

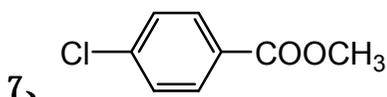
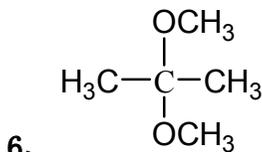
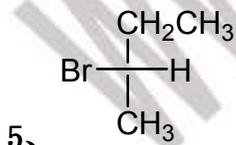
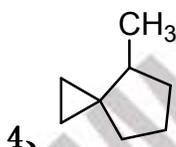
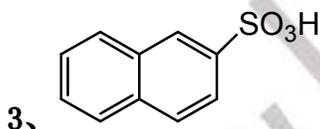
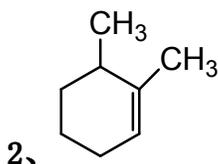
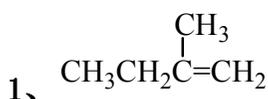
江苏工业学院

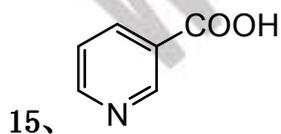
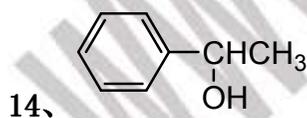
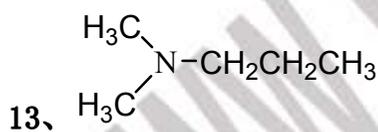
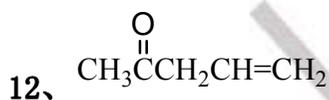
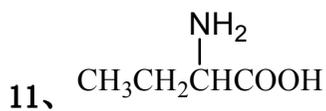
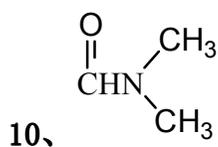
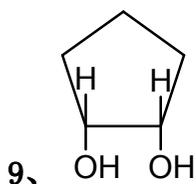
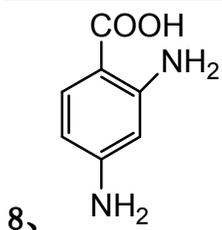
2009 年攻读硕士学位研究生入学考试（初试）试卷

考试科目： 有机化学 （本科目总分 150 分，考试时间 3 小时）

请考生注意： 试题解答请务必写在专用“答题纸”上；其它地方的解答将视为无效答题，不予评分。

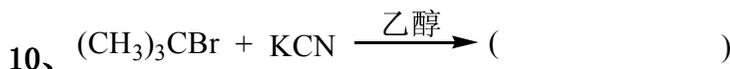
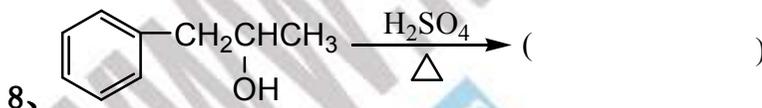
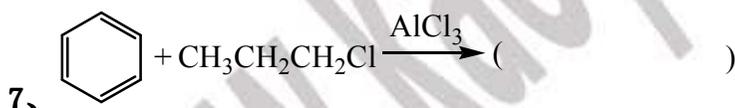
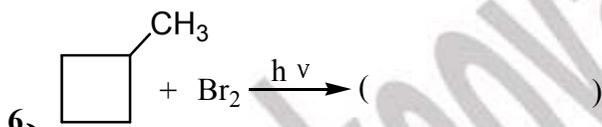
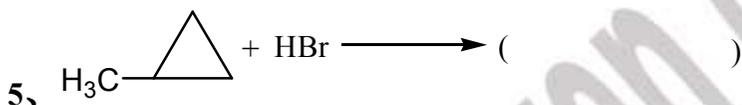
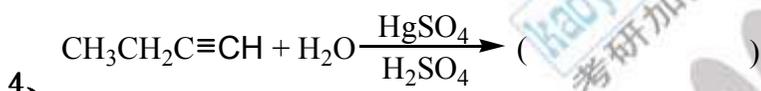
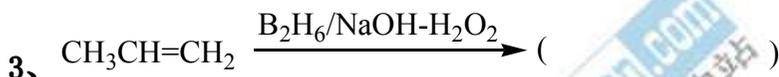
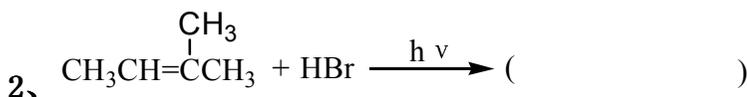
一、命名（共 15 题，每题 1 分，共计 15 分）

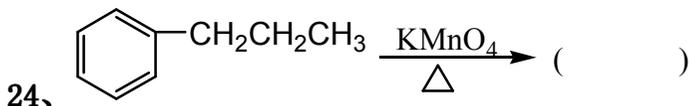
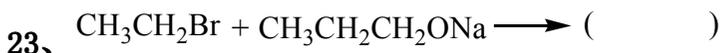
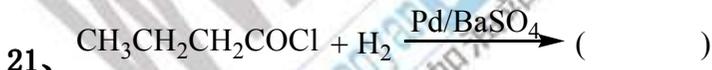
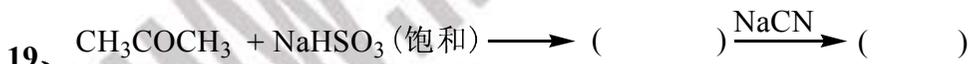
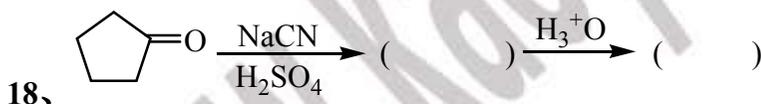
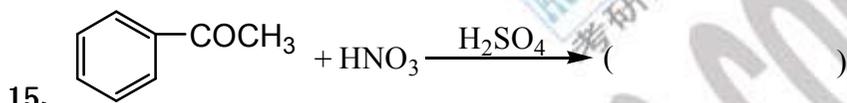
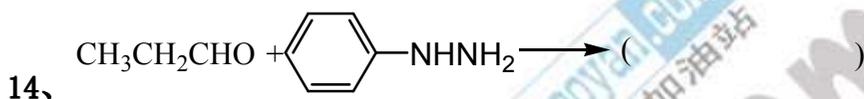
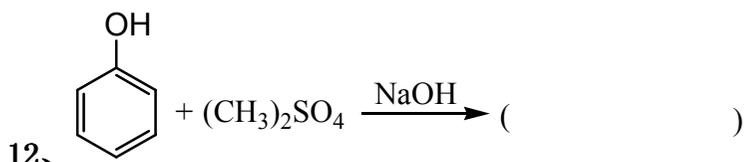


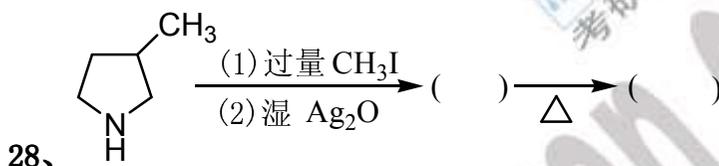
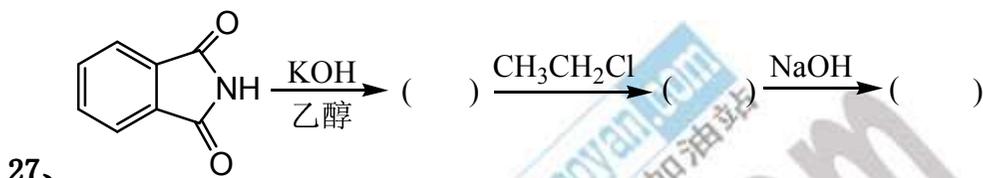
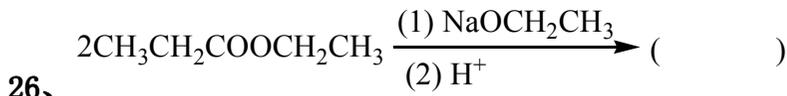
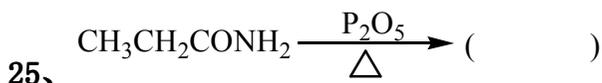


二、填空（共 28 题，每题 1 分，共计 35 分）

1、

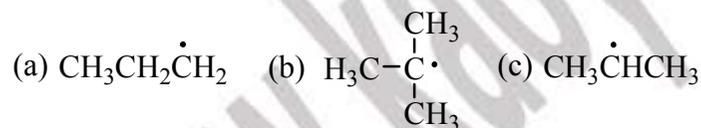




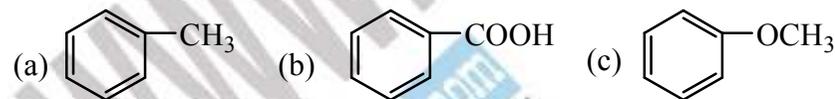


三、按要求排序（共 6 题，每题 3 分，共计 18 分）

1、按自由基稳定性由大到小排序



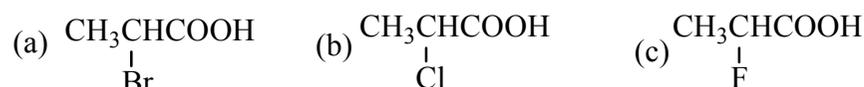
2、按硝化反应活性由大到小排序



3、按 E1 反应由快到慢顺序排列



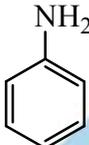
4、按酸性由大到小顺序排列



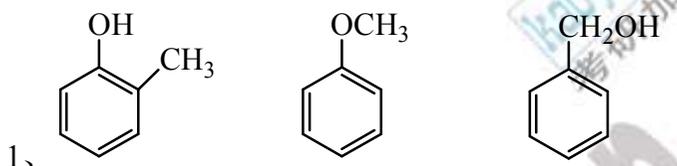
5、下列羰基化合物按其亲核加成的活性由大到小排列

(a) CH_3CHO (b) CH_3COCH_3 (c) CF_3CHO

6、下列化合物按碱性由强到弱排列

(a) CH_3CONH_2 (b) CH_3NH_2 (c) 

四、鉴别下列各组化合物（共4题，每题4分，共计16分）



2、 $\text{CH}_2=\text{CHCH}_3$ $\text{CH}\equiv\text{CCH}_3$ $\text{CH}_3\text{CH}_2\text{CH}_3$

3、 $\text{CH}_2=\text{CHCH}_2\text{Cl}$ $\text{CH}_3\text{CH}_2\text{CH}_2\text{Cl}$ $\text{CH}_3\text{CH}=\text{CHCl}$

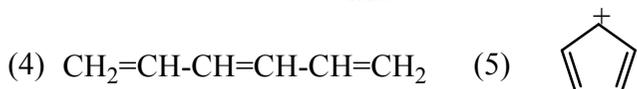
4、 $\text{CH}_3\text{COCH}_2\text{CH}_3$ $\text{CH}_3\text{CH}_2\text{CHO}$ $\text{CH}_3\text{CH}_2\text{COCH}_2\text{CH}_3$

五、简答题（共4题，每题4分，共计16分）

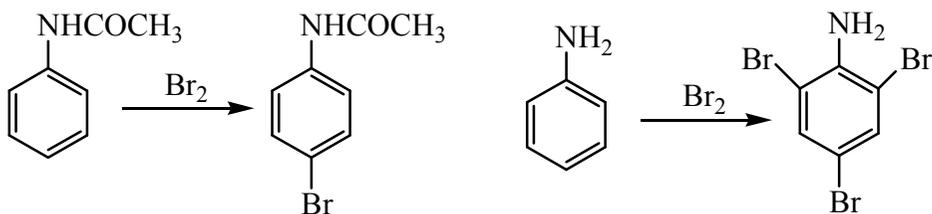
1、利用简便易行的方法分离苯甲醚和对甲苯酚。

2、利用简单方法除去苯胺中少量硝基苯。

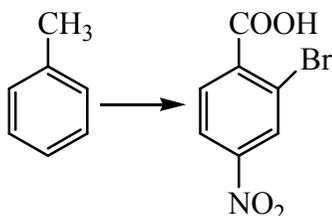
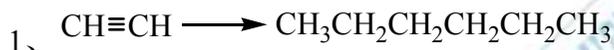
3、指出下列化合物哪些具有芳香性。



4、利用诱导效应和共轭效应解释下列实验结果

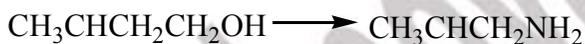


六、合成题 (共 6 题, 每题 5 分, 共计 30 分)

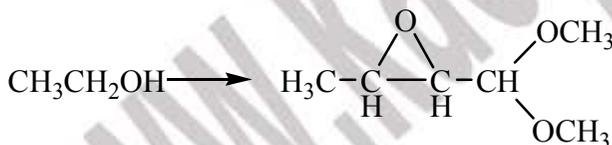


2、

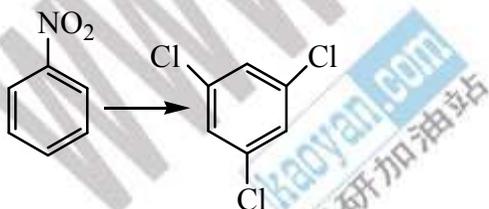
3、 正丙醇, 异丙醇 → 2-甲基-2-戊醇



4、

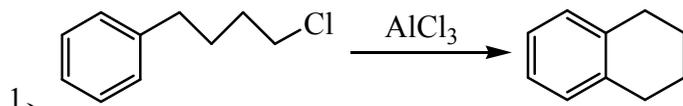


5、



6、

七、写出下列反应的合理反应机理 (共 2 题, 每题 5 分, 共计 10 分)





八、推断题（共 1 题，每题 10 分，共计 10 分）

化合物 A 的分子式为 $\text{C}_6\text{H}_{12}\text{O}_3$ ，在 1710cm^{-1} 处有强吸收峰。A 和 I_2 / NaOH 溶液作用得黄色沉淀，与托伦试剂作用无银镜产生。若 A 用稀硫酸处理后，所生成的化合物与托伦试剂作用则有银镜产生。A 的 NMR 数据如下： $\delta=2.1$ ，单峰，3H； $\delta=2.6$ ，双峰，2H； $\delta=3.2$ ，单峰，6H； $\delta=4.7$ ，三重峰，1H。写出 A 的构造式及相关反应式。