

淡江大學 101 學年度碩士班招生考試試題

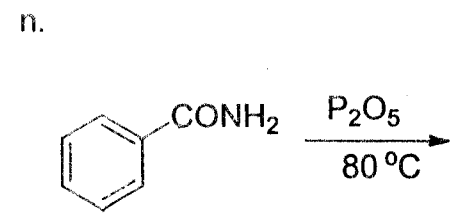
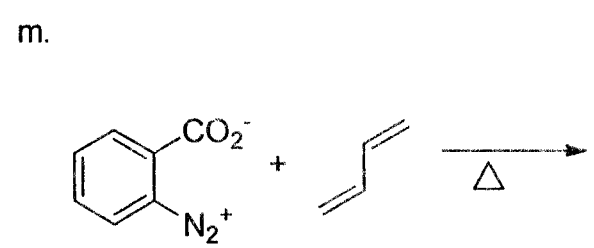
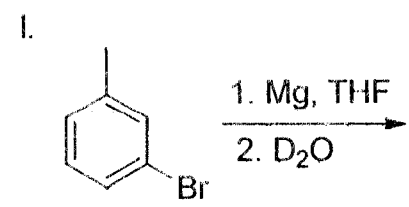
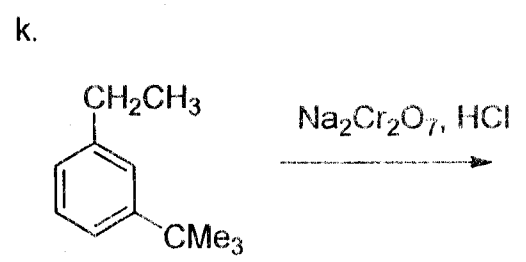
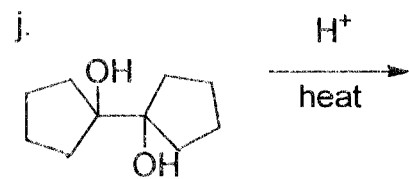
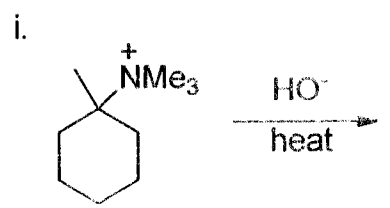
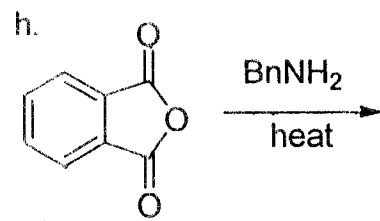
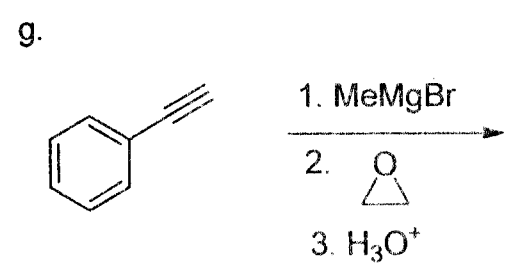
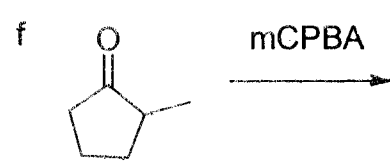
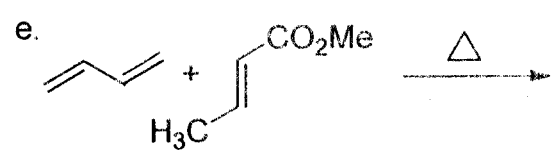
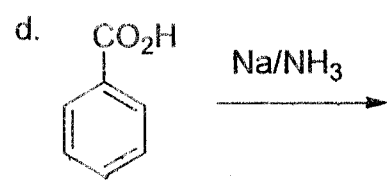
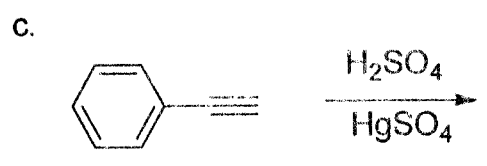
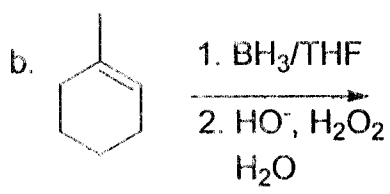
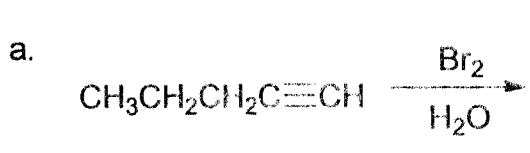
系別：化學學系

科目：有機化學

考試日期：2月26日(星期日) 第2節

本試題共 7大題，第1頁

1. Draw the major product from each the following reaction. Clearly number them and indicate the stereochemistry if necessary (40 pt)



本試題雙面印刷

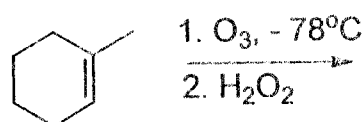
系列：化學學系

科目：有機化學

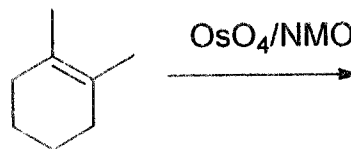
考試日期：2月26日(星期日) 第2節

本試題共 7 大題，第 2 頁

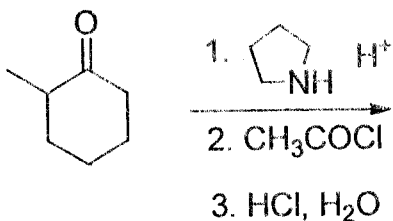
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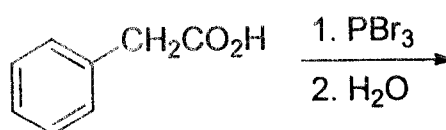
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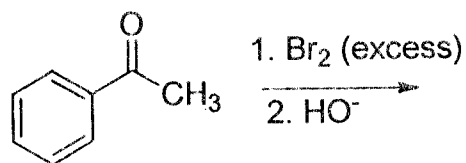
q.



r.



s.



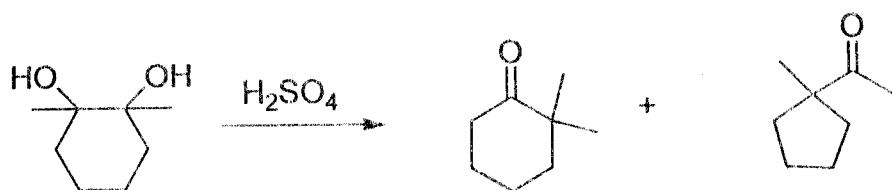
t.



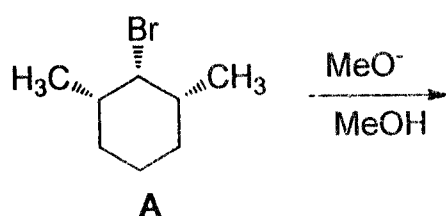
2. Propose a synthetic strategy for the target compound from the provided starting material. (10 pt)



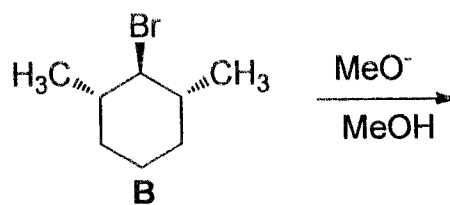
3. Deduce the mechanism of the following transformation. (10 pt)



4. Which reactant in the following pair (A or B) will undergo an elimination reaction more rapidly? Explain your choice. (10 pt) (*hint*: draw the most stable form of A and B first)



or



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22-3

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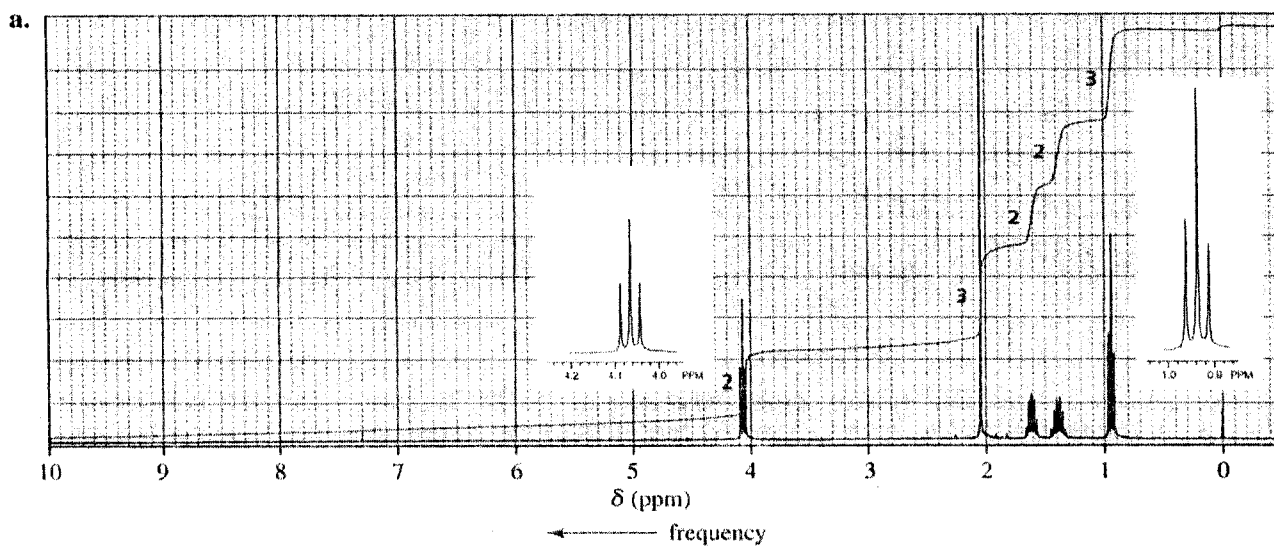
考試日期：2月26日(星期日) 第2節

本試題共 7 大題，第 3 頁

5. The following reactions undergo at different types of conditions. What is the structure for A? What is the structure for B? Indicate their stereochemistry and explain the results based on the molecular orbital symmetry. (10 pt)



6. The following ^1H NMR spectra is for a compound with chemical formula $\text{C}_6\text{H}_{12}\text{O}_2$. Identify this compound, indicate the chemical shifts, and explain your answer. (included multiplicities) (10 pt)



7. The following IR and mass spectra are for a compound with chemical formula $\text{C}_6\text{H}_{12}\text{O}$. What is its structure? Explain the fragments of 43 and 58. (10 pt)

