

B.L.D.E.Association's

S.B.Arts and K.C.P. Science College

Vijayapur

PG DEPARTMENT OF CHEMISTRY



Programme Outcomes (Pos) ,
Programme Specific Outcomes(PSOs)
and Course Outcomes (Cos)

B.L.D.E. Association's
S.B. Arts and K.C.P Science College Bijapur
Post Graduate Department of Chemistry
POS 20119-2020
Subject: Organic Chemistry

PO1: In advance elementary/ fundamental knowledge.

PO2 : Critical thinking, scientific methods to design, carry out analytical the results of experiments and get awareness of the impact of chemistry on environment, society,etc. .

PO3:Higher education, competitive, Reputed Research laboratory .

PO4: Industrial application.

PSO1-to develop strong and compete knowledge in theoretical and practical chemistry.

PSO2-Able to explain Theory, Principle, Postulates, Methods, explaining instrumentation, Derivation, calculations and to calculate the physical and electrochemical parameters

PSO3: To recognize the various laws and theories and solving numerical problems.

PSO4: To develop various technical and analytical skills through laboratory training.

POS5: To create awareness the importance. And impact of chemistry on environment.

Sem 1st: Organic Chemistry

CO1: Concept of hybridization : sp^3 , sp^2 , sp – with examples.

CO2: Electronic effects : Inductive, electronic, resonance and hyperconjugation.

CO3: Classification of organic reagents and reactions.

CO4: Reactive Intermediates : carbocations, carbanions, free radicals, carbenes, nitrenes, and arynes- their formation, stability, structure and reactions.

CO5: Organic acid and bases : Effect of substituents with examples

CO6: **Addition reactions:** Addition to Carbon-Carbon double bond.

CO7: Elimination reactions: E1, E2, E1CB mechanisms.

C08: substitution reactions:

C09: STEREOCHEMISTRY

PC01: Preparation p-bromo aniline from aniline.

PC02: Preparation of p-nitro aniline from aniline.

PC03: Preparation of benzoic acid from benzaldehyde.

PC04: Preparation of phenyl azo beta naphthol.

PC05: Preparation of 1-phenyl-3-methyl-pyrazolone.

COURSE : M.Sc I Semester (Theory&Practical)

Course Code :

Subject: Organic Chemistry

Course Outcomes	PO1	PO2	PO3	PO4	PS01	PS02	PS03	PS04	PS05
C01	2	3	2	2	2	3	3	-	-
C02	1	2	3	1	3	3	3	1	-
C03	-	2	1	3	3	3	3	1	-
C04	2	3	1	-	3	2	3	1	-
C05	3	3	-	-	3	3	3	-	-
C06	1	3	2	1	3	3	3	-	-
C07	2	3	1	3	3	3	3	-	-
C08	-	3	1	1	3	3	3	--	-
C09	-	3	1	1	3	3	3	--	-
C010	-	3	1	1	3	3	3	--	-
PC01	2	3	-	3	-	-	-	3	3
PC02	2	2	-	3	-	-	-	3	3
PC03	2	2	-	3	-	-	-	3	3
PC04	2	2	-	3	-	-	-	3	3
PC05	2	2	-	3	-	-	-	3	3

M Sc 2nd Sem

C01: C-C bond forming reactions.

C02: C-N bond forming reactions.

C03: C-O bond forming reactions.

C04: C-Cl bond forming reaction: Hell-Volhard-Zelinski reaction.

C05: Oxidation reactions.

C06: Reduction reactions.

C07: Rearrangement reactions involving migration to electron deficient carbon

C08: Rearrangement reactions involving migration to electron deficient nitrogen

C09: 3-Membered heterocyclic compounds

C010: 4-Membered heterocyclic compounds with one and two hetero atoms.

C011: 6-Membered heterocyclic compounds with one and two hetero atoms

PC01: ANALYSIS OF BINARY ORGANIC MIXTURE

PC02: Chromatographic techniques.

COURSE : M.Sc II Semester (Theory&Practical)

Course Code :

Subject: Organic Chemistry

Course Outcomes	P01	P02	P03	P04	PS01	PS02	PS03	PS04	PS05
C01	3	3	3	-	3	3	3	-	-
C02	3	3	2	2	3	3	2	-	-
C03	3	2	3	3	3	3	3	-	-
C04	-	2	-	-	3	3	3	-	-
C05	1	3	1	-	3	3	3	-	-
C06	2	3	2	2	3	3	3	-	-
C07	-	1	1	3	3	3	3	-	-
C08	1	3	2	3	3	3	3	--	-
C09	2	3	2	2	3	3	3	--	-
C010	1	3	3	3	3	3	3	--	-
C011	2	2	-	2	2	2	3	3	3
PC01	2	2	-	3	-	-	-	3	3
PC02	2	2	-	3	-	-	-	3	3

M Sc3rd sem

CO1: REAGENTS IN ORGANIC SYNTHESIS

CO2: PHOTOCHEMISTRY

CO3: Norrish type I and Norrish type II reactions

CO4: Pericyclic Reactions: Classification of pericyclic reactions.

CO5: Electrocyclic reactions.

CO6: Sulphonamides: Introduction, classification, synthesis and SAR studies

CO7: Antimalarials: Introduction, classification, synthesis and drug action

CO8: Analgesics: Introduction, classification, synthesis and drug action

CO9: Anti-inflammatory: Introduction, classification, synthesis and drug action

CO10: pharmacokinetics, pharmacodynamics

PCO1: Estimation of aniline and glucose.

PCO2: Determination of saponification value of oils.

PCO3: Determination of iodine value of oils.

COURSE : M.Sc III Semester (Theory&Practical)

Course Code :

Subject: Organic Chemistry

Course Outcomes	P01	P02	P03	P04	PS01	PS02	PS03	PS04	PS05
C01	2	3	2	-	3	2	3	-	-
C02	3	2	2	3	3	3	3	-	-
C03	2	2	2	3	3	3	3	-	-
C04	-	2	2	3	3	3	3	-	-
C05	3	2	2	1	3	3	3	-	-
C06	3	1	2	3	3	3	3	-	-
C07	1	2	2	3	3	3	3	-	-
C08	-	1	2	3	3	3	3	--	-
C09	1	3	3	3	3	3	3	--	-
C010	1	3	2	3	3	3	3	--	-
PC01	3	3	-	2	2	2	3	3	3
PC02	2	3	-	3	-	-	-	3	3
PC03	3	2	-	3	-	-	-	3	3

M Sc IVth sem

C01: Designing the synthesis based on retrosynthetic analysis.

C02: Disconnection Approach: An introduction to synthons and synthetic equivalents

C03: One Group C-C Disconnections.

C04: Two Group C-C Disconnections.

C05: BIOORGANIC POLYMERS.

C06: ALKALOIDS AND TERPENOIDS.

C07: STEROIDS, ANTIBIOTICS AND PROSTAGLANDINS.

C08: Understanding Optical properties in solids.

PC01: Isolation of nicotine from tobacco.

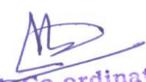
PC02: Isolation of caffeine from tea.

PC03: Isolation of piperine from pepper.

COURSE : M.Sc IV Semester (Theory&Practical)**Course Code :****Subject: Organic Chemistry**

Course Outcomes	P01	P02	P03	P04	PS01	PS02	PS03	PS04	PS05
C01	-	-	3	3	3	3	3	-	-
C02	-	2	3	3	3	3	3	-	-
C03	2	3	2	3	3	3	3	-	-
C04	1	2	2	3	3	3	3	-	-
C05	1	2	2	1	3	3	3	-	-
C06	2	1	2	2	3	3	3	-	-
C07	-	2	3	3	3	3	3	-	-
C08	-	1	2	3	3	3	3	--	-
PC01	3	3	-	2	2	-	-	2	3
PC02	3	3	-	3	-	-	-	3	3
PC03	3	3	-	3	-	-	-	3	3


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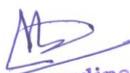
EVALUATION MAPPING

THEORY:

- Marks Distribution :
1. Internal Assessment = 20 marks
 2. University Examination = 80 marks

Sl No	Parameter	Percentage (%)
1	Knowledge	20
2	Understanding	25
3	Numericals	10
4	Descriptive	45


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Practical Examination

- Marks Distribution :
1. Internal Assessment = 10 marks
 2. University Examination = 40 marks

Class : M.Sc I Semester Organic Practical-I

Sl No	Parameter	Percentage
1	Accuracy	25
2	Technique / Systematic Percentage	05
3	Record Book	05
4	Viva - Voce	05

Class : M.Sc II Semester Organic Practical-II

Sl No	Parameter	Percentage
1	Preliminary	05
2	Analysis of binary mixture	15
3	Derivative preparation	10
4	Record Book	05
4	Viva-Voce	05

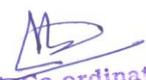
Class : M.Sc III Semester Organic Practical-III

Sl No	Parameter	Percentage
1	Accuracy	25
2	Technique / Systematic Percentage	05
3	Record Book	05
4	Viva - Voce	05

Class : M.Sc IV Semester Organic Practical-IV

Sl No	Parameter	Percentage
1	Accuracy	25
2	Technique / Systematic Percentage	05
3	Record Book	05
4	Viva - Voce	05


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