CEM143, Problem Set #7 Chapter 7: Alcohols and Phenols

1. Give the proper IUPAC names of the following molecules (indicate stereochemistry when appropriate):

(R)-7-ethylnonan-4-ol

(3S,6S)-3-methyl-6-phenyloctan-3-ol

(S)-3-methylcyclopent-2-en 1-ol

(1R,3R)-3-ethylcyclohexanol

m-bromol phenol

o-ethyl phenol

p-isopropyl phenol

3-chloro 5-methyl phenol

2. Complete the following reactions (indicate stereochemistry where appropriate).

SOCI₂
OH
$$CrO_3$$
H₂SO₄
No reaction
$$CrO_3$$
H₂SO₄
OH

3. Label the following reactions as "Oxidations", "Reductions" or "Neither"