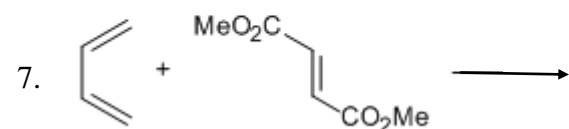
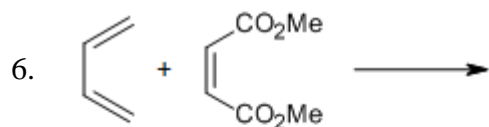
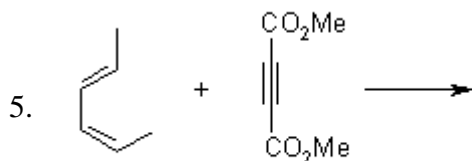
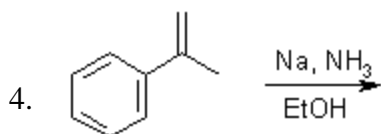
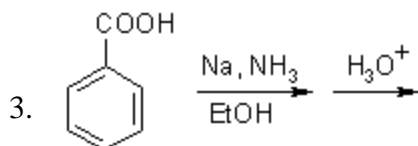
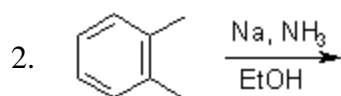
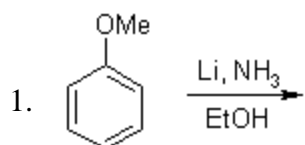


Solve all questions, with probable mechanism:



Assembled by: Dr. Ambika Kumar

Asst. Prof. in Chemistry

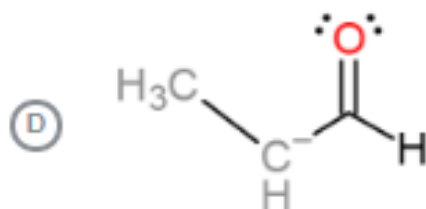
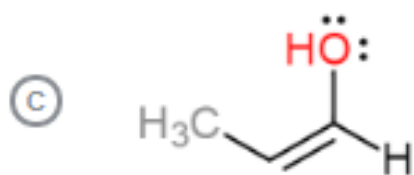
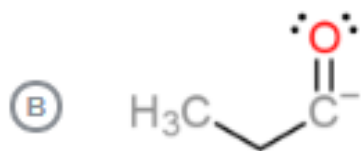
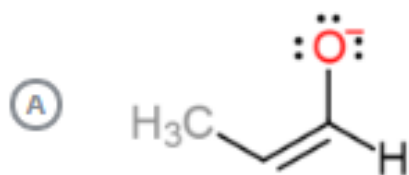
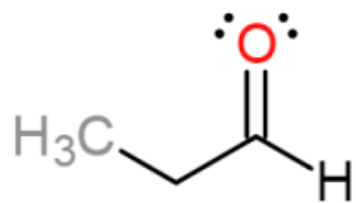
(B. N. College Bhagalpur)

Contact No. 7542811733

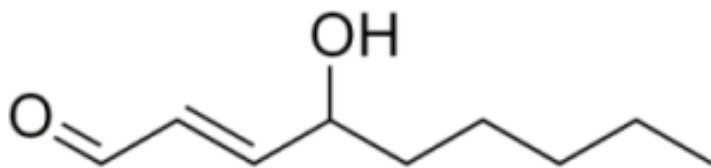
e-mail ID: kumarambika.1115@gmail.com

College: <http://bncollegebgp.ac.in/>

8. Which of the following resonance structures would be the most stable hybrid of the base catalyzed enolate of this molecule?



9. What is the proper IUPAC name for the following molecule?



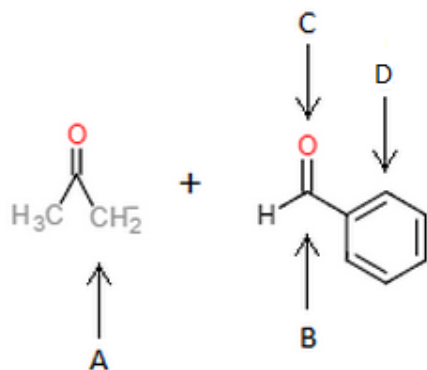
(A) 4-hydroxy-2-nonenal

(B) 6-hydroxy-7-nonenal

(C) (E)-4-hydroxy-2-nonenal

(D) 4-hydroxynonenal

10. In the presence of a base, which carbon acts as the electrophilic site for this reaction of this molecule?



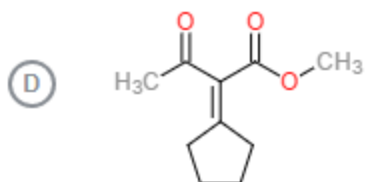
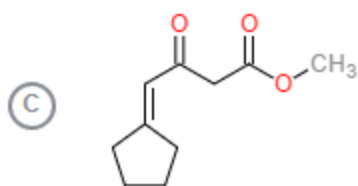
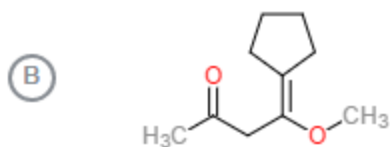
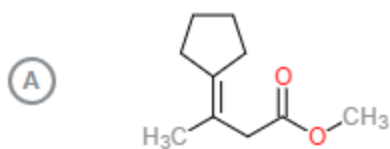
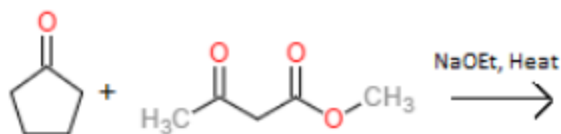
Site A

Site B

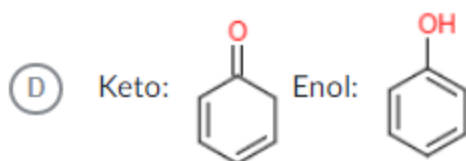
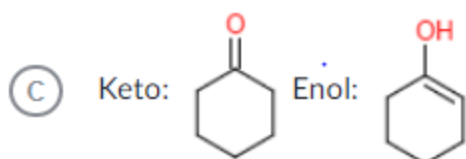
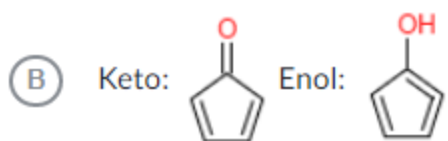
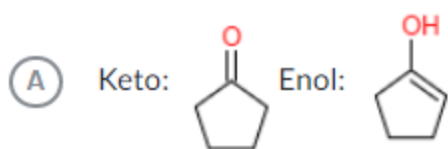
Site C

Site D

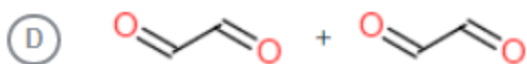
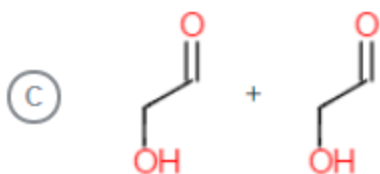
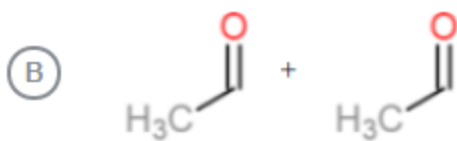
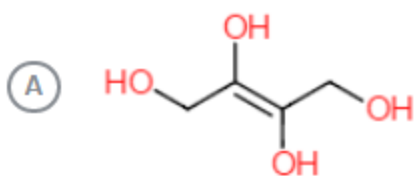
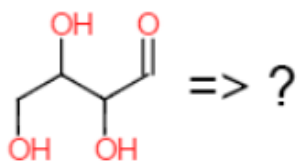
11. What is the correct product of this reaction?



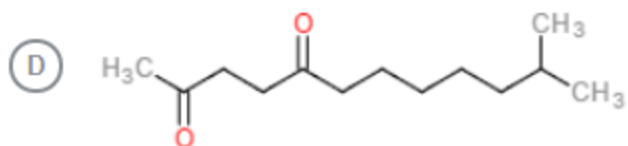
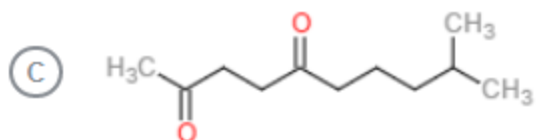
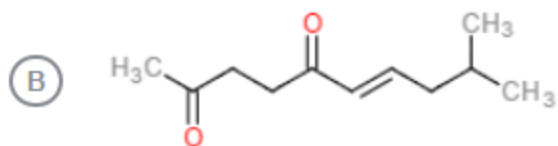
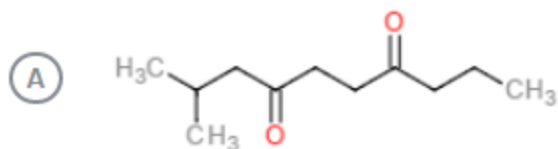
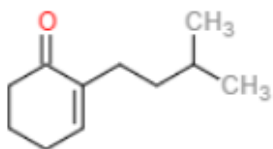
12. Which of the following ring structures will result in an equilibrium that favors the enol form?



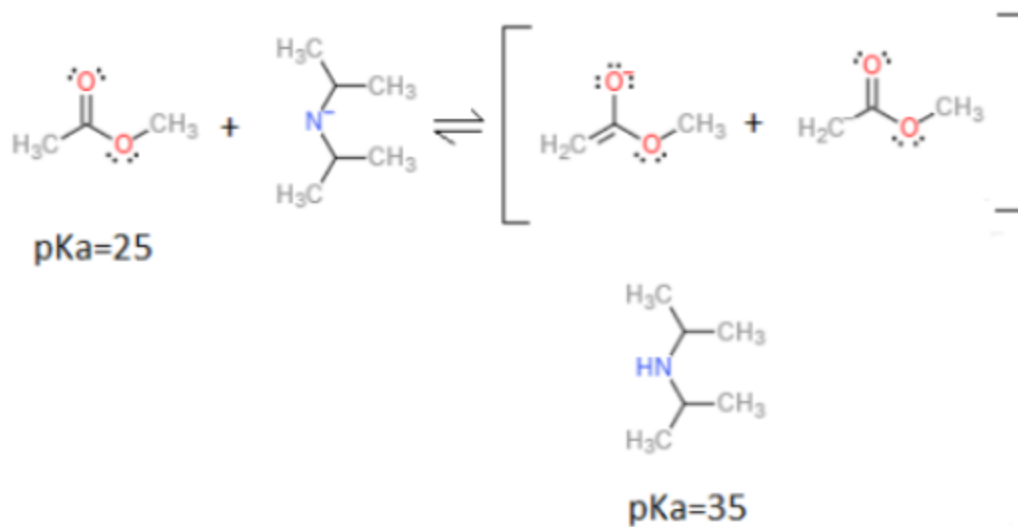
13. Which of the following are correct products of a retro-aldol reaction on the following molecule?



14. Which of the following could undergo an aldol condensation to form the following molecule?



15. Given the following reaction, are the products or reactants favored?



- (A) Reactants are favored

- (B) Products are favored

- (C) Both sides are equally favored

- (D) Not enough information is given

16. Which of the following would be the proper products of an aldol condensation of this molecule?

