

# 中国药科大学 有机化学 期中试卷答案 (36-58 班)

## 一、用系统命名法命名 (带\*每题 2 分, 其余每题 1 分, 共 10 分)

(带\*题构型标记、名称各占 1 分)

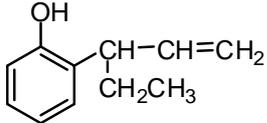
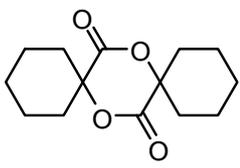
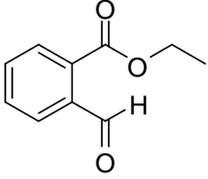
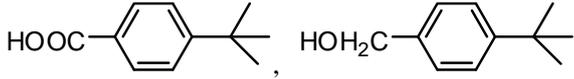
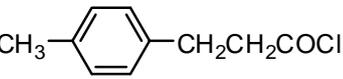
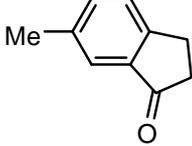
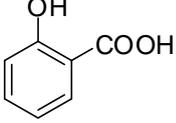
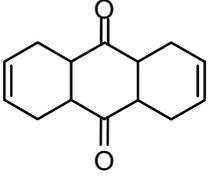
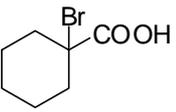
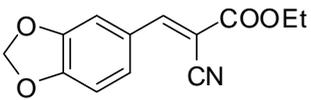
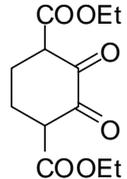
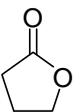
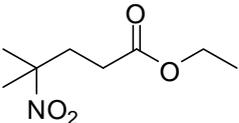
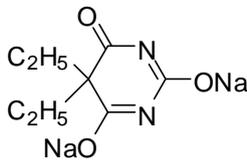
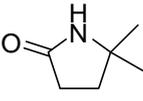
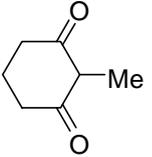
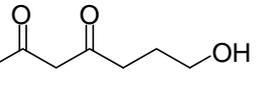
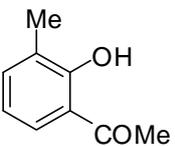
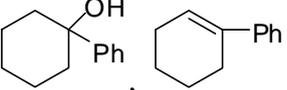
- |                          |                            |
|--------------------------|----------------------------|
| 1. 6-乙酰基-2-萘甲酰胺          | 2.* (1R,3R)-1,3-环己烷二羧酸     |
| 3. 对苯甲酰基苯乙酸              | 4.* (E)-4-氯-2-戊烯酰氯         |
| 5. N,N-二甲基氯乙酰胺           | 6. β-甲基-γ-丁内酯 或 3-甲基-4-丁内酯 |
| 7* (S)-2-氨基戊酸 或 L-2-氨基戊酸 |                            |

## 二、名词解释 (7、8 每题 2 分, 其余每题 1 分, 共 10 分)

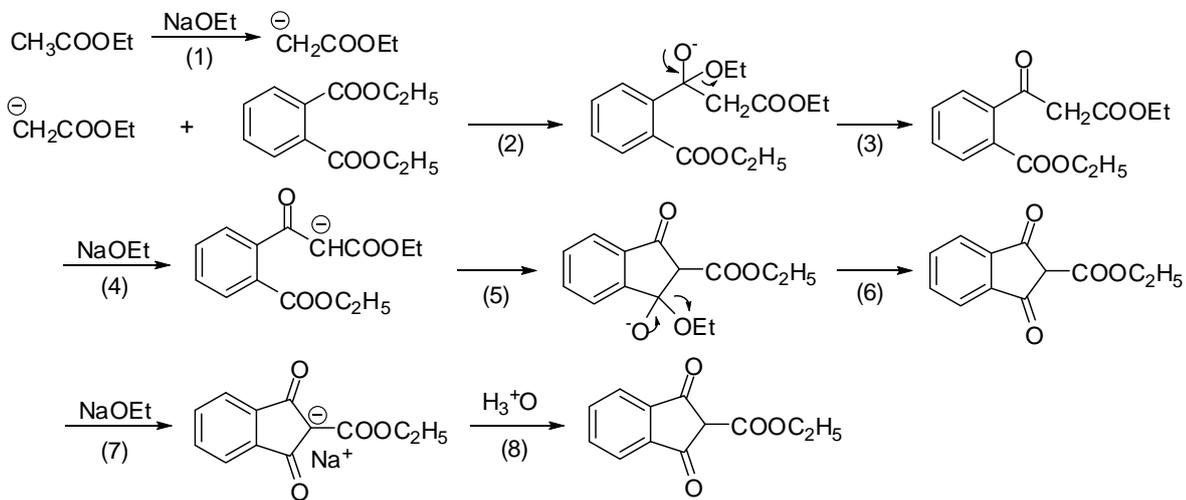
略(7、8 两题反应条件 1 分, 原料、产物 1 分)

## 三、单项选择题 (每小题 1 分, 共 10 分) BCBCA ABADD

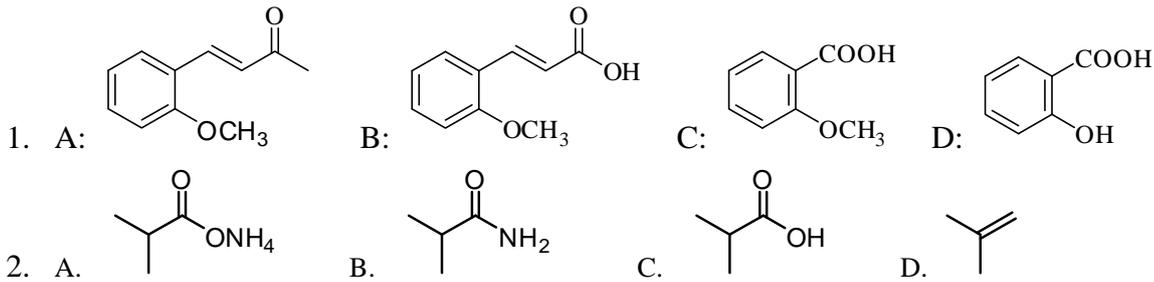
## 四、完成反应式 (每空 1 分, 共 35 分) 羧酸根负离子写成羧基不扣分

- |  |   |
|--|---|
| <p>1. <math>\text{PhOCH}_2\text{CH}=\text{CH}_2\text{CH}_3</math>, </p> <p>3. <math>\text{PhCH}_2\text{Br}</math>, <math>\text{PhCH}_2\text{MgBr}</math>, 环氧乙烷, <math>\text{PhCH}_2\text{CH}_2\text{CHO}</math>, <math>\text{PhCH}_2\text{CH}_2\text{COOH}</math></p> <p>4. </p> <p>5. </p> <p>6. </p> <p>7. <math>\text{CH}_3</math>--<math>\text{CH}_2\text{CH}_2\text{COCl}</math>,</p> <p>8. </p> <p>9. </p> | <p>2. </p> <p>10. </p> <p>11. <math>i\text{-PrCOBr}</math>, <math>\text{MeCOONa}</math></p> <p>12. </p> <p>13. </p> <p>14. , <math>\text{HOCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}</math></p> <p>15. </p> <p>16. , <math>\text{CH}_3\text{CH}_2\text{CHCOO}^-</math><br/> <math>\text{C}_2\text{H}_5</math>   <math>\text{C}_2\text{H}_5</math><br/> <math>\text{NaO}</math>   <math>\text{ONa}</math> + <math>\text{CO}_2 + \text{H}_2\text{O}</math> 或 <math>+\text{NH}_2\text{CONH}_2</math></p> <p>17. </p> <p>18. </p> <p>19. <math>\text{C}_6\text{H}_5</math>-</p> <p>20. </p> <p>21. , <math>\text{PhCO}(\text{CH}_2)_4\text{COOH}</math>, <math>\text{Ph}(\text{CH}_2)_5\text{COOH}</math></p> |
|--|---|

## 五、反应机理 (共 7 分, 其中第(7)(8)步共 1 分, 其它每步 1 分) \*

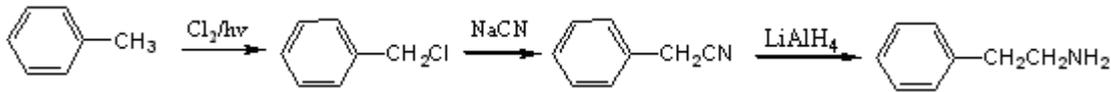


六、推测结构 (共 8 分, 每空 1 分)

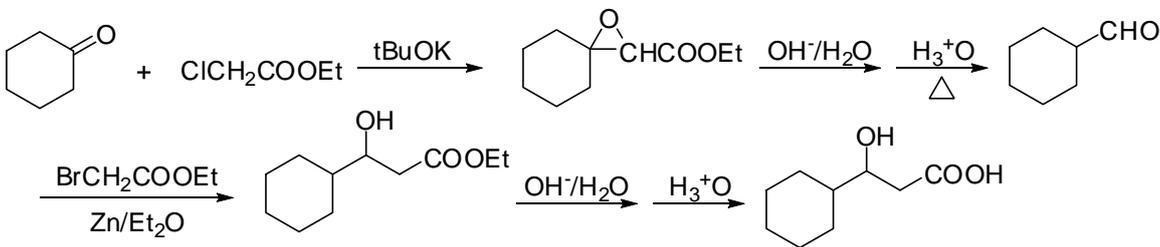


七、合成题 (共 20 分) (答案以外合理的路线均给分。反应条件缺失, 每题最多扣 1 分)

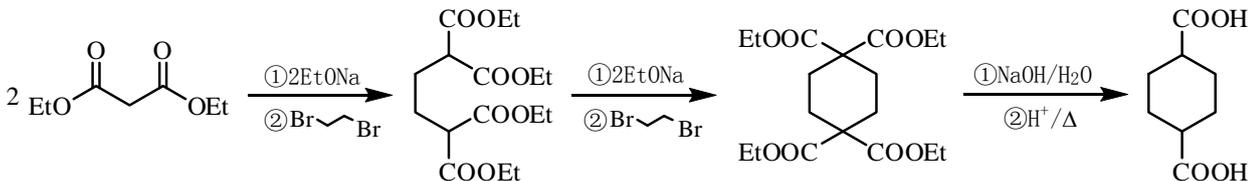
1. (每步 1 分, 共 3 分)



2. (Reformatsky 反应一步 2 分, 其它每步 1 分, 共 5 分)



3. (每步 2 分, 共 6 分)



4. (共 6 分, 对一步给 1 分)

