

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages :02

Total No. of Questions : 18

Pharm. D (Sem.-1)
PHARMACEUTICAL ORGANIC CHEMISTRY
Subject Code : 1.4
M.Code : 26508

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTION TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

- Q1 Briefly explain intramolecular hydrogen bonding with one example.
- Q2 Name various factors responsible for polarity in covalent bond.
- Q3 Draw structure of chair form of cyclohexane and specify orientation and conformation of each of the two hydrogen present on its all six positions.
- Q4 Give two important differences between SN1 and SN2.
- Q5 Give any one example of Markovnikov's addition reaction.
- Q6 What is Hyperconjugation?
- Q7 Explain the resonance stabilization in benzyl radical.

SECTION-B

- Q8 Explain the stereochemistry of SN1 and SN2 reaction mechanisms in alkyl halide.
- Q9 Discuss orientation and reactivity of bimolecular elimination (E2) reaction.
- Q10 Explain the role of carbonyl group in carboxylic acid and its derivatives in nucleophilic acyl substitution.

- Q11 With the help of resonance stabilization, explain acidity of phenol and compare it with benzoic acid.
- Q12 Explain bimolecular displacement mechanism for nucleophilic aromatic substitution. Compare it with mechanism of aliphatic nucleophilic substitution.
- Q13 Classify isomerism with suitable examples.
- Q14 Discuss basicity of aliphatic and aromatic amines. Comment on effect of substituents on basicity of aromatic amines.
- Q15 What is diazotization reaction? Describe two classes of reactions undergone by diazonium salt with one example of each.

SECTION-C

- Q16 Describe general steps in electrophilic aromatic substitution reactions. Explain theory of its activation and deactivation by various substituents present in benzene derivatives.
- Q17 Explain the mechanism of following name reactions :
- Cannizzaro reaction
 - Reformatsky
 - Witting
- Q18 Give method of preparation, test for purity, assay and important uses of **any two** :
- Vanillin
 - Salicylic acid
 - Benzyl benzoate

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.