Bachelor of Pharmacy (B. Pharm) (CBCS Pattern) Third Semester

BP 301T - Pharmaceutical Organic Chemistry-II

P. Pages : 3 **GUG/W/18/10884**

Time : Three Hours * 3 0 2 1 * Max. Marks : 75

Notes : 1. Diagrams and Chemical equation should be given wherever necessary.
2. Discuss the reaction, mechanism wherever necessary.
3. All questions are compulsory.

1. Multiple choice questions. **20**

i) Cyclopropane when reacted with Bromine it gives.
a) 1, 2- Dibromopropane b) 1, 3- Dibromopropane
c) 1, 4- Dibromopropane d) 1, 1- Dibromopropane

ii) Which catalyst is used during halogenation of benzene.
a) Lewis acid b) Lewis base
c) Platinum d) Ni/Pt

iii) Picric acid forms when phenol reactor with.
a) Hydrogen b) Nitric acid
c) Sulphuric acid d) Formaldehyde

iv) Aldehyde and ketones on reductive amination gives
a) 1º amines b) 2º amines
c) 1º or 2º amines d) 3º amines

v) When -COOH is attached directly to the benzene wing the acid is called.
a) Aliphatic b) Alicyclic
c) Aromatic d) Carboxylic

vi) Carboxylic group on the aromatic using is.
a) O-directing b) P-directing
c) M-directing d) Both a and c

vii) Enzyme responsible for hydrolysis of fat is.
a) Reductase b) Aconitase
c) Lipase d) Kinase

viii) Which cycloalkane is the lowest cycloalkane.
a) Cyclobutane b) Cyclopropane
c) Cyclohexane d) Cyclopentane

ix) Which of the following is based cyclic aromatic compound.
a) Biphenyl b) Diphenyl methane
c) Diphenylamine d) Naphthalene

x) Identify the molecular formula of the cycloalkane.
a) $C_2 H_2 n+2$ b) $C_n H_2 (n+2)$
c) $C_2 H_2 n$ d) $C_n H_2 (n-2)$

xi) Which cycloalkane shows the highest ring strain.
a) Cyclobutane b) Cyclopropane
c) Cyclohexane d) Cycloheptane

xii) Who has proposed the tetrahedral geometry of the alkanes.
a) Van't Hoff b) Baeyer
c) Both a & b d) None of above

xiii) Hofmann's degradation reaction is used for the synthesis of:
a) Secondary aromatic amines b) Primary aromatic amines
c) Tertiary aromatic amines d) All the above

xiv) Number of sigma bonds in Benzene is:
a) 2 b) 3
c) 4 d) 1

xv) Libermann's Nitroso reaction is used to identify.
a) 1º amine b) 2º amine
c) 3º amine d) 4º amines

xvi) The example of best drying oil is.
a) Olive oil b) Linseed oil
c) Castor oil d) Groundnut oil

xvii) Which of the following is an example of the isolated polynuclear aromatic compound.
a) Naphthalene b) Anthracene
c) Phenanthrene d) Biphenyl

xviii) The internal bond angle in cyclopropane to adjust the triangle between three carbon atom is.
a) 120º b) 60º
c) 108º d) 90º

xix) Electrophilic attack on Napthalene occur act.
a) C_1 b) C_2
c) C_3 d) C_4

xx) Which of the following cycloalkane have the highest heat of combustion.
a) Cyclobutene b) Cyclopropane
c) Cyclohexane d) All the above

2. Solve **any two** questions. **20**

a) Explain the chemical properties along with the method of preparation of the Anthracene.

b) Explain the electrophilic aromatic substitution reactions of the Benzene.

c) Discuss the reactivity and stability along with preparation and reactions of cycloalkanes.

3. Solve **any seven.** **35**

a) Discuss the Kolbe's reaction.

b) Explain the basicity of amines along with effect of substitution on basicity.

c) Describe with mechanism the Reimer. Thiemann reaction.

d) Write a note on orientation of benzene.

e) Give the synthesis of picric acid & B. Naphthols.

f) Give the Haworth synthesis of Naphthalene.

g) Discuss the reactions of benzoic acid.

h) Explain the replacement reactions of diazonium ralt.

i) Explain the acid value and saponification value along with their significance.

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