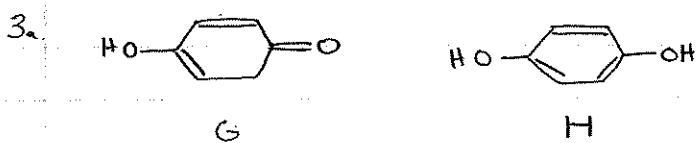
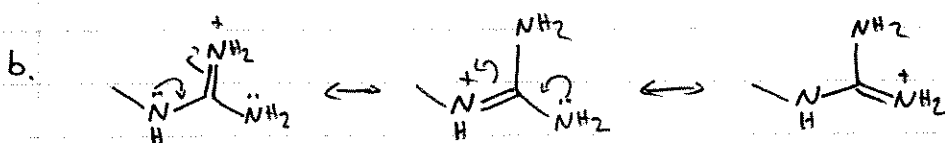
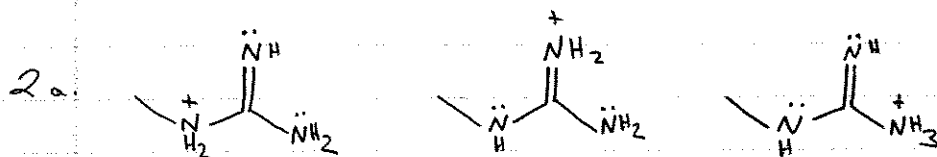
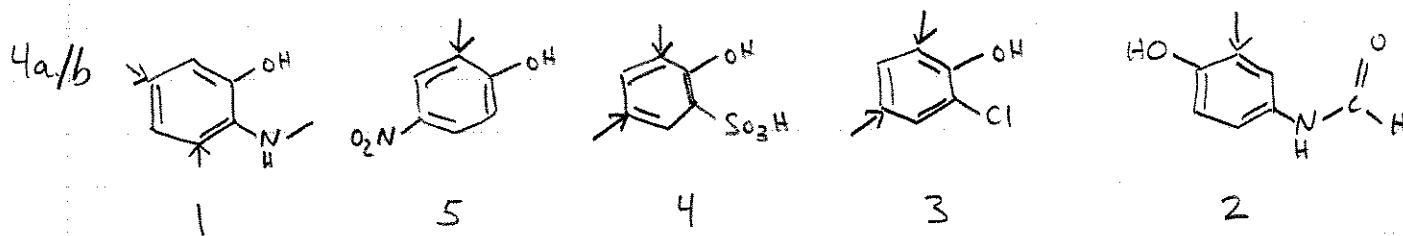


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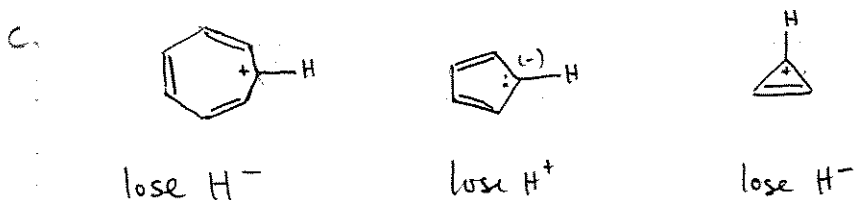
1. A = S      B = R      b. Yes

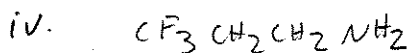
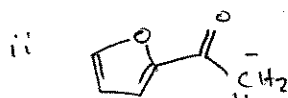
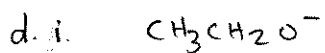


b. H (the trienediol) is the most stable since it is the only one that is aromatic



arrows indicate where incoming Br is directed



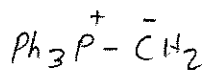
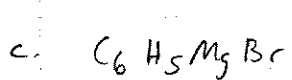


5a.  $\text{HS}^-$   
best nucleophile

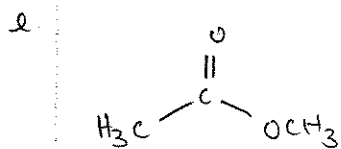
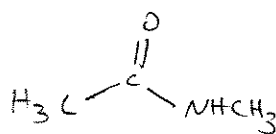
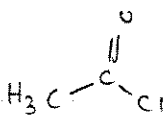
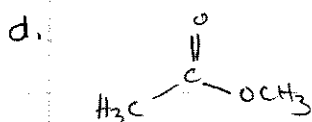
$\text{CH}_3\text{COO}^-$   
worst nucleophile

b. HMPA  
best solvent

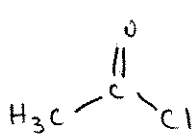
$\text{CH}_3\text{OH}$   
worst solvent



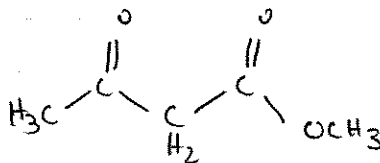
LiAlH<sub>4</sub>



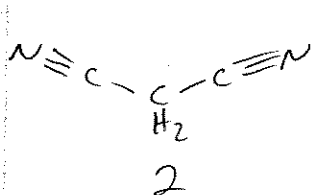
5



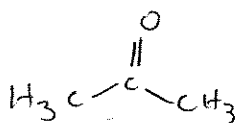
3



1



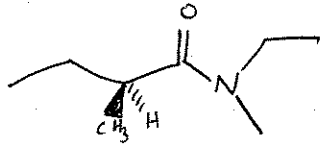
2



4

6a methyl (3-phenoxy cyclopentyl) methanoate

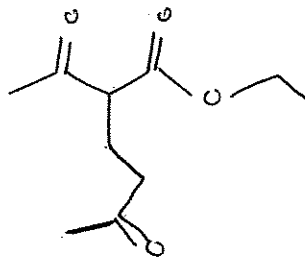
b.



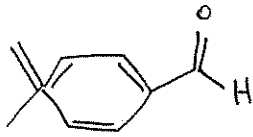
7a



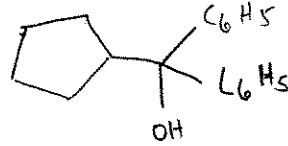
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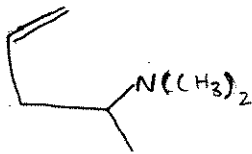
c.



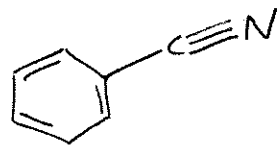
d.



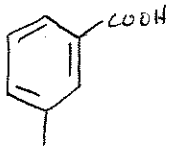
e.



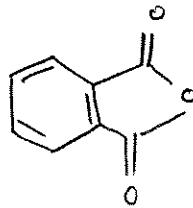
f.



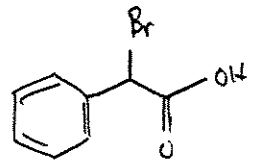
g.

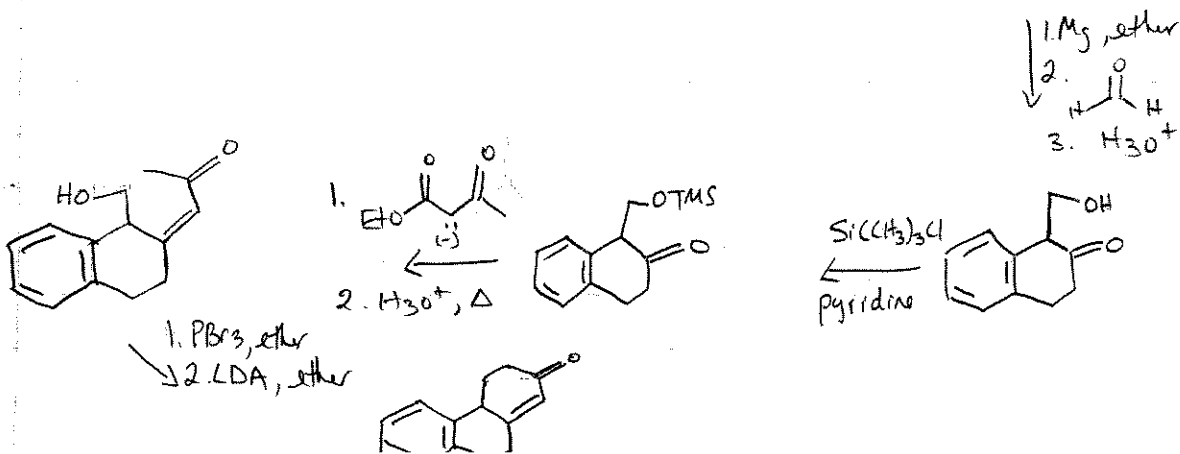
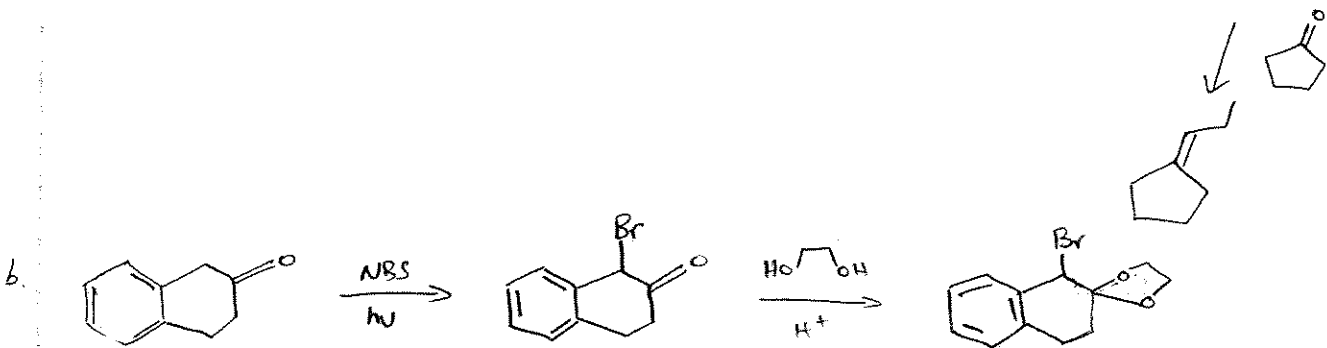
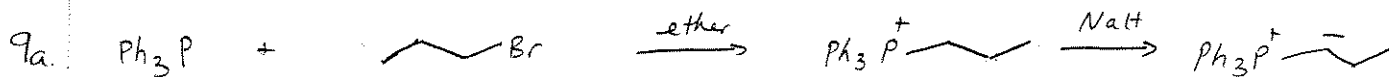
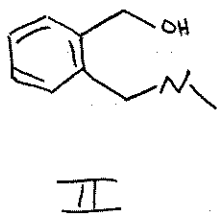
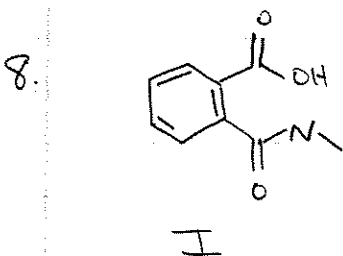
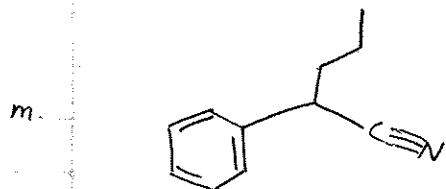
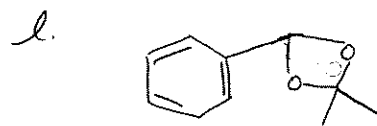
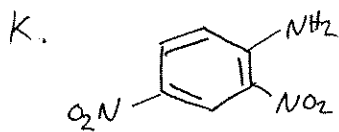
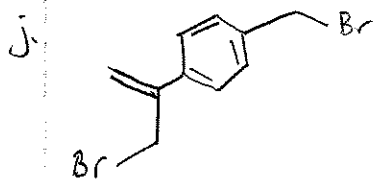


h.

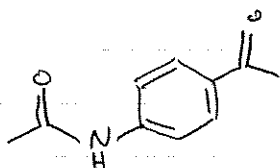
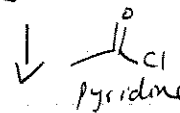
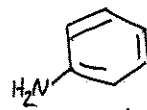
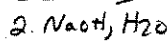
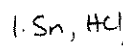
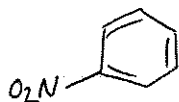
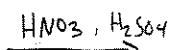


i.

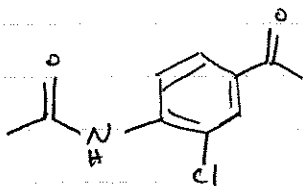
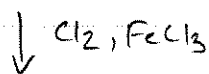
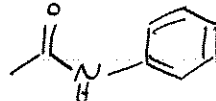
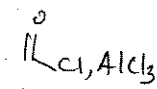




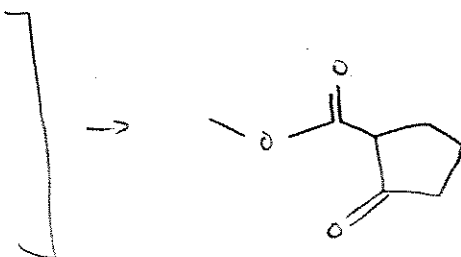
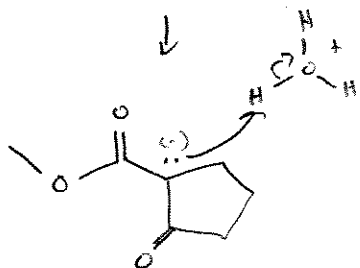
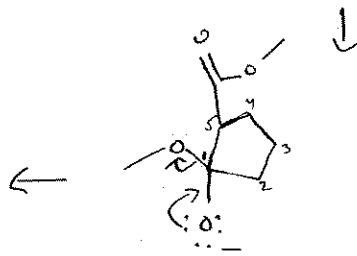
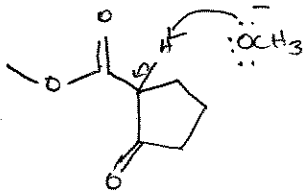
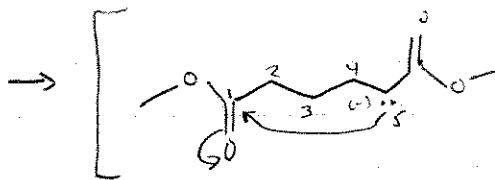
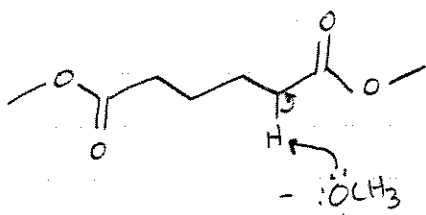
C.



(also attacks ortho)



10a.



+  $\text{CH}_3\text{OH}$

