

國立臺北科技大學九十七學年度碩士班招生考試

系所組別：3520 化學工程研究所乙組

第二節 有機化學 試題

填准考證號碼

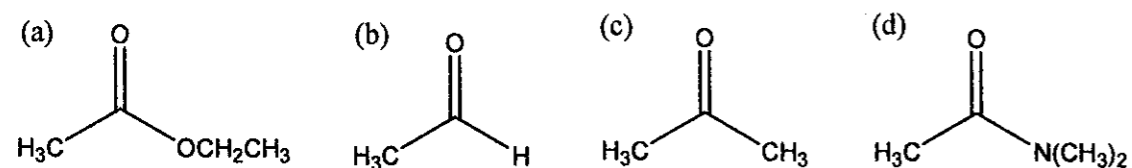
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第一頁 共一頁

注意事項：

1. 本試題共 9 題，配分共 100 分。
2. 請標明大題、子題編號作答，不必抄題。
3. 全部答案均須在答案卷之答案欄內作答，否則不予計分。

1. Draw the most stable conformation of cis-1-tert-butyl-4-methylcyclohexane. (10%)
2. Synthesize hexan-1-ol from acetylene and any alkyl halide needed. (10%)
3. Synthesize 4-bromo-2-nitrotoluene from benzene. (10%)
4. Synthesize 4-chloro-2-propylbenzenesulfonic acid from benzene. (10%)
5. Synthesize benzaldehyde from benzene. (10%)
6. Synthesize 2-phenylethanol from benzene. (10%)
7. When phenol is treated with Br₂, a mixture of monobromo-, dibromo-, and tribromophenols is obtained. Design a synthesis that would convert phenol primarily to ortho-bromophenol. (10%)
8. Which of the following compounds has lowest pK_a? (10%)



9. Naming the following compounds with IUPAC system. (20%, 2% each)

