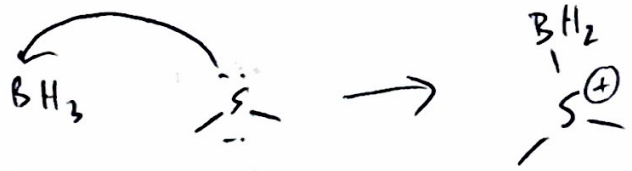
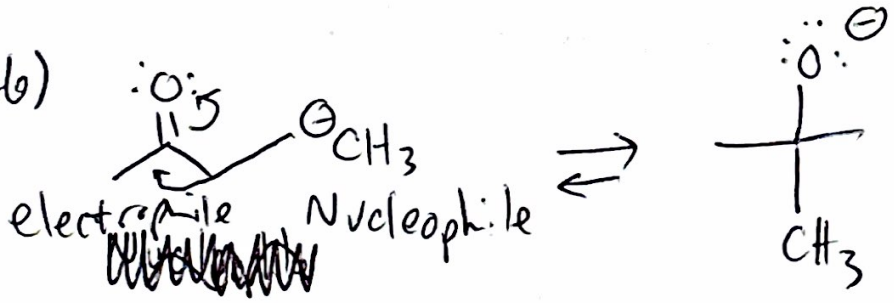
Chapter 8

25)



electrophile Nucleophile

26)



electrophile Nucleophile

27) a) sp_2

b)  The C-C Bond of the phenyl Donates to the empty P-orb.

c) It would be less stable as the Electronegative F atoms would suck electron Density from the carbocation making it even more Positive.

28) a) 1st order

b) 1st order

c) 2nd order

d) rate = $k[CH_3Br]^1[I^-]^1$ But ones are not usually written in.

29) a) 1st order

b) 0th order

c) 1st order

d) rate = $k[(CH_3)_3CBr]^1[H_2O]^0$

30) C

31) a)

A	B	C	D	E
3°	methyl	3°	1°	2°

b) ↑ resonance stabilized

c) B < D < E < A < C

32) a)

A	B	C	D	E
3°	3°	1°	2°	methyl

b) ↑ Res stabilized

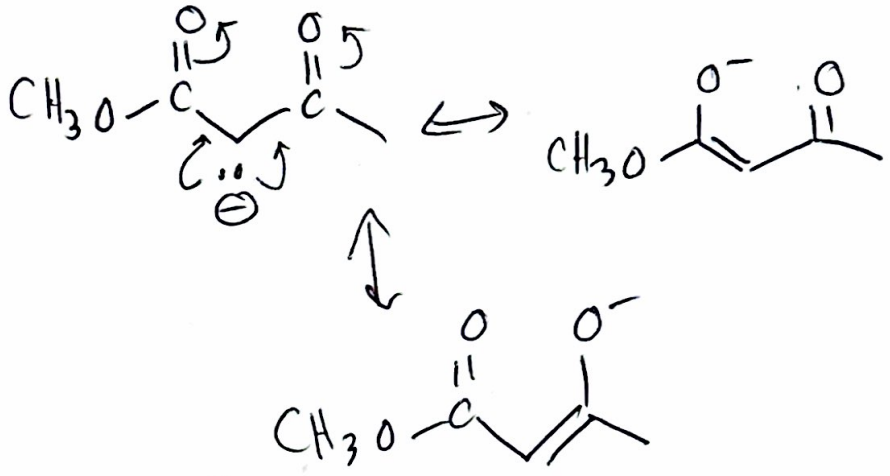
c) E < C < D < A < B

33) a)

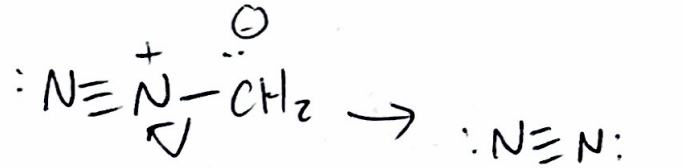
A	B	C	D
3°	methyl	1°	2°

b) None c) A < D < C < B

34)



35)



: CH_2
methyl
Carbene

36) A Energy

B Reaction Coord

E Intermediate

H $E_{act\,1}$

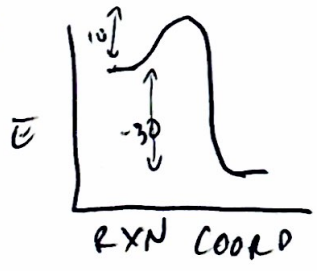
G Products

D 1st Trans. state

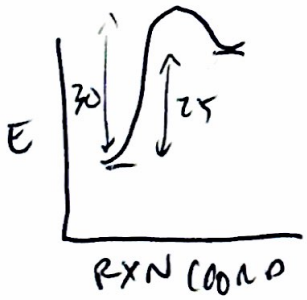
C Reactants

F Rate Det. trans. state

37) a)



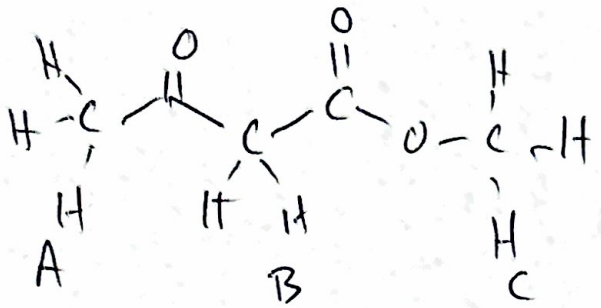
b)



c)

d)

38)



Most

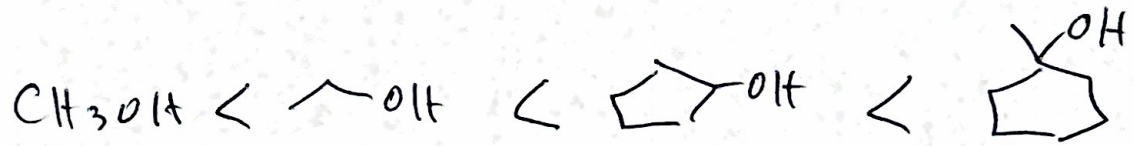
C < A < B

Ø more res Forms

1 more Res form

2 more Res forms

39)



me 1° 2° 3°