

[-CHE 326.01 \(R01-R07\) ORGANIC CHEMISTRY IIB - SPRING 2009 \(1094-CHE-326-SEC01-49422\)](#) > [CONTROL PANEL](#) > PREVIEW ASSESSMENT: 326WS2

Preview Assessment: 326WS2

Name 326WS2

Instructions

Multiple Attempts This Test allows multiple attempts.

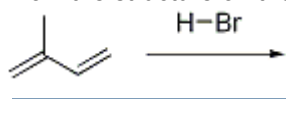
Force Completion This Test can be saved and resumed later.

▼ Question Completion Status:

Question 1

1 points [Save](#)

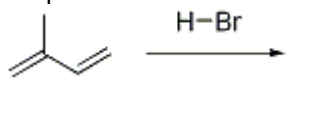
Draw the structure of the main product of the following reaction at low temperature:



Question 2

1 points [Save](#)

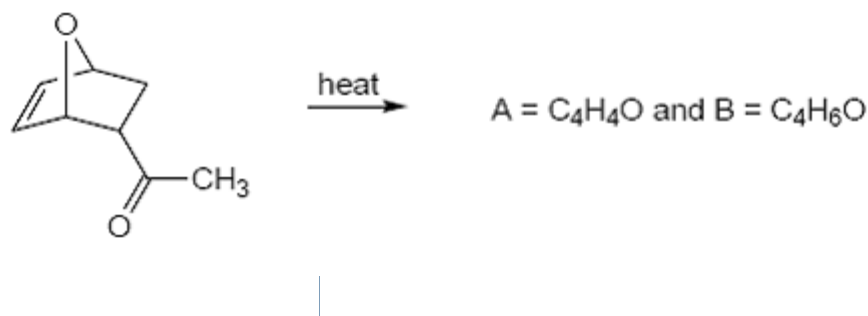
Draw the structure of the main product of the same reaction in Question 1 at high temperature:



Question 3

1 points [Save](#)

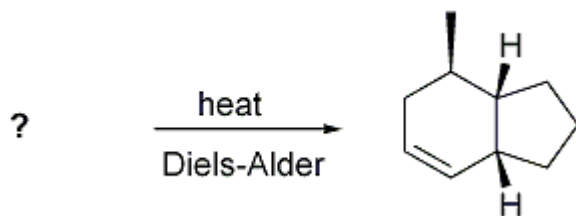
Draw the structure of the major products of the following reaction in the same Marvin Sketch window.



Question 4

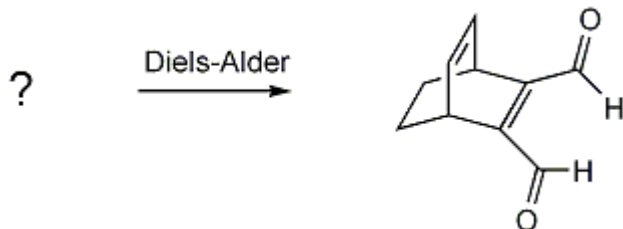
1 points [Save](#)

Draw the structure of the reactant(s) that would produce the following product:

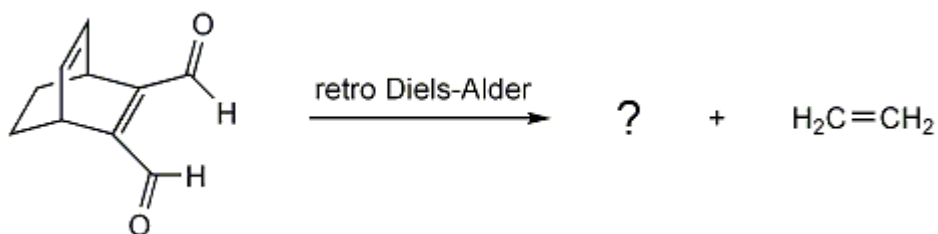


Question 5**1 points** [Save](#)

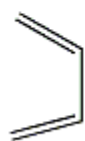
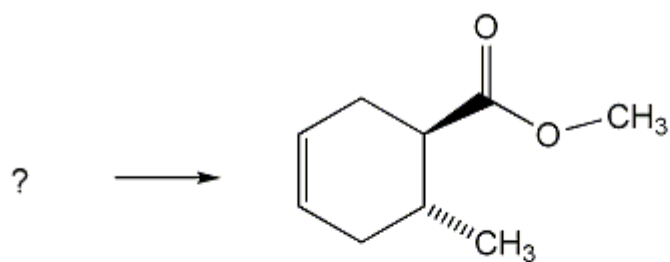
Draw the structure of the diene and dienophile that would produce the following Diels-Alder product. Please keep the two structures in the same MrvinSketch window.

**Question 6****1 points** [Save](#)

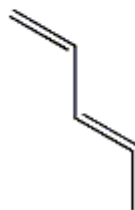
The retro Diels-Alder reaction of the above reaction in Question 5 would produce ethene and a new dienophile. Draw the structure of this dienophile.

**Question 7**

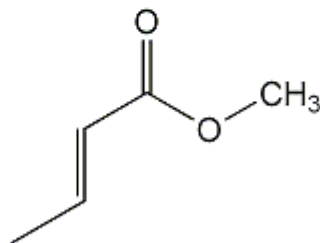
What are the diene and dienophile that would produce the following Diels-Alder product?



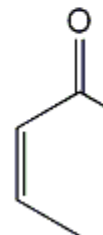
i



ii



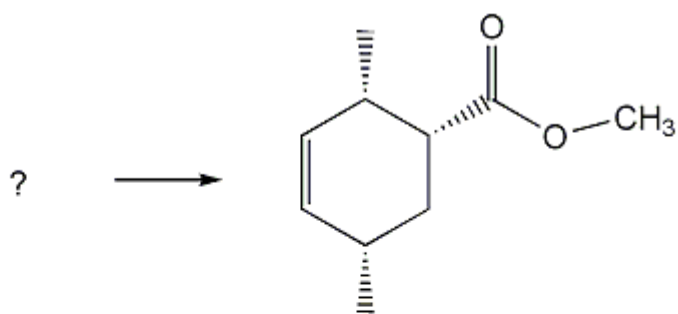
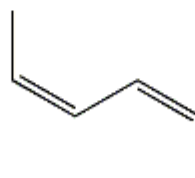
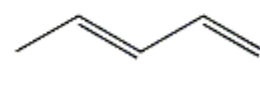
iii



- i + ii
- i + iii
- i + iv
- ii + iii
- ii + iv

Question 8

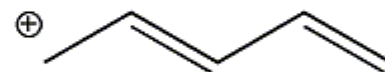
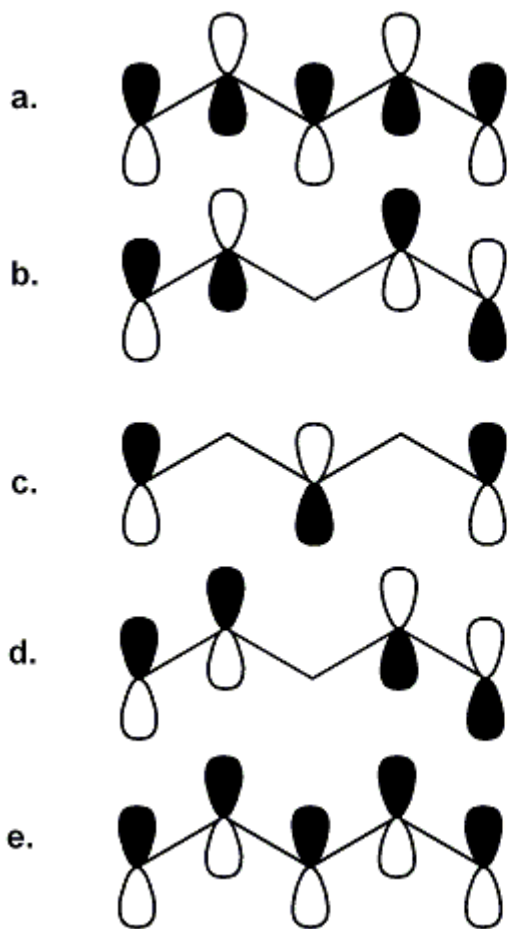
What are the diene and dienophile that would produce the following Diels-Alder product?

**i****ii****iii**

- i + iv
- ii + iv
- iii + iv

Question 9

Draw an energy level diagram of the five pi molecular orbitals of pentadienyl cation. Draw a sketch of energy levels contain electrons. Which diagrams below represents the HOMO and LUMO of pentadie

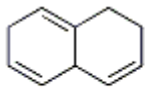


- a – HOMO, e – LUMO
- e – HOMO, a – LUMO
- c – HOMO, d – LUMO
- d – HOMO, c – LUMO

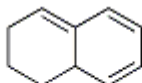
Question 10

1 points [Save](#)

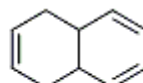
Predict the order of the following compounds with respect to **increasing** wavelength of their $\pi \rightarrow \pi^*$ absorptions in the UV-visible spectrum?



a



b



c

- a < b < c
- a < c < b
- b < a < c
- b < c < a
- c < a < b

Save

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