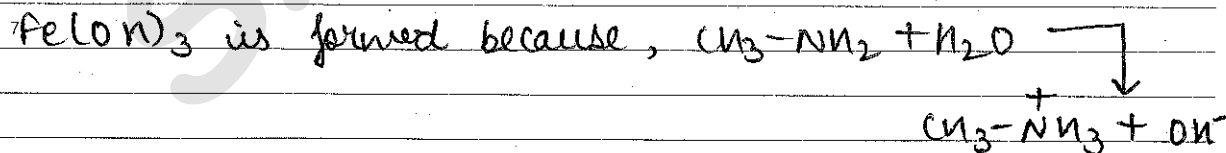
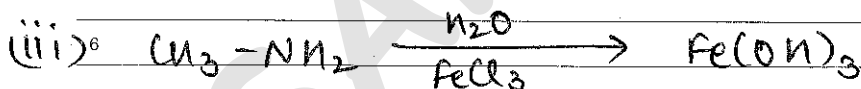
(ii) CH3-CH2-NH2

1pm



Carbon chain is the hydrophobic part & hydrophobic part is the one which is water repelling. So for the compound to be soluble in water, it should have less hydrophobic part i.e. small carbon chain.

In ethylamine there are 2 carbons but in aniline there are 6 carbons. Therefore aniline is less soluble in water.



CH3NH2 reacts with water to give OH- which leads to formation of Fe(OH)3

AUG 2017							SEP 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6	35				1	2	3
32	7	8	9	10	11	12	36	4	5	6	7	8	9
33	14	15	16	17	18	19	37	11	12	13	14	15	16
34	21	22	23	24	25	26	38	18	19	20	21	22	23
35	28	29	30	31			39	25	26	27	28	29	30

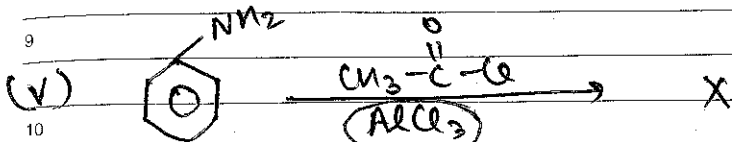
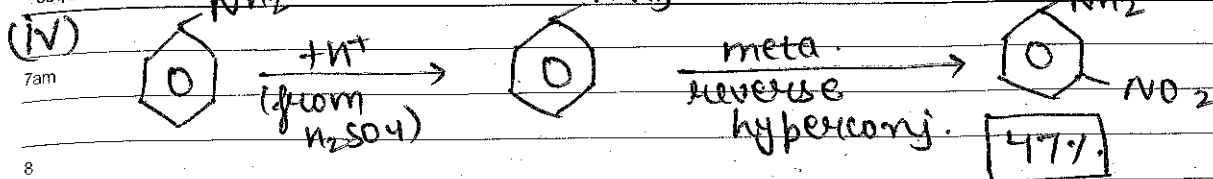
Day (201-164)

20

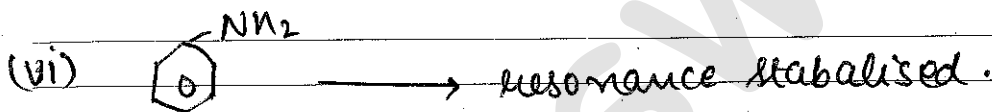
2017

July • Thursday

arenium ion.
+ NH₃

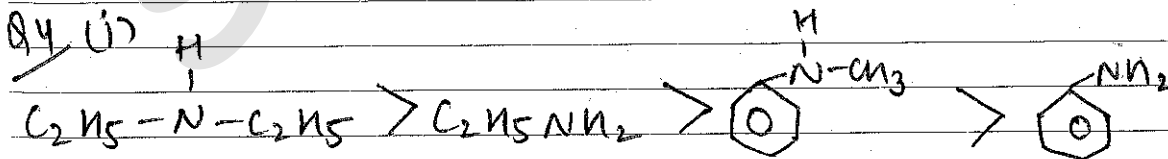


for Friedel-Crafts acylation to take place, we have to add a Lewis acid eg. AlCl₃ if AlCl₃ is added then it will react with NH₂ i.e. a Lewis base. So Lewis acid and Lewis base will react to give salt i.e. neutralisation rxn.



R-N₂Cl, not stable

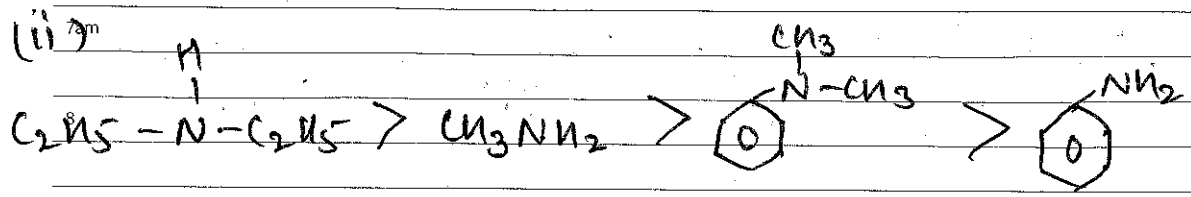
(vii) Because this method involves S_N² mechanism and S_N² mechanism doesn't favour 2° & 3° compounds so only 1° is used and formed.



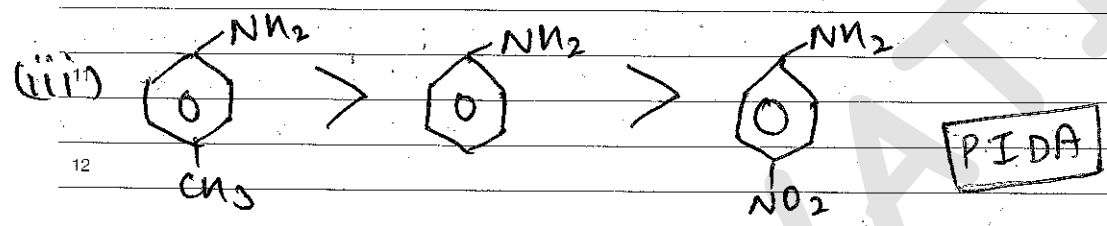
Birthday / Anniversary

Increasing Kb

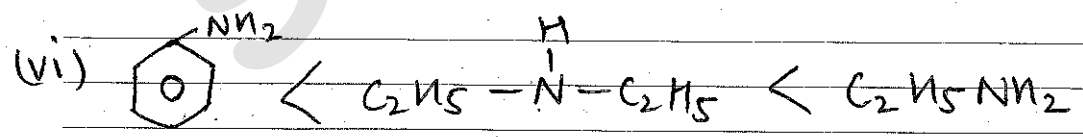
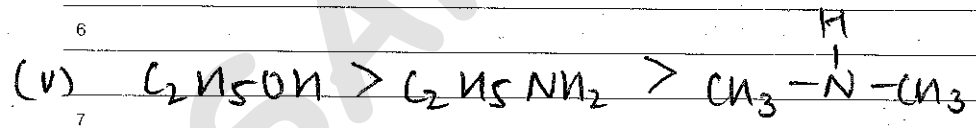
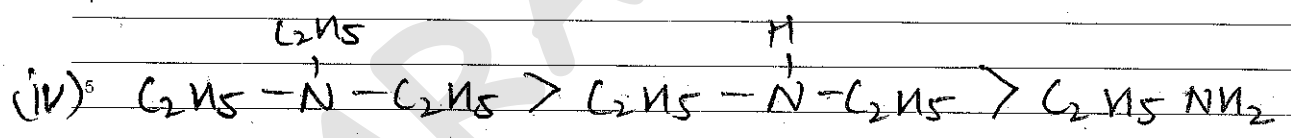
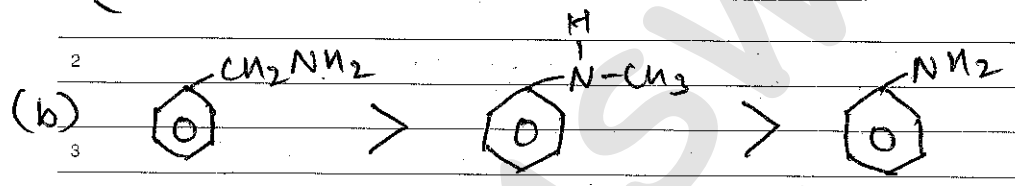
There is light at the end of every tunnel... just pray it's not a train!



← Increasing basic



← basic



Birthday / Anniversary

If you are not part of the solution, then you are part of the problem

AUG 2017							SEP 2017								
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su		
31	1	2	3	4	5	6	35				1	2	3		
32	7	8	9	10	11	12	13	36	4	5	6	7	8	9	10
33	14	15	16	17	18	19	20	37	11	12	13	14	15	16	17
34	21	22	23	24	25	26	27	38	18	19	20	21	22	23	24
35	28	29	30	31				39	25	26	27	28	29	30	

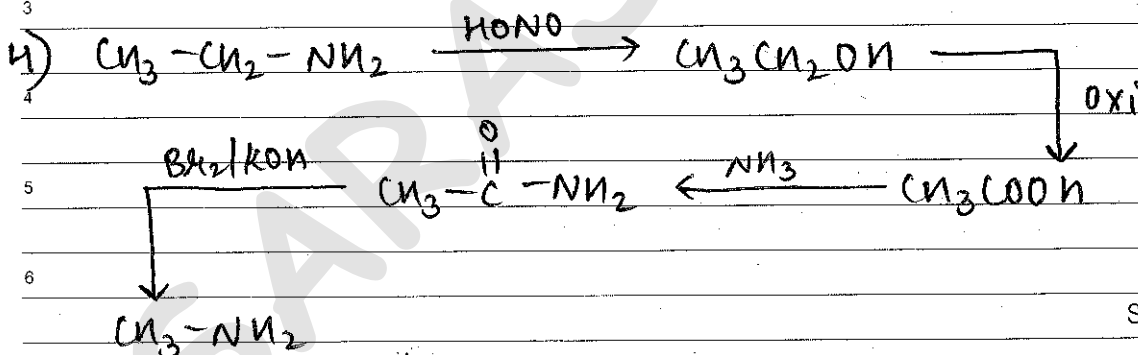
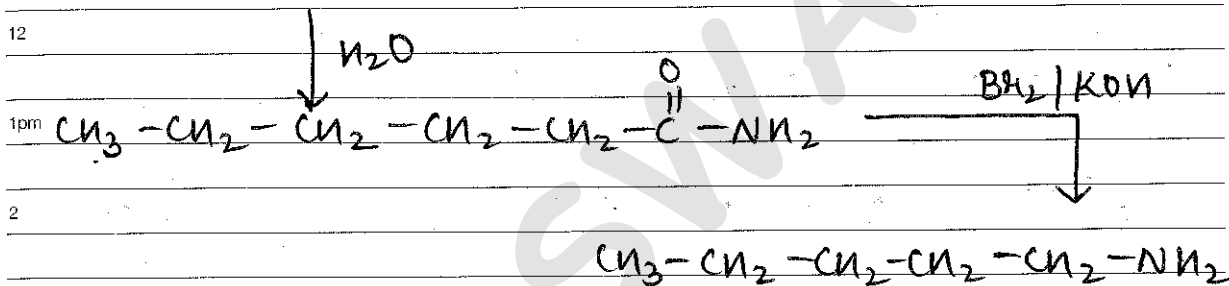
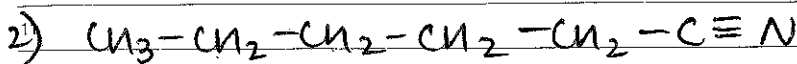
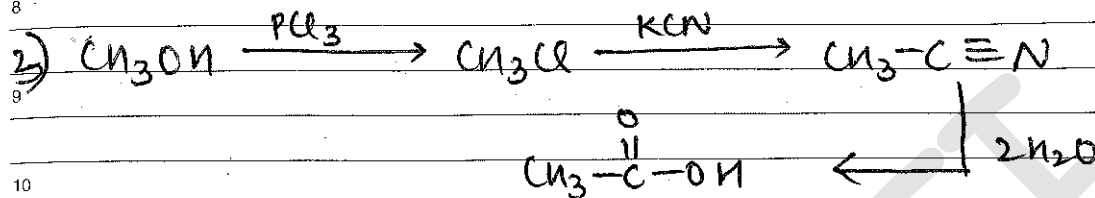
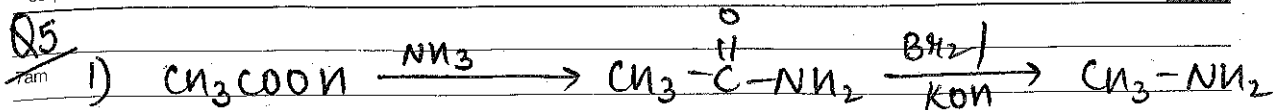
Day (203-162)

22

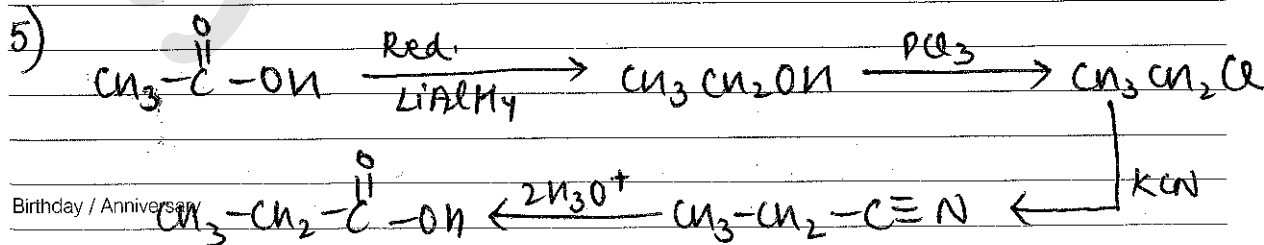
2017

July • Saturday

WK-29

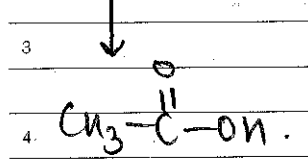
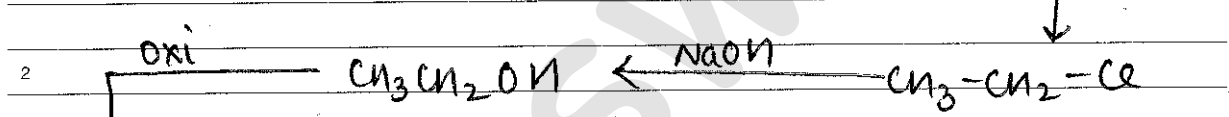
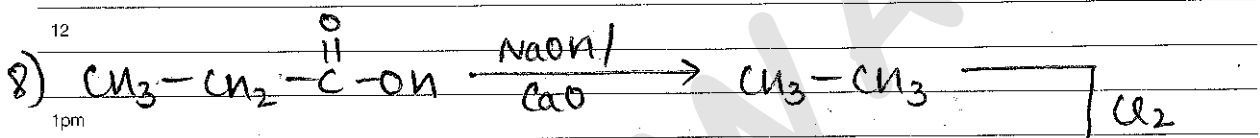
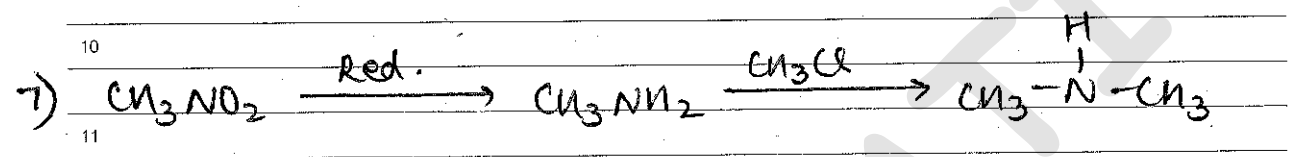
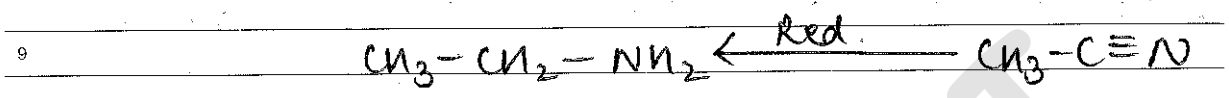
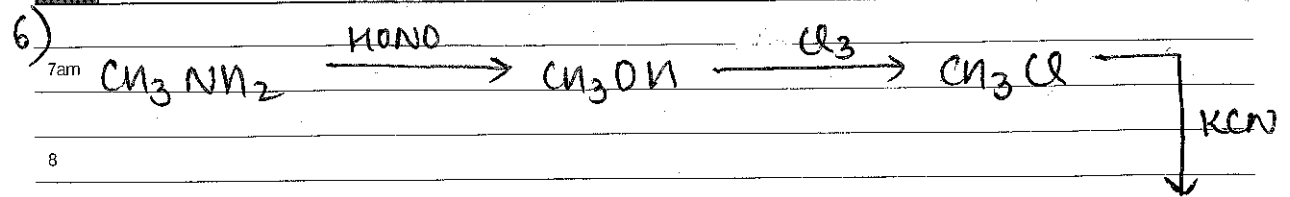


Sunday 23



Birthday / Anniversary

You only live once, but if you work it right, once is enough



"जय माता दी"

"जय श्री राम"

Birthday / Anniversary

The weak can never forgive. Forgiveness is the attribute of the strong