

End Semester / Reappear (III Semester) Examination Dec 2022

Programme: B. Pharm

Full Marks: 75

Course: Pharmaceutical Organic Chemistry-II

Time: 3Hrs.

Course Code: BP301T

Enrolment no. : _____

Section I

1. Objective type questions. Answer all questions.

20x1=20

i. What is Huckel's rule?

- (a) $3n+2$ (b) $4n+2$ (c) $2n+2$ (d) $1n+2$

ii. Hydroxy benzene also called as

- (a) Cresol (b) Quinol (c) Phenol (d) Resorcinol

iii. Compounds which contain an $-OH$ group in a side-chain attached to an aromatic ring are called:

- (a) Phenol (b) Aromatic phenol (c) Aromatic alcohol (d) None of the above

iv. Which of the following test is not qualitative test for Phenols

- (a) Ferric chloride test (b) Melzer test (c) Leak test (d) Lieber Mann test

v. What is chemical formula of saccharin?

- (a) $C_7H_6NO_3S$ (b) $C_7H_5NO_3S$ (c) $C_7H_4NO_3S$ (d) None of the above

vi. What is chemical formula of Trichloroacetaldehyde?

- (a) CCl_2CHO (b) CCl_3OH (c) CCl_3CHO (d) CCl_4OH

vii. Which term is applied for substances used for killing mosquito and other insects:

- (a) Pain Killers (b) Insecticides (c) Disinfectant (d) None of the above

viii. Benzene structure was given by

- (a) Kekule (b) Grignard (c) Morrison (d) Sorensen

ix. Aromatic characterization also called as:

- (a) Basicity (b) Aromaticity (c) Electricity (d) None of the above

x. DDT is used for

- (a) Insecticide (b) Pesticides (c) Both A and B (d) None of these

xi. Naphthelene nucleus show:

- (a) 3 Benzene (b) 2 Benzene (c) 4 Benzene (d) 5 Benzene

xii. Salicylic acid is the precursor to _____.

- (a) Aspirin (b) Paracetamol (c) None of these (d) Amines

- xiii. Haloform reaction is used to prepare _____ from methyl ketones.
(a) Carboxylic acids (b) Hydrochloric acid (c) Sulphuric acid (d) None of these
- xiv. Phenol react with which compound to show picric acid
(a) Acetic Acid (b) Nitric Acid (c) Benzoic acid (d) Sulphuric acid
- xv. Sulphur trioxide in sulphuric acid is called _____, which is a very separate material.
(a) Oleum (b) Arenium ion (c) Nitronium ion (d) Benzene
- xvi. The molecular formula of benzene is _____.
(a) C_6H_6 (b) C_6H_8 (c) C_6H_{10} (d) None of these
- xvii. Oxidising agent used in synthesis of benzoic acid from toluene is
(a) $KMnO_4$ (b) O_3 (c) H_2O_2 (d) None of these
- xviii. E^+ symbol is denoted as:
(a) Nucleophile (b) Electrophile (c) Both (d) None of the above
- xix. Temperature required for synthesis of Diazonium ion is
(a) $25^\circ C$ (b) $30^\circ C$ (c) $0-5^\circ C$ (d) $100^\circ C$
- xx. Conversion of Carboxylic acid to Primary amine is named as
(a) Michael Reaction (b) Schmidt Reaction (c) Hoffmann Reaction (d) None of these

Section II

2. Short Answer type questions. Answer any five.

5x7=35

- Explain various factors for basicity of amines
- Discuss structure and uses of Phenols.
- Explain Friedal-Craft alkylation reaction.
- Explain Acid value and Saponification value of fatty acids.
- Write Baeyer-Villiger Oxidation reaction
- Give any two reactions of cyclopropane and cyclobutane
- Write synthesis and chemical reactions of naphthalene.

Section III

Long Answer type questions. Answer any two.

2x10= 20

- Evaluate effect of substituents on reactivity and orientation of mono substituted benzene compounds towards electrophilic substitution reaction.
- Describe stability of cycloalkanes based on Baeyer's strain's theory.
- Express the generation of Diazonium ion from amines. Give reactions and significance of diazonium ion.
