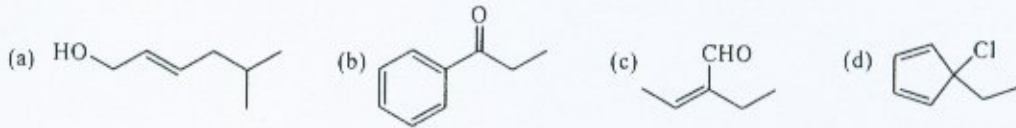
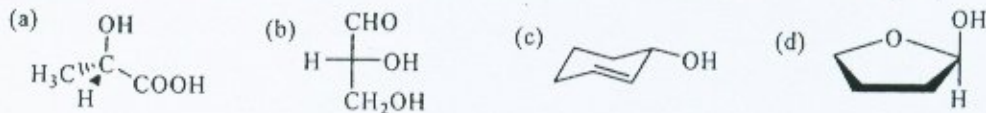


李職專 2/3 11/25 40/95

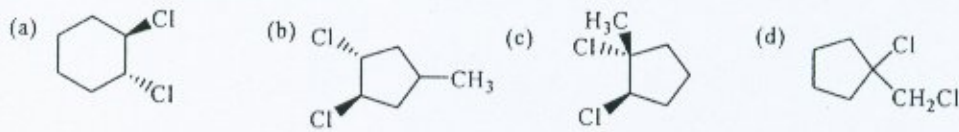
1. Give IUPAC names for the following compounds. (12%)



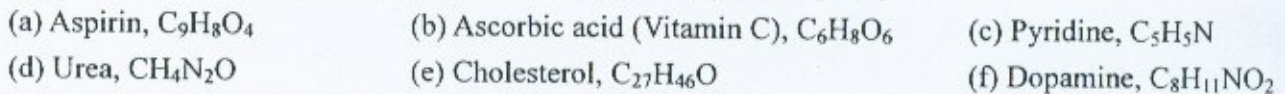
2. Assign an R or S configuration to the chiral center in each enantiomer. (8%)



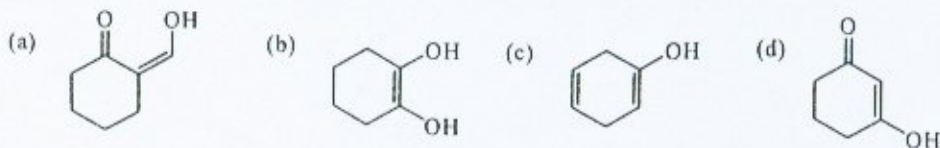
3. Draw a structural formula for the cycloalkene with the molecular formula C_6H_{10} that reacts with Cl_2 to give each compound. (8%)



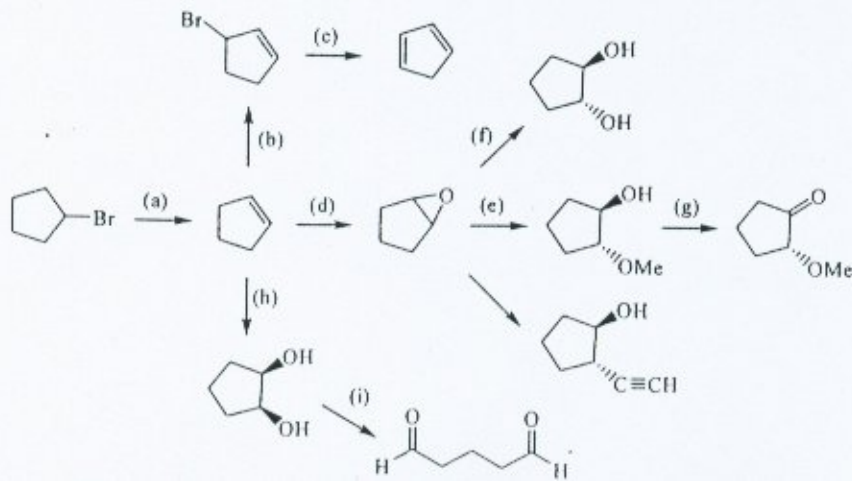
4. Calculate the index of hydrogen deficiency of these compounds. (12%)



5. Draw a structural formula for the keto form of each enol. (8%)

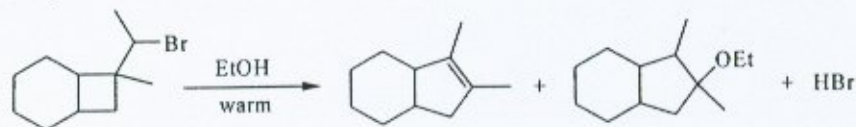


6. Show reagents to convert bromocyclopentane to each of the following compounds. (20%)



7. Draw five contributing structures for benzyl cation, and show, using curved arrows, how the first contributing structure for each cation is converted to the second and so forth. (10%)

8. Propose a mechanism for the formation of these products in the solvolysis of this bromoalkane. (10%)



9. Show the product of the following reactions. (12%)

