Summary and Discussion Problems

Given that carbonyl compounds possess both nucleophilic and electrophilic character, it is no wonder that they can react with themselves. Aldol additions are examples of this behavior.

Aldol Reactions - Synthesis

(1) Which aldehyde cannot undergo an aldol addition when mixed with base?

☐ A
☐ B
☐ C
☐ D
☐ all of them will undergo a base-catalyzed aldol addition

http://wps.prenhall.com/wps/media/objects/725/743350/0107f.html
(3) What is the major organic product of this aldol addition reaction?

- A
- B
- C
- D
- E

[Diagram of aldol addition reaction with structures A, B, C, D, E]

What is the major product of this reaction?

- A
- B
- C
- D
- E

[Diagram of reaction with structures A, B, C, D, E]
**Discussion Problem**

**The Robinson Annulation Reaction**

Annulation is a chemical reaction in which a new ring is constructed on another molecule.

![Chemical Reaction Diagram](http://www.chemtube3d.com/)