

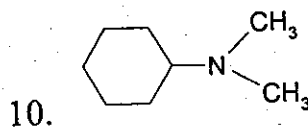
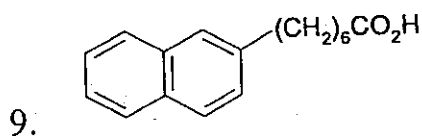
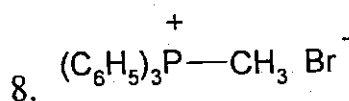
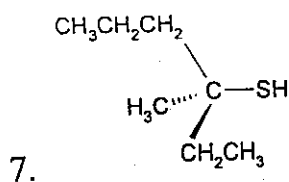
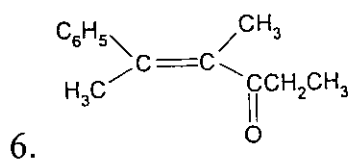
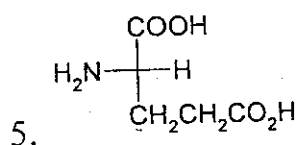
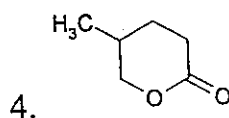
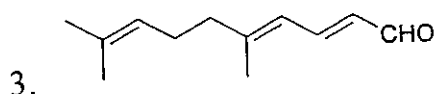
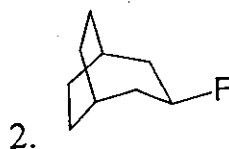
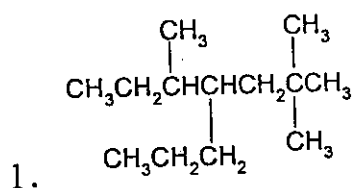
东华大学

2004 年 硕士学位研究生招生考试试题

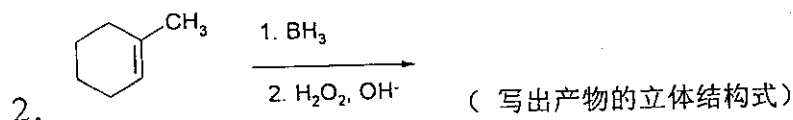
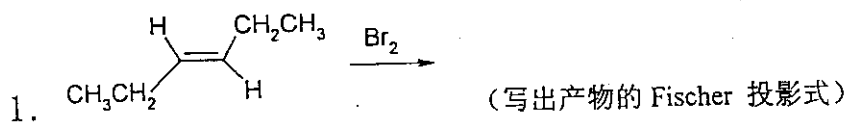
考试科目: 有机化学

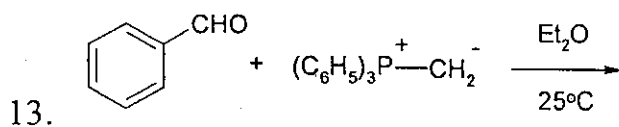
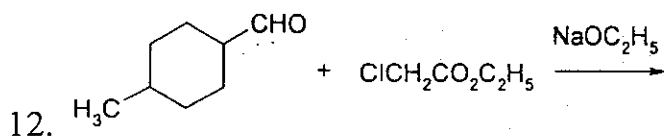
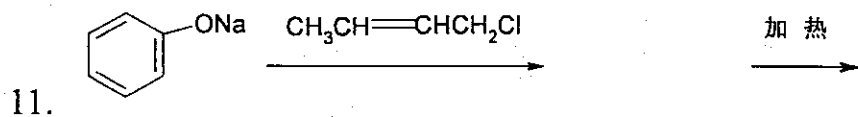
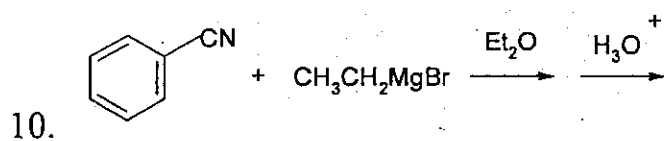
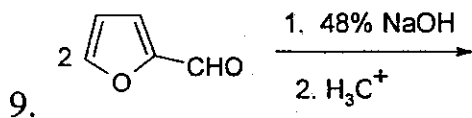
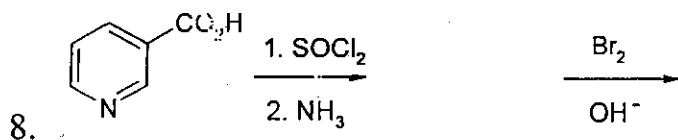
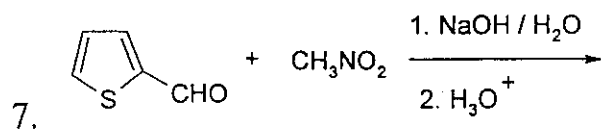
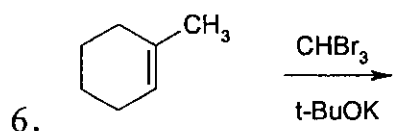
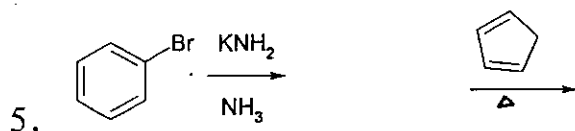
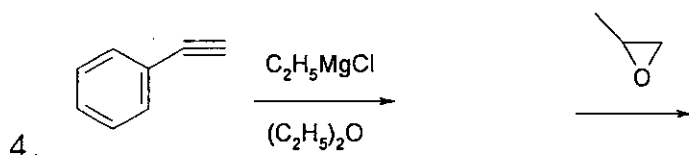
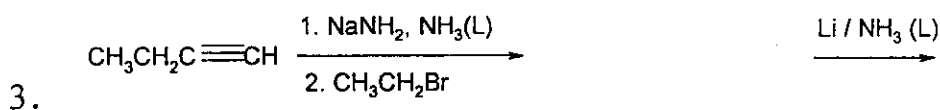
(考生注意: 答案须写在答题纸上。写在本试题上, 一律不给分)

一、用 IUPAC 规则命名下列化合物: (20 分)

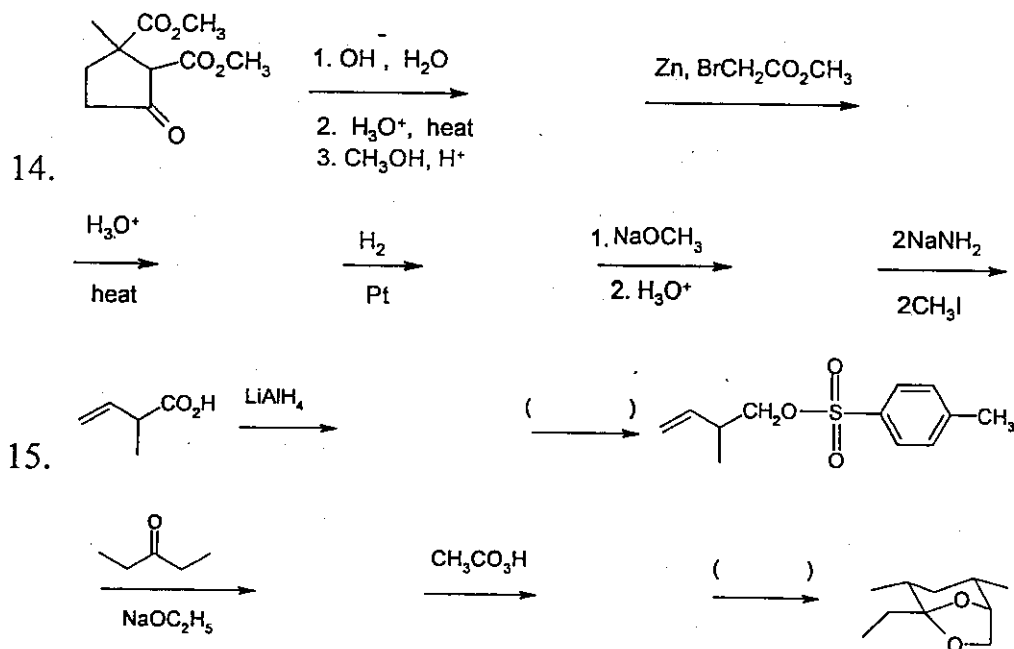


二、完成下列反应式: (45 分, 每空格 1.5 分)

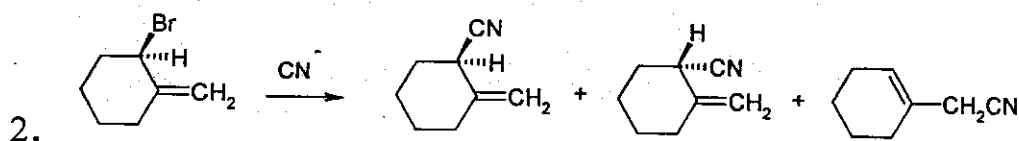
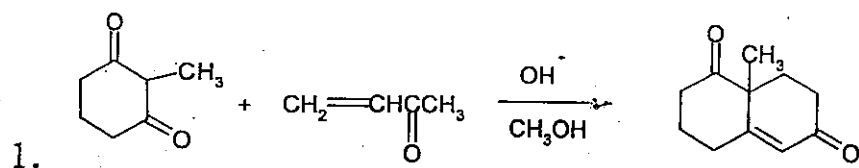




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三、对下列的化学转换提出合理的反应机理：(20 分)



四、有一化合物分子式为 $C_5H_{10}O$ ，核磁共振和红外光谱数据如下：

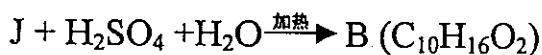
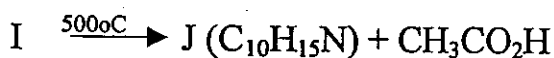
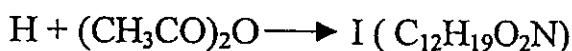
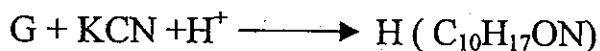
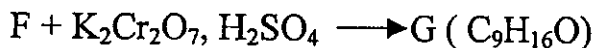
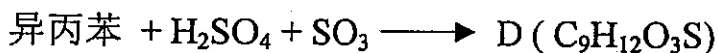
1H NMR δ : 1.10(二重峰, 6H), 2.10(单峰, 3H), 2.50(多重峰, 1H);

IR: $1720cm^{-1}$. 请推导其结构，并标明各吸收峰的归属。(10 分)

五、有一化合物 A 分子式为 $C_{10}H_{16}O$ ，可被吐伦试剂氧化，生成分子式为 $C_{10}H_{16}O_2$ 的酸 B，后者能很快地吸收 1mol 氢气生成分

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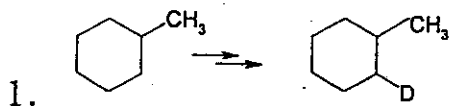
分子式为 $C_{10}H_{18}O_2$ 的酸 C。化合物 A 可按下列步骤合成:



请写出 A~K 的结构式及反应式。(20 分)

六、实验室试剂架上有乙醇、异丙醇、丁酸、苯、浓硫酸、对甲苯磺酸及乙酸乙酯等, 请你选择合适的原料合成丁酸异丙酯, 写出反应方程式, 实验方案并画出实验装置图。(20 分)

七、从指定原料出发, 其它试剂任选, 完成下列化合物的转化:(15 分)



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