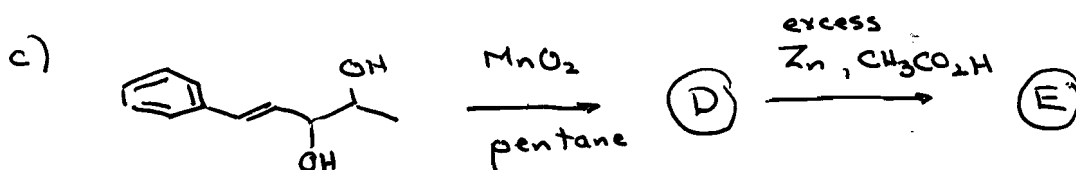
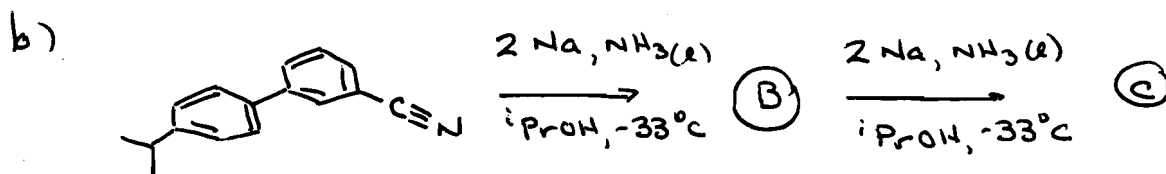
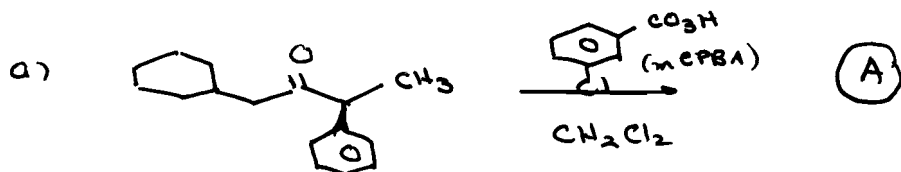
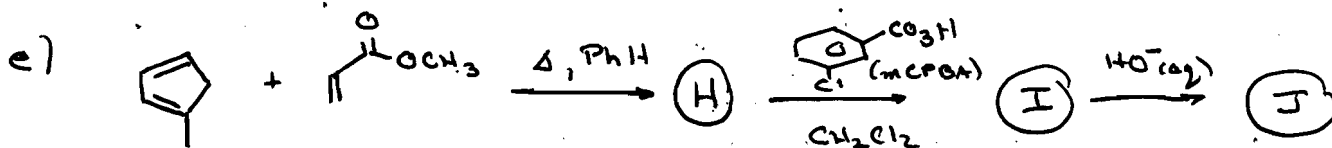
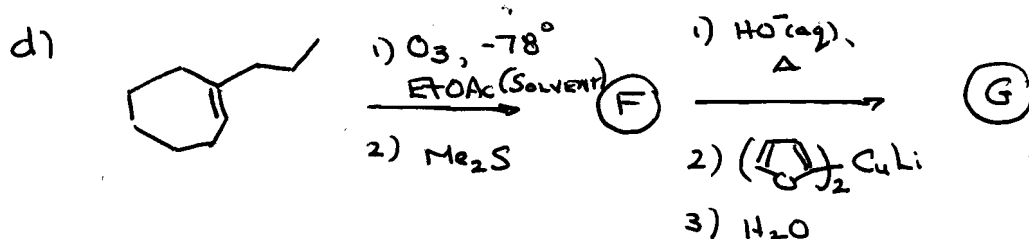


1. GIVEN THE MOST LIKELY OUTCOME OF THE FOLLOWING TRANSFORMATIONS. INDICATE STEREOCHEMISTRY WHERE IT IS RELEVANT. MECHANISMS ARE NOT NECESSARY, BUT SHOWING YOUR WORK MAY BE A HELP.



NOTE: BENZENES ARE INERT TO $Zn/HOAc$



NOTE: IF YOU SHOW ME (H) I'LL GIVE A HINT FOR THE STEREOCHEMICAL PREFERENCE IN THE (H) \rightarrow (I) STEP

2. SHOW PLAUSIBLE SYNTHETIC ROUTES FOR THE PREPARATION OF THE INDICATED COMPOUNDS FROM THE GIVEN STARTING MATERIALS. YOU MAY USE ANY OTHER REAGENTS YOU DEEM FIT. SHOW REASONABLE CONDITIONS AND INTERMEDIATES THAT COULD BE ISOLATED.

