

國立臺北科技大學 100 學年度碩士班招生考試

系所組別：3620 生物科技研究所乙組

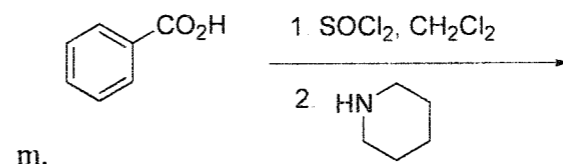
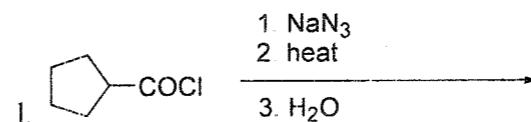
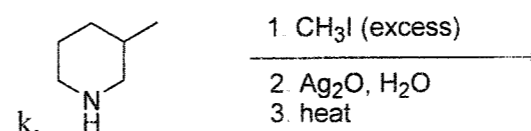
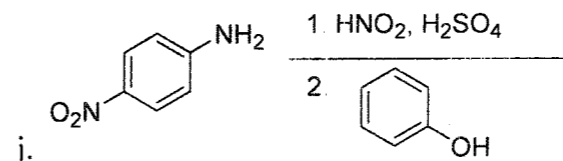
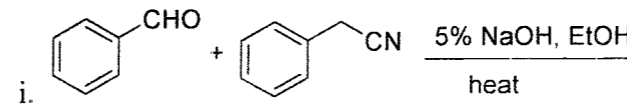
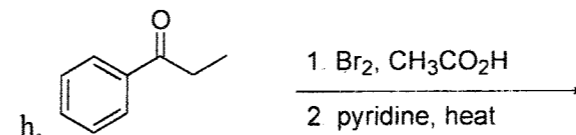
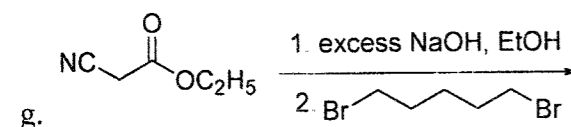
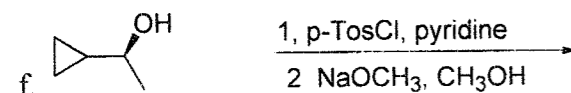
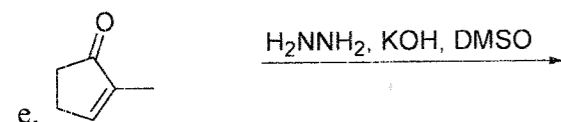
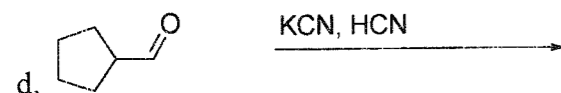
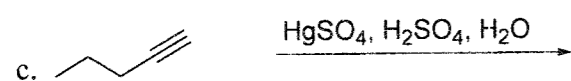
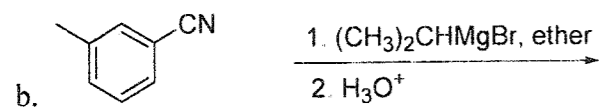
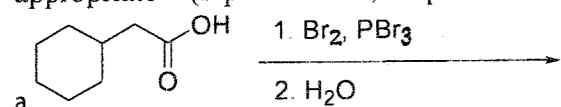
第二節 有機化學 試題

第一頁 共二頁

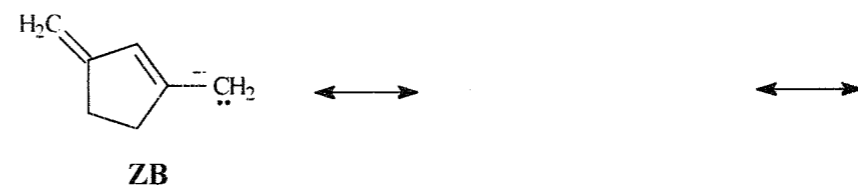
注意事項：

1. 本試題共 4 大題，計 16 小題，配分共 100 分。
2. 請標明大題、子題編號作答，不必抄題。
3. 全部答案均須在答案卷之答案欄內作答，否則不予計分。

1. Predict the product(s) of each reaction below. Be sure to indicate stereochemistry when appropriate (5 points each; 65 points total)

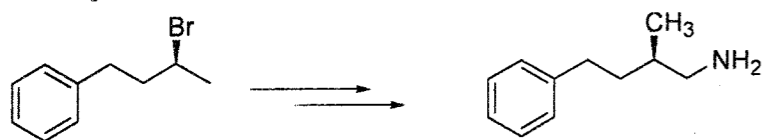


2. Conjugate bases **QB** and **ZB** are both resonance stabilized. Draw the indicated number of resonance forms for **QB** and **ZB**. Which of the compounds above, **QB** or **ZB**, would you predict to be *most acidic*? Explain your answer. (10 points)



注意：背面尚有試題

3. Show how you would accomplish the following transformations. More than one step may be required. Show all reagents and all intermediate structures. (10 points)



4. Propose a synthesis of the anti-inflammatory drug Ibuprofen from benzene. Show all reagents and all intermediate structures. Assume that *ortho* and *para* isomers can be separated. (15 points)

