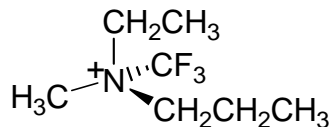


NAME: _____

If you do **not** wish to have your script placed outside my office, then please check this box ___

(1-10) are True or False.

- 1) A carbonyl group contains a carbon/oxygen π bond.
- 2) Carbonyl functionalities are attacked by nucleophiles.
- 3) Wittig reactions produce alkenes.
- 4) Tollen's reagent reacts with aldehydes to give a silver mirror.
- 5) Wolff-Kishner reduction can be described as 'deoxygenation'.
- 6) Clemmensen reduction can be described as 'deoxygenation'.
- 7) Aldehydes are usually more reactive than ketones.
- 8) Exhaustive methylation works best with an excess of the methylating reagent.
- 9) This ion is chiral:



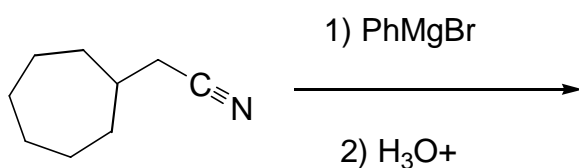
- 10) Primary amines react with nitrous acid to form diazonium salts.

11-15) Give the products for the following reactions (and indicate stereo/regiochemistry where applicable).

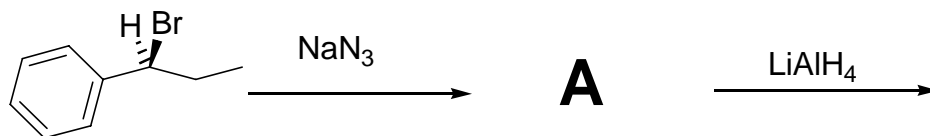
11)



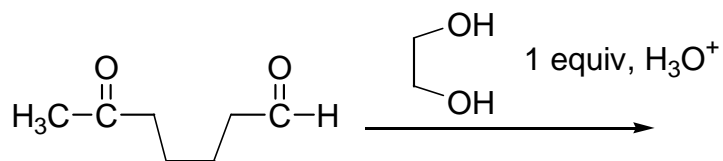
12)



13-14)

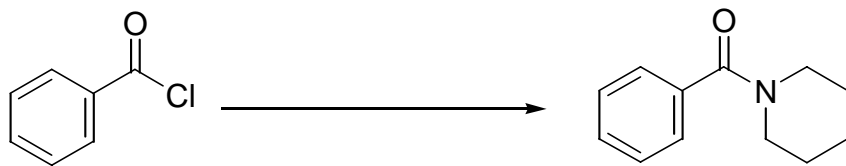


15)

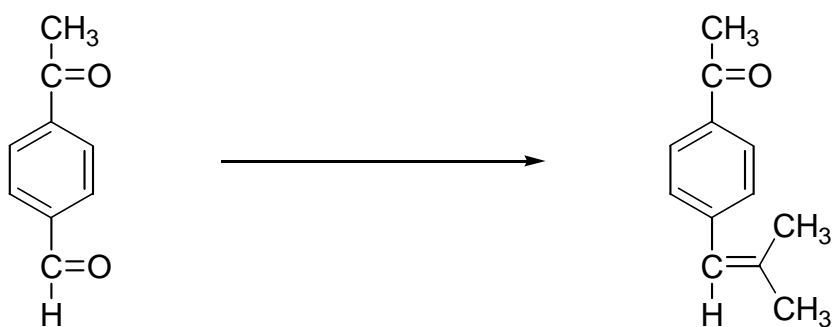


16-20) Give reagents and conditions for the following transformations.

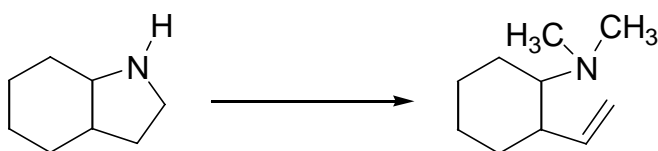
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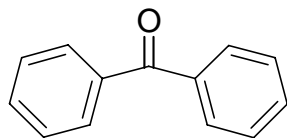
17)



18)

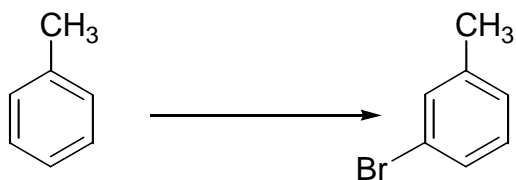


19 and 20) Provide a synthetic route to the below ketone, using benzene as the starting material for any aromatic reagents you use.



***BONUS QUESTION for up to 2 points ***

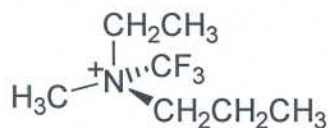
Bearing in mind the methyl group is an activating ortho/para director, devise a synthetic scheme to accomplish the following transformation.



NAME: TERESA GREENIf you do **not** wish to have your script placed outside my office, then please check this box ___

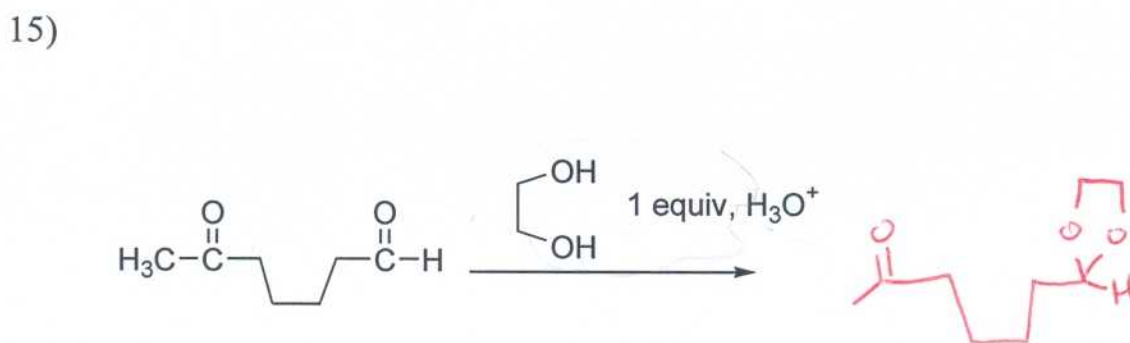
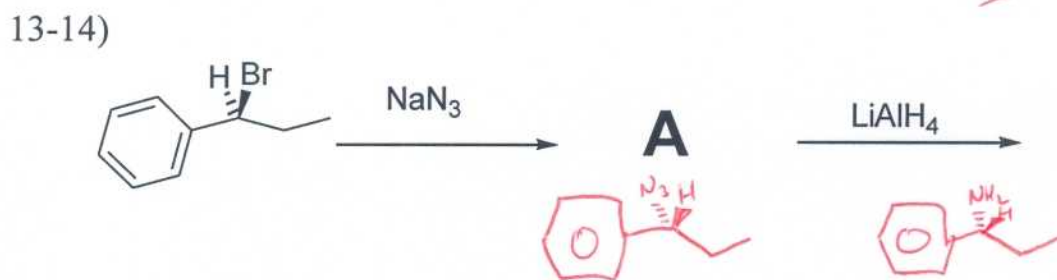
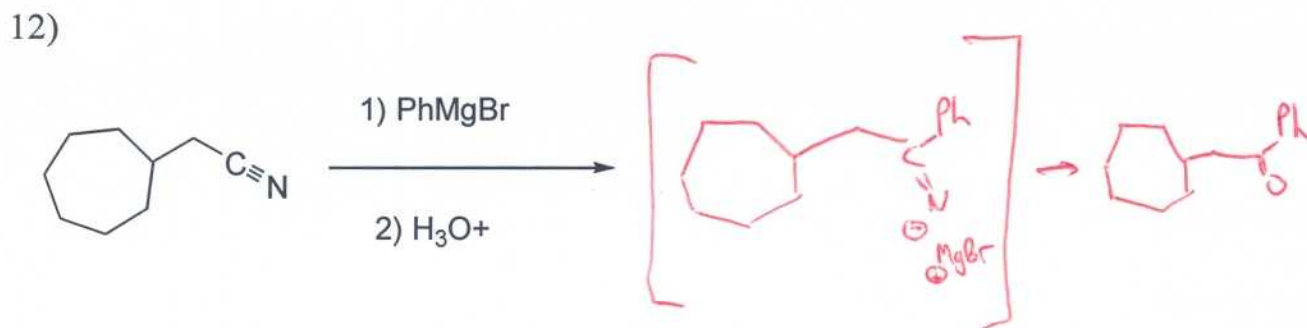
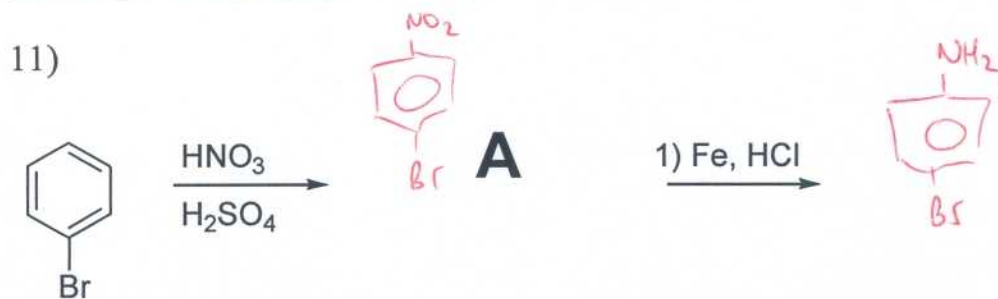
(1-10) are True or False.

- 1) A carbonyl group contains a carbon/oxygen π bond. T
- 2) Carbonyl functionalities are attacked by nucleophiles. T
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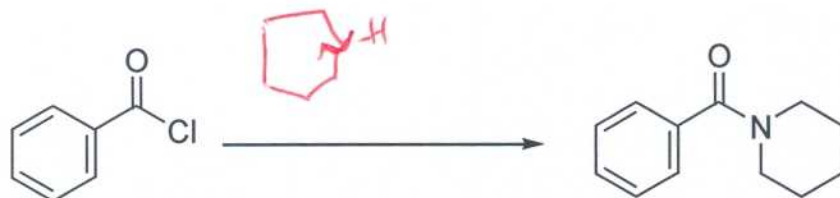
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11-15) Give the products for the following reactions (and indicate stereo/regiochemistry where applicable).

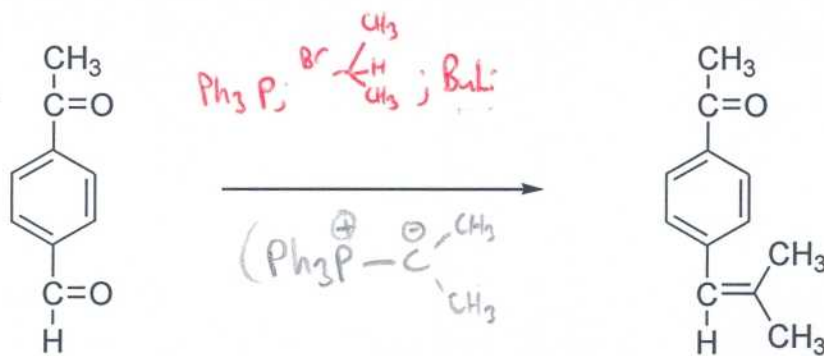


16-20) Give reagents and conditions for the following transformations.

16)



17)



18)

