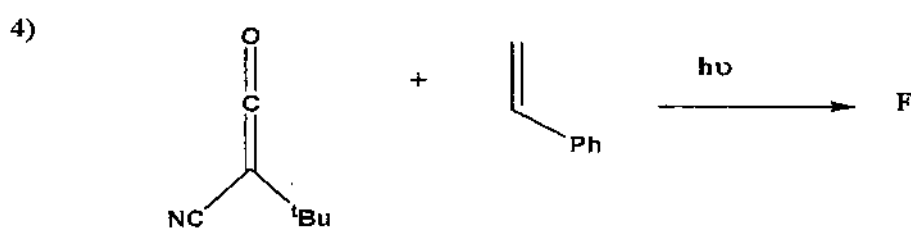
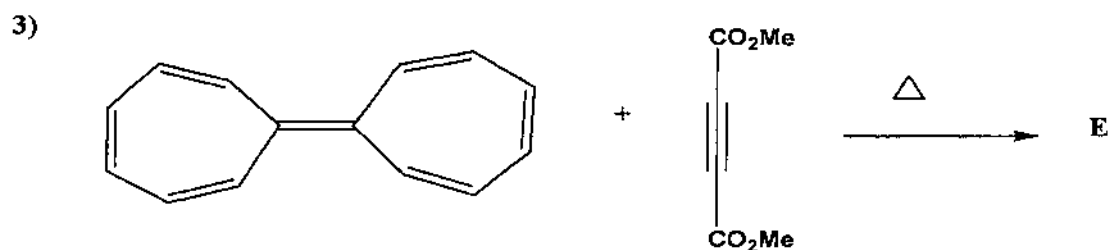
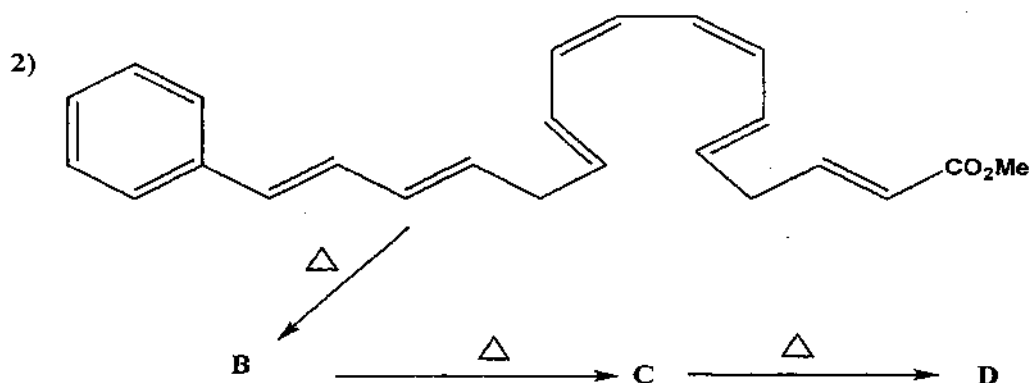
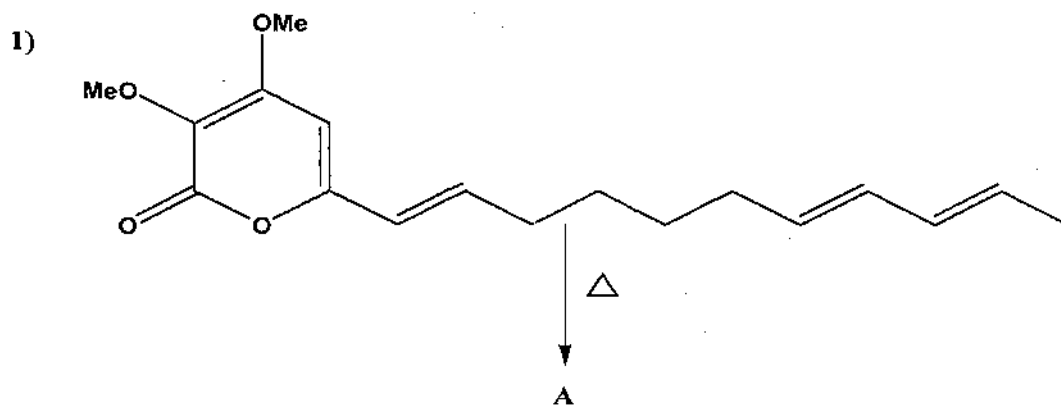


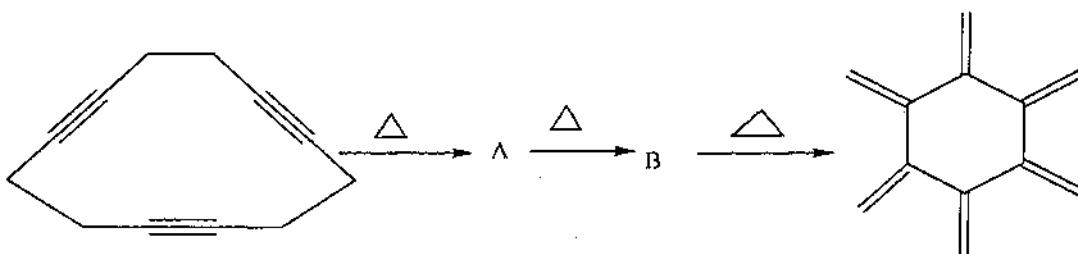
I. Predict the products including stereochemistry

(30 marks)



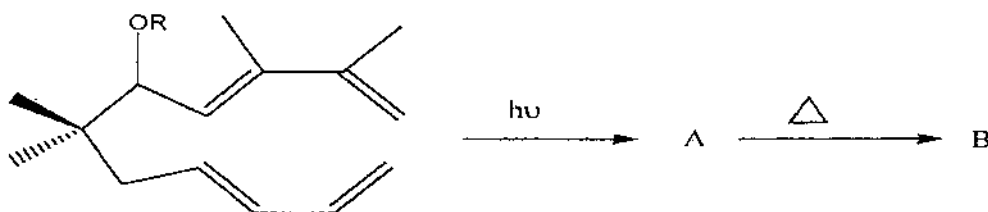
II. Suggest mechanism for the following transformation

(10 marks)



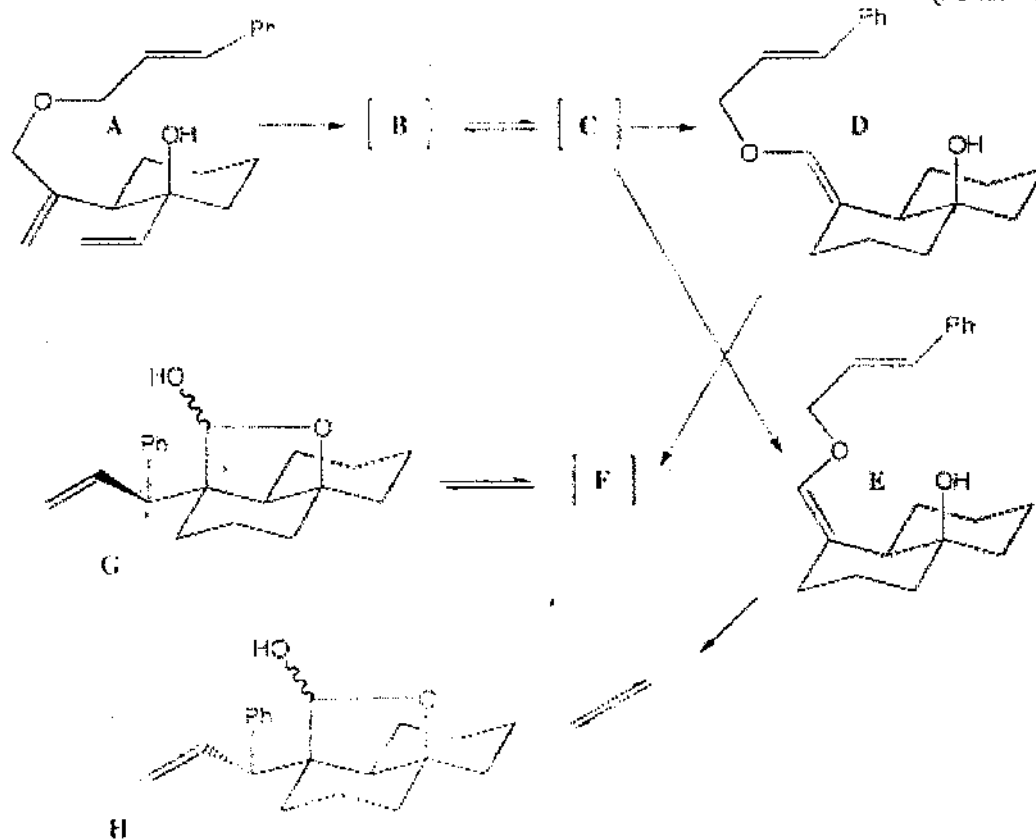
III. Predict the stereochemistry of the products.

(10 marks)

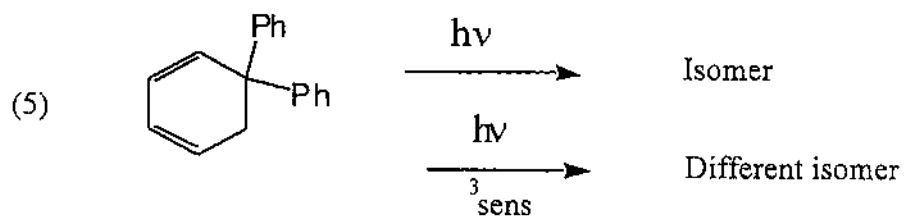
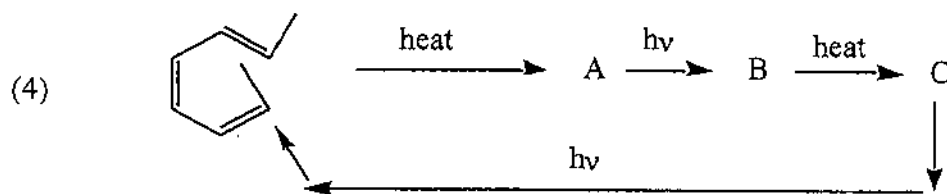
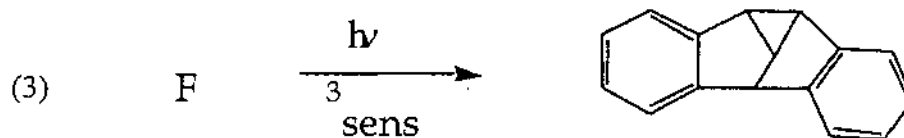
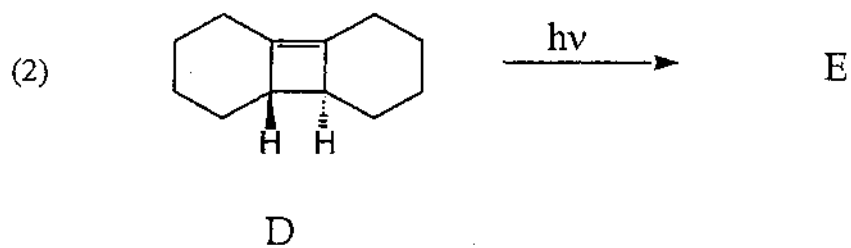
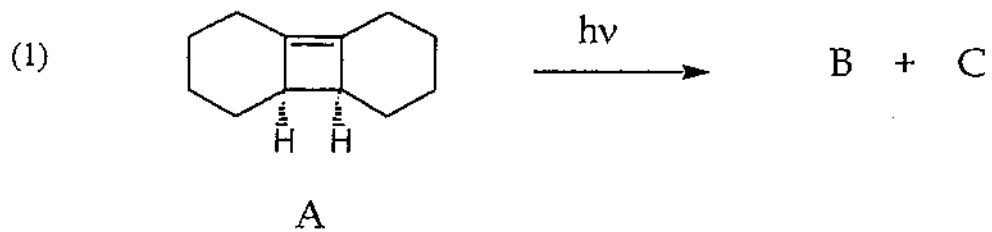


IV. Write plausible mechanisms for the following photochemical transformations.

(25 marks)



V. Suggest structures for the unidentified species in problems 1-5 below.
(5X5=25)



----- end -----