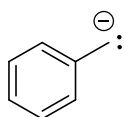


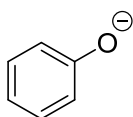
Name: _____

1. Circle the letter corresponding to the
- weakest base**
- ? (1 point)

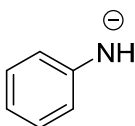
a.



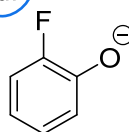
b.



c.



d.



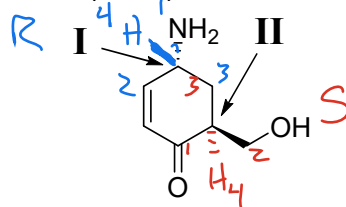
2. Identify the absolute configuration (R or S) for each stereocenter. (1 point)

a. I = S and II = S

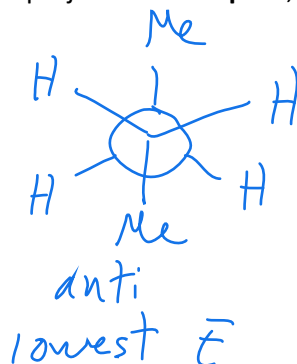
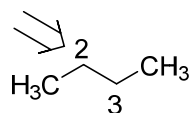
b. I = R and II = R

c. I = S and II = R

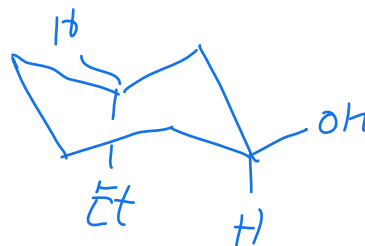
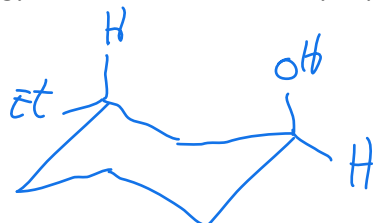
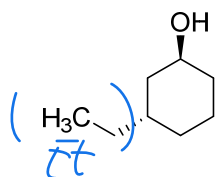
d. I = R and II = S



3. a. Draw a Newman projections looking down the C2-C3 bond of butane corresponding to the **highest** and **lowest** energy conformations.
b. Label each Newman projection as **eclipsed**, **gauche** or **anti**. (4 points)



4. a. Draw both chair conformations for the following molecule.
b. Label the lower energy conformation and briefly explain your choice. (4 points)



larger Et substituent equatorial
- minimizes 1,3-diaxial interactions