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Total No. of Questions : 10]

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PHM–1.2.4

PHARMACEUTICAL CHEMISTRY–III

(B.Pharmacy., 2nd Semester, 2055)

Time : 3 Hours Maximum Marks : 80

Note :– Section A is compulsory. Attempt any *Four* questions from Section B and any *Three* questions from Section C.

Section–A Marks : 2 Each

1. (a) Define Hybridization.

   (b) Define conformation.

   (c) Upon treatment with sulphuric acid, a mixture of ethyl and n-propyl alcohols yields a mixture of three ethers. What are they ?

(d) What is Williamson's synthesis ?

(e) What is Iodoform reaction ?

(f) What is the effect of solvent on S_N2 reactions ?

(g) Which alkyl halide would yield pure 2-methyl-I-butene upon Dehydrohalogenation by strong base.

(h) Define Saytzeff's rule.

(i) Predict the product of the reaction of propylene with mercuric acetate in methanol solution, followed by reduction with $NaBH_4$.

(j) What is peroxide effect ?

(k) Define stereospecific reactions.

(l) Cyclopropane + Cl_2, $FeCl_3 \rightarrow$?

(m) How will you prepare adipic acid, 400C $(Cu_2)_4$ COOH from cyclohexanol ?

(n) What is Sandmeyer reaction ?

(o) What is Fries rearrangement ?

Section–B Marks : 5 Each

2. How will you assign absolute configuration to a given structure ?

3. Write the general methods of preparation of alcohols.

4. Write a note on reactions of Epoxides.

5. Describe simple chemical tests to distinguish between :

   (a) 1,2-dimethylcyclopentene and cyclopentanol.

   (b) Cyclohexane, cyclohexene, cyclohexanol and Bromocyclohexane.

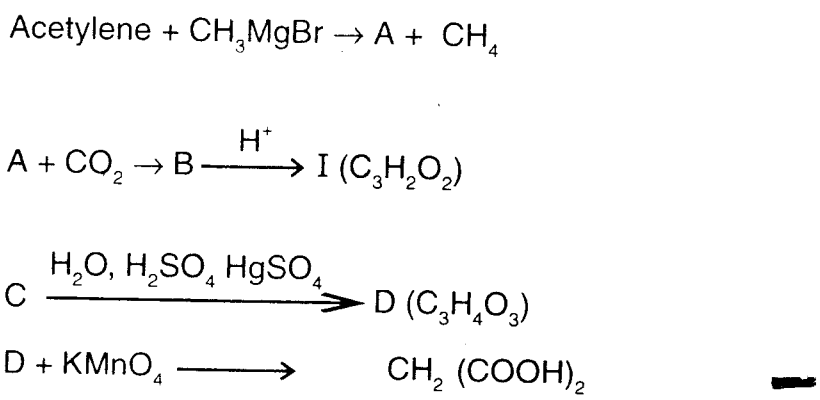
6. Write a note on Friedel-Crafts Alkylation.

Section–C Marks : 10 Each

7. Write a note on preparation and reactions of alkynes.

8. Write a note on preparation and reactions of anthracene.

9. Give the structures of compounds A-D



10. Write structure, isolation and reactions involving carbocations.