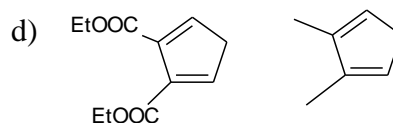
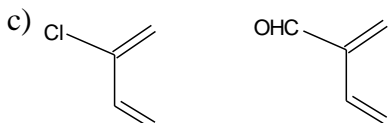
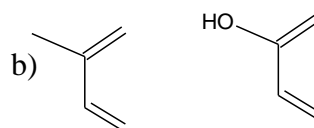
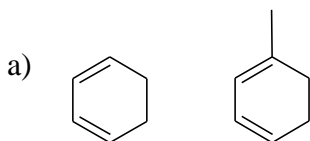
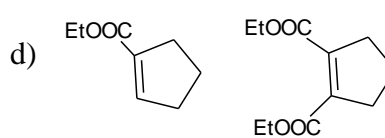
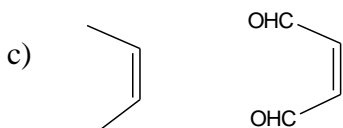
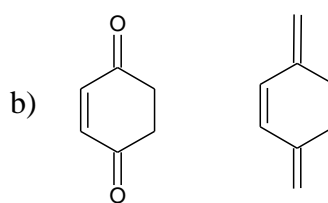
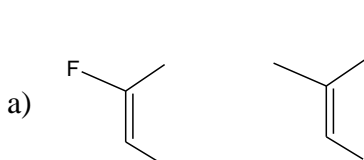


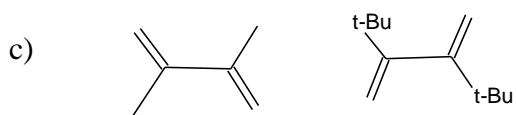
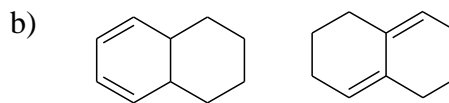
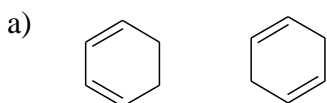
1) Circle the better of the dienes in the pairs shown below?



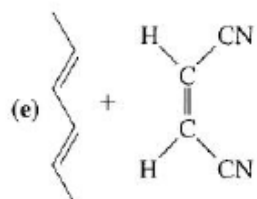
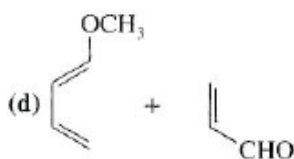
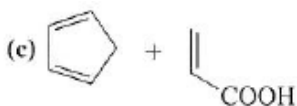
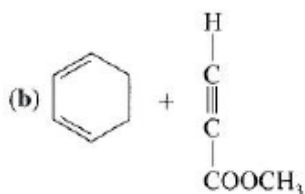
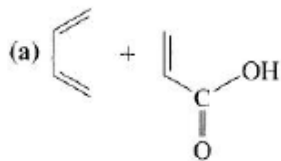
2) Circle the better of the dienophiles in the pairs shown below?



3) Circle the diene, in the following pairs, that will not result in a Diels-Alder reaction?



4) Predict the products of the following Diels-Alder reactions. Include stereochemistry where appropriate.



g) Cyclopentadiene +  $\text{CH}_2=\text{CH}-\text{COOCH}_3$

h) 1,3-cyclohexadiene +  $\text{CH}_3\text{OOC}-\text{C}\equiv\text{C}-\text{COOCH}_3$

5) Show how Diels-Alder reactions might be used to synthesize the following compounds.

