Quiz 4c

Name:

Signature:

Recitation Instructor:

Start 5 minutes in, 30 minutes total... as always Good luck!

1. Predict the products of the following reactions (4 points each)

   A. 
   
   \[
   \text{NH}_2 \text{CH}_2 \text{NH}_2 \xrightarrow{\text{MeI (3 equivalents)}} \]

   B. 
   
   \[
   \text{Br} \xrightarrow{\text{Cu(I), Pd(PPh}_3)_4, \text{Et}_3\text{N}} \text{Ph} \]

2. Show a mechanism for the following transformation (6 points).

   \[
   \text{HO} \xrightarrow{\text{N}^+ \text{N}} \text{cyclohexane} \xrightarrow{\text{cyclohexanone}} \]

3. Show a synthesis for the following (6 points)

   \[
   \text{Cyclohexane} \xrightarrow{\text{only starting material}} \text{Benzene} \xrightarrow{\text{Benzene}} \text{Biphenyl} \]