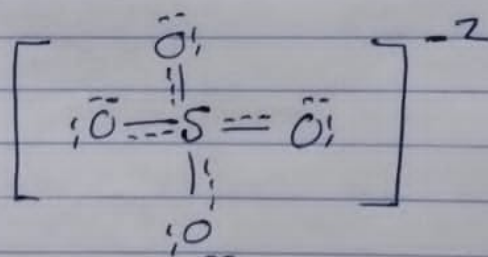
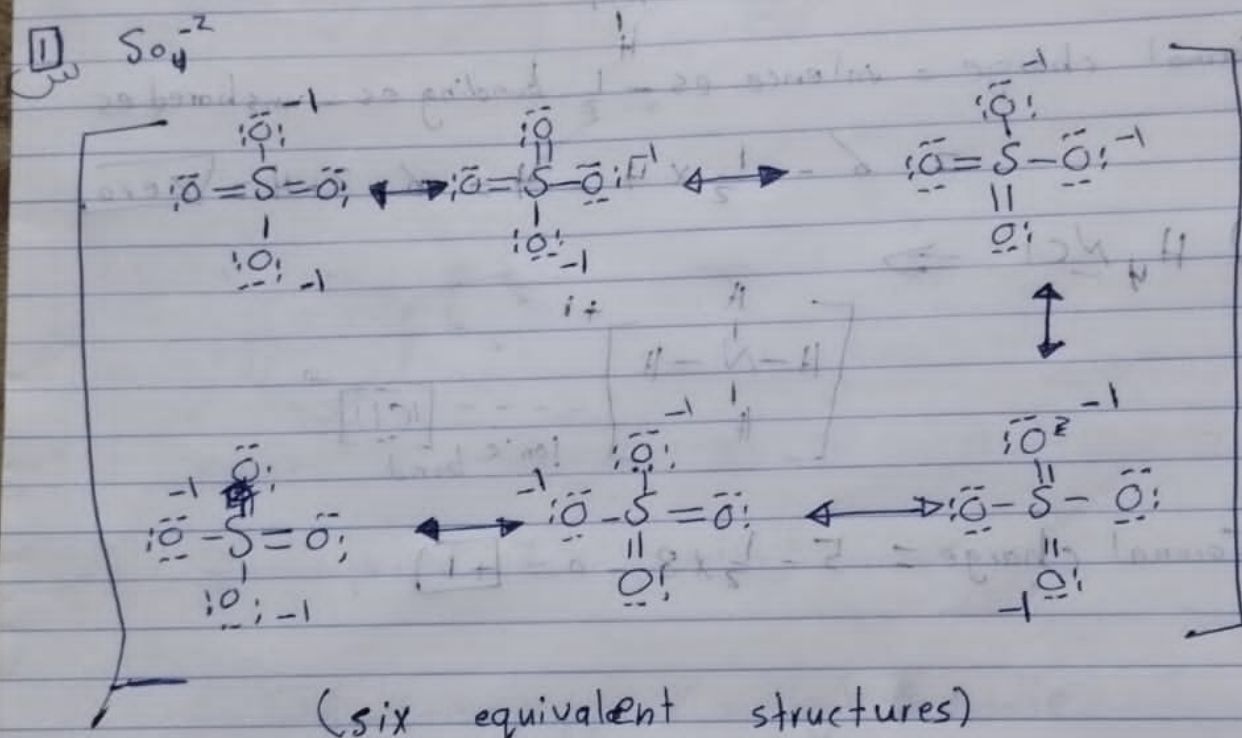


الطالب: يوسف محمد ديبو / رقم: 4 / الرقم الجامعي: (20220415)

Organic Chemistry

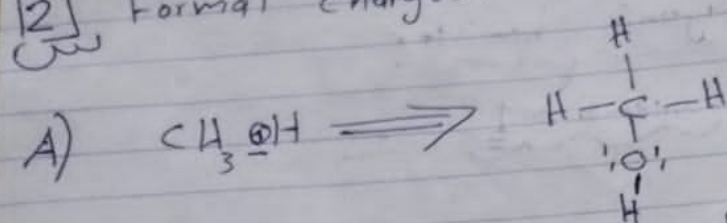
Homework 1



(resonance structure)

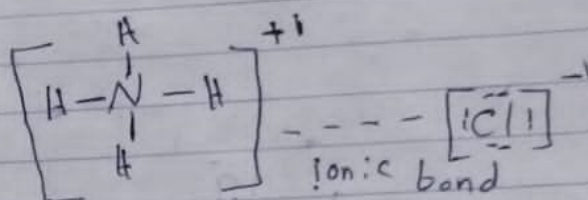
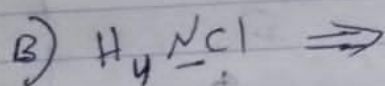
15

2 Formal charges:-



Formal charge = valence es - $\frac{1}{2}$ bonding es - unshared es

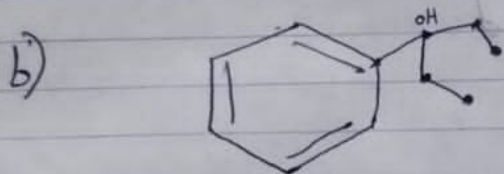
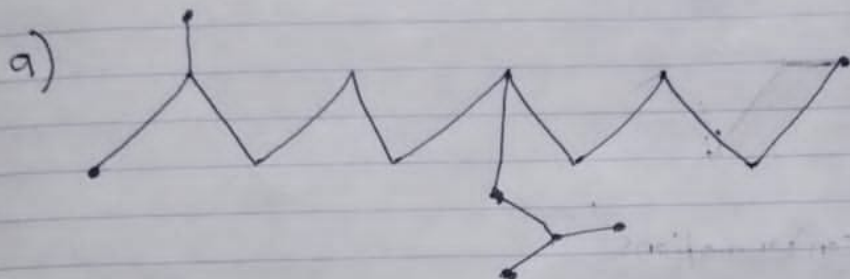
$$= 6 - \frac{1}{2} \times 4 - 4 = 6 - 2 - 4 = \boxed{\text{Zero}}$$



Formal charge = $5 - \frac{1}{2} \times 8 - 0 = \boxed{+1}$

2

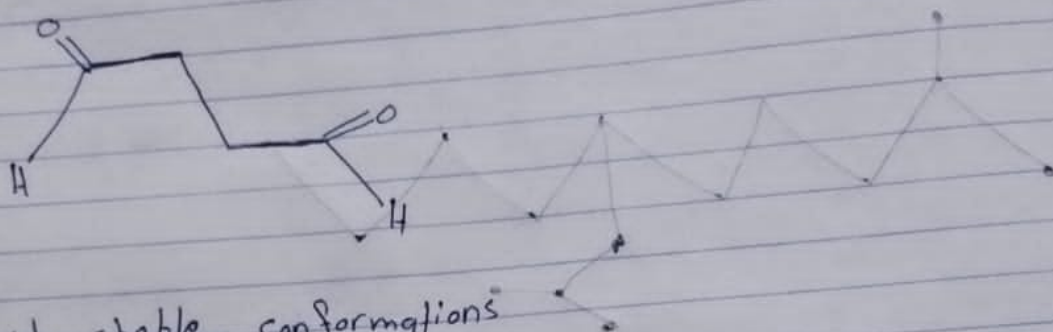
3] Line-angle Formulas:-



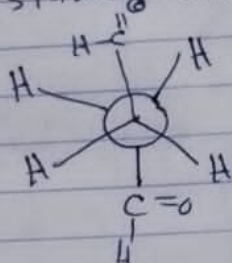
4) a) 3,7-diisopropyl-2,5-dimethylnonene

b) 5-terbutyl-4-isopropyl-6-methyldecane

⑤



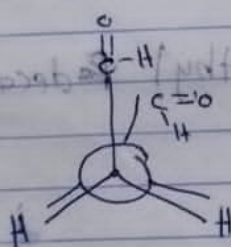
⇒ most stable conformations



⇒ staggered



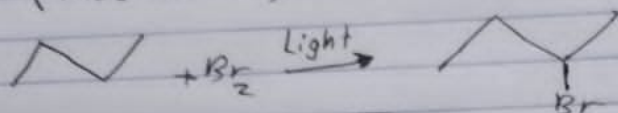
⇒ least stable conformations



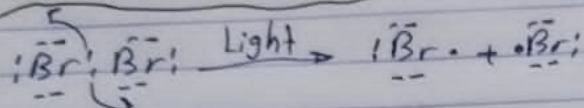
⇒ eclipsed

[54]

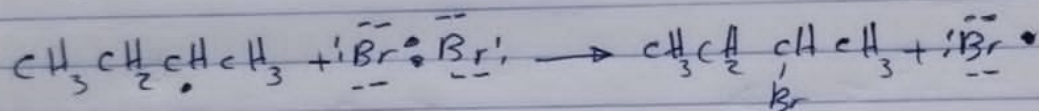
⑥ (mechanism)



* chain - initiating step



* chain - propagating steps



* chain - terminating steps

