

# 淡江大學九十一學年度日間部轉學生招生考試試題

系別：化學系三年級

科目：有機化學

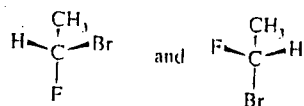
准帶項目請打「○」否則打「x」
計算機
x

本試題共 4 頁

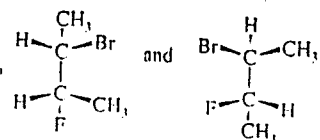
本試題雙面印製

1. (10%) 請指出下列個題中兩分子之間的立體關係為何？(enantiomers, diastereomers, meso compounds, or identical one)

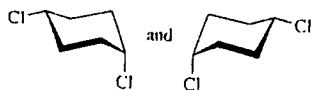
1A



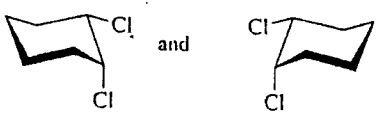
1B



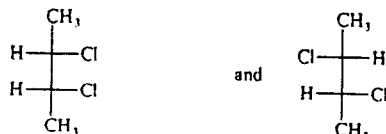
1C



1D

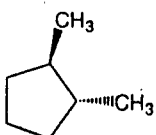


1E

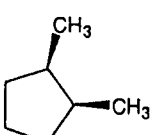


2. (15%) (a)請指出下列化合物之 chiral center 的數目後；(b) 決定出各個 chiral center 的 R 或 S 絕對組態 (寫在所對應的碳上)；(c) 並決定該分子是否為 chiral molecules。

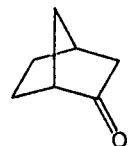
2A



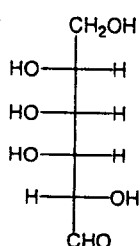
2B



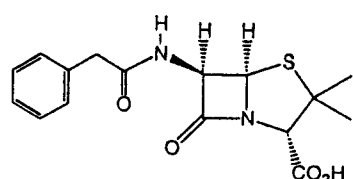
2D



2C



2E



◀ 注意背面尚有試題 ▶

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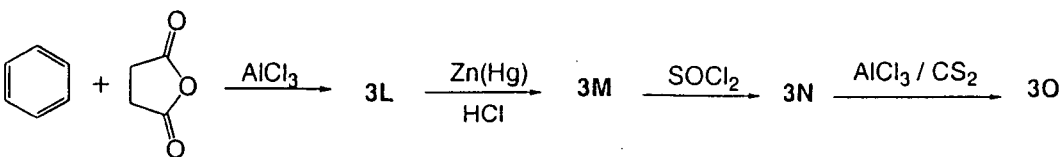
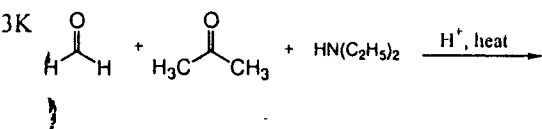
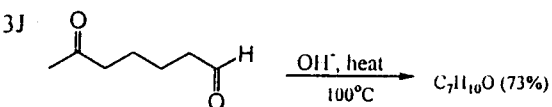
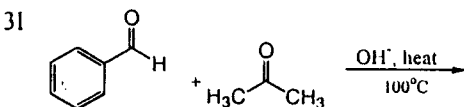
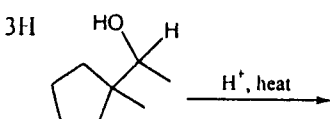
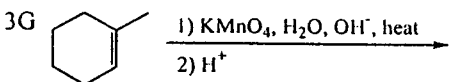
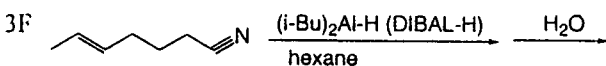
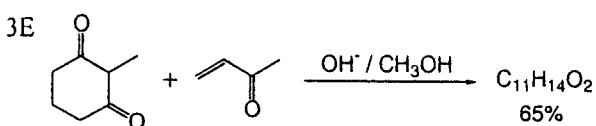
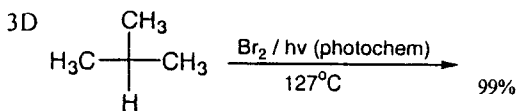
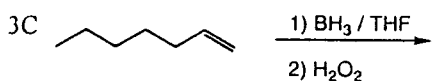
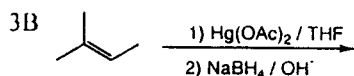
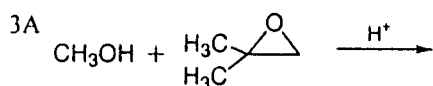
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准帶項目請打「○」否則打「×」

計算機

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3. (30%) 請寫出下列反應之主要產物之結構式。



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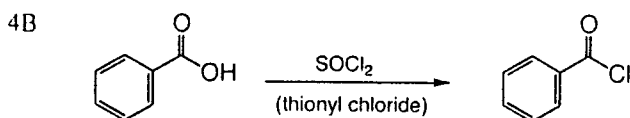
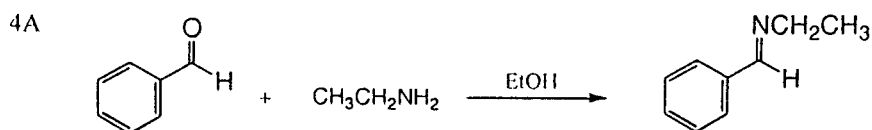
科目：有機化學

准帶項目請打「○」否則打「×」

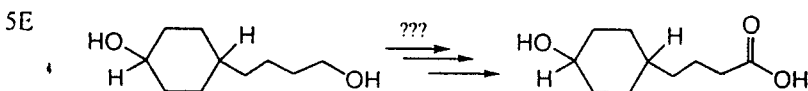
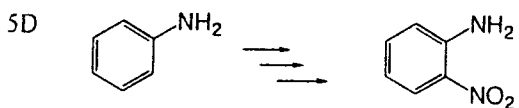
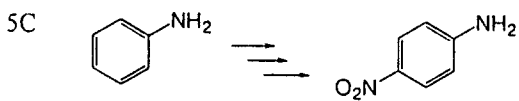
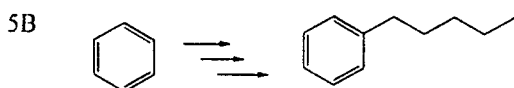
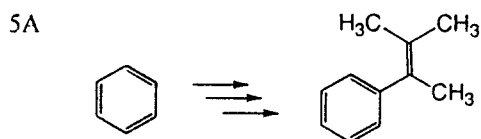
計算機

本試題共 4 頁 3

4. (10%) 請寫出下列化學反應之合理的反應機制(reaction mechanism)



5. (25%) 請提供可行的方法，由下述的起始物來製備出下列產物化學分子。



◀ 注意背面尚有試題 ▶

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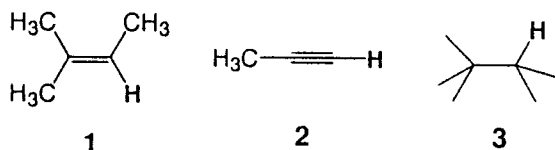
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計算機

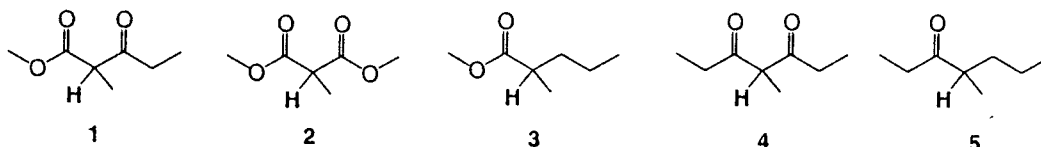
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## 6. (10%) 強度及反應性比較

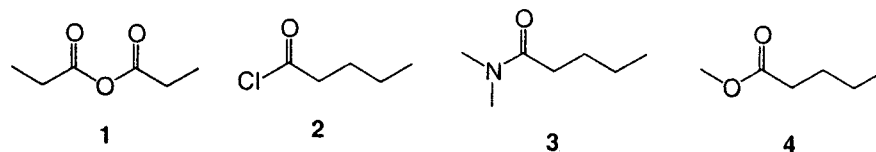
A. 比較酸鹼性強度、取代反應性的差異，請由強至弱排序。



B. 比較酸鹼性強度的差異，請由強至弱排序。



C. 比較親核性取代反應性的差異，請由強至弱排序。



D. 比較酸鹼性強度的差異，請由強至弱排序。

Acetic acid, phenol, cyclohexanol

E. 比較酸鹼性強度的差異，請由強至弱排序。

benzoic acid, *p*-cromobenzoic acid, *p*-nitrobenzoic acid