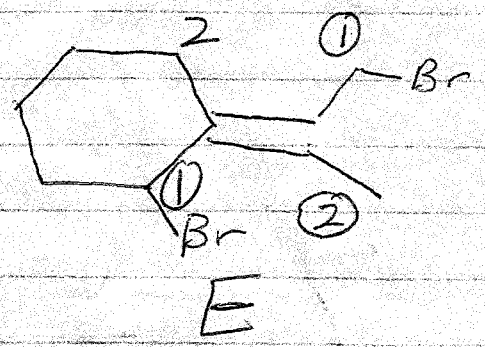
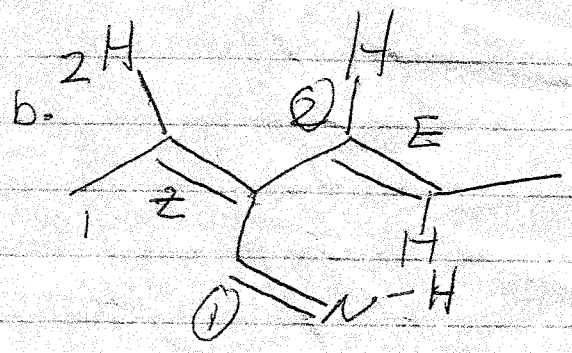
Chem 211 Worksheet for September 23, 2011

1. Assign Z or E to double bonds where it is appropriate.

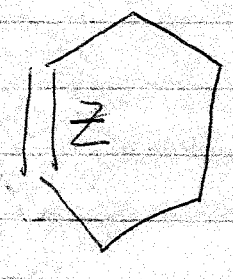
a.



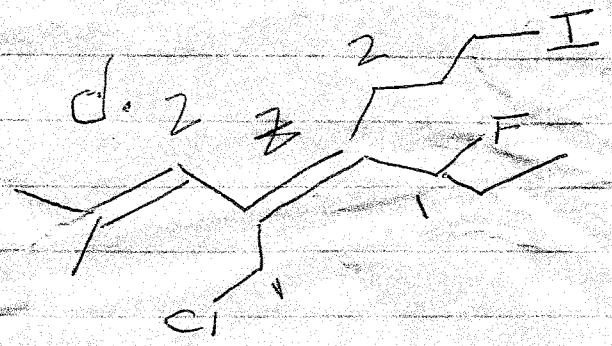
b.



c.



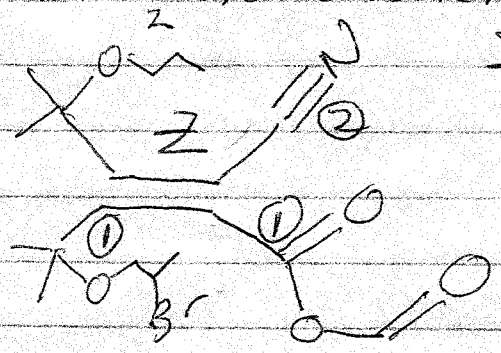
d.



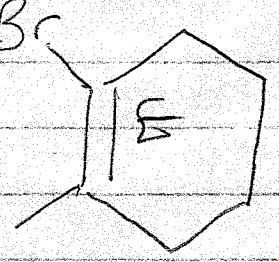
2. Assign configuration (Z, E) and draw other stereoisomer

See attached

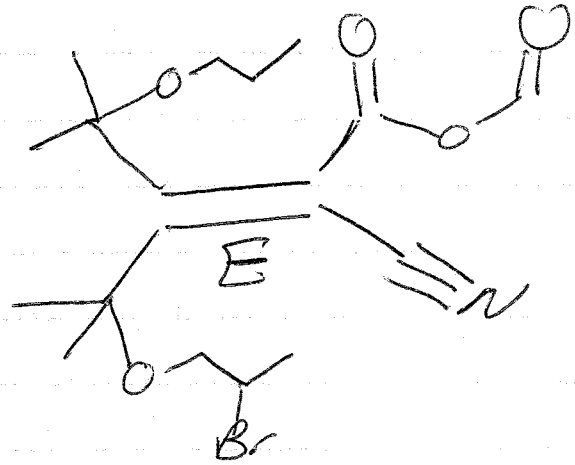
a.



b.

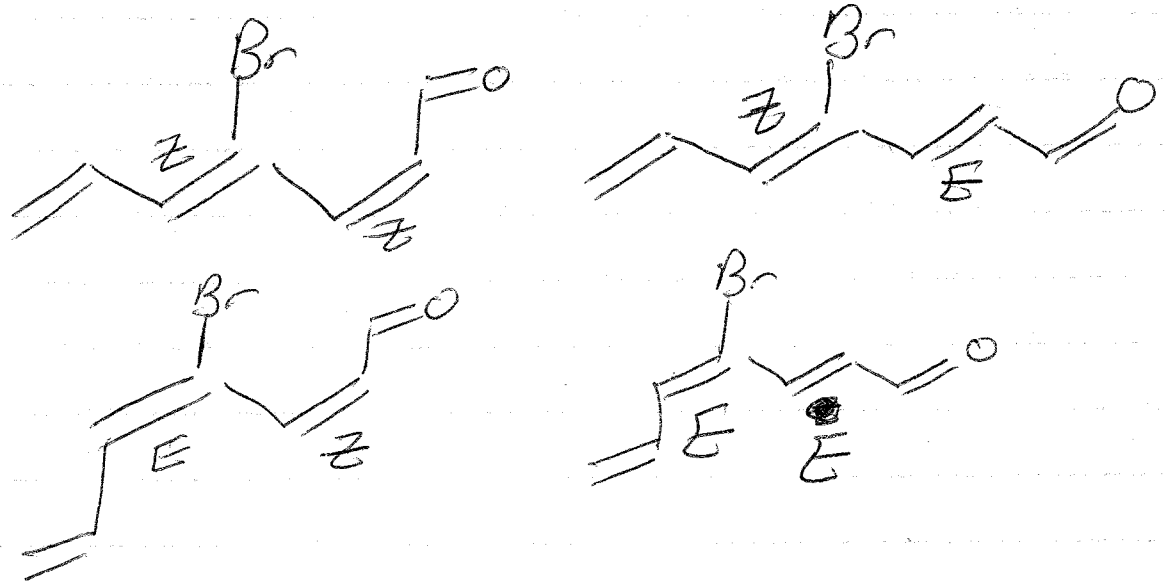


(2) (a) other stereoisomer



(b) In this case the Z isomer can't be drawn because ring is too small

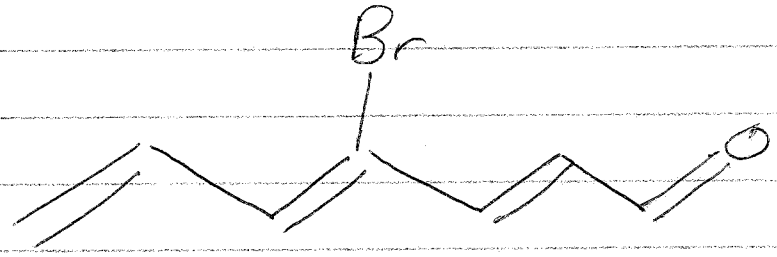
(3) (a)



Answers

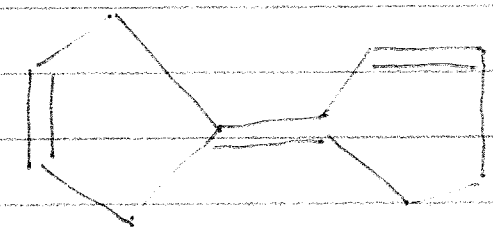
3. Draw all stereoisomers

(a)



See attach

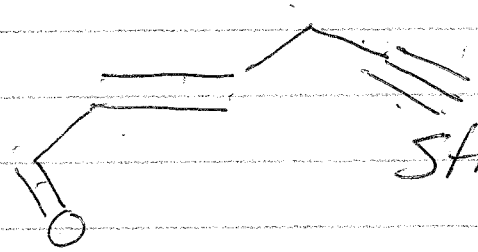
(b)



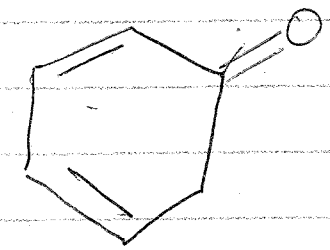
No stereoisoms

4. Draw orbital diagrams and establish relationships between pairs of molecules

a.



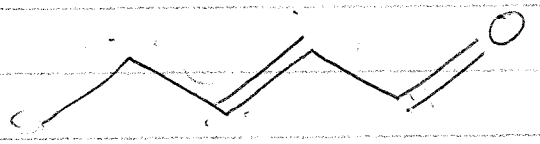
b.



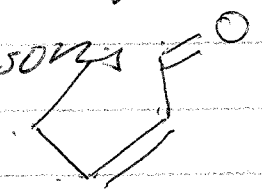
Structural isomers

geometric isoms

b.

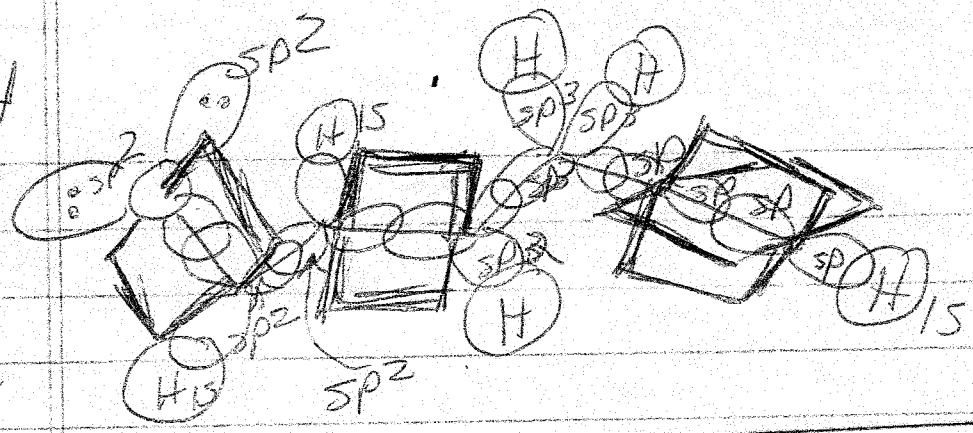


b.

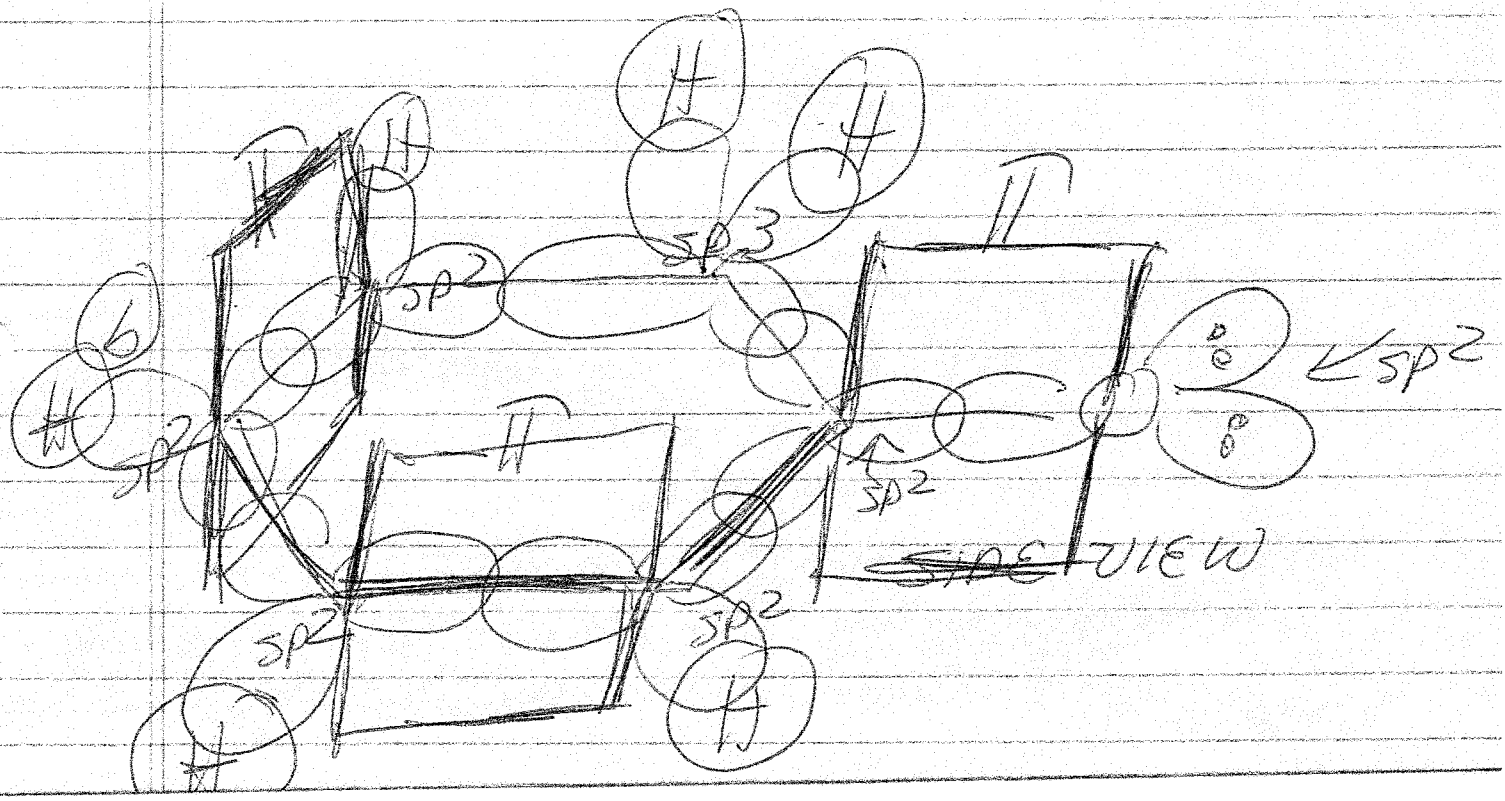


4

(a)


sp2
H
sp3
sp3
H
H
sp2
sp2
sp2
sp2
H
H
sp2
sp2
H

(b)


H
H
H
H
sp3
sp2
sp2
sp2
sp2
sp2
sp2
H
H
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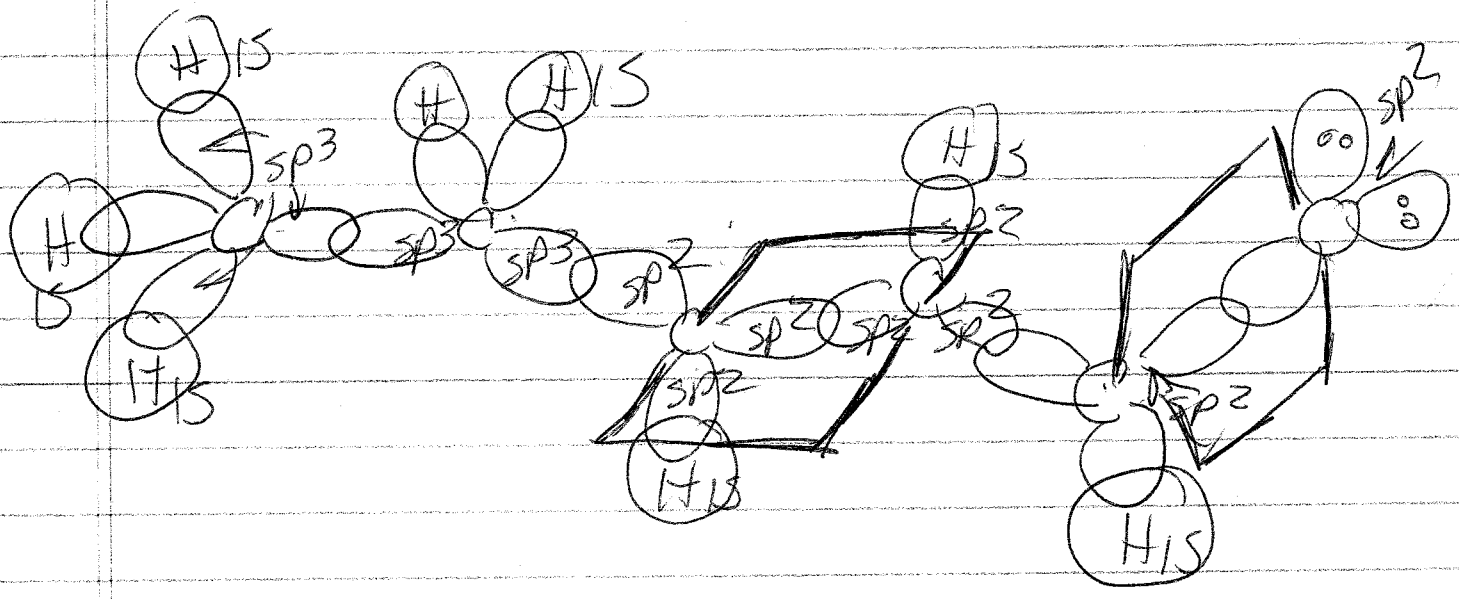
SIDE VIEW

ⓐ + ⓑ Both are orbitally same