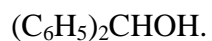
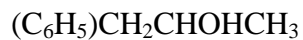


CHM 2211 – Ch 17 Homework

1. Name the following alcohols systematically and draw their skeletal structures. (2 pts)



2. Diagram the mechanisms for reactions that will create 5-methyl-2-hexanol by
a) reduction of a carbonyl compound and b) addition of a Grignard reagent to
a carbonyl compound. Show all lone pairs and use curved arrows. (2 pts)

3. Draw the products in 3D for the reactions of (R) 5-methyl-2-hexanol with a) $\text{Na}_{(s)}$, b) PCC, and c) p-toluene-sulfonyl chloride (or tosyl chloride). Also, state and explain the stereochemistry of the tosylated product in part c). (2 pts)

4. Show reactions with mechanisms for 5-methyl-2-hexanol with
a) SOCl_2 and b) POCl_3 . Use curved arrows and show all lone pairs.
Also, explain the general types of mechanisms and how they work.
(2 pts)

5. Show the reactions with mechanisms for 2-methyl-2-propanol with
a) H_2SO_4 in THF and b) HBr. Use curved arrows and show all lone pairs.
Also, explain the general types of mechanisms and how they work. (2 pts)