

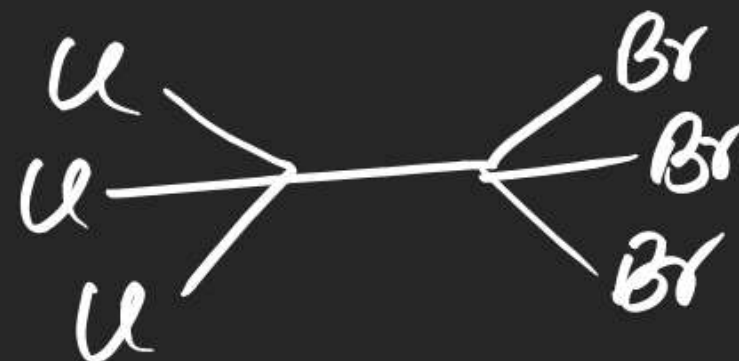
Basic Organic Chemistry

HW (Discussion) Theory copy:

(5)



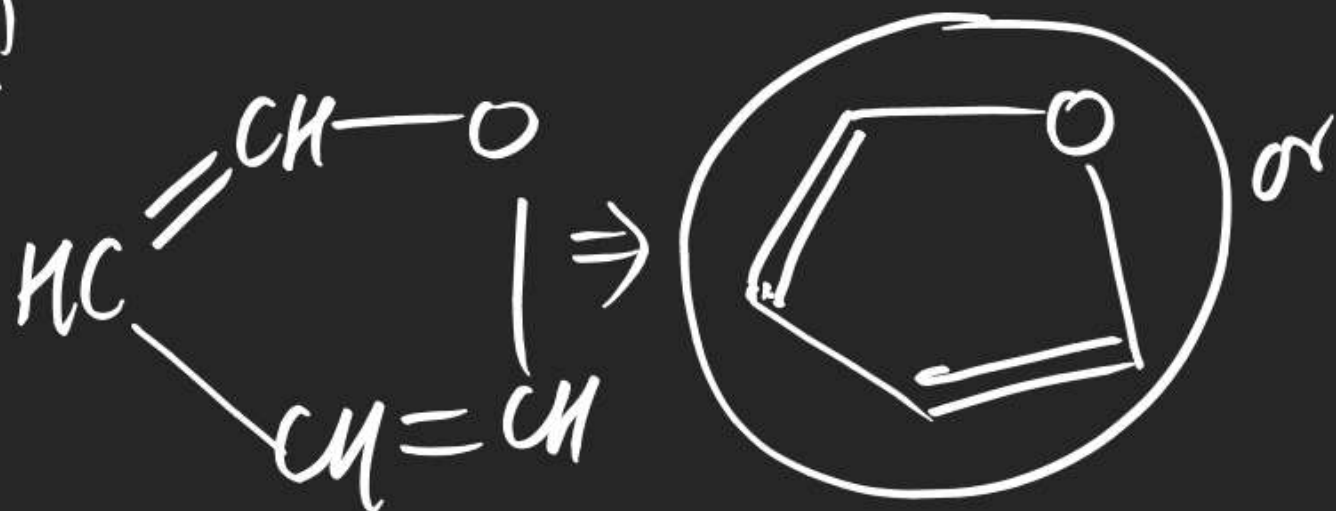
(10)



(11)



(6)



(9)

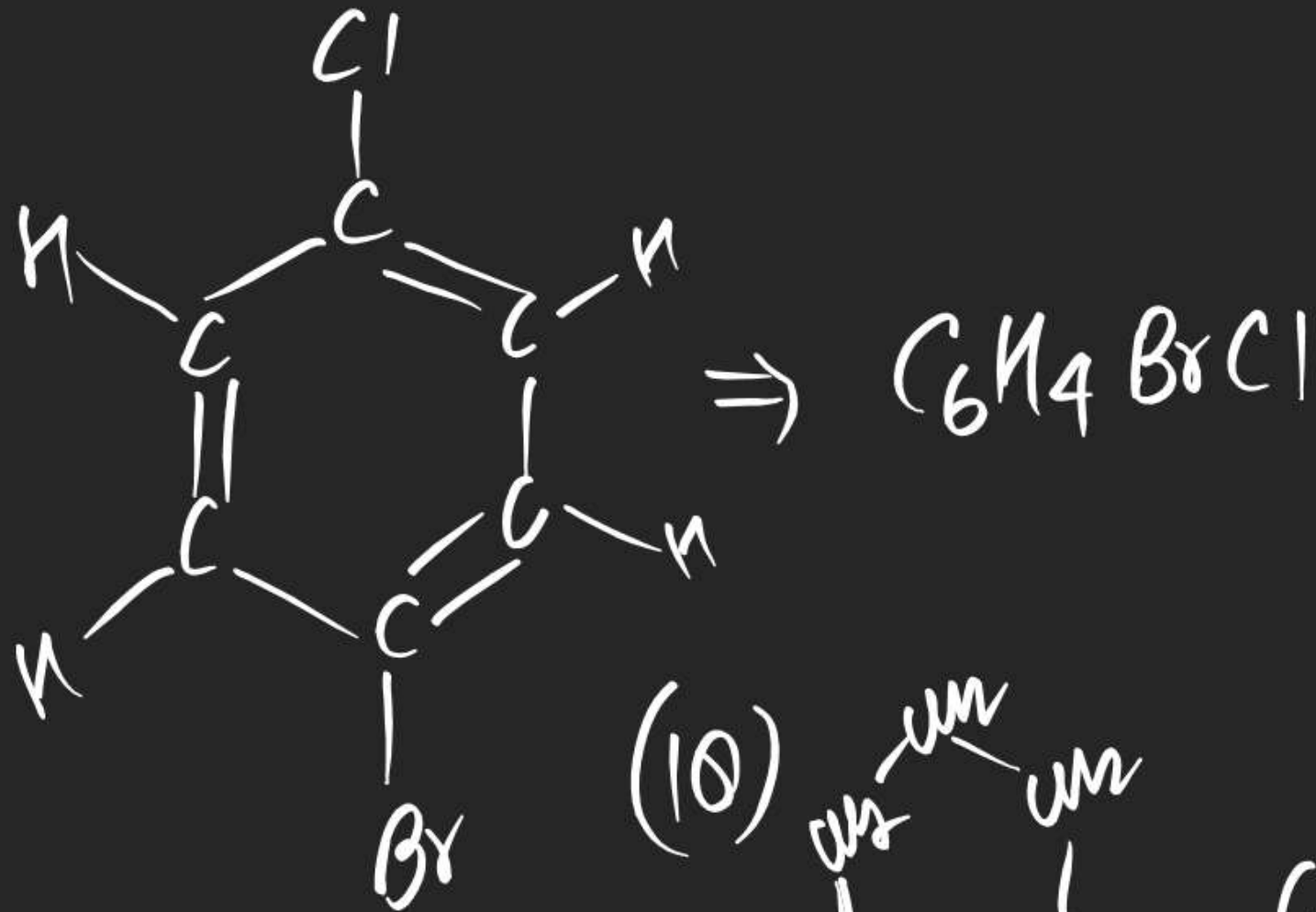


(or)

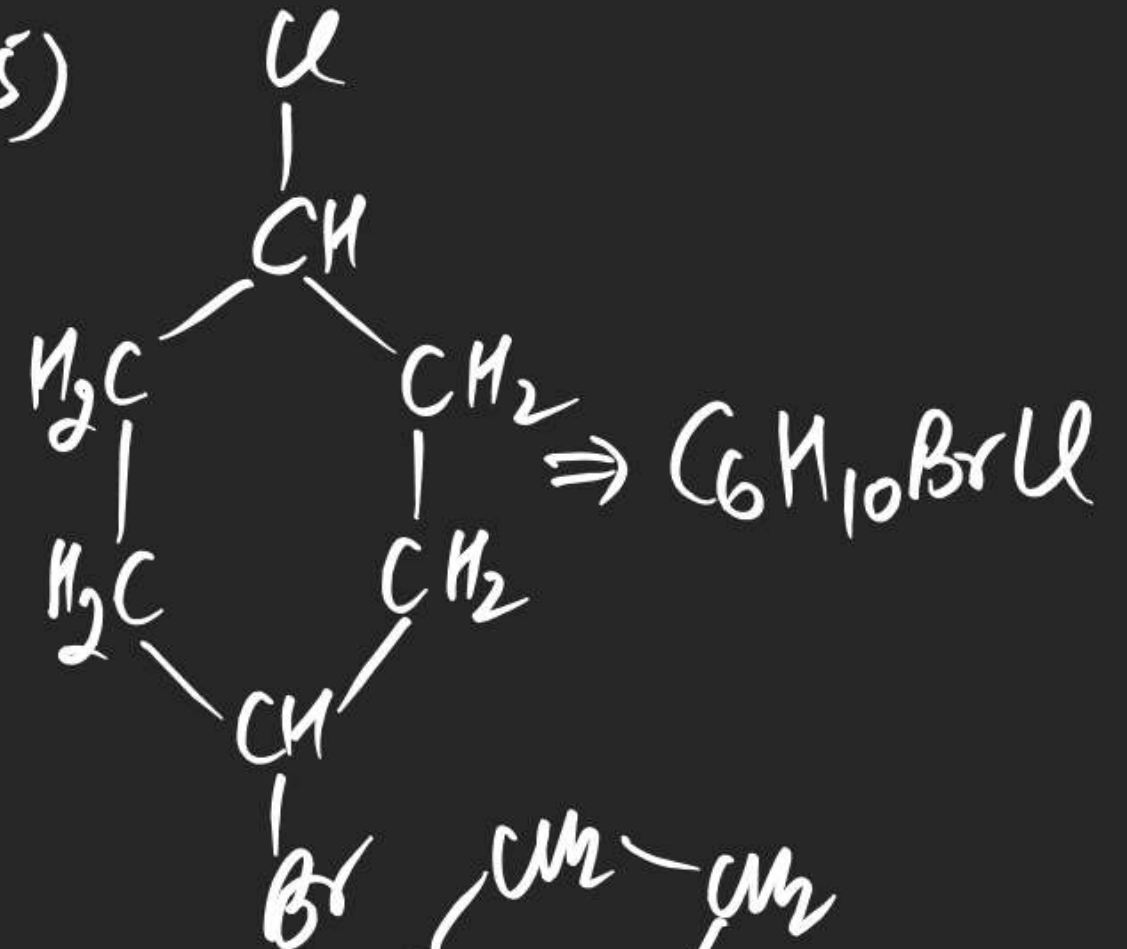


Basic Organic Chemistry

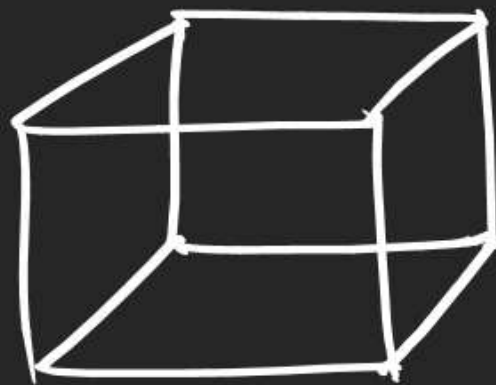
(14)



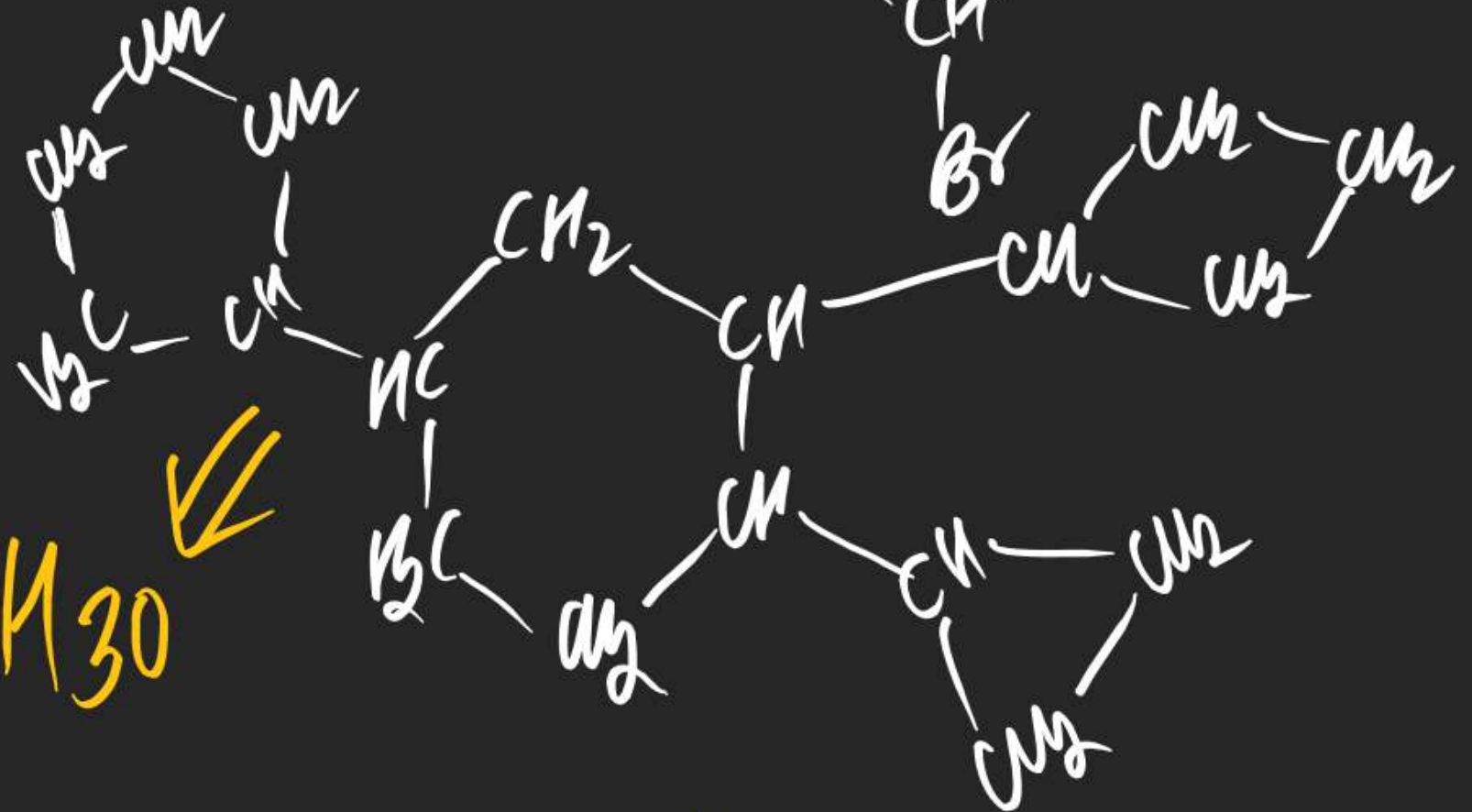
(15)



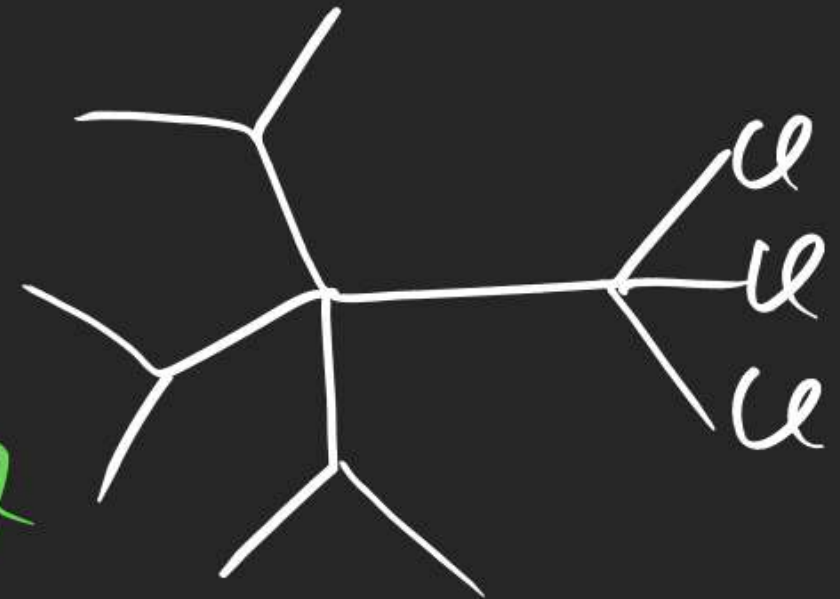
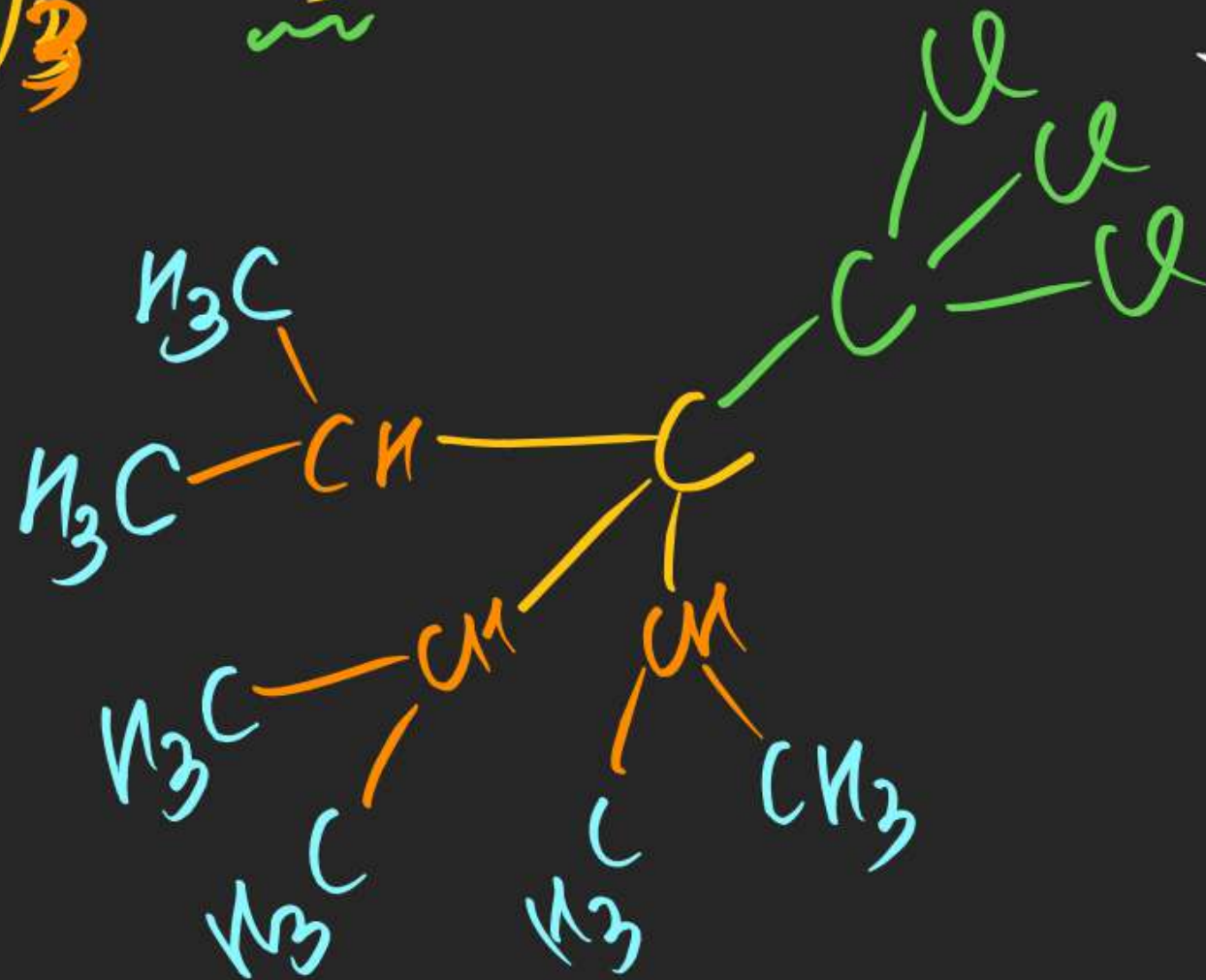
(17)



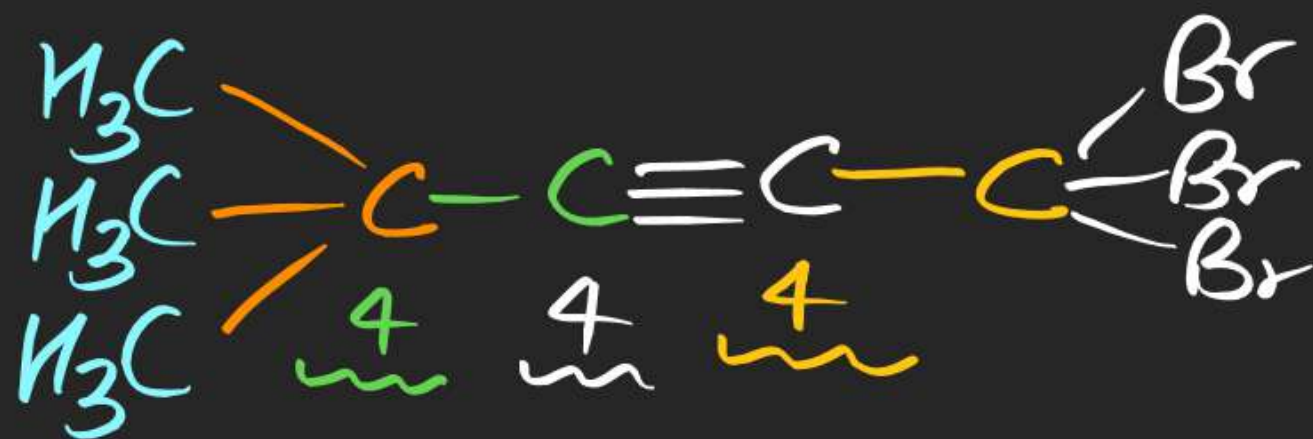
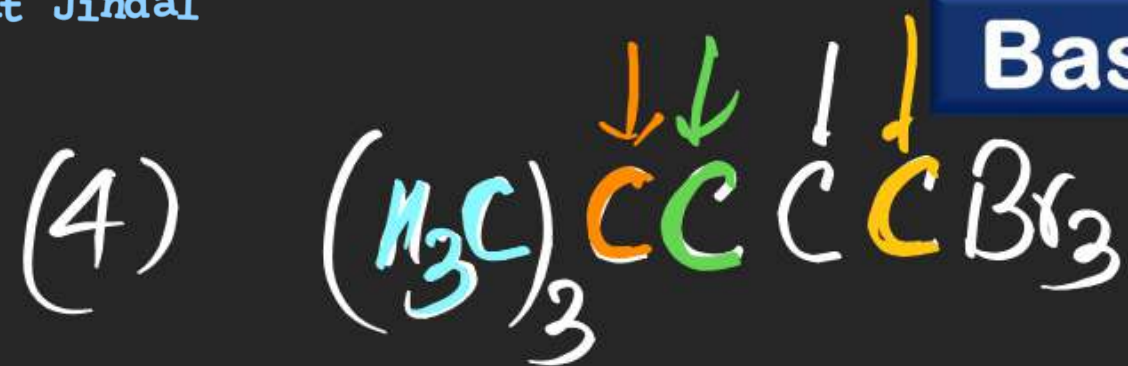
(18)



Basic Organic Chemistry



Basic Organic Chemistry

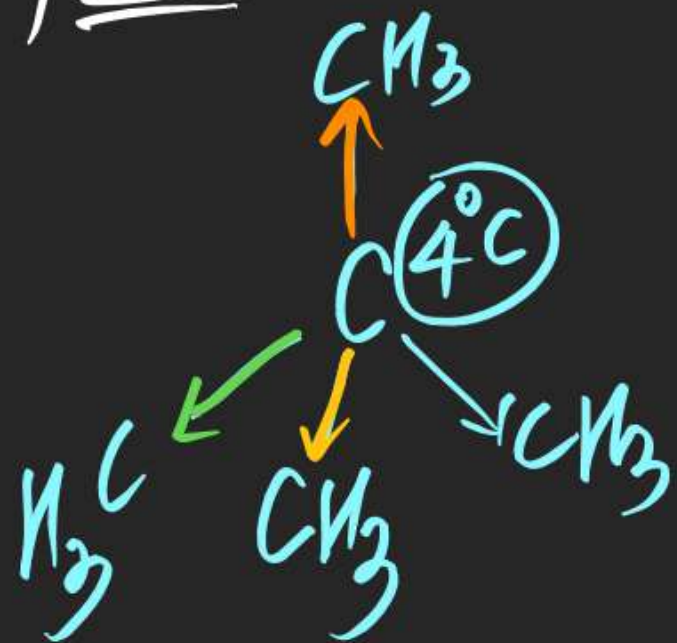


(#) Type of Carbon:

There are four types of Carbon.

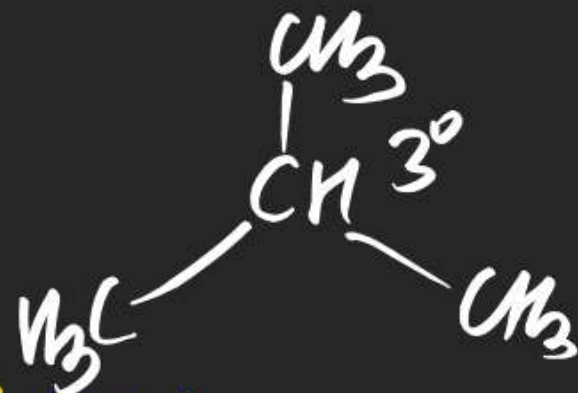
(1) 4° Carbon or Quaternary Carbon: Carbon atom directly attached with four other Carbon atoms.

Ex:



(2) 3° Carbon or Tertiary Carbon: Carbon atom directly attached with three other Carbon atoms.

Ex!



2° Carbon or Secondary Carbon!

Carbon directly attached with 2 Carbon atoms.

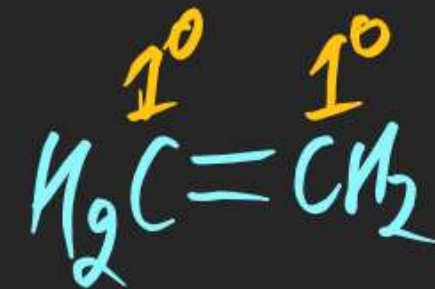
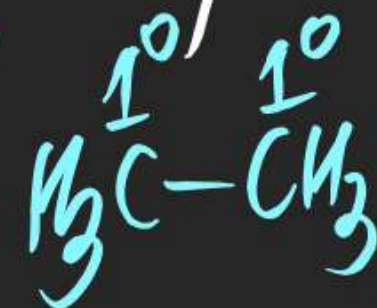
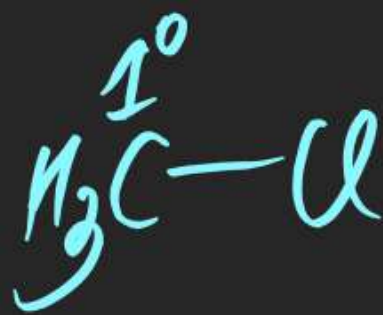
Ex!

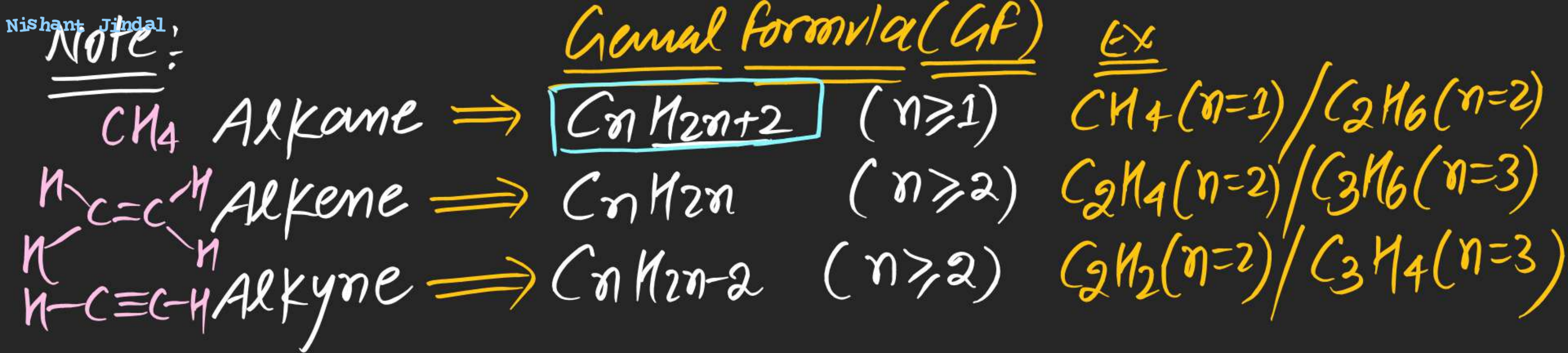


1° Carbon or Primary Carbon!

Carbon directly attached with 1 Carbon or None Carbon.

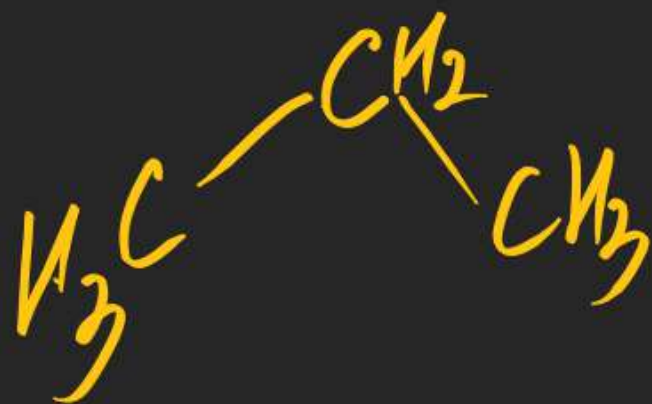
Ex:



Note:General Formula (GF)Ex

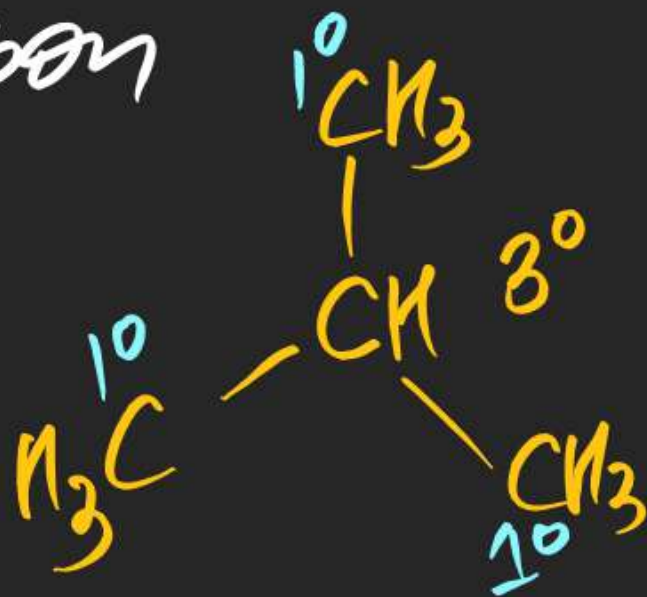
(1) Find total no. of structures which are Hydrocarbon
alkane with lowest mol. wt & containing

(a) only 1° & 2° Carbon atom

Soln:

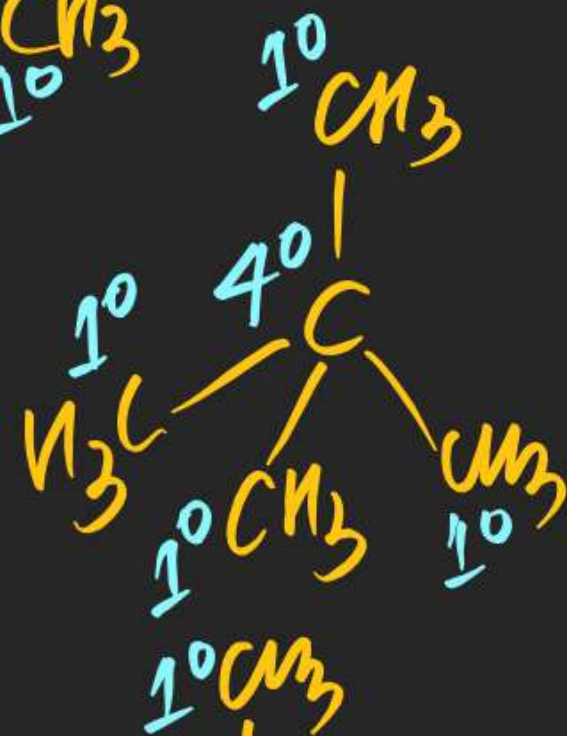
(1 Compound possible)

(b) only 1° & 3° Carbon



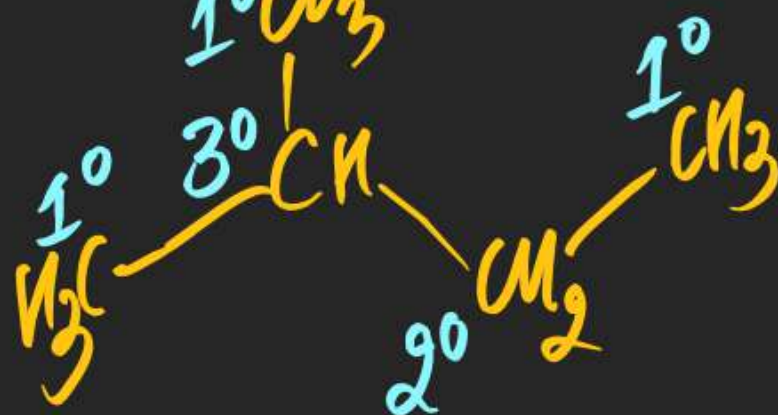
(1 Compound)

(c) only 1° & 4° Carbon



(1 Compound)

(d) only 1° , 2° & 3° Carbon



(1 Compound)

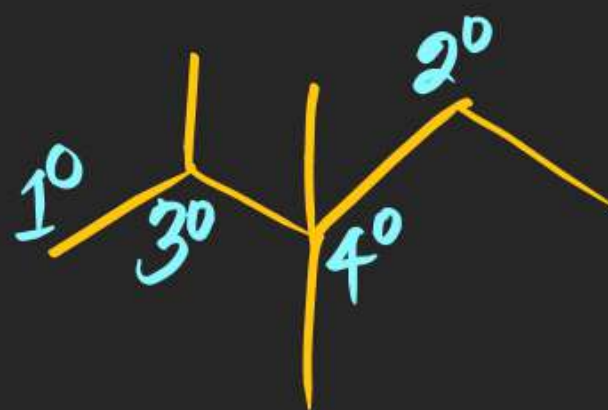
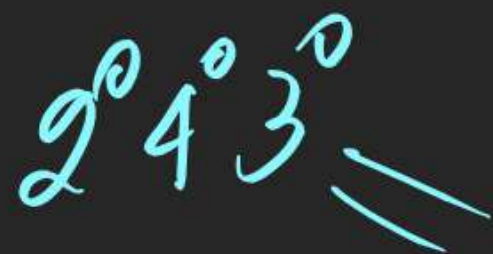
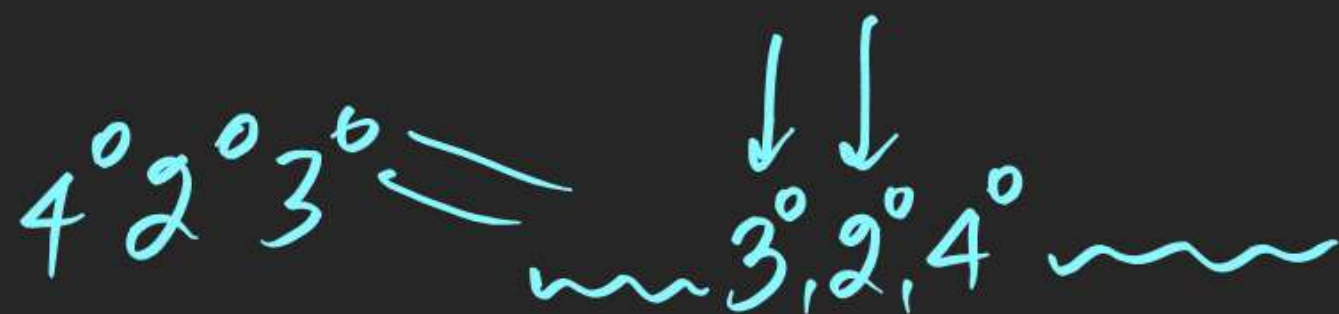
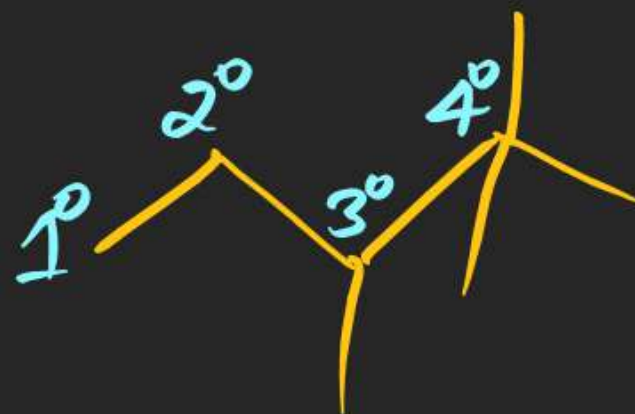
(e) only 1° , 2° & 4° Carbon



(1 Compound)

(f) only $1^\circ, 2^\circ, 3^\circ$ & 4° Carbon

Solution:-



C_8H_{18}

3 structure possible

C_8H_{18}

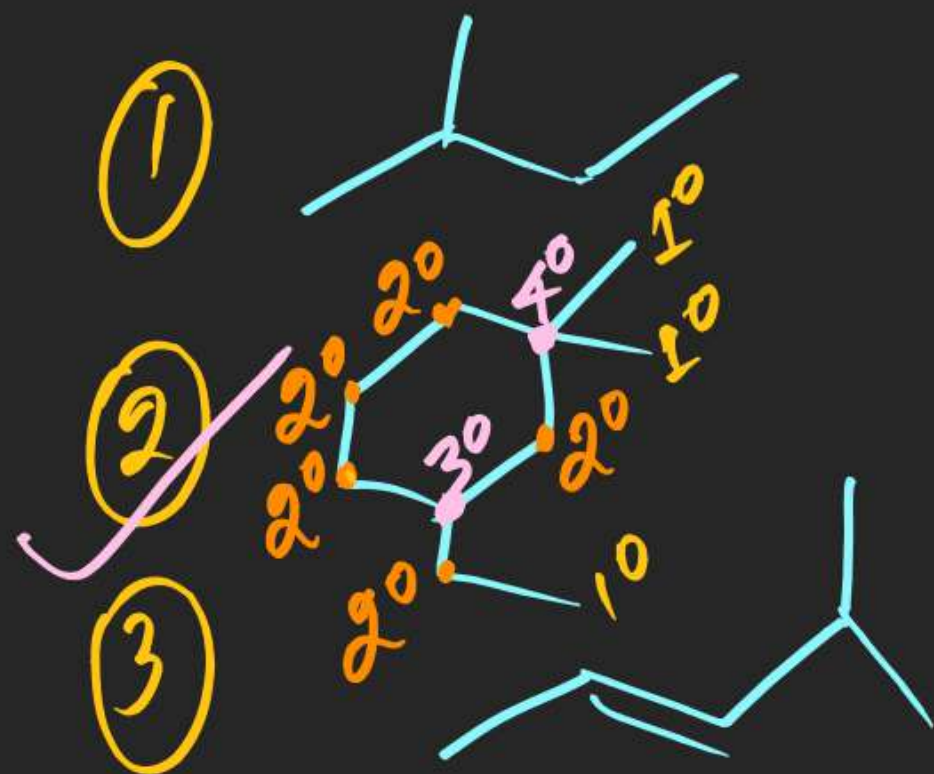
C_8H_{18}

(#) Types of Hydrogen:

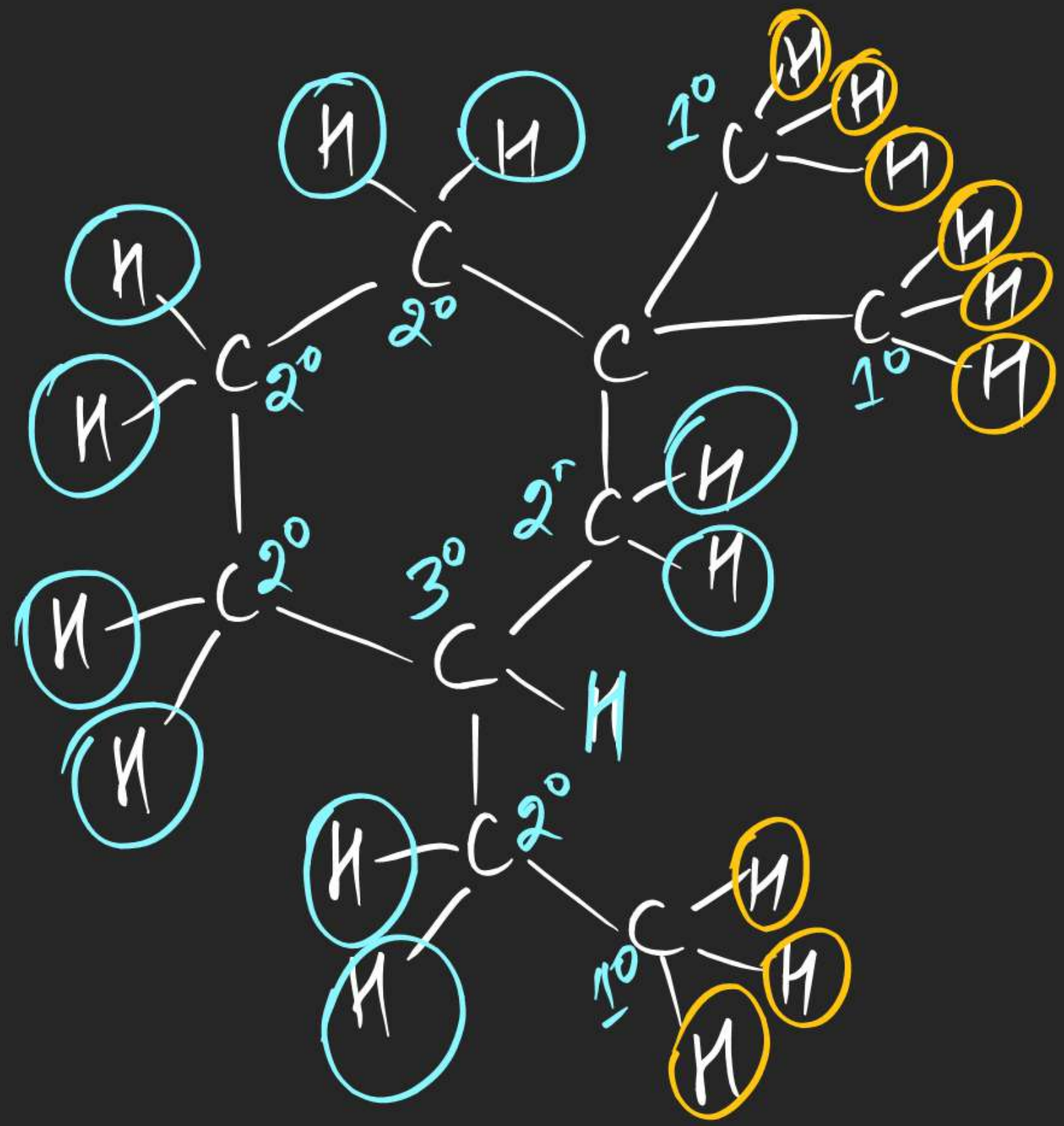
(a) 3° Hydrogen: ^{No. of} Hydrogen atom present at 3° Carbon

(b) 2° Hydrogen

(c) 1° Hydrogen

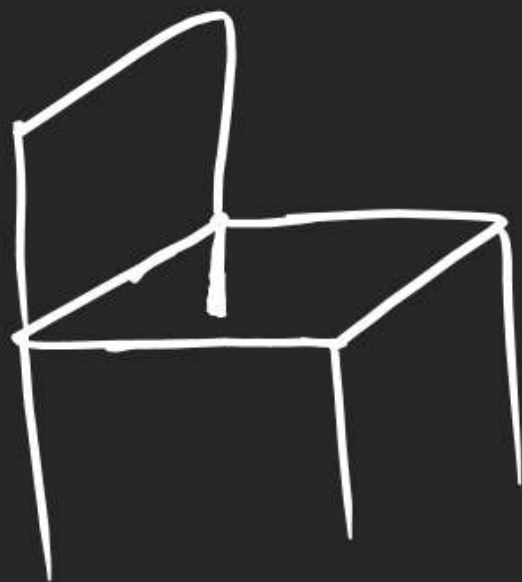


4° C	3° C	2° C	1° C	3° H	2° H	1° H
1	1	5	3	1	10	9

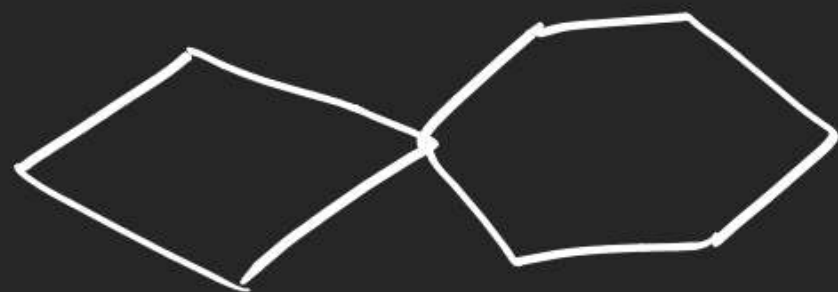


Basic Organic Chemistry

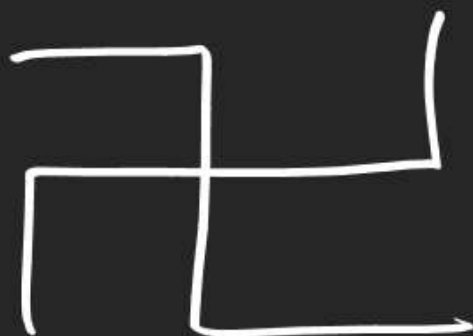
(4)



(5)



(6)

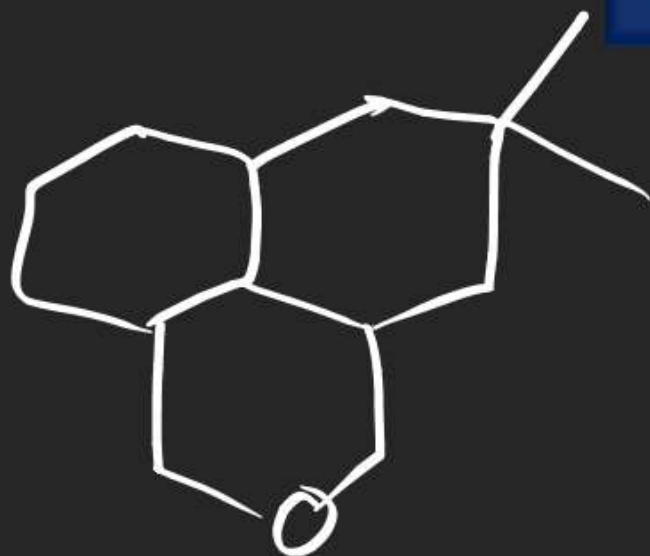


(7)

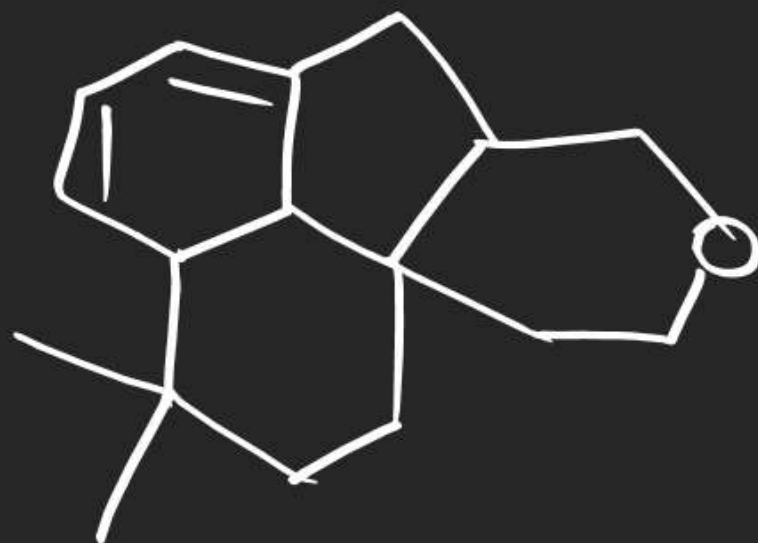


Basic Organic Chemistry

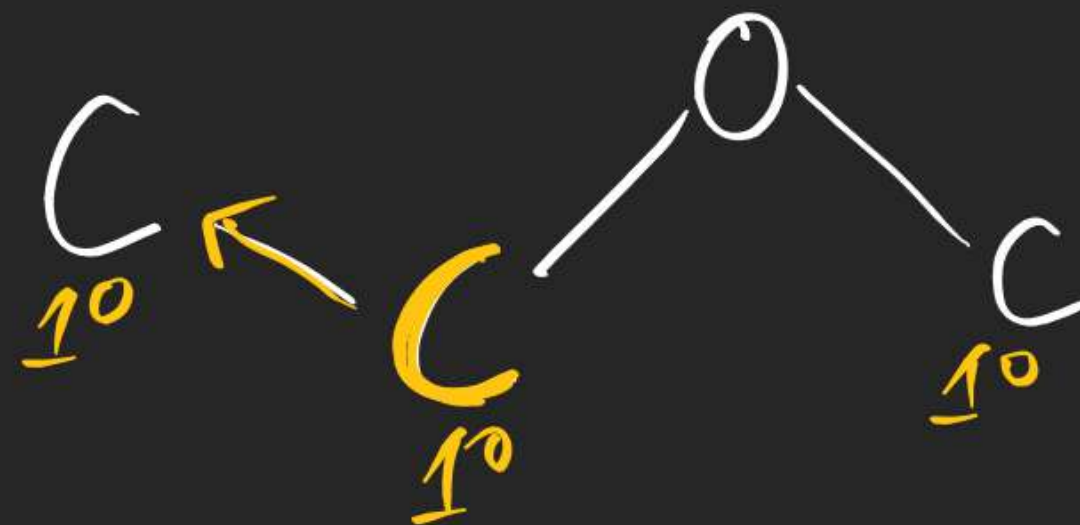
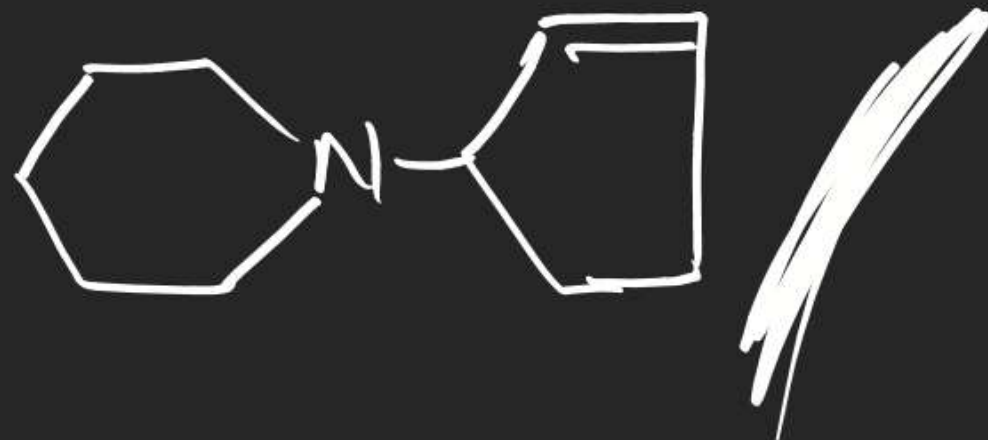
(8)



(9)



(10)



(11)

