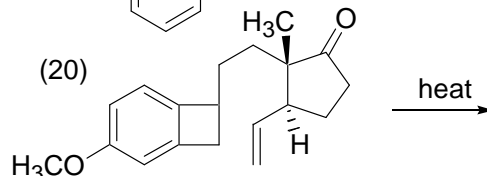
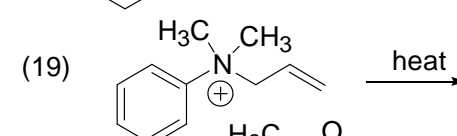
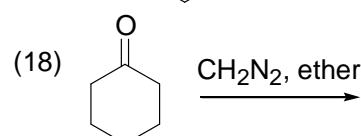
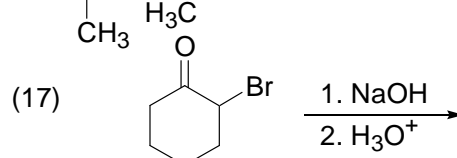
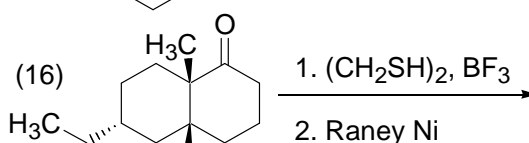
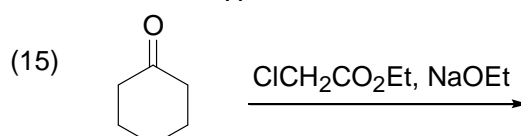
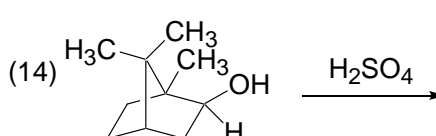
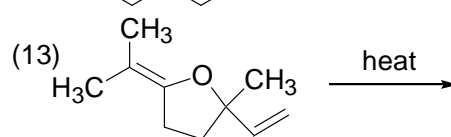
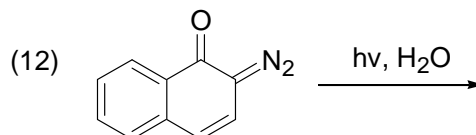
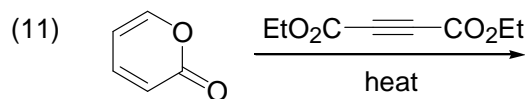
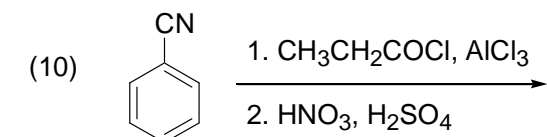
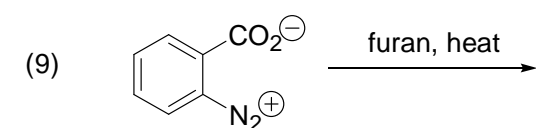
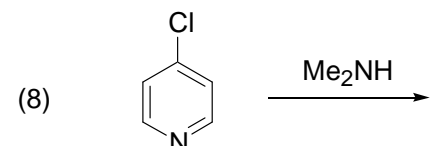
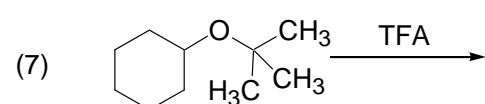
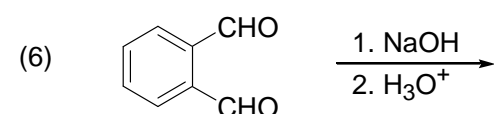
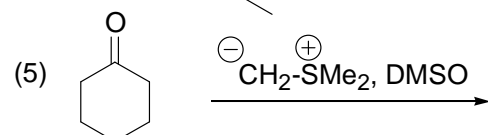
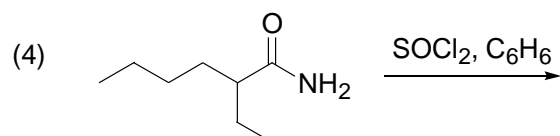
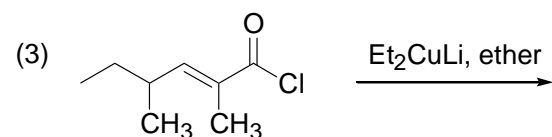
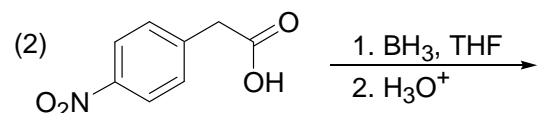
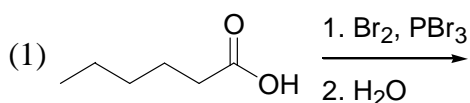
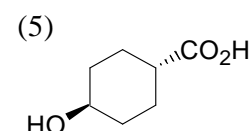
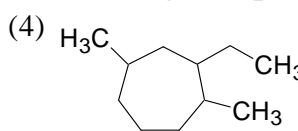
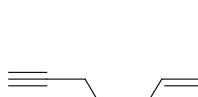
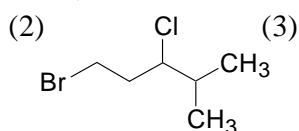
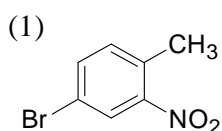


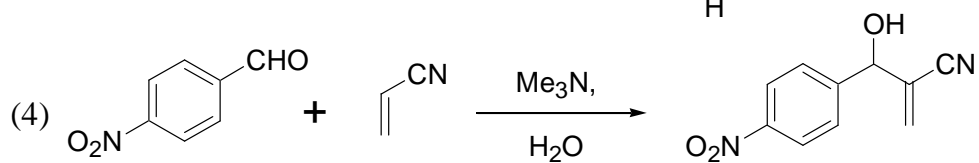
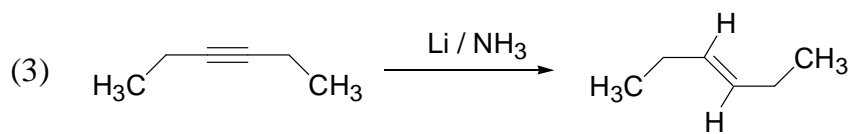
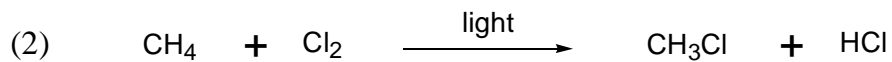
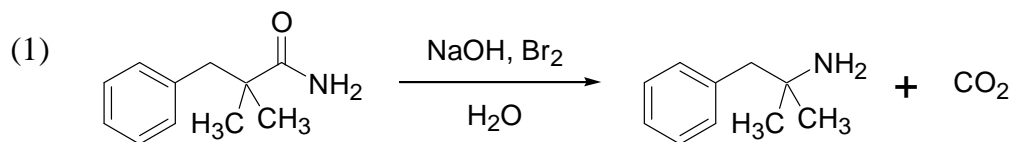
1. (60%) Give the major product of each of the following reactions.



2. (10%) Give the systematic name for each of the following compounds.



3. (20%) Propose a reasonable mechanism for the following reactions.



4. (10%) Design a synthesis for the target molecule from the indicated starting material.

