

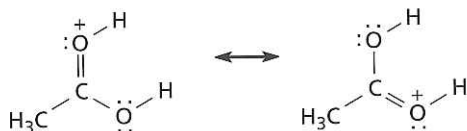
Appendix C

Answers to End-of-Chapter Problems

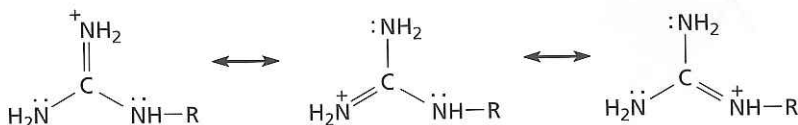
These answers to end-of-chapter problems are somewhat abbreviated and don't show all the mechanistic details. They do, however, cover the important points about each answer, leaving you to fill in the rest.

Chapter 1 Common Mechanisms in Biological Chemistry

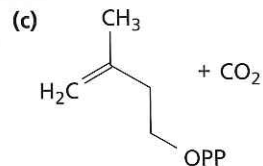
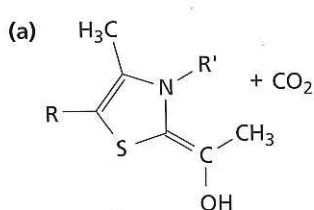
- 1.1 (a), (c), (g), (h) can behave either as an acid or a base.
 1.2 1-Butene is more nucleophilic.
 1.3 (a) < (e) < (c) < (b) < (d)
 1.4 (b) < (a) < (d) < (c)
 1.5 The product of protonation on the double-bonded oxygen is stabilized by two resonance forms.



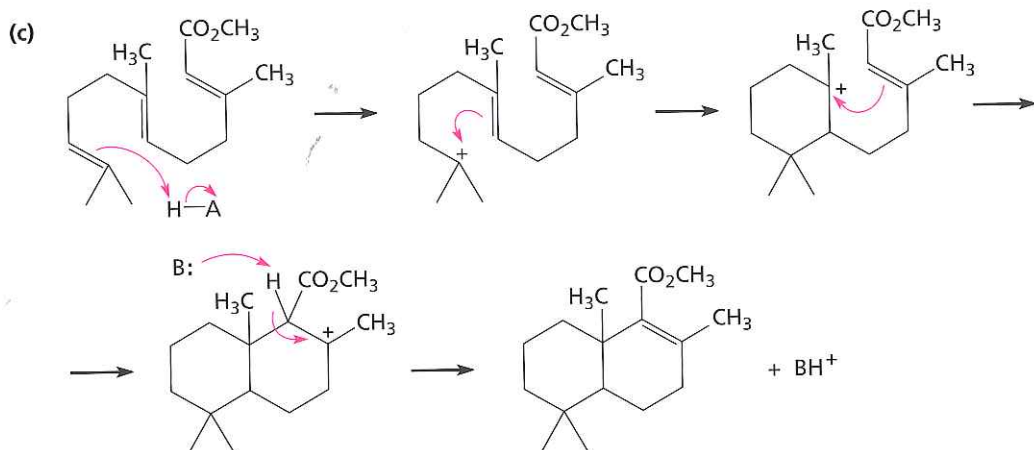
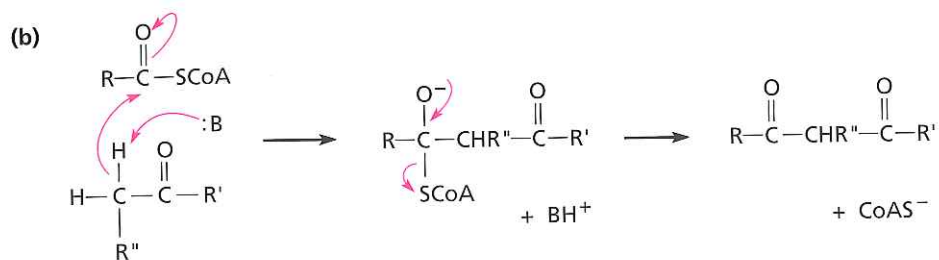
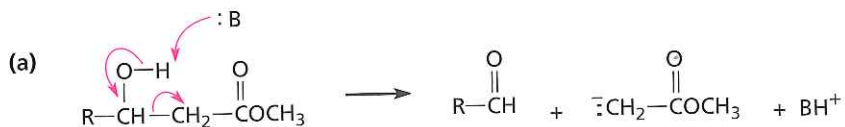
- 1.6 The product of protonation on the double-bonded nitrogen is stabilized by three resonance forms.



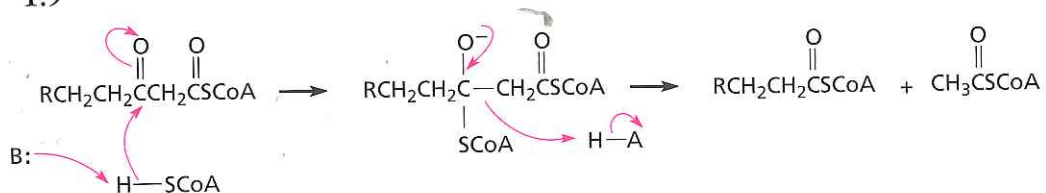
1.7



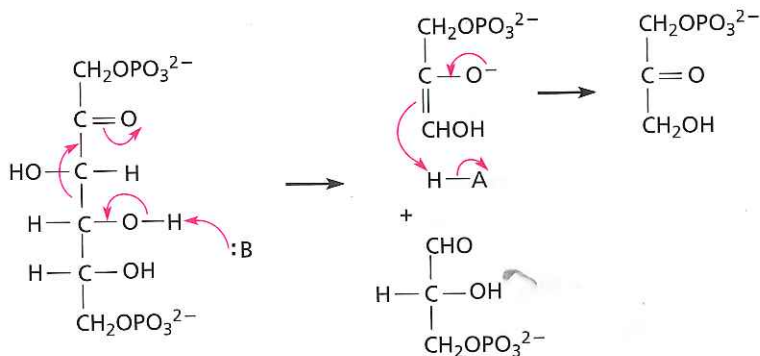
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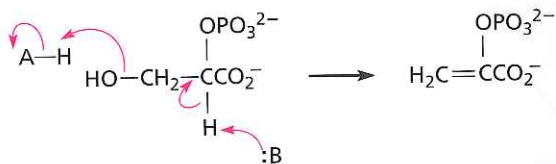
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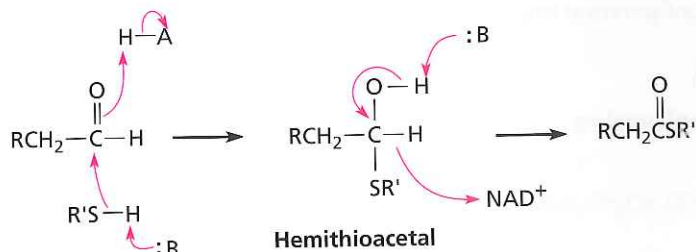
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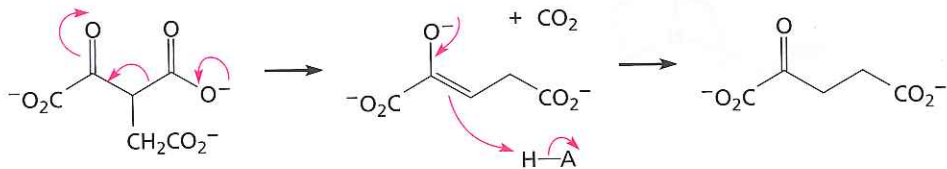
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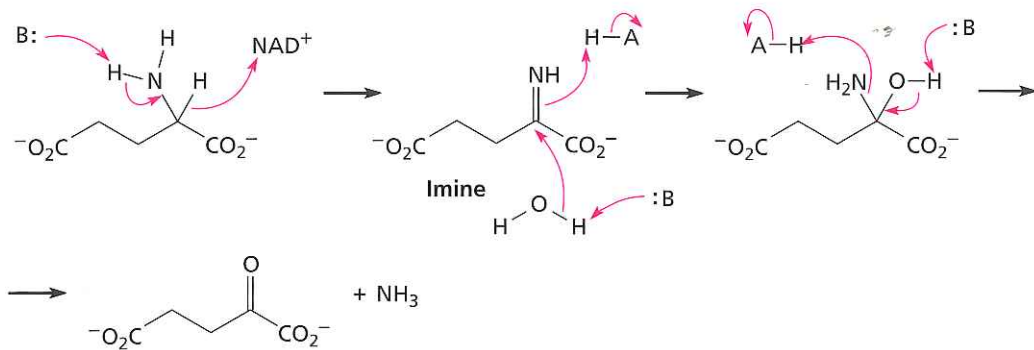
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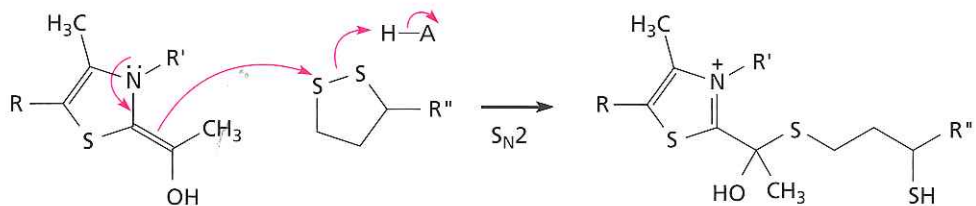
1.13



1.14



1.15



1.16 Inversion of configuration implies an S_N2 reaction.