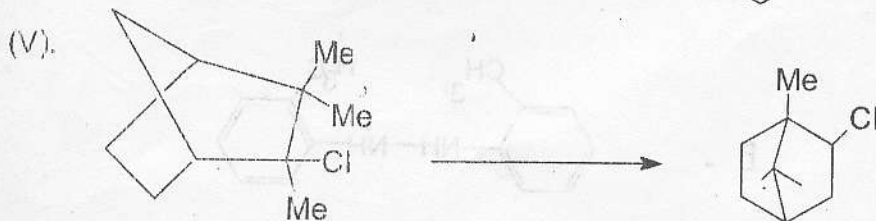
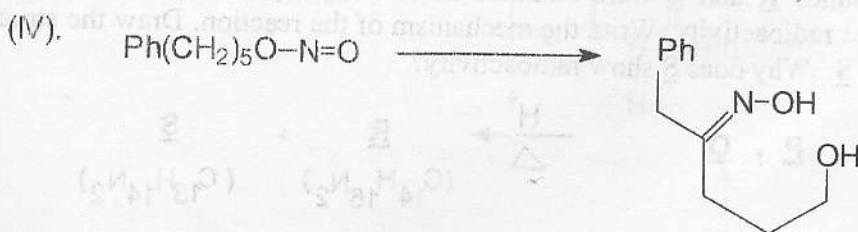
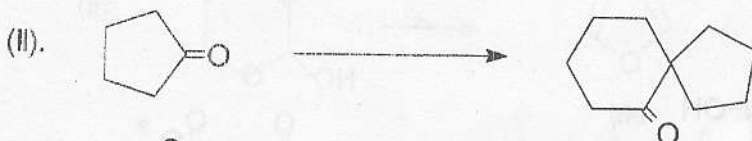


Time: 1 Hour

Answer all questions

1. Answer both parts (a) and (b)

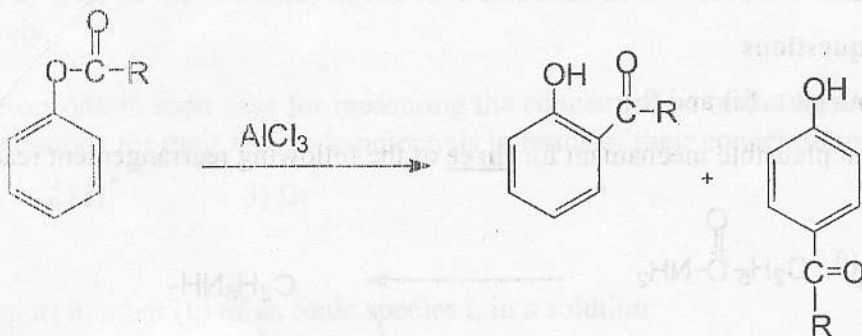
(a). Suggest plausible mechanism for three of the following rearrangement reactions



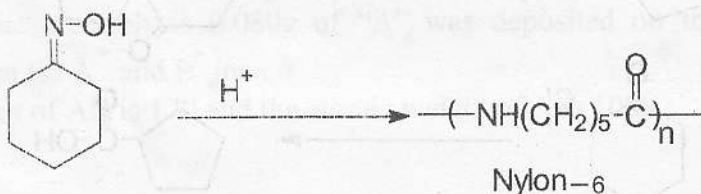
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(b). Explain the following observations

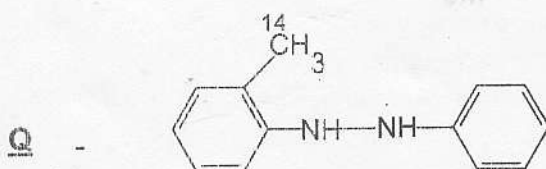
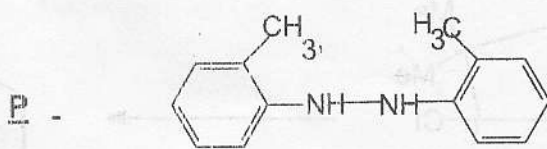
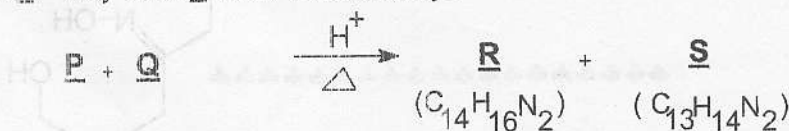
(I).



(II).

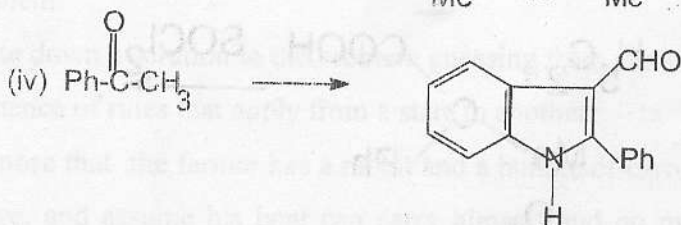
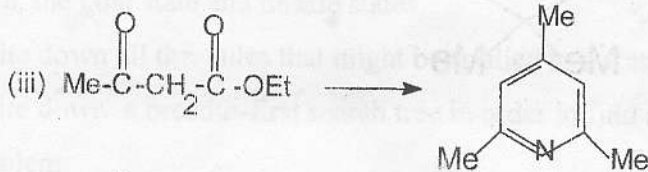
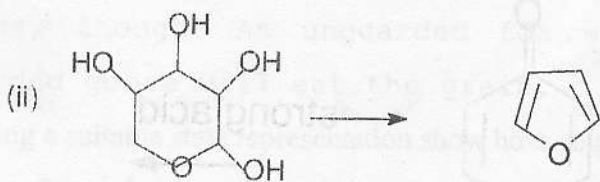


(III). When an equimolar mixture of the compounds P and Q was treated with a mineral acid, compounds R and S were obtained as the major products, of which only the compound S showed radioactivity. Write the mechanism of the reaction. Draw the structures of the products R and S. Why does S show radioactivity?



2. Answer both parts (a) and (b).

(a) By means of equations show how three of the following transformations may be effected. Give essential experimental conditions.



Contd...

(b) Give the structure of the product(s) of each of the following reactions.

