

# 大同大學 100 學年度研究所碩士班入學考試試題

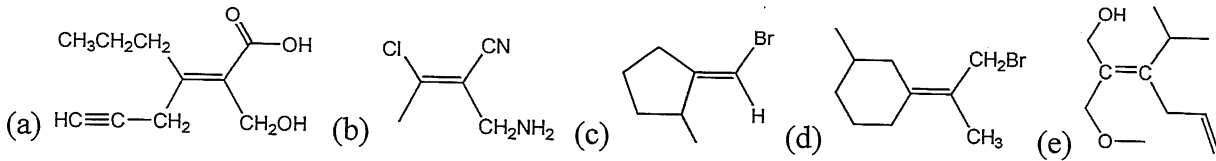
考試科目：有機化學

所別：化學工程研究所

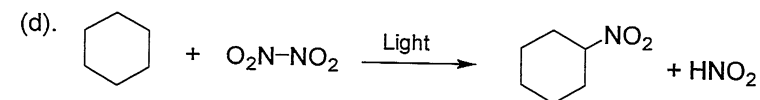
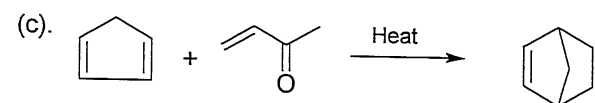
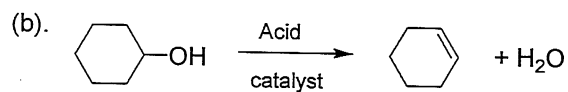
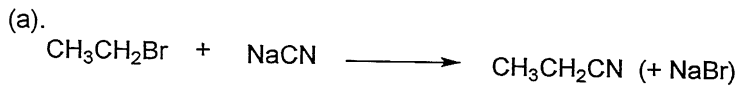
第1/2頁

註：本次考試 不可以參考自己的書籍及筆記； 不可以使用字典； 不可以使用計算器。

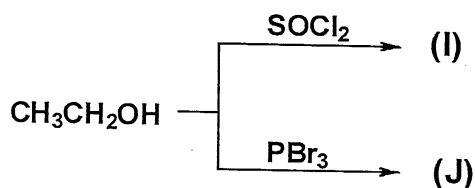
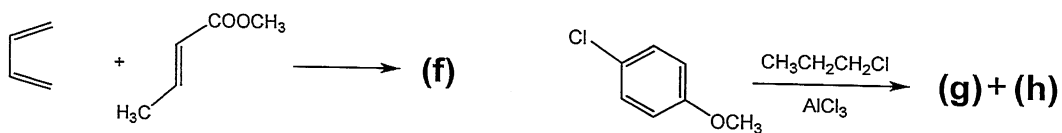
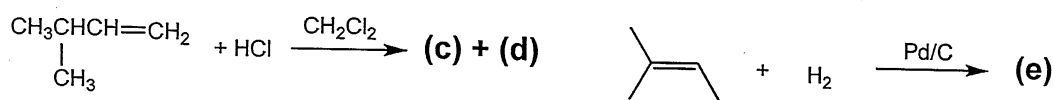
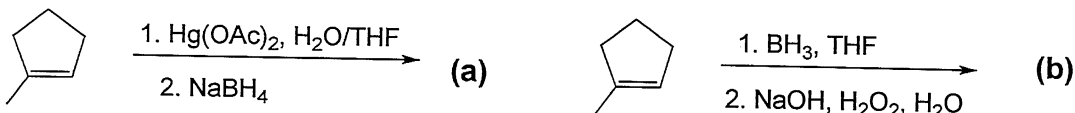
1. Assign E or Z configuration to the following alkenes. (10%)



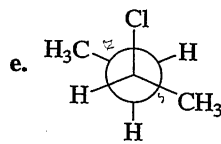
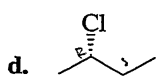
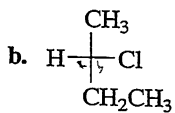
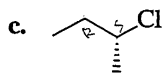
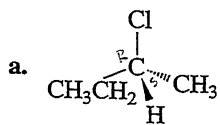
2. Identify the following reactions as additions, eliminations, substitutions, or rearrangements: (8%)



3. Give the major product of each of the following reactions: (20%)



4. Indicate whether each of the following structures is (R)-2-chlorobutane or (S)-2-chlorobutane. (10%)



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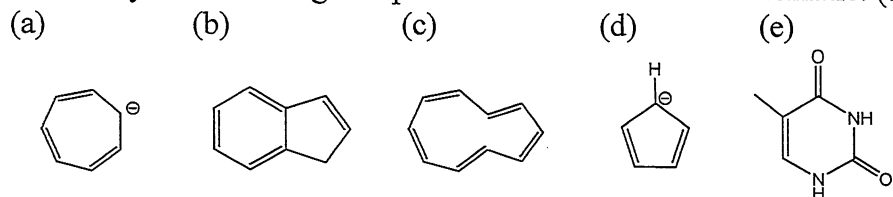
所別：化學工程研究所

第2/2頁

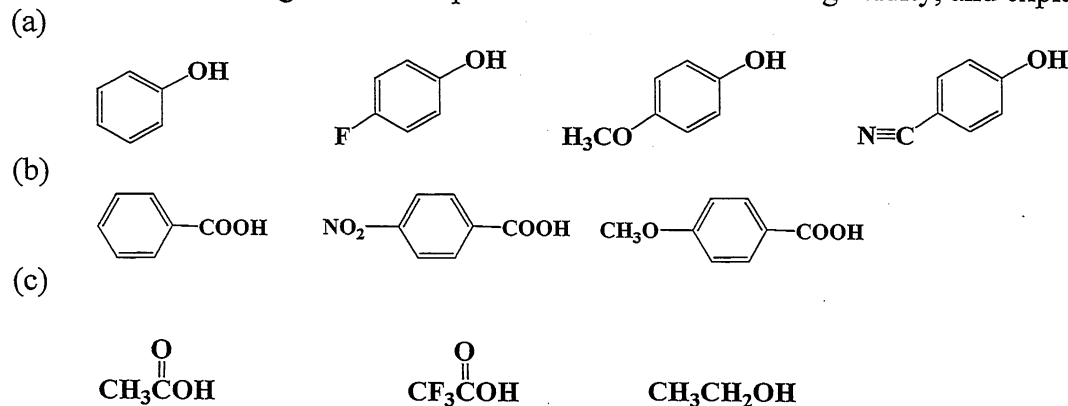
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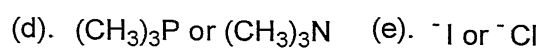
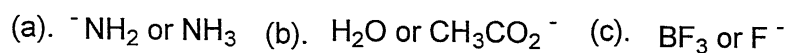
5. Identify the following compounds are aromatic or antiaromatic. (10%)



6. Rank the following substituted phenols in order of increasing acidity, and explain your answer. (10% ; 4/3/3)



7. Which reactant in each of the following pairs is more nucleophilic. (10%)



8. Write the reagents for the following reactions. (22%)

