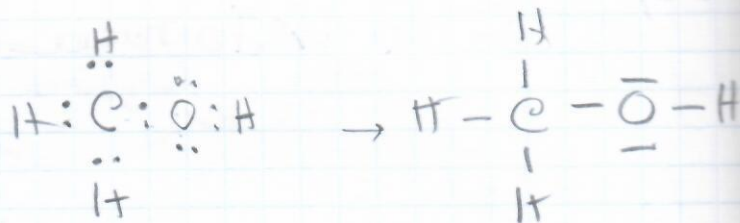
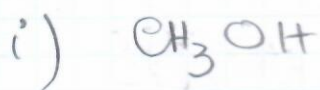
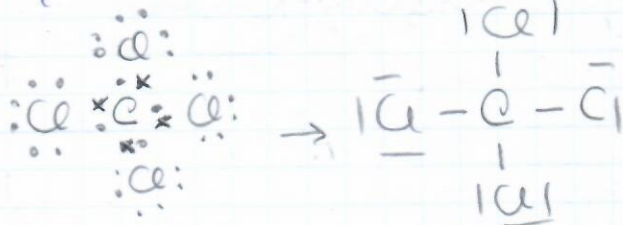
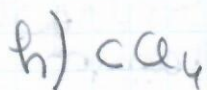


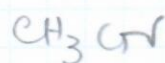
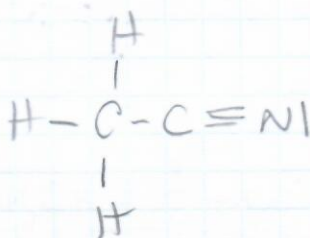
II - Estrutura e ligação química

1

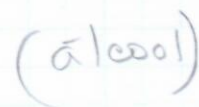
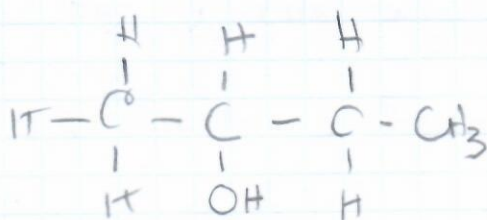


2

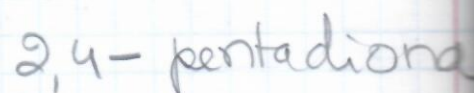
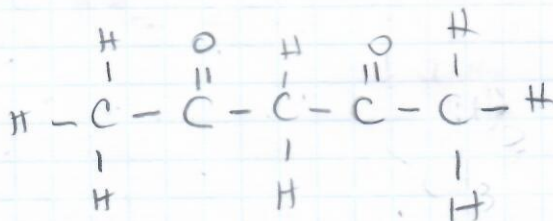
a)



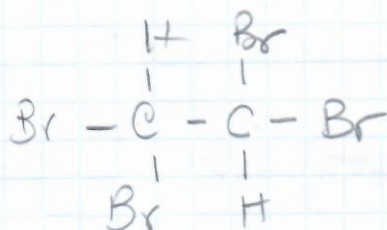
b)



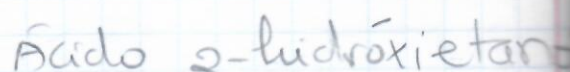
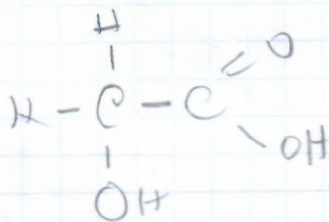
c)



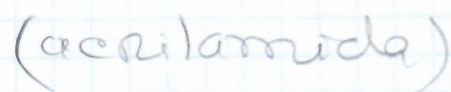
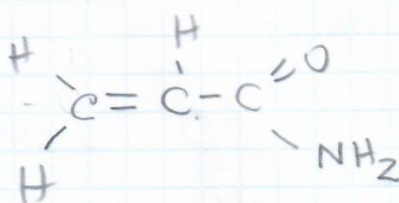
d)

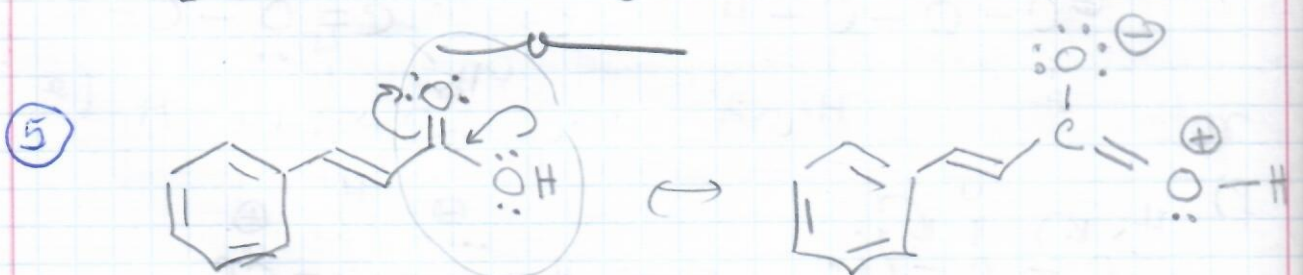
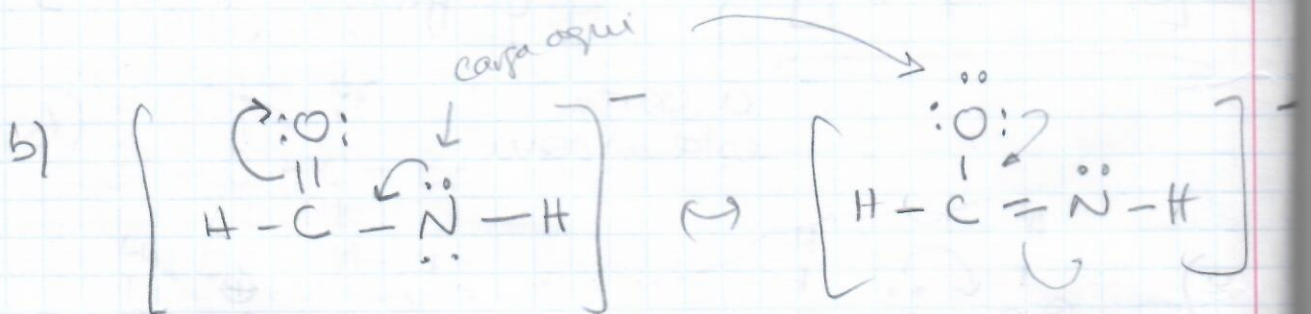
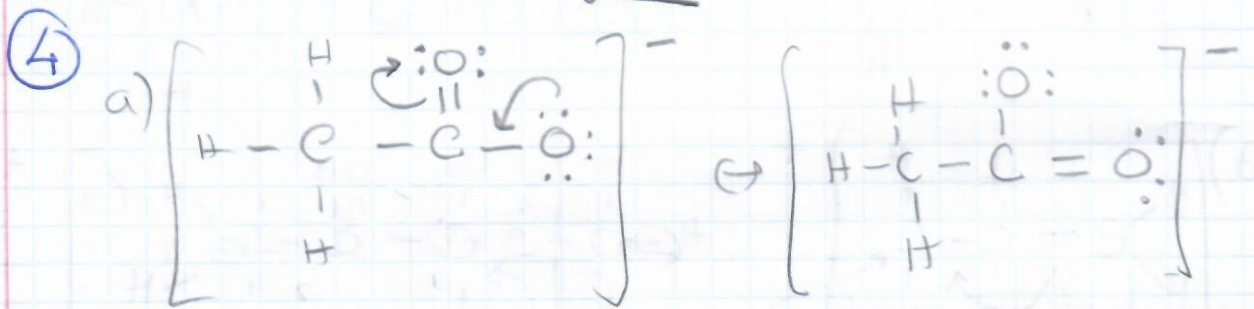
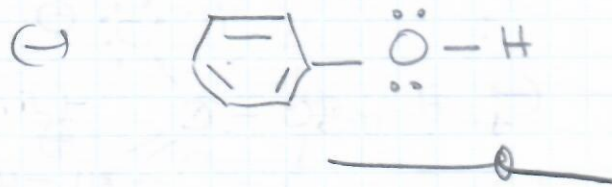
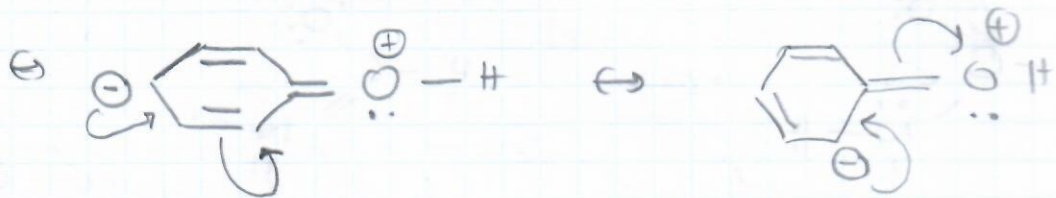
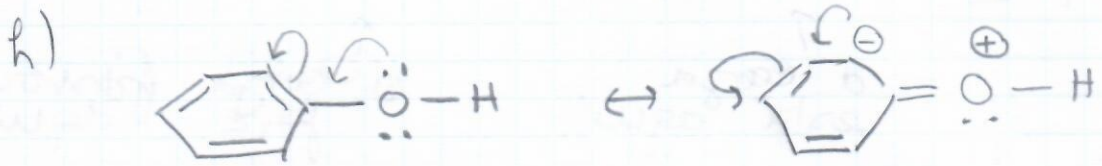
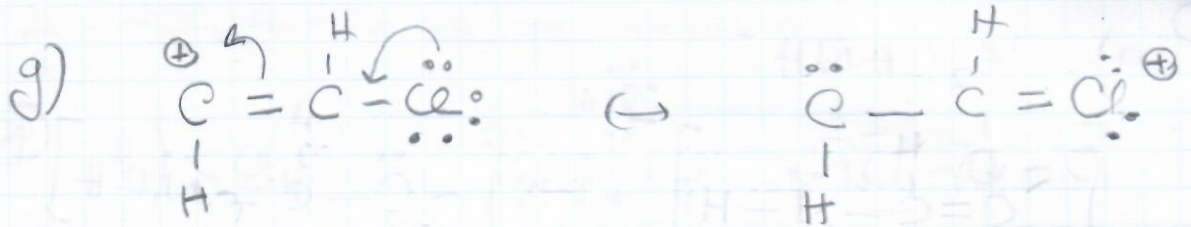


e)

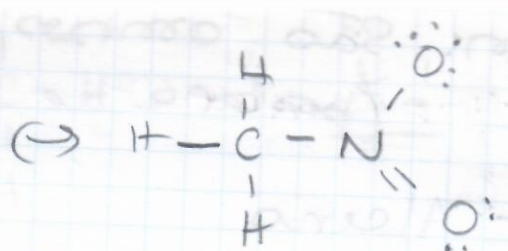
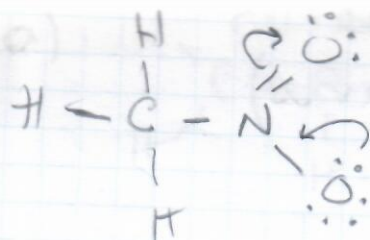


f)





temos estabilização por
ressonância pq é um grupo
ácido carboxílico.



7) a) Sim

b) Não

8)

a) $\text{CH}_4 \rightarrow$ molécula apolar, é um gás, não é solúvel em água

b) $\text{KBr} \rightarrow$ composto iônico, solúvel em água

c) $\begin{array}{c} \text{H} \quad \text{O} \\ \diagdown \quad | \\ \text{N} - \text{O} - \text{H} \\ | \quad \diagup \\ \text{H} \end{array}$ $\rightarrow$ solúvel em água, estabelece pontes de hidrogênio

d) di-álcool $\rightarrow$ também é solúvel em água

9)

a) Sim. São ambos apolares.

b) Não. É um composto iônico e um bicarbonato

c) Não

d) Etanol e acetona $\rightarrow$ sim, pq a acetona é polar

e) Sim. São polares

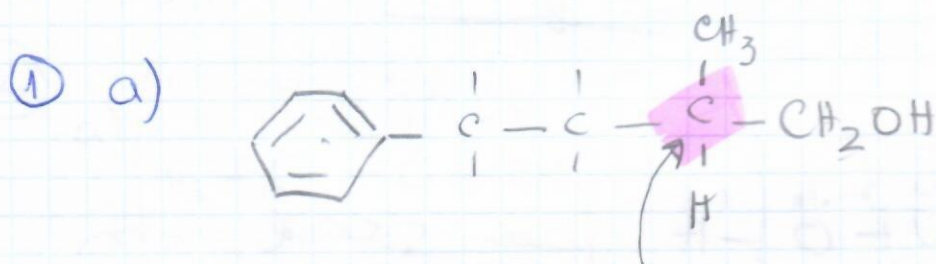
f) Sim. São compostos alcanos
(pentano e hexano)

- ⑩ A - Alceno
B - Alcino
C - Alcano

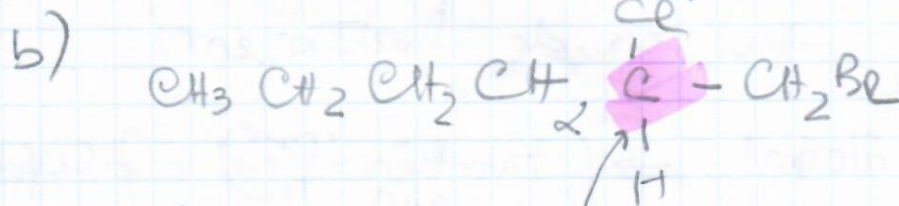
Comp. B < Comp. A < Comp. C

Energ. B > Energ. A > Energ. C
 $\uparrow$ alcino $\downarrow$ alceno $\uparrow$ alcano

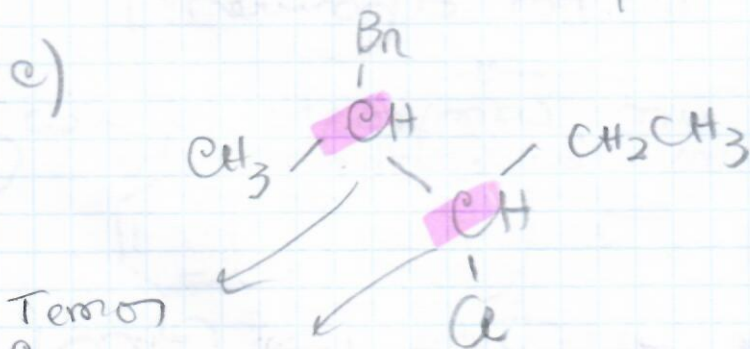
III - Isomeria



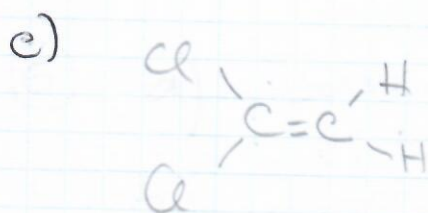
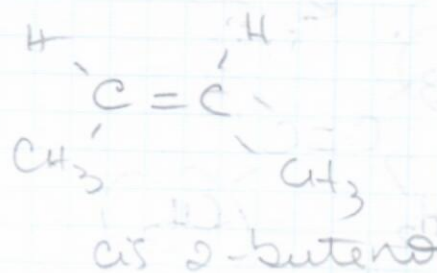
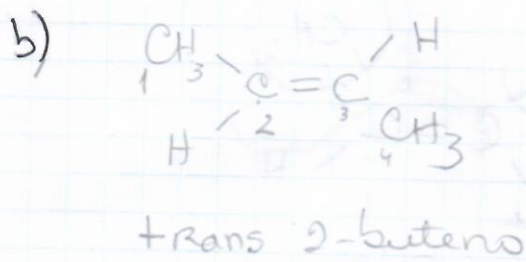
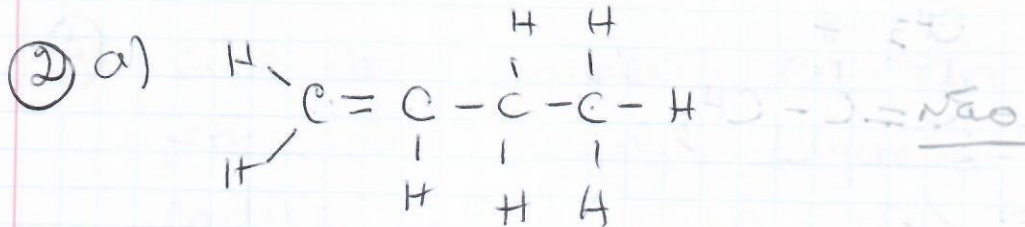
C quiral



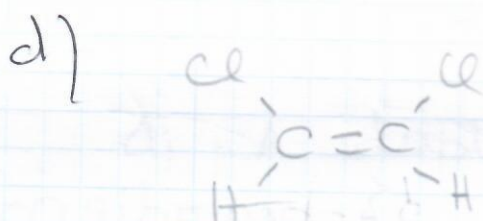
C quiral



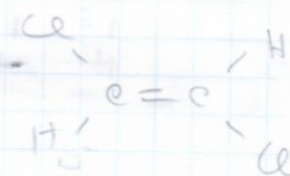
2 C
Temos
quirais



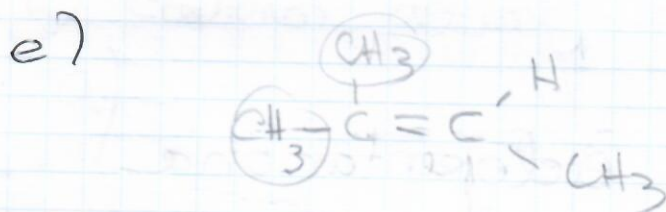
Não



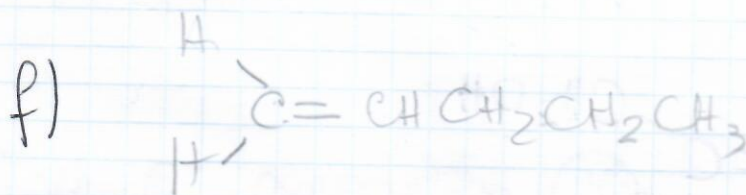
cis 1,2-dicloroeteno



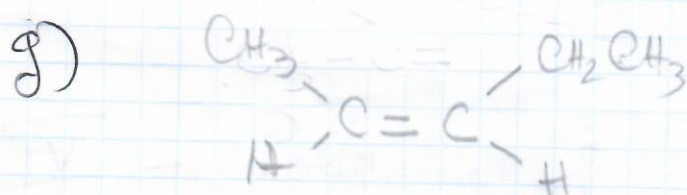
trans 1,2-dicloroeteno



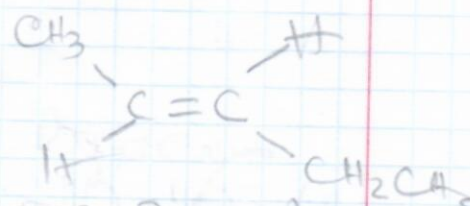
Não



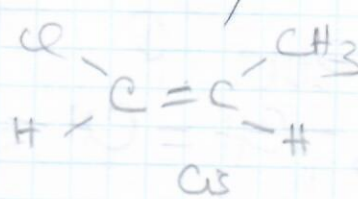
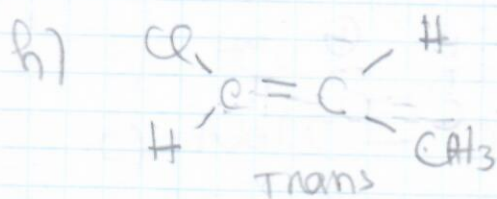
Não



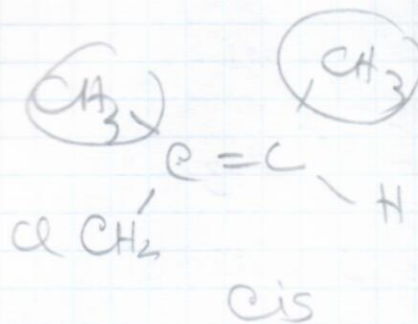
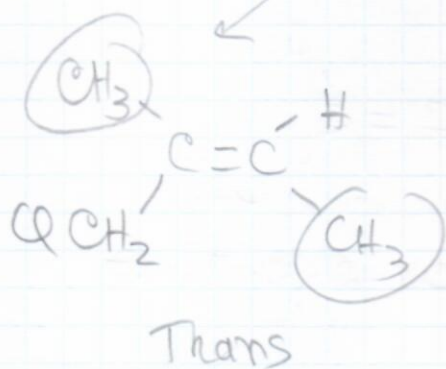
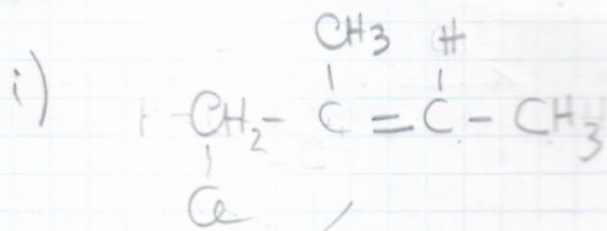
cis 2-penteno



trans 2-penteno



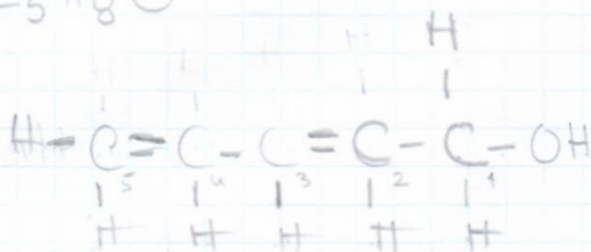
Sim



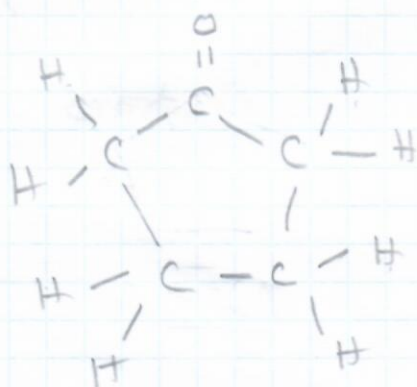
③



a)



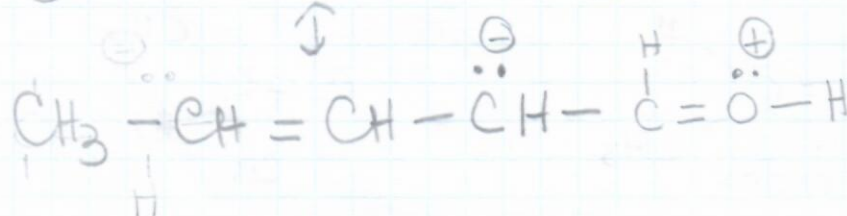
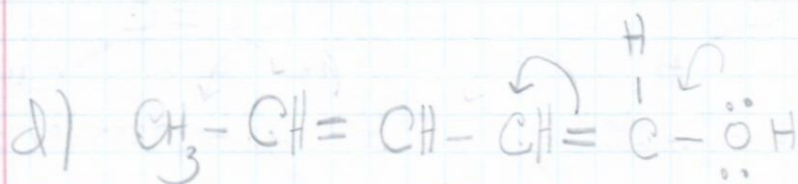
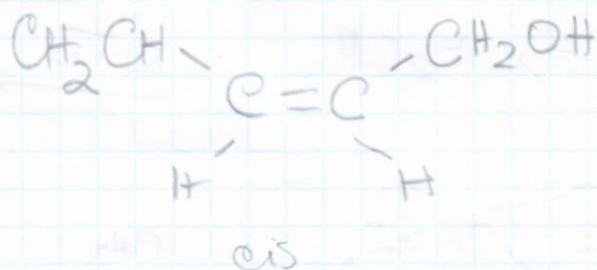
b)



2,4-pentadieno-1-ol

Ciclopentanona

c)



- ④ Sim, tem isômeros cis-trans porque tem uma dupla ligação c/ 2 radicais ligados a esse C diferentes



nesta ligação dupla há cis-trans

- ⑤
- Isômeros de constituição
 - Isômeros de constituição
 - Isômeros cis-trans
 - A dupla c/ grupos $\neq$ ligados no C.

- ⑥ carbonos assimétricos
- | | |
|----|---|
| a) | ② |
| | ④ |
| | ⑤ |
| | 6 |

- b) 0 exemplo ⑦

IV — Polarização das ligações

- ②
- Cl_2 — apolar
 - HCl — polar
 - NaCl — iônica
 - NH_3 — polar

3) a) $\text{HCl} \rightarrow \text{polar}$

b) C_2H_6 (alcano) - apolar

c) CH_3F_2 polar

d) $\text{H}-\text{C}\equiv\text{N}$ polar

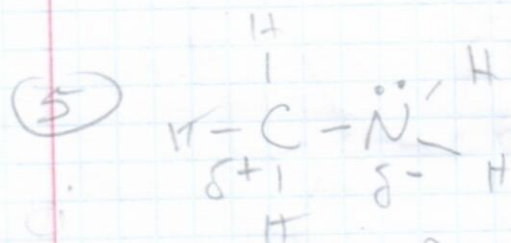
e) CCl_4 apolar

4) a) $\begin{array}{cc} \delta^+ & \delta^- \\ \text{C} & - \text{O} \end{array} \quad \begin{array}{cc} \delta^+ & \delta^- \\ \text{C} & - \text{N} \end{array}$

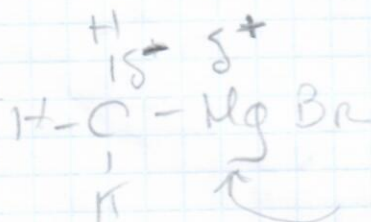
$\downarrow$
mais polarizada

b) $\begin{array}{cc} \delta^+ & \delta^- \\ \text{C} & - \text{F} \end{array} \quad \begin{array}{cc} \delta^+ & \delta^- \\ \text{C} & - \text{Cl} \end{array}$

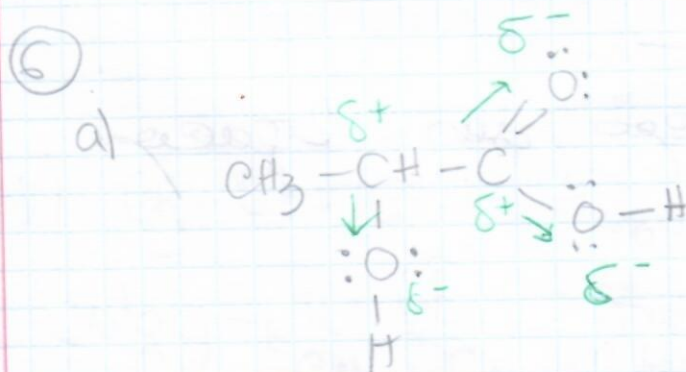
$\uparrow$
mais polarizada



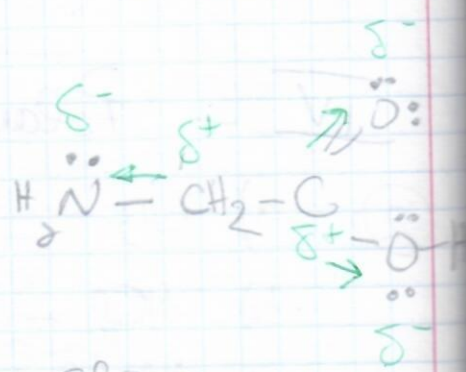
$\nwarrow$ p $\circ$ N $\hat{=}$ $\oplus$ eletronegativo



$\nwarrow$ p $\circ$ este $\hat{=}$ $\ominus$ eletronegativo



ácido láctico



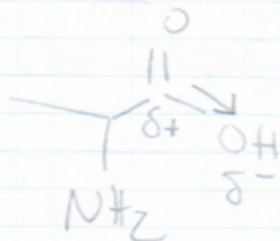
glicina

c) são moléculas polares. autoionizantes

Ⓣ

a) Ác. carboxílico
Amina

b)



c) A - sp^2
B - sp^3

d) A - carbono c/ hibridização sp^2
faz duas ligações σ e uma π .

B - tudo ligação σ .