

淡江大學九十四學年度轉學生招生考試試題

系別：化學學系三年級

科目：有機化學

准帶項目請打「V」

簡單型計算機

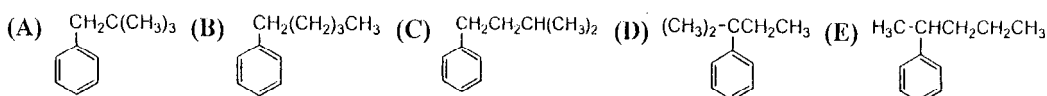
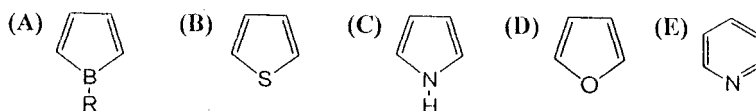
節次：7月13日第4節

本試題共2頁

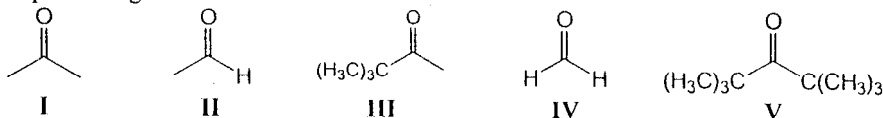
本試題雙面印製

共 15 題，總分 100 分

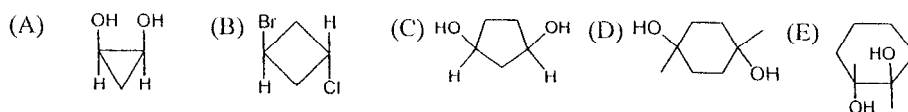
一、選擇題 (共 5 題，15 分)

1. The reaction of benzene with $(\text{CH}_3)_3\text{CCH}_2\text{Cl}$ in the presence of anhydrous aluminum chloride produces principally which of these?2. Which compound would you *not* expect to be aromatic?

3. What, in general, is the order of decreasing reactivity of these carbonyl compounds towards nucleophilic reagents?

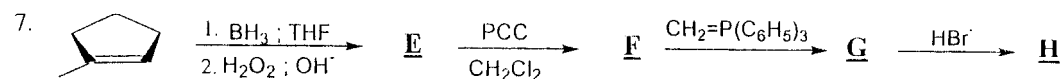
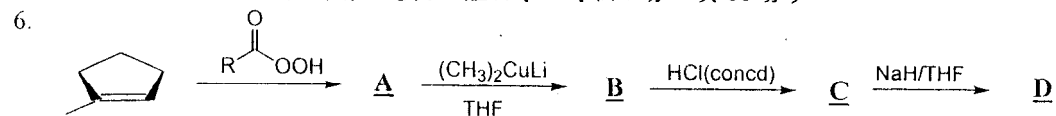


- (A) I > III > V > II > IV (B) V > III > I > II > IV (C) IV > II > I > III > V
 (D) II > I > V > III > IV (E) III > V > IV > II > I

4. Which compound does *not* possess a plane of symmetry?5. The compounds ethane, ethene, and ethyne exhibit this order of *increasing* acidity:

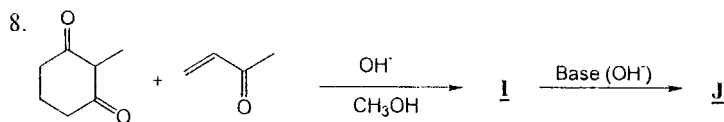
- (A) Ethyne < ethene < ethane (B) Ethene < ethyne < ethane (C) Ethane < ethyne < ethene
 (D) Ethene < ethane < ethyne (E) Ethane < ethene < ethyne

二、請畫出下列產物結構，(請注意其立體化學，每個 3 分，共 33 分)

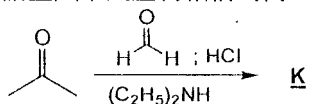


◀ 注意背面尚有試題 ▶

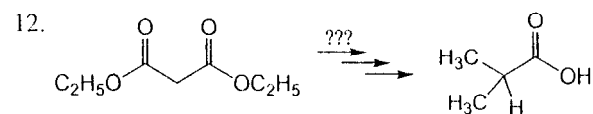
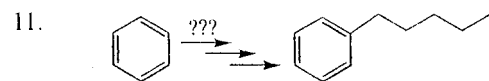
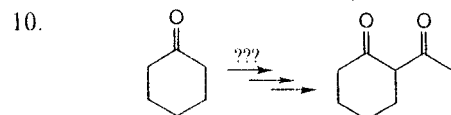
◀ 背面尚有試題 ▶



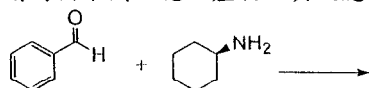
9. 請畫出下列產物結構為何？



三、請畫出如何合成下列產物(每題 8 分，共 40 分)



14. 請寫出下列反應之產物及其反應機制。



四、其他

15. (6%) A. 在下列為 Taxol 為新型的抗癌藥，結構如下圖所示。請寫出三個不同，且整體不能分割的官能基(烷類不算)的英文名字(寫中文者不給分，多寫只算前五者，其餘不算分。)
 (6%) B. 在下列的標號 1, 2, 3 之 stereo-center，決定出該之立體中心之(R)-或(S)-configuration

