[Total No. of Questions - 9] [Total No. of Printed Pages - 2] (2125)

15446

B. Pharmacy 3rd Semester Examination

Pharmaceutical Chemistry (Organic Chemistry-II) (OS)

HBP-203

**Time : 3 Hours** **Max. Marks : 80**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt five questions in all, selecting one question each from section A, B, C and D. Section E is compulsory.

## SECTION - A

1. Write detailed notes on:
   (a) Michael addition
   (b) $\alpha$-$\beta$-unsaturated carbonyl compounds. (8×2=16)
2. (a) Discuss [1,3], [1,5] and [3,3] sigmatropic reaction.
   (b) Discuss direct, concerted, non catalytic addition of $H_2$ to an alkene from the standpoint of orbital symmetry. (8×2=16)

## SECTION - B

3. (a) Write a detailed note on Anchimeric assistance.
   (b) Discuss Homogenous hydrogenation of carbon-carbon double bond. (8×2=16)
4. (a) Write a reason why sodium hydroxide readily converts trans-2-chlorocyclohexanol into cyclohexene oxide, but converts the cis-isomer into entirely different products.
   (b) Discuss stereospecific reaction. (8×2=16)

**[P.T.O.]**



## SECTION - C

5. Write notes on:
   (a) Electrophilic substitution in pyridine.
   (b) Source of pyrrole, furan and thiophene. (8×2=16)
6. Write notes on:
   (a) Basicity of Pyridine.
   (b) Orientation in electrophilic, substitution of Indole. (8×2=16)

## SECTION - D

7. (a) "Paints, tung oil dry faster than linseed oil". (8)
   (b) Write a detailed note on phosphoglycerides. (8)
8. (a) The rate of oxidation of reducing sugars by cupric ion is found to be proportional to sugar and $[OH^-]$, and to be independent of $[Cu^{2+}]$, what does the kinetics, suggest about the mechanism of oxidation? (8)
   (b) Discuss conformation of $\beta$-D-(+)-glucopyranose. (8)

## SECTION - E

9. Answer the following:
   (a) Write the structure of D-fructose.
   (b) Define isoelectric point of amino acids.
   (c) Define peptides.
   (d) Write the structure of Adenine and Quanine.
   (e) Write a short note on reduction of pyridene.
   (f) What do you mean by Wood word-Hoffmann rules for cycloaddition.
   (g) Define conjugated system.
   (h) Write the structure of Imidazole, oxazole, purine and thiazole. (2×8=16)