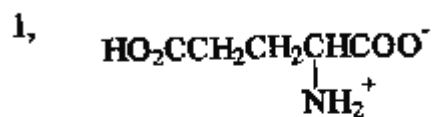
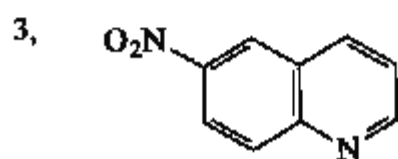


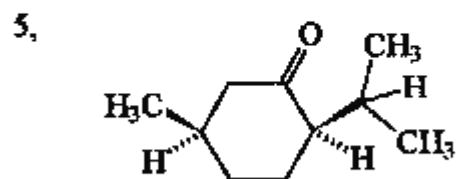
一、命名或写出结构 (10 分)



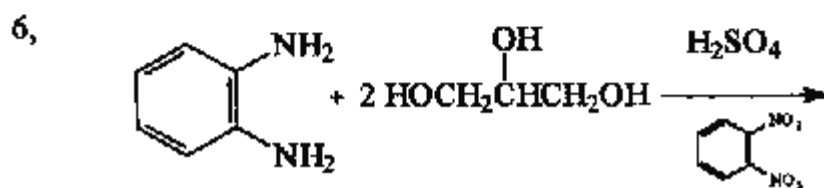
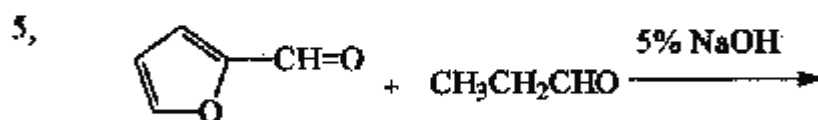
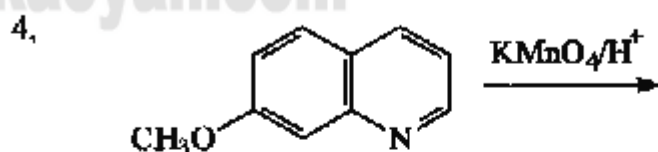
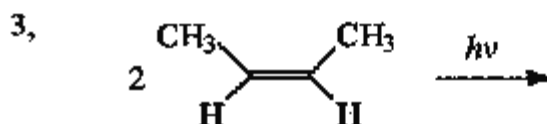
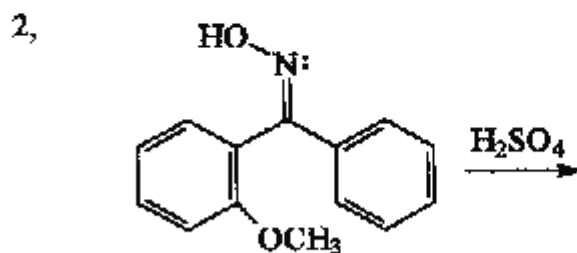
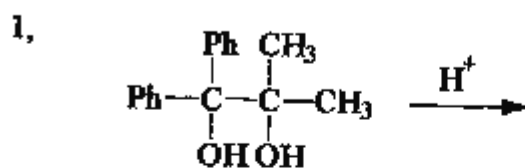
2, D-2-脱氧核糖的开链式



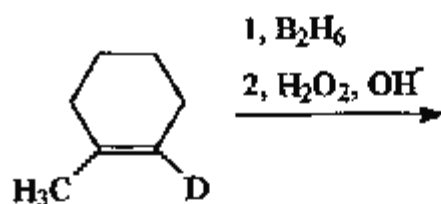
4, β -D-葡萄糖的 Haworth 式



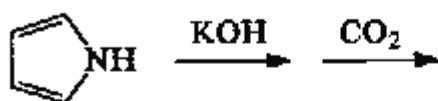
二、完成反应式 (30 分)



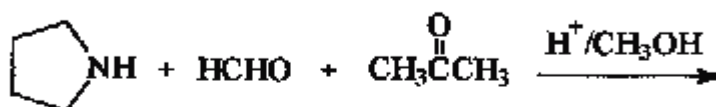
7,



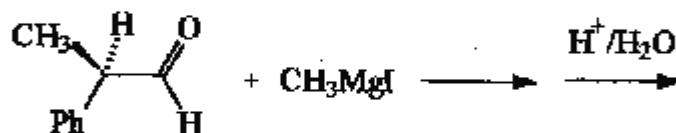
8,



9,

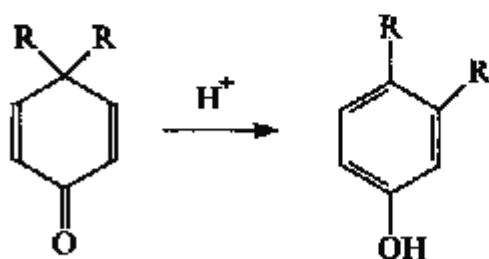


10,



三、解释下列反应机理 (20 分)

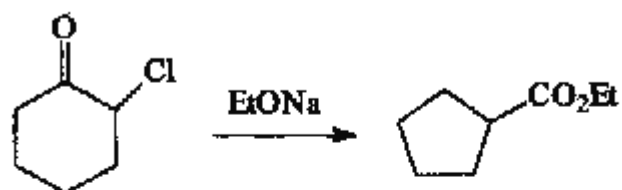
1,



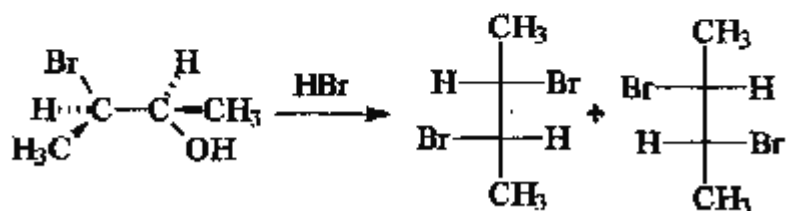
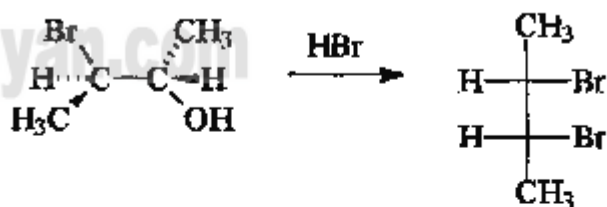
2,



3,



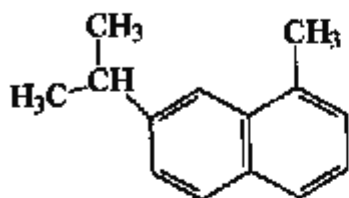
4,



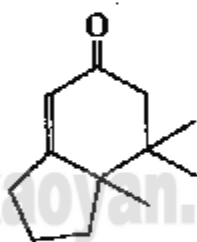
四、合成下列化合物(除指定原料外, 其它试剂任选)

(24分).

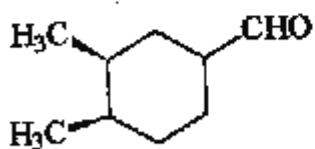
1. 由苯合成



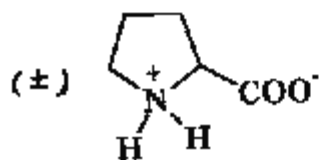
2. 由2-甲基环戊酮合成



3. 以不超过6个碳原子的有机原料合成



4. 用邻苯二甲酰亚胺-丙二酸二乙酯法合成



五、推测结构 (16分)

1、密二糖是还原性二糖，它会被麦芽糖酶水解(水解 α -葡萄糖苷键)。密二糖用 $(\text{CH}_3)_2\text{SO}_4$ 甲基化后再用稀酸水解得2,3,4-三-O-甲基-D-葡萄糖和2,3,4,6-四-O-甲基-D-半乳糖。密二糖用溴水氧化经酸水解得D-葡萄糖酸和D-半乳糖。写出密二糖的结构式，并写出上述各步反应的方程式。

2、某饱和酮A($\text{C}_7\text{H}_{12}\text{O}$)与甲基碘化镁反应再经酸化水解后得到醇B($\text{C}_8\text{H}_{16}\text{O}$)，B经脱水反应得到两个异构烯烃C和D的混合物，C还能通过A和亚甲基三苯基膦($\text{CH}_2=\text{PPh}_3$)反应制得。D经臭氧分解生成酮醛E($\text{C}_6\text{H}_{10}\text{O}_2$)，E用湿的氧化银氧化变成酮酸F($\text{C}_6\text{H}_{10}\text{O}_3$)，F用溴在氢氧化钠中处理得到3-甲基-1,6-己二酸。试写出A, B, C, D, E, F的结构式。