LIVE

GENERAL ORGANIC CHEMISTRY

Part-2

for JEE-MAIN

One Shot

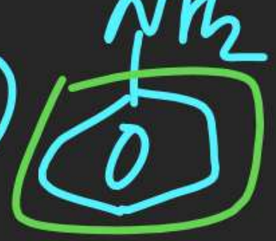
4:00 PM Today

By SKM Sir

Nishant Jindal

(#) Which of the following has highest Solubility in H_2O

(A) 

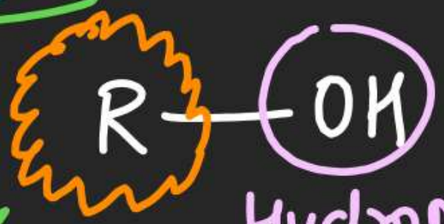
(B) 

(C) 

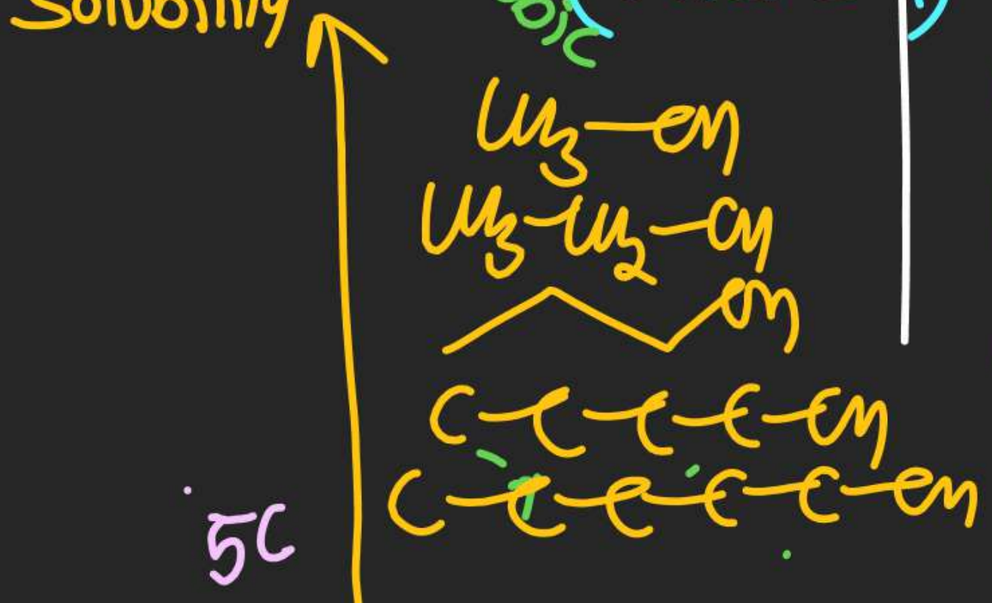
(D) 

(E) N.O.T

Solubility



Solubility



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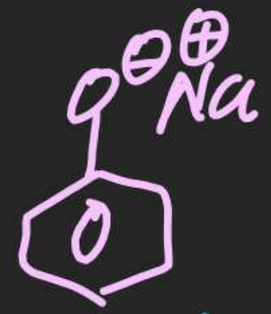
Covalent Compound hence Non Soluble in H_2O

Acid

Soluble in Ether

$\xrightarrow[-H_2O]{+\ -\ NaOH}$



Soluble in H_2O

Acid

Soluble in Ether

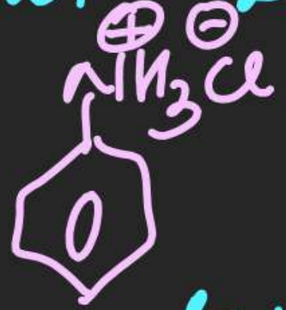
$\xrightarrow[\text{Eg. } NaHCO_3]{NaOH \text{ or}}$

Soluble in H_2O

Base

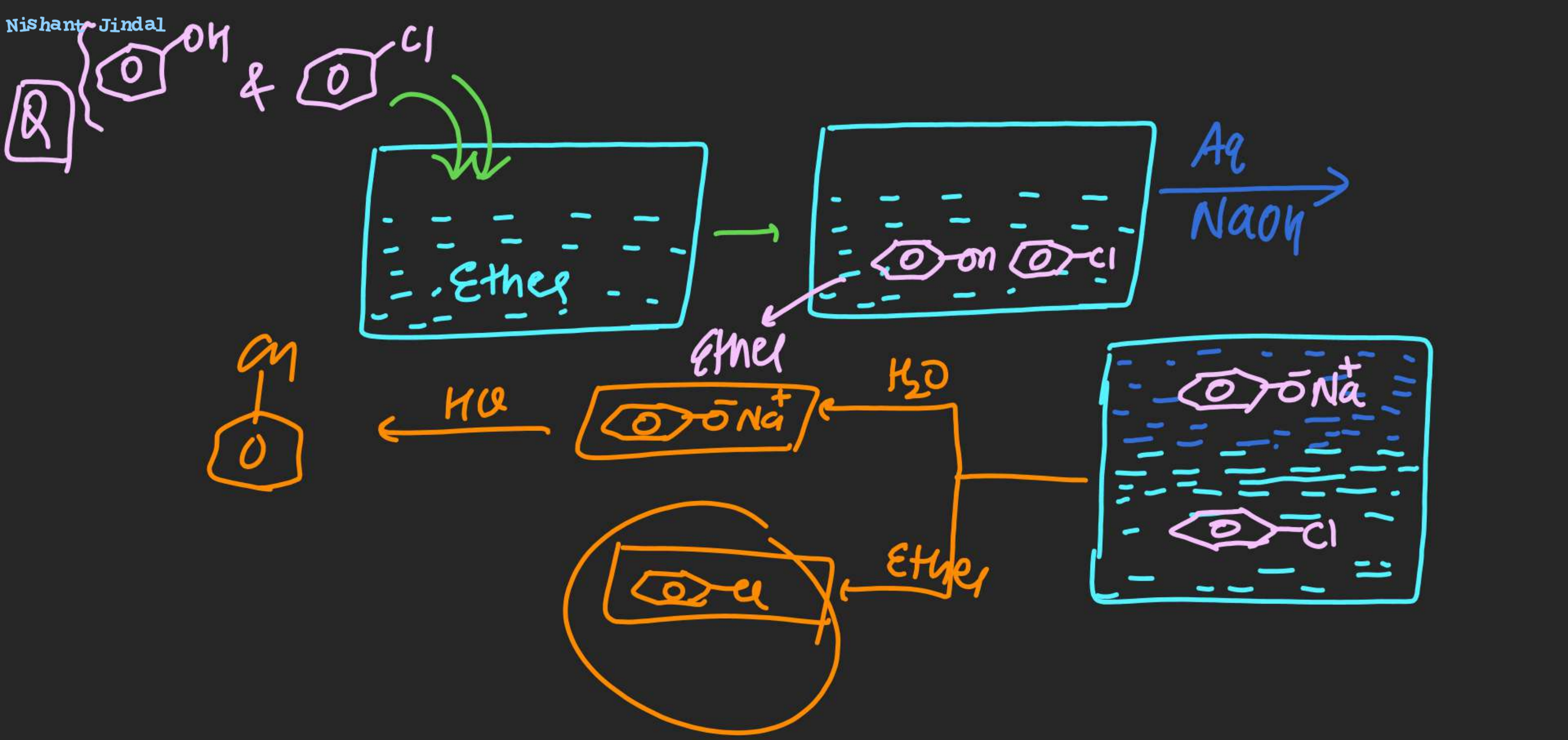
Soluble in Ether

$\xrightarrow{\text{Eg. } HCl}$



(Soluble in H_2O)

Ionic Compound Soluble in H_2O irrespective of hydrophobic part



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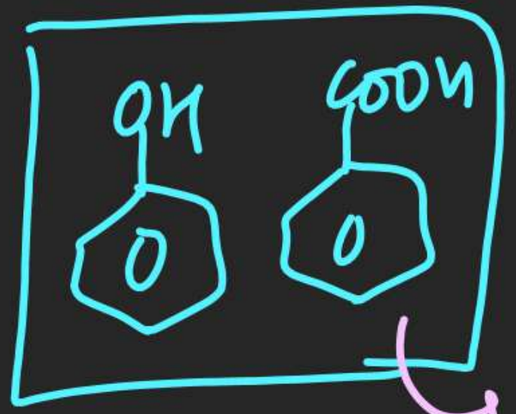
(i)



Ether

(ii)

Ether

Q

HA_1 HA_2 HA_3 Basic strength

$A_1^{\ominus}$ $A_2^{\ominus}$ $A_3^{\ominus}$ (Stable)

C. Base

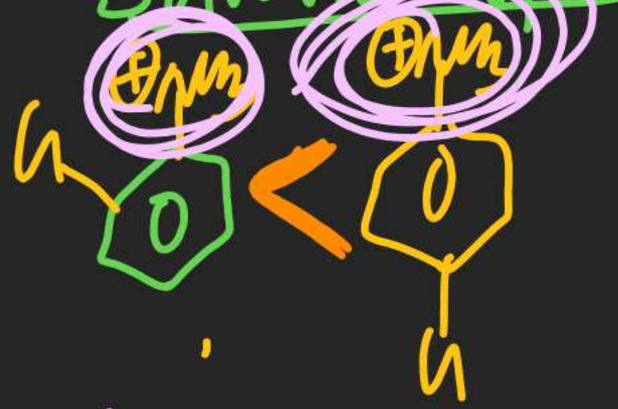
बेसिक Smyth निकालने का तरीका

(a) Aliphatic Amine > Aromatic Amine

(b) localised lone pair > delocalised lone pair

(c) Stability of C-Acid

- By Resonance:
- hybridisation: $sp^3 > sp^2 > sp$
- Solvation effect



(d) EDG > EWG

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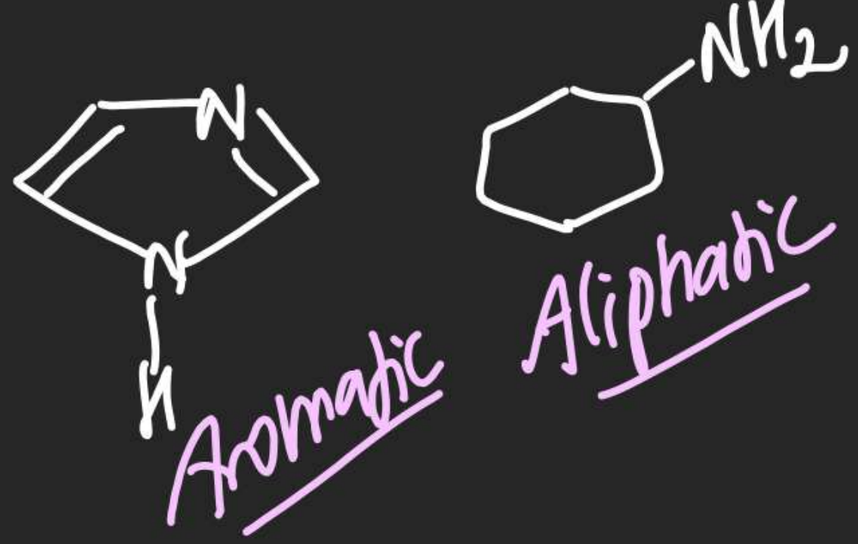
(1) 

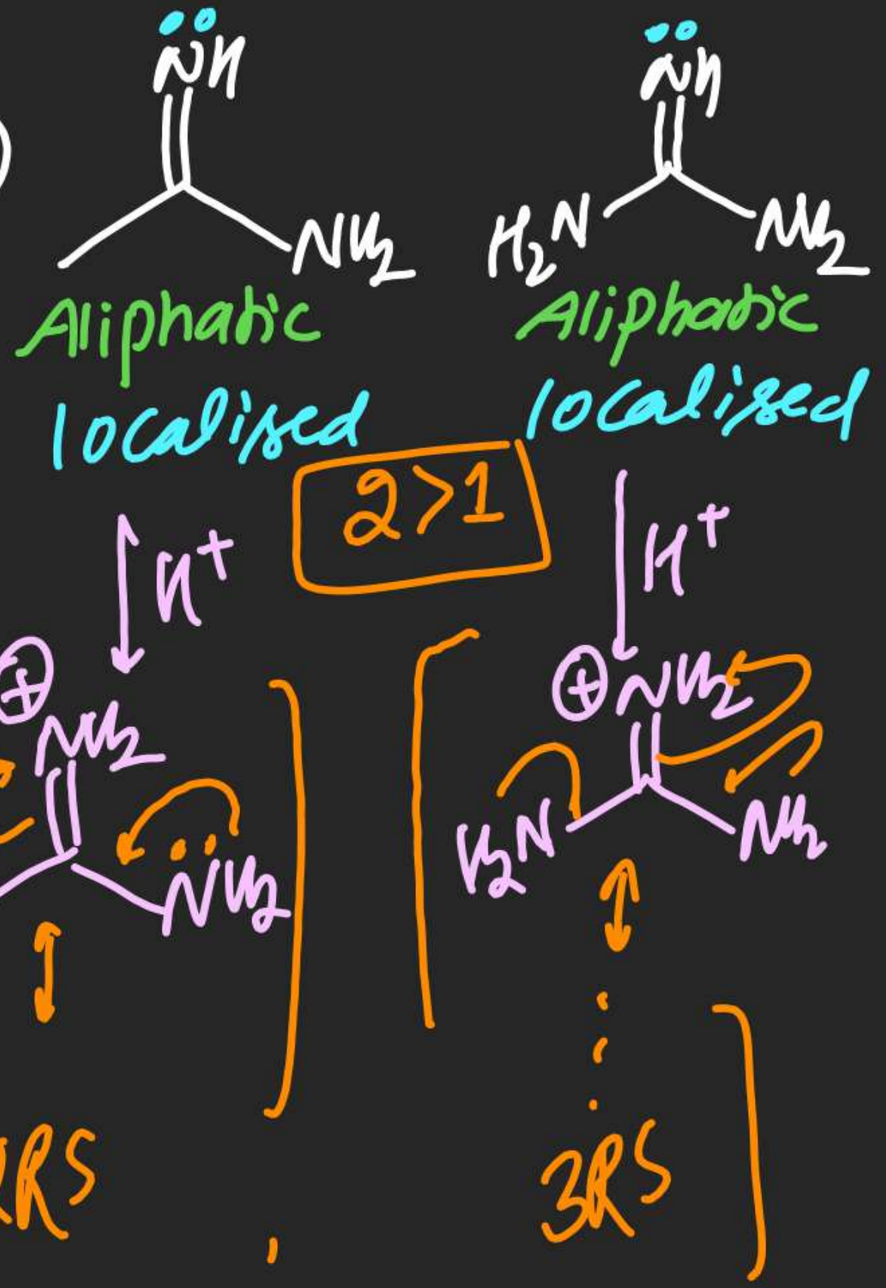
1 > 2

(2) 

1 > 2

(3) 

2 > 1

(4) 

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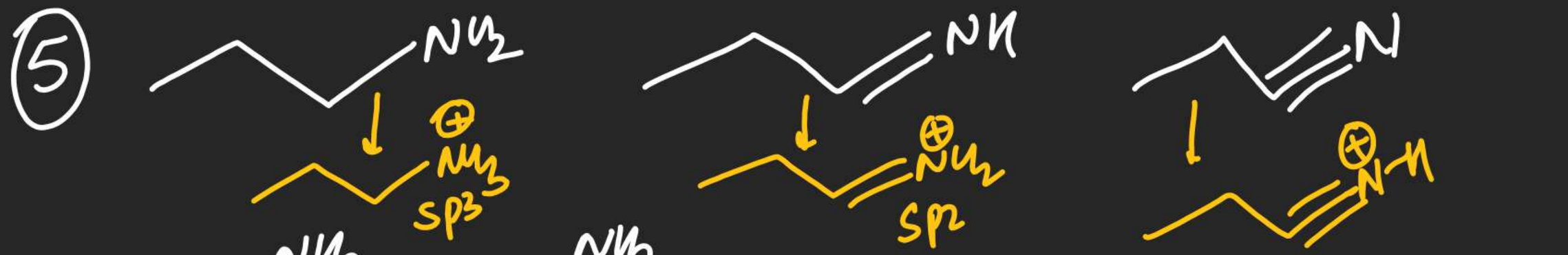

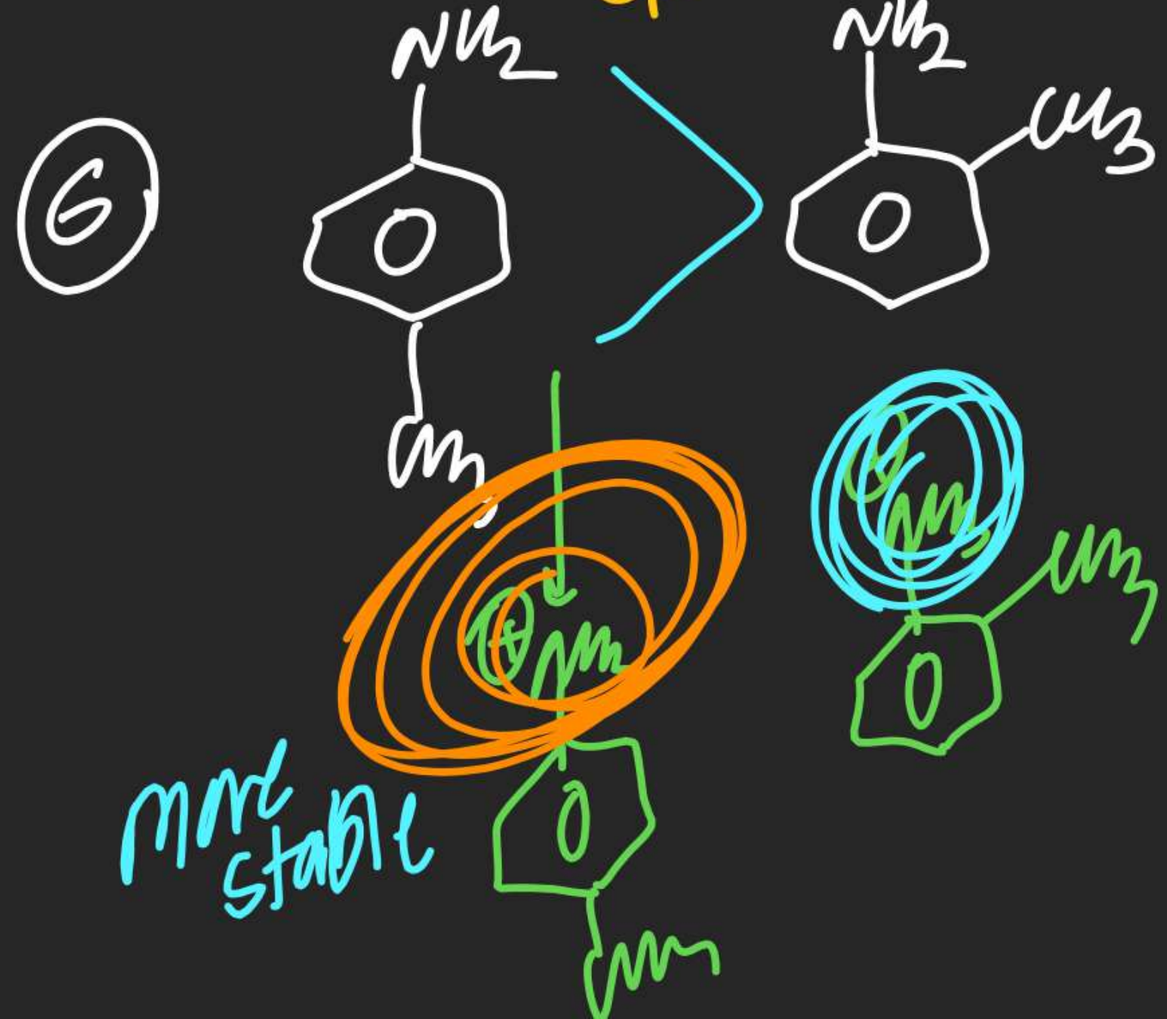

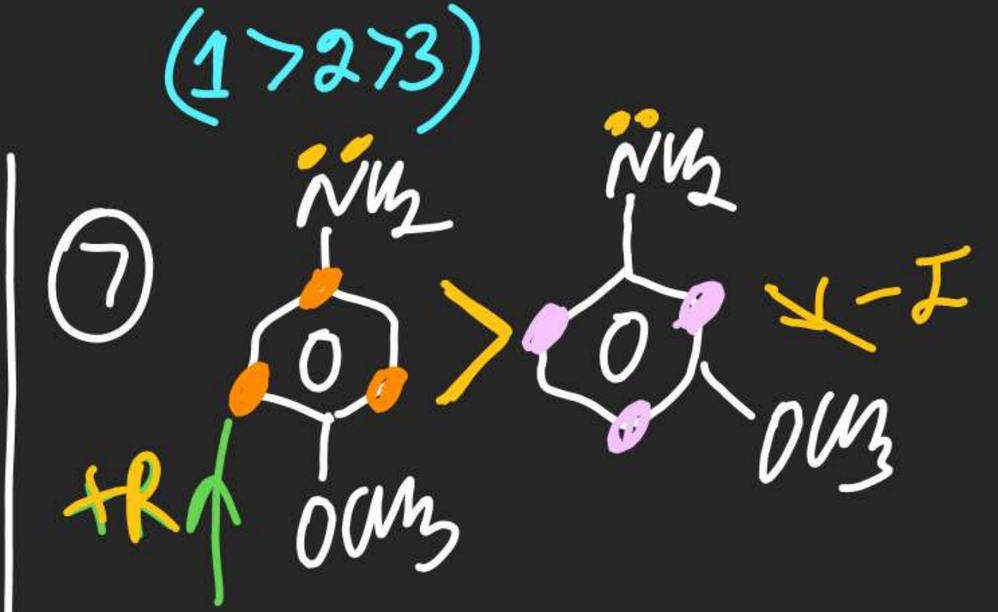

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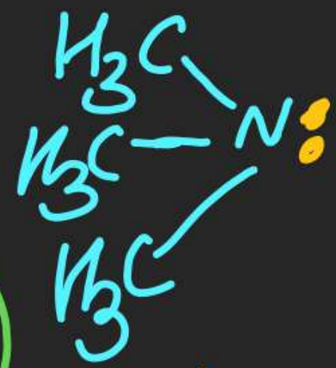
(8) H_3N CH_3-NH_2  

Aq. medium

Basic strength:

$Me_2NH > Me-NH_2 > Me_3N > NH_3$ (in H_2O)

$Me_3N > Me_2NH > Me-NH_2 > NH_3$ (in gas)

$Et_3N > Et_2NH > Et-NH_2 > NH_3$ (in gas)

$Et_2NH > Et_3N > Et-NH_2 > NH_3$ (in H_2O)

∴ !

Nishant Jindal

Telegram
skm-Nucleus edvacademy

Tuesday Thursday Saturday
AK app + AK yt

4 pm - 5:30 pm
One shot + Question Solving
Aromatic (Aromatic sheet Ex-1 & 2

Monday Wednesday Friday
Yt
skm-Nucleus edvacademy

Mains PYQ (9:30 pm - 10:30 pm)
(10+10) + 5 SKM

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GOC

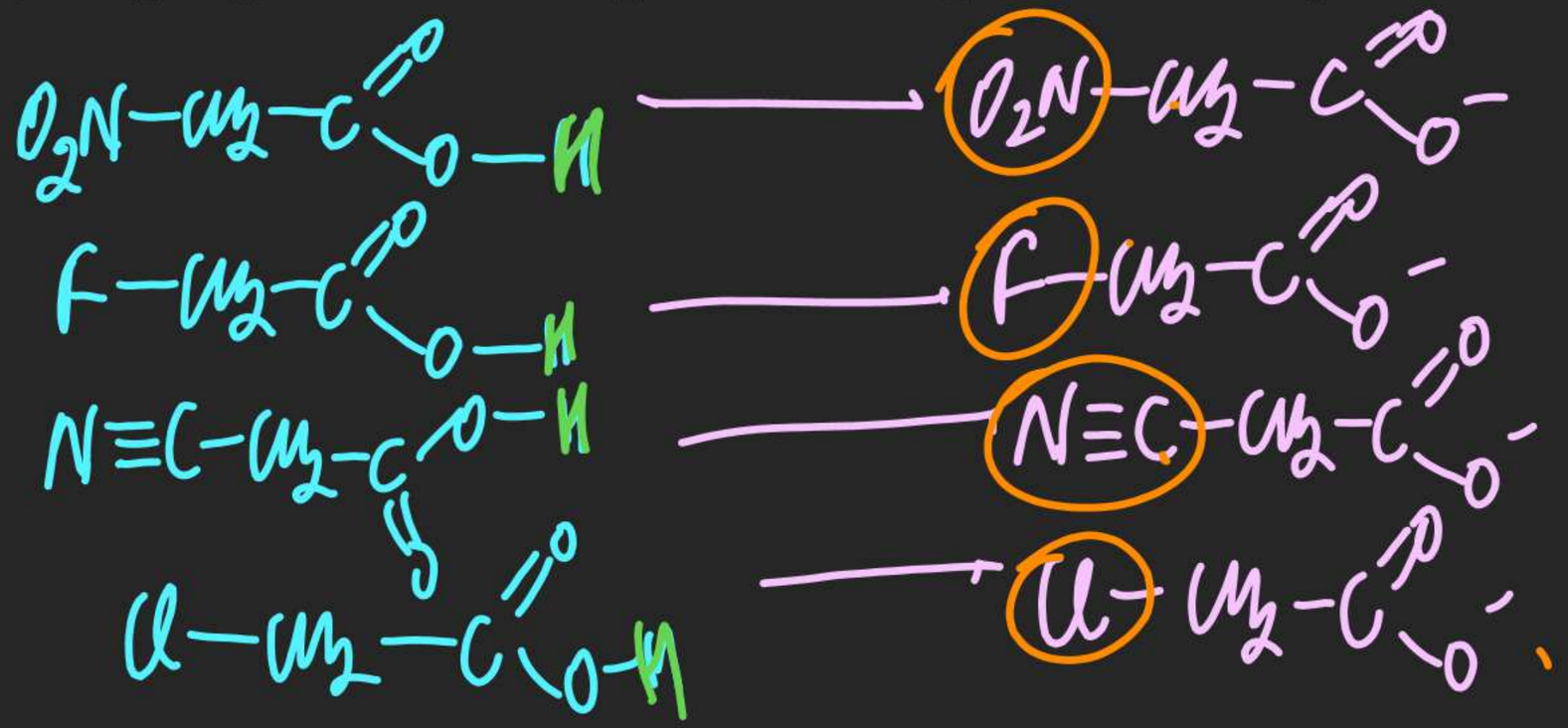
1. The correct decreasing order for acid strength is: [9 Jan 2019]

(A) $NO_2CH_2COOH > FCH_2COOH > CNCH_2COOH > ClCH_2COOH$

(B) $FCH_2COOH > NCCH_2COOH > NO_2CH_2COOH > ClCH_2COOH$

(C) $CNCH_2COOH < O_2NCH_2COOH > FCH_2COOH > ClCH_2COOH$

Ans (D) $NO_2CH_2COOH > NCCH_2COOH > FCH_2COOH > ClCH_2COOH$



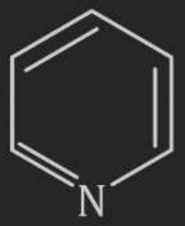
GOC

2. Which of the following compounds is not aromatic? [9 Jan 2019]

(A) 

4π

(B) 

(C) 

(D) 

Anti Aromatic

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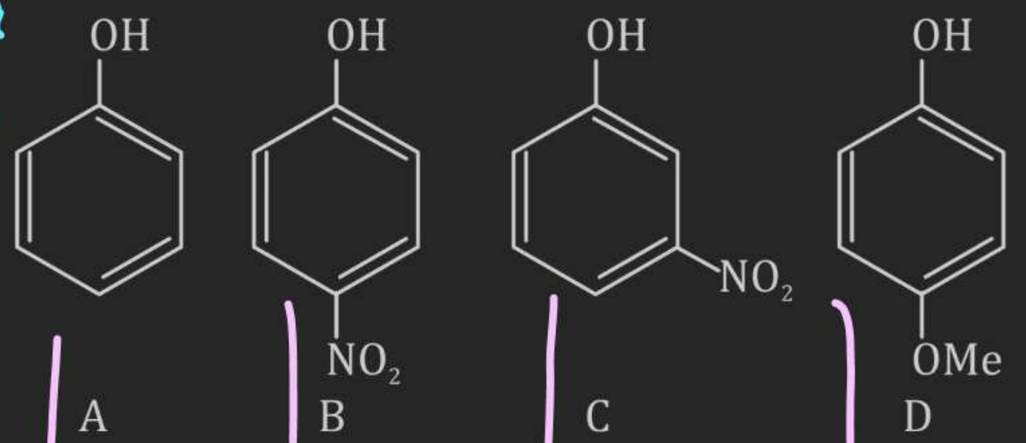
GOC

3. The increasing order of the pK_a values of the following compounds is:

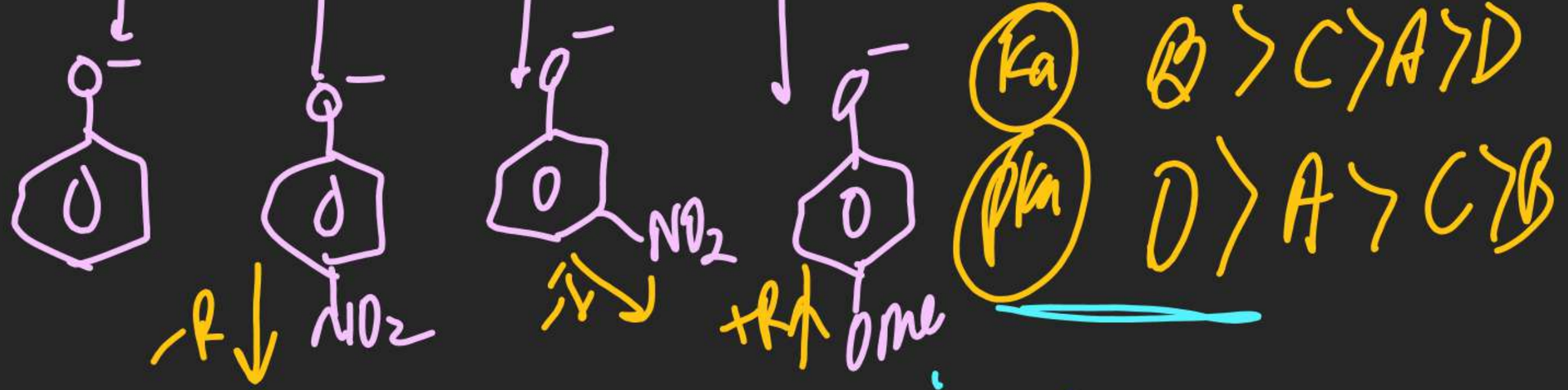
[10 Jan 2019]

Acidic strength $\propto K_a$

$\propto \frac{1}{pK_a}$



(1) C < B < A < D (2) B < C < D < A (C) D < A < C < B (D) B < C < A < D



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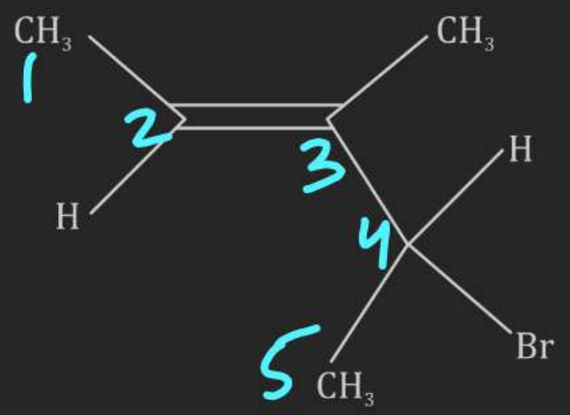
GOC

4. What is the IUPAC name of the following compound? [9 Jan 2019]



(A) 3-Bromo-1, 2-dimethylbut-1-ene

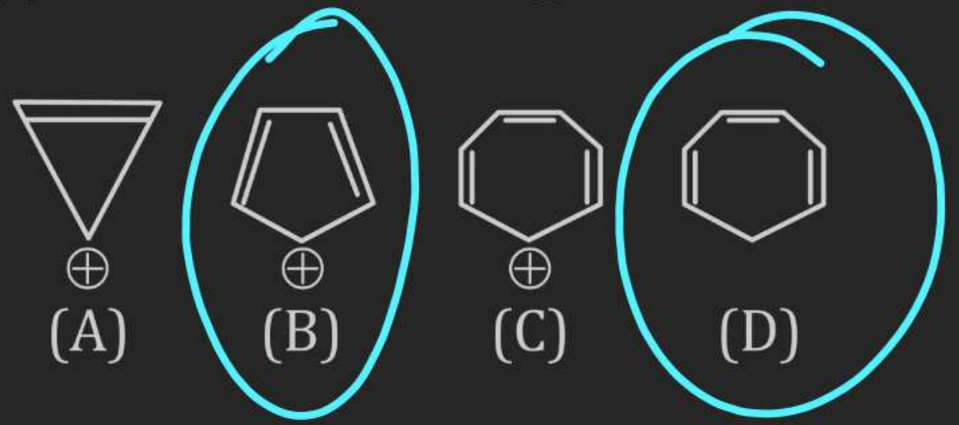
(B) 3-Bromo-3-methyl-1, 2-dimethylprop-1-ene

(C) 2-Bromo-3-methylpent-3-ene

(D) 4-Bromo-3-methylpent-2-ene

GOC

5. Which compound (s) out of the following is/are not aromatic? [11 Jan 2019]



(A) (B), (C) and (D) (B) (C) and (D) (C) (B) (D) (A) and (C)

GOC

8. The correct order for acid strength of compounds $CH \equiv CH, CH_3-C \equiv CH$ and $CH_2 = CH_2$ is as follows: [12 Jan. 2019]

(A) $CH \equiv CH > CH_2 = CH_2 > CH_3-C \equiv CH$

(B) $CH_3-C \equiv CH > CH \equiv CH > CH_2 = CH_2$

(C) $CH_3-C \equiv CH > CH_2 = CH_2 > HC \equiv CH$

(D) $HC \equiv CH > CH_3-C \equiv CH > CH_2 = CH_2$