



J-16120107010401000 Seat No. _____

M. P. M. (Sem. IV) (CBCS) Examination

June / July - 2019

Pharmaceutical Organic Chemistry - III

Time : 3 Hours]

[Total Marks : 75

- Instructions :**
- (1) Attempt all questions.
 - (2) Make suitable assumptions wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Draw chemical structure wherever necessary.

1 Objective Type Questions : (Answer all the questions) 20

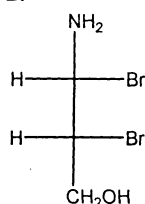
- (1) Comment On: Thiophene is more aromatic than pyrrole.
- (2) What is 1, 3-diaxial interaction?
- (3) Draw the stereoisomers of 2,3 dibromopentane.
- (4) Comment On: Chair conformation of cyclohexane is more stable than boat conformation.
- (5) Give the preparation of Indole.
- (6) Define with examples: Enantiomer, Distereomer, Meso compound.
- (7) Draw structure of following heterocycles :
 - (a) Isoquinoline
 - (b) Oxazole
- (8) What is birch reduction?
- (9) What is enantiomeric excess?
- (10) What is E and Z. Explain with Examples

2 Long Answers : (Attempt any 2 out of 3) 20

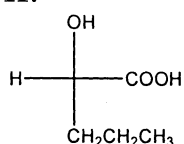
- (1) What is Heterocycles? Explain the preparations and reactions of pyridine. Give the medicinal importance of pyridine. Justify the comment: Pyridine is less basic than pyrrole but more basic than aliphatic amine'.
- (2) Explain the chemistry preparation and reaction of Furan.
- (3) What is resolution? Explain the methods for racemic modification into enantiomers.

- (1) Comment on :
 - (a) Boiling point of pyrrole is higher than thiophene and furan.
 - (b) Electrophilic substitution reaction of pyrrole is favors 2 or 5th position
- (2) Give the preparation and reaction of quinoline and mechanism of reaction for Skraup synthesis
- (3) Discuss the stability and potential energy changes of all conformation for n-Butane
- (4) Explain the preparation of indole and Thiophene.
- (5) Give any two synthesis of Imidazole and Oxazole.
- (6) Write a note on Clemmensen reduction.
- (7) Write a note on Beckmanns rearrangement and Schmidt rearrangement.
- (8) Write a note on stereospecific and stereoselective reaction.
- (9) Assign Stereochemical symbol (Cis, trans, E, Z, R or S) for following compounds.

I.



II.



III.

