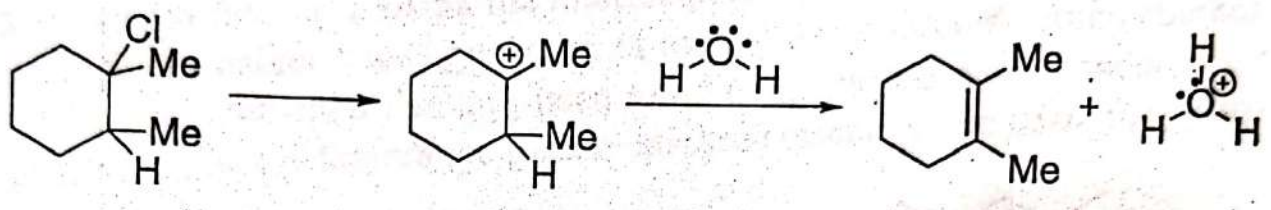
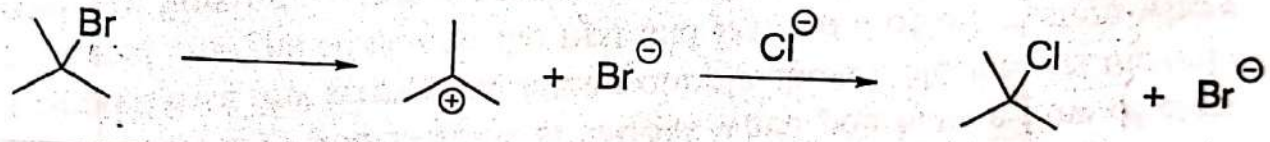
What are the **three** possibilities for how to move electrons with curved arrows i

Draw the arrow(s) required to make the transformation occur:

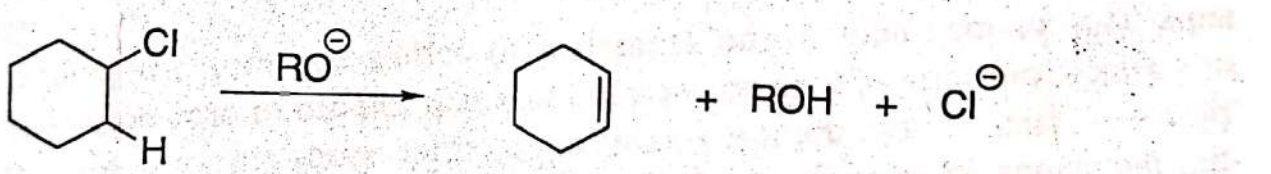
a.



b.

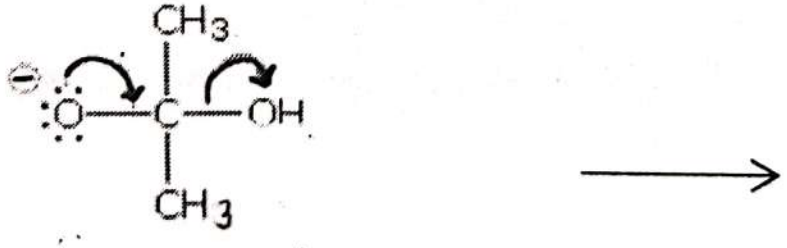


c.



Look at the structures below, draw the intermediate(s) that you get after **pushing**

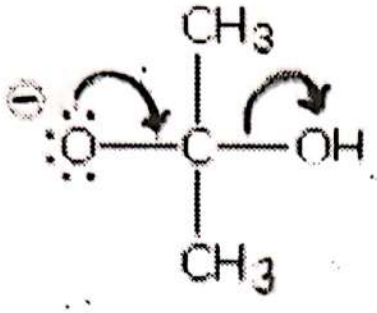
a.



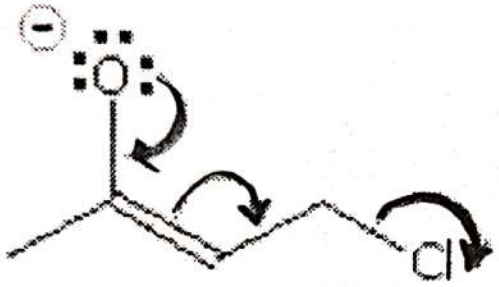
b.

Look at the structures below, draw the intermediate(s) that you g

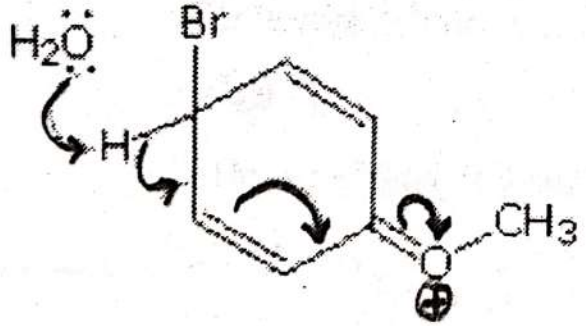
a.



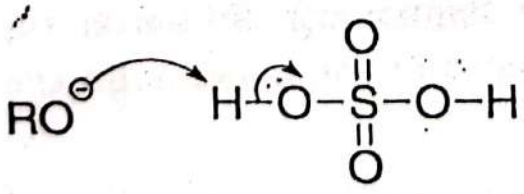
b.



c.



d.

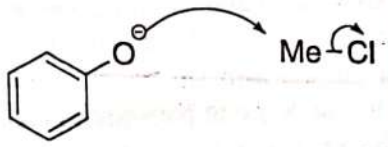


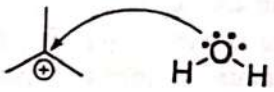
4. define each of the following terms:

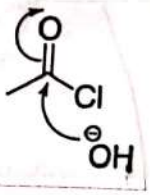
a. Nucleophile = _____

b. Electrophile = _____

5. Label the nucleophile (N) and electrophile (E) in the following reactions:

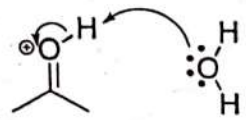
a. 

b. 

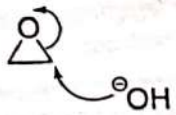
c. 

6. What is the difference between a base and a nucleophile? (What does each "do"?)

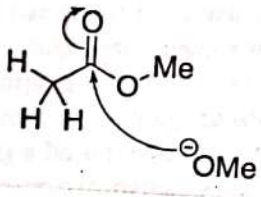
7. In each problem below, determine if the "attacking group" is acting as a base or nucleophile:

a. 

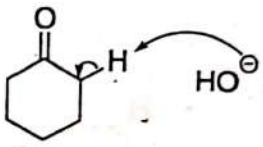
Answer: _____

b. 

Answer: _____

c. 

Answer: _____

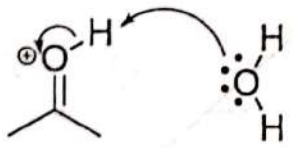
d. 

Answer: _____

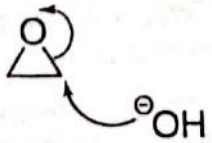
8. What is regiochemistry? What is stereochemistry? (How do you know when to consider them?) Be specific

9. Match the correct letter's definition to its term:

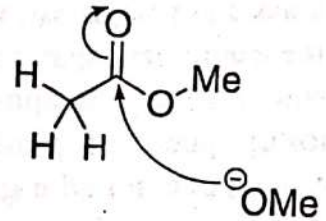
In each problem below, determine if the "attacking group" is acting as a base or nucleophile:

a. 

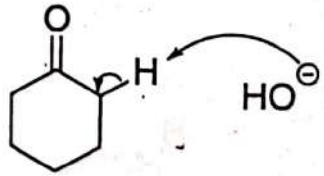
Answer: _____

b. 

Answer: _____

c. 

Answer: _____

d. 

Answer: _____

What is regiochemistry? What is stereochemistry? (How do you know when to consider them?) Be specific!

Match the correct letter's definition to its term:

_____ Markovnikov

_____ Zaitsev

_____ Anti-Markovnikov

A. Group on less substituted carbon during an addition reaction

B. Group on more substituted carbon during addition reaction

C. Disubsituted double bond during ...

_____ Markovnikov

_____ Zaitsev

_____ Anti-Markovnikov

_____ Hoffman

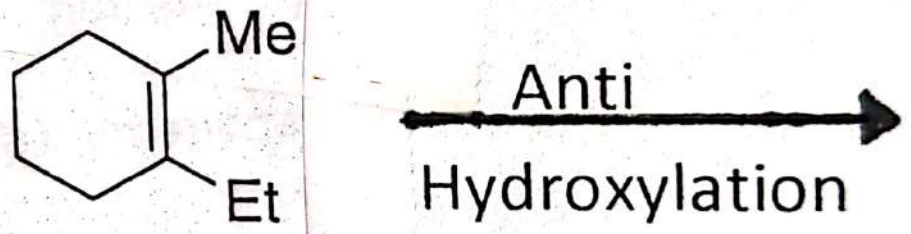
A. Group on less substi

B. Group on more subs

C. Disubsituted double

D. Monosubsituted do

10. If you add OH and OH across the following double bond in an a



BONUS: Determine the R/S configurations for each stereocenter in #1
another (disastereomers, enantiomers, meso, etc.)