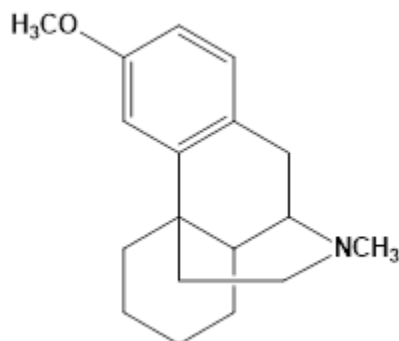
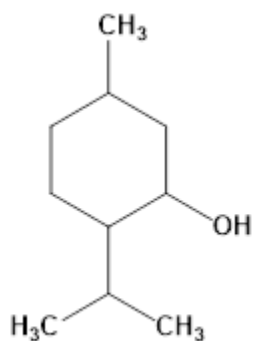
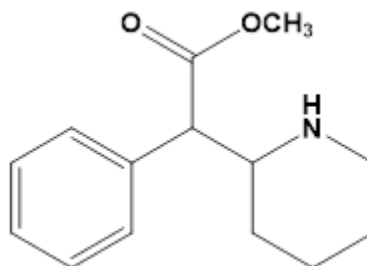


Name:

**Organic Chemistry Fall 2020
Tutorial #2: Stereochemistry**

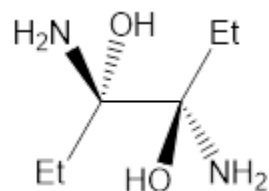
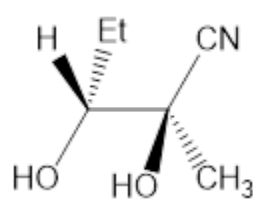
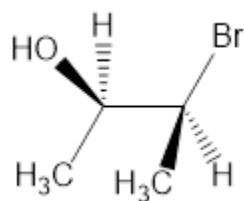
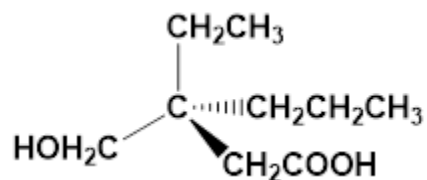
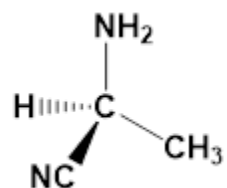
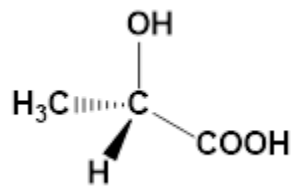
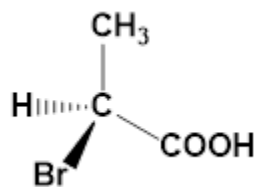
1. Clearly mark an asterisk next to all the stereogenic centers in these molecules. (10 Marks)



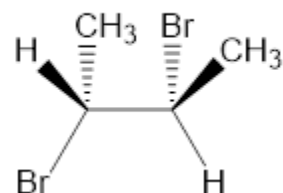
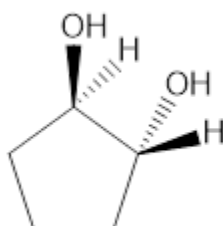
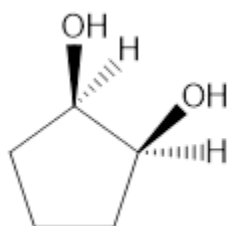
2. Assign priorities to these sets of substituents: (8 Marks)

- H, – Br, – CH₂CH₃, – CH₂CH₂OH
- CO₂H, – CO₂CH₃, – CH₂OH, – OH
- CN, – CH₂NH₂, – CH₂NHCH₃, – NH₂
- Br, – CH₂Br, – Cl, – CH₂Cl

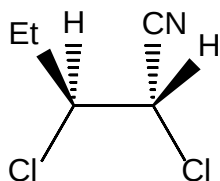
3. Assign R, S configurations to these molecules: (10 Marks)



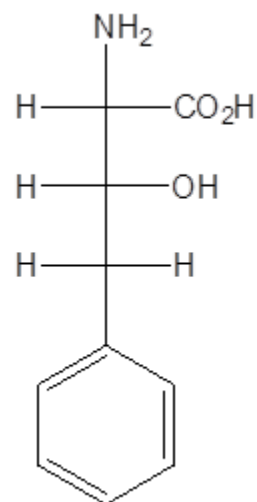
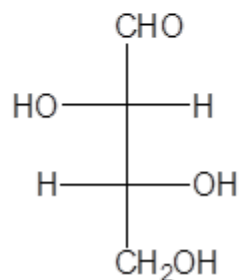
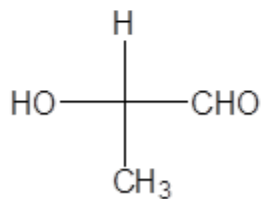
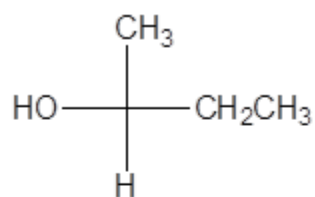
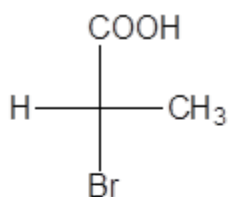
4. Which of the following represent a meso compound? Show your work. (3 Marks)



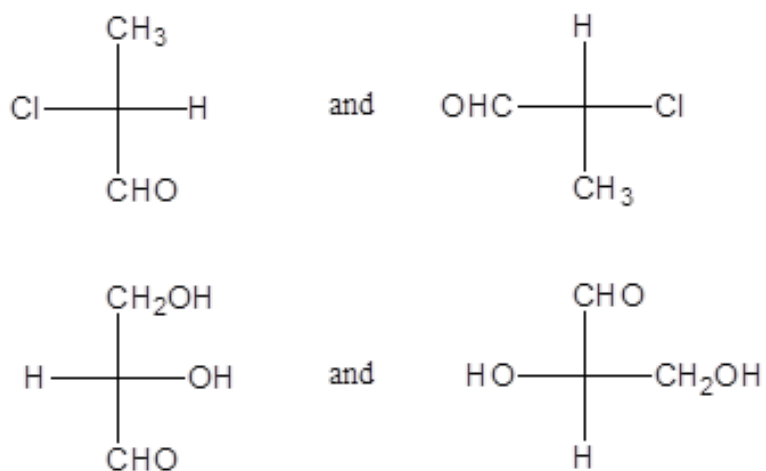
5. Draw all the possible stereoisomers of the following compound and indicate whether they are enantiomers, diastereomers or meso forms of the compound.
(6 Marks)



6. Assign either R or S configurations to the stereogenic centers in these molecules.
(8 Marks)



7. Are these pairs of Fischer projections the same or are they enantiomers?
(2 Marks)



8. Draw the proper Fischer projection for the enantiomer of the following molecules.
(3 Marks)

