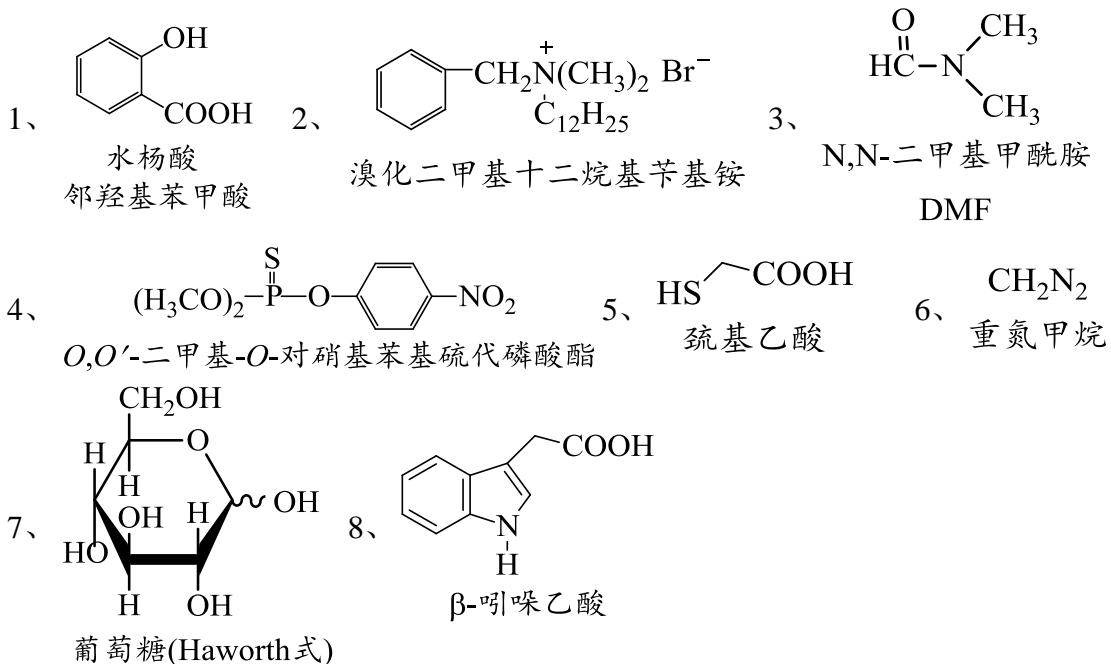


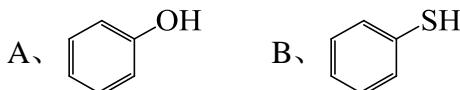
有机化学试题（下）学生答案

一、命名或写出下列化合物的结构式（8分）：

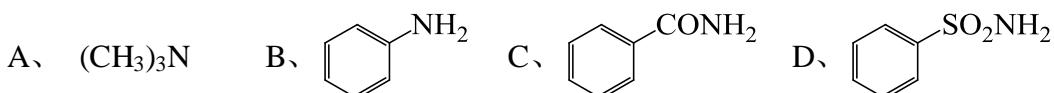


二、回答问题或对下列化合物进行排序（10分）：

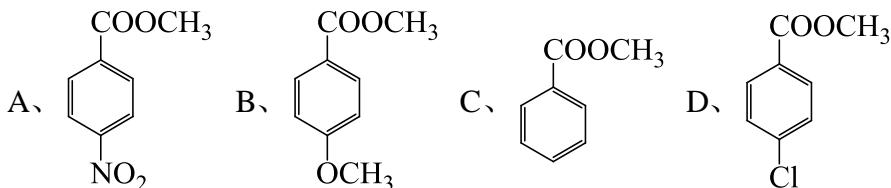
1、酸性由强到弱：B>A



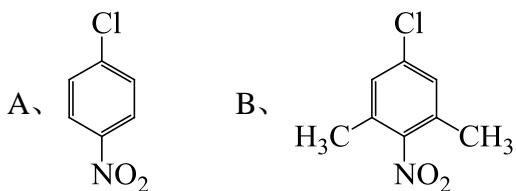
2、碱性由强到弱：A>B>C>D



3、水解活性由大到小：A>D>C>B



4、在芳香族亲核取代反应中，反应由强到弱：A > B

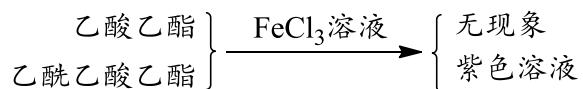


5、樟脑属萜类化合物，应该是 B

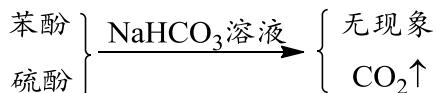
- A、单环单萜 B、双环单萜 C、链状单萜 D、倍半萜

三、用化学方法鉴别下列各组化合物 (8 分):

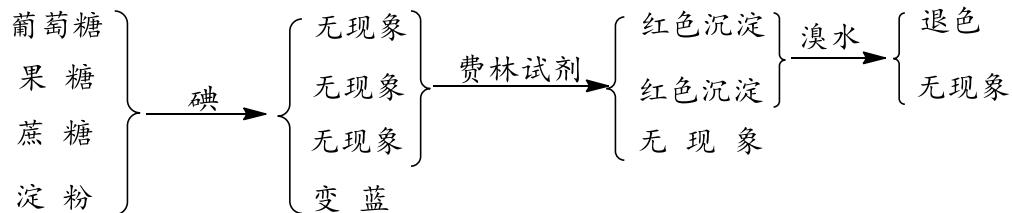
1、乙酸乙酯和乙酰乙酸乙酯



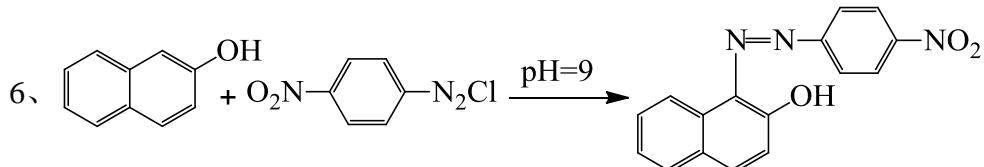
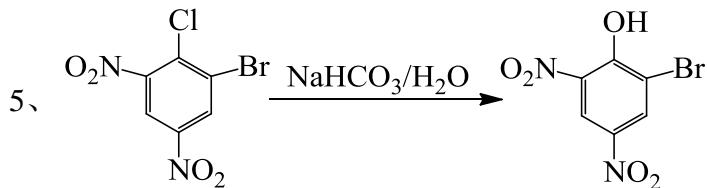
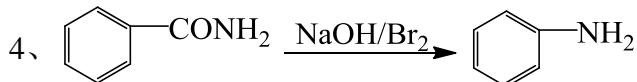
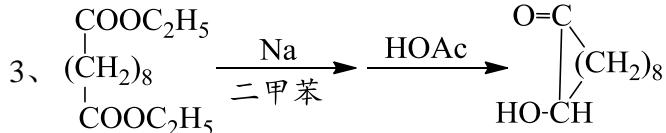
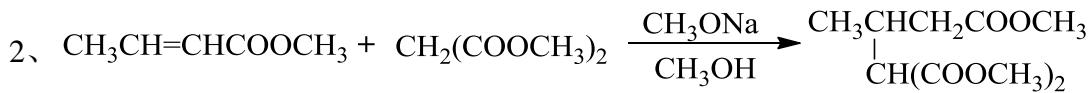
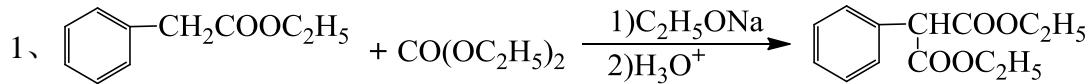
2、苯酚和硫酸

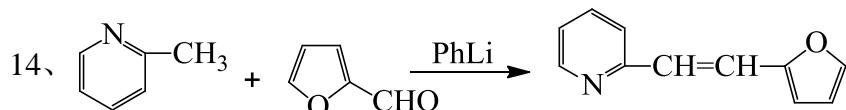
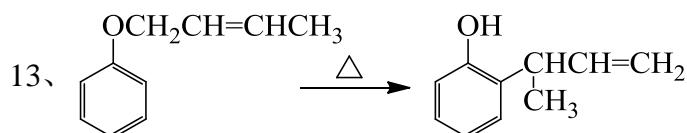
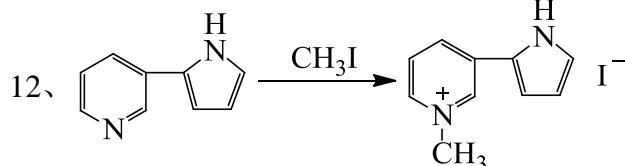
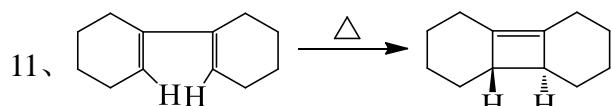
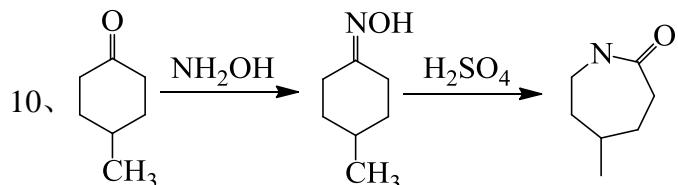
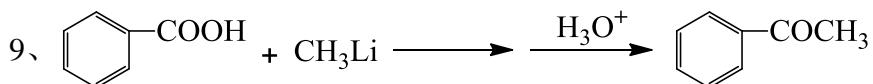
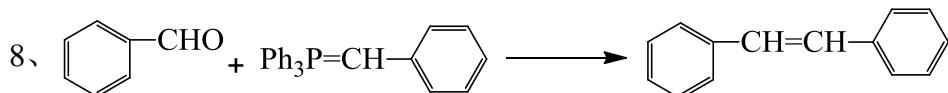
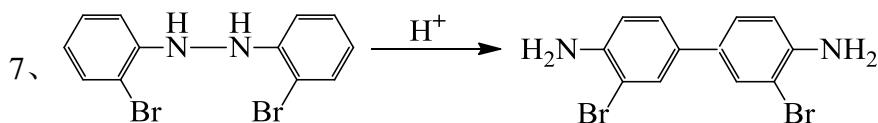


3、葡萄糖，果糖，蔗糖和淀粉



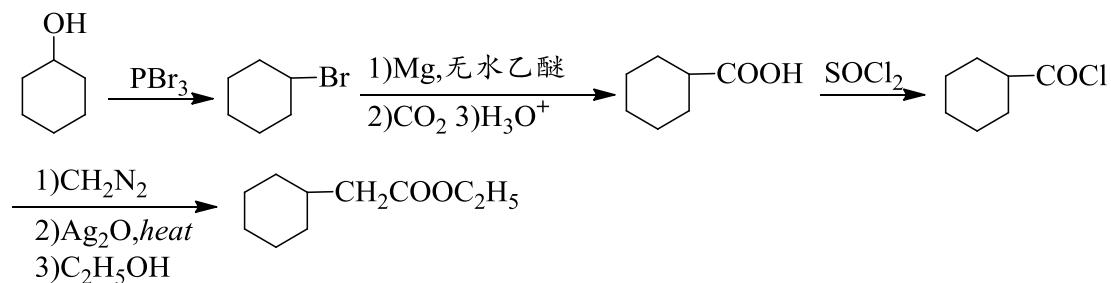
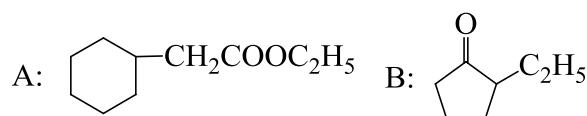
四、完成下列反应，写出主产物的结构式 (28 分):

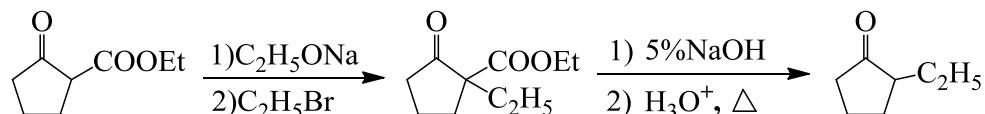
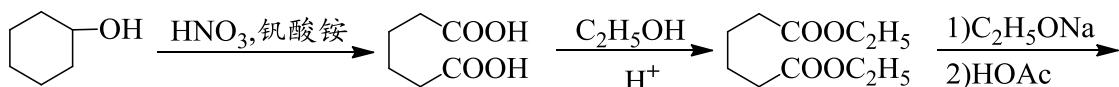




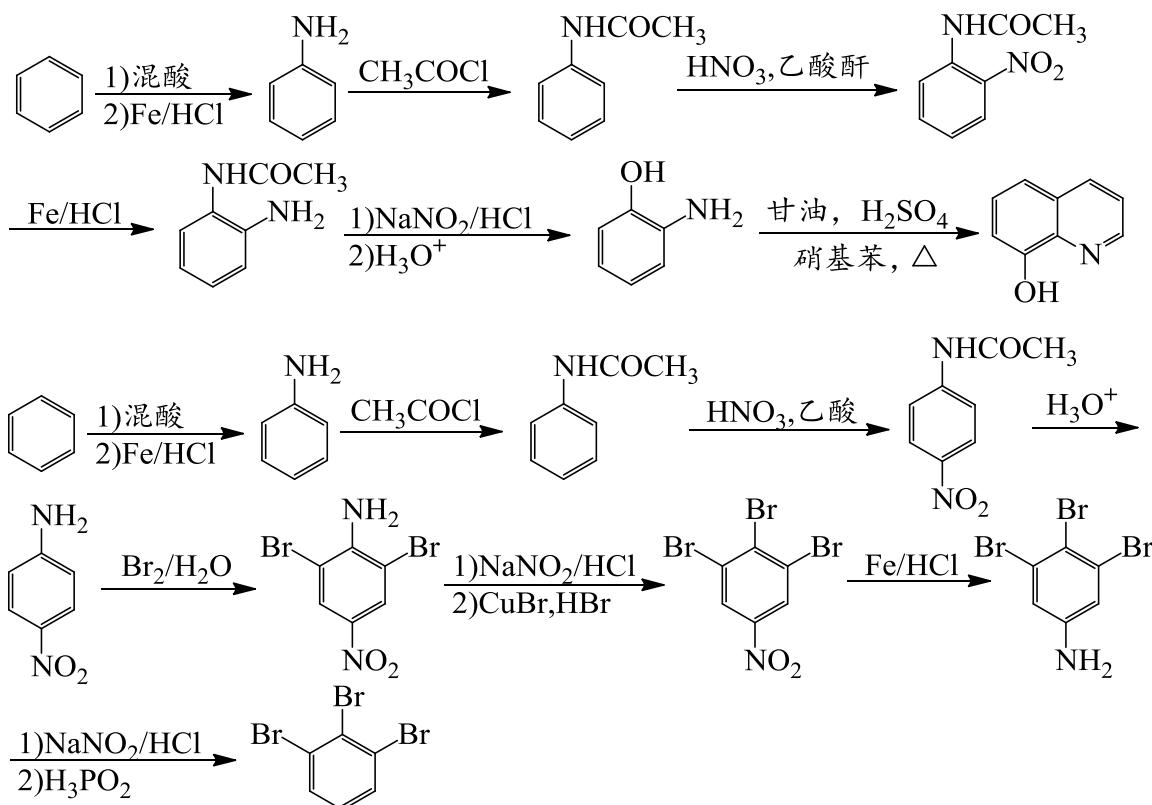
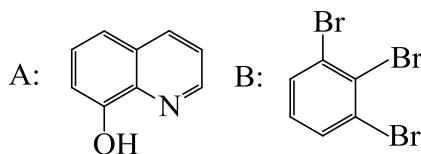
五、合成题 (20 分):

1、以环己醇及不超过四个碳原子的有机原料及必要的无机试剂合成:

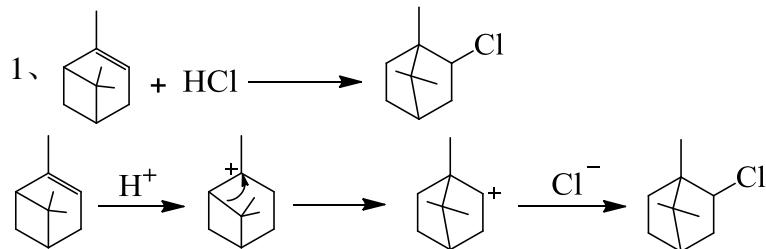


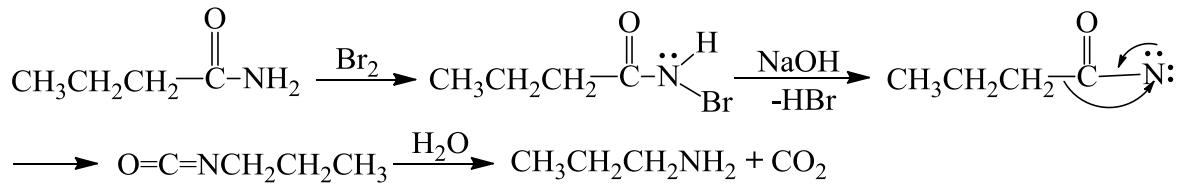
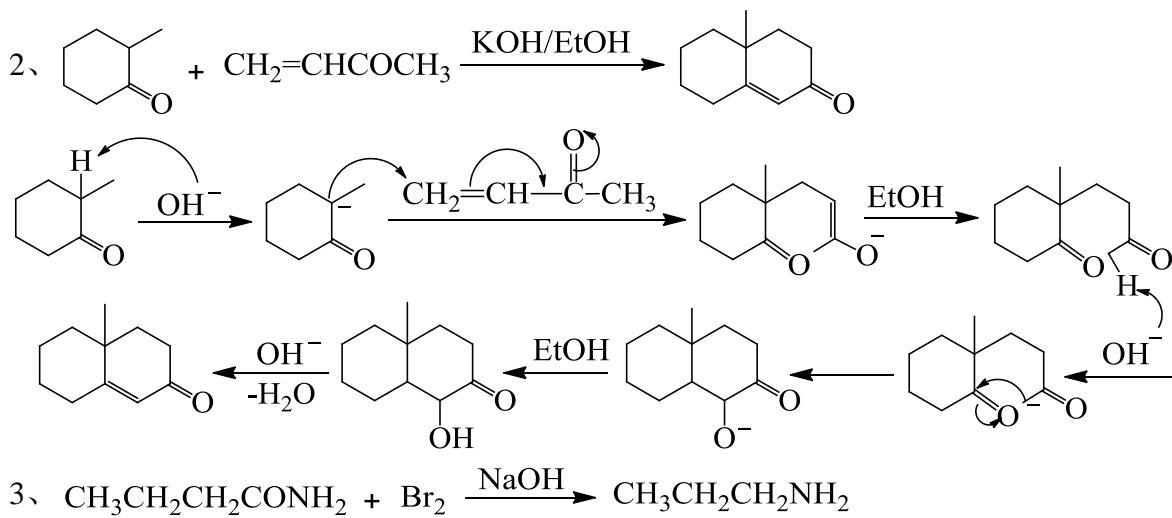


2、以苯为起始原料合成：



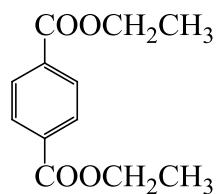
六、推测下列反应的机理（16分）：





七、推测结构 (10 分):

1、化合物 A($\text{C}_{12}\text{H}_{14}\text{O}_4$)， ν_{max} : 1720、1500、840cm⁻¹; δH : 1.4(t)、4.4(q)、8.1(s)ppm,
积分曲线高度比为 3: 2: 2, 求 A 的结构。



2、化合物 A($\text{C}_7\text{H}_{15}\text{N}$)和碘甲烷反应得一水溶性化合物 B($\text{C}_8\text{H}_{18}\text{IN}$)，B 和氢氧化银的水悬浮液加热得 C($\text{C}_8\text{H}_{17}\text{N}$)，当 C 再和碘甲烷反应，并和氯化银悬浮水溶液加热得 D(C_6H_{10})和三甲胺，D 能吸收 2mol 氢而得 E(C_6H_{14})。E 的 NMR 谱显示有一个七重峰
和一个双重峰，它们的相对强度比例为 1: 6。试推测 A、B、C、D、E 的结构。

