國立高雄師範大學 107 學年度學士班轉學生招生考試試題

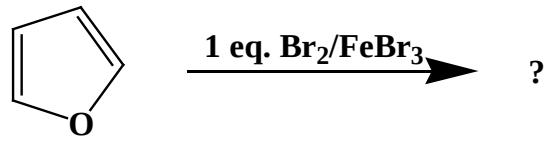
系所別：化學系三年級

科　目：有機化學

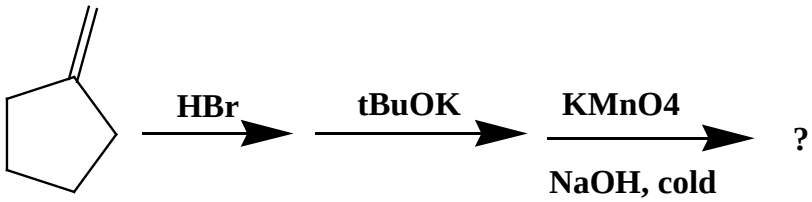
※注意：1.不必抄題，作答時請將試題題號及答案依照順序寫在答案卷上，於本試題上作答者，不予計分。

2.限用藍色或黑色之鋼筆、原子筆作答，以鉛筆或其他顏色作答者不予計分。

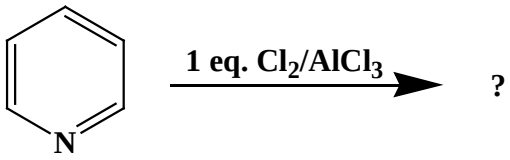
1. Please write down the final product of the reaction listed below.（10％）



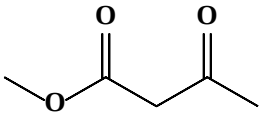
2. Please write down the final product of the reaction listed below.（20％）



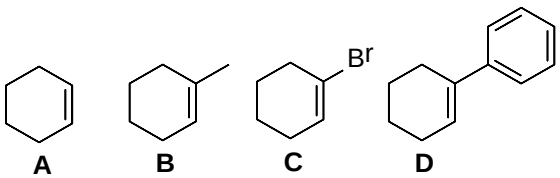
3. Please write down the final product of the reaction listed below.（10％）



4. Please assign the chemical shift value of the proton NMR for each H of the compound listed below.（10％）



5. Which of the following alkenes would react most rapidly with HBr in CH_2Cl_2? Explain the reasons.（10％）



（背面有題　續翻背面）

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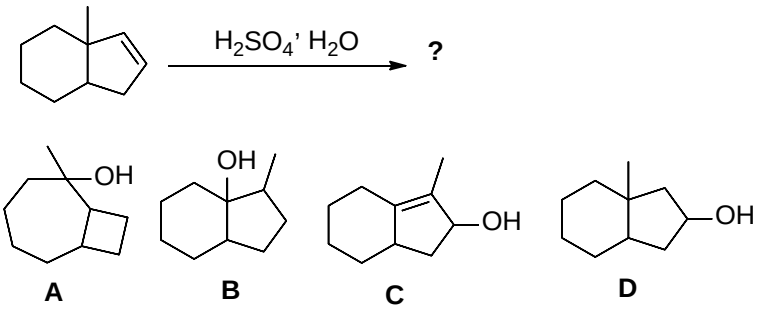
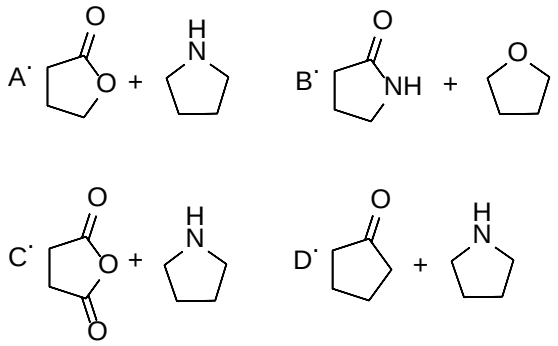
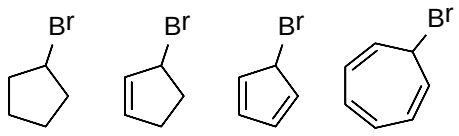
6. Which one of compounds A-D below would be the major product of the following reaction? Explain the reasons.（10％）



7. Which of the following pairs of reagents could react to form an ENAMINE product? Explain the reasons. （10％）



8. The following substrates have widely differ reactivity toward H_2O solvolysis. (The fastest is more than a million times faster than 2nd fastest, and the slowest more than a hundred times slower than the second slowest). Rank the reactivity and Explain the reasons.
(Hints: What kind of reaction would happen, and what determines reactivity?)（10％）



9. Please predict the following compounds UV data by Woodward-Fieser Rules.（10％）

(a) (b) (c)