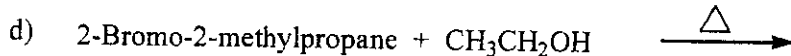
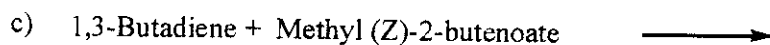
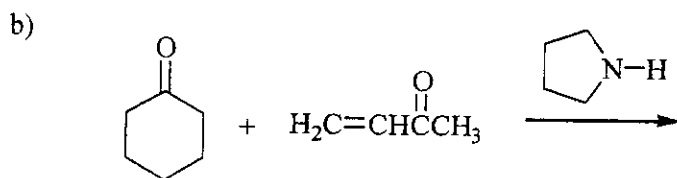
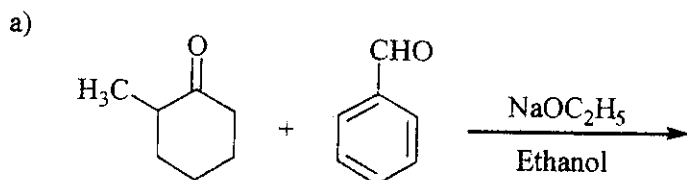


本試題是否可以使用計算機： 可使用， 不可使用（請命題老師勾選）

1. Explain the following terms: (20%)

a) HOMO and LUMO, b) Phase-transfer catalyst, c) Wittig reaction, d) Meso compound, e) Resolution of a racemic modification

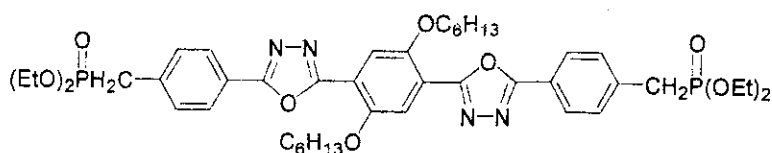
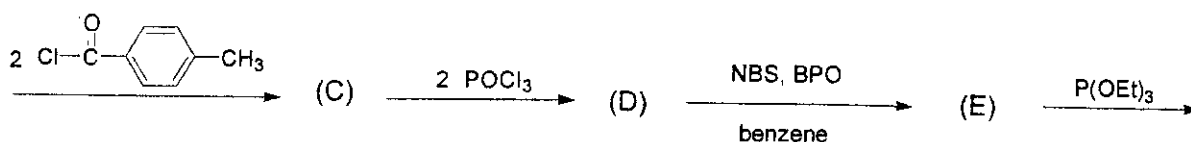
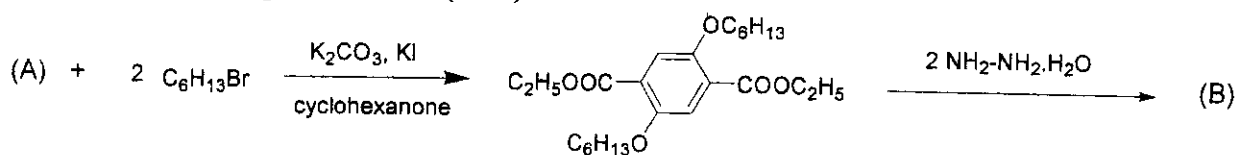
2. Predict the products of the following reactions: (16%)



3. Rank the acidity order of the following compounds. (4%)

Phenol, CH_3COOH , ROH, CH_2ClCOOH , *p*-Nitrobenzoic acid, RNH_2 , $\text{HC}\equiv\text{CH}$

4. Finish the following reactions: (20%)



NBS: *N*-bromosuccinimide
BPO: Benzoyl peroxide

(背面仍有題目,請繼續作答)

