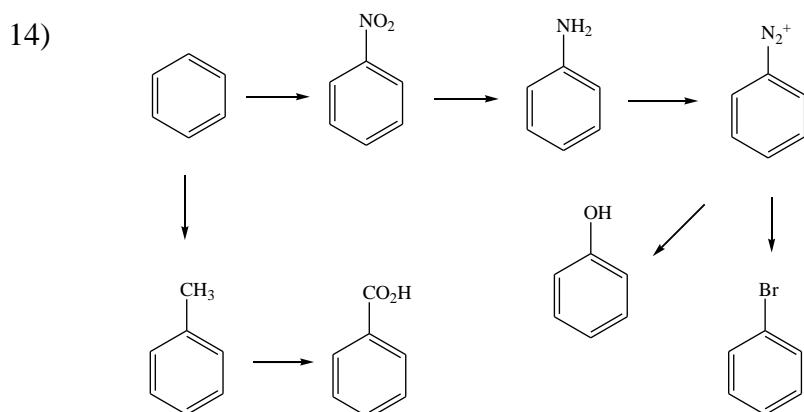
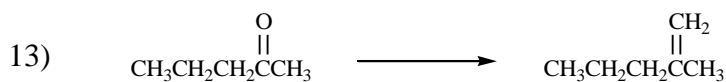
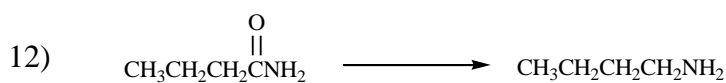
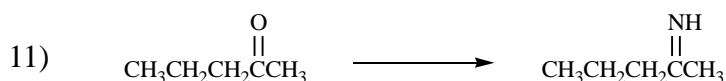
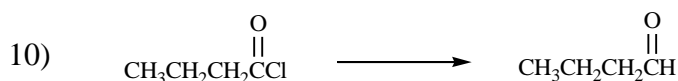
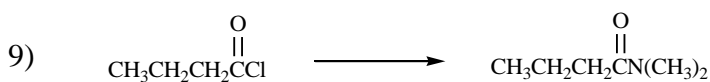
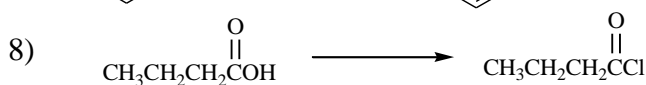
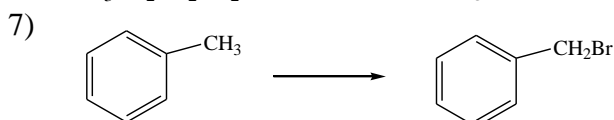
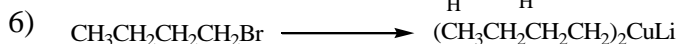
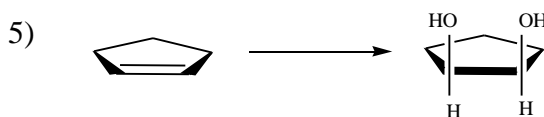
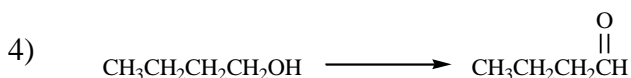
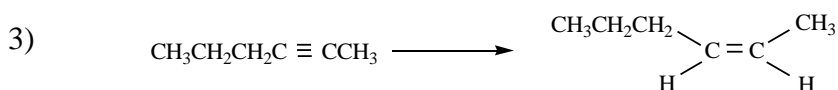
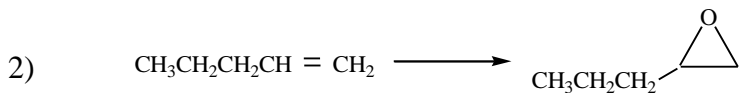
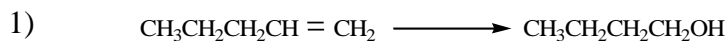


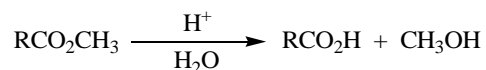
系級	化學系三年級	考試時間	100 分鐘
科目	有機化學	本科總分	100 分

1. Supply the appropriate reagent for each of the following reactions: (60%)

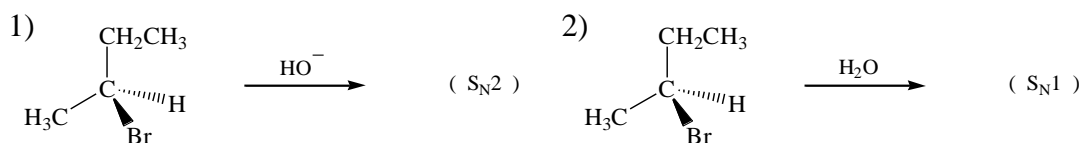


系級	化學系三年級	考試時間	100 分鐘
科目	有機化學	本科總分	100 分

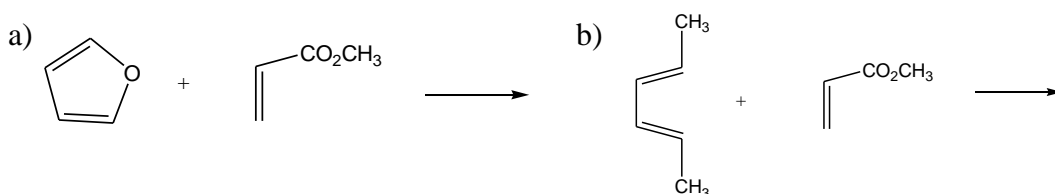
2. Give a reasonable mechanism for each of the following reaction: (5%)



3. Give the major product for the following nucleophilic substitution reactions:(6%)



4. Give the product for the following Diels-Alder reactions. (6%)



5. Give the structure for each of the following names: (18%)

- (a) phenol (b) *trans*-2-butene (c) pyridine (d) THF
 (e) *p*-dimethylbenzene (f) *cis*-1,2-dimethylcyclohexane

6. Give the structure of compound C₁₁H₁₆ which has the following proton NMR spectrum.(5%)

