

# KAKARAPARTI BHAVANARAYANA COLLEGE

(Sponsored by S.K.P.V.V.Hindu High Schools Committee)

Kothapet, Vijayawada-1, Andhra Pradesh.

(An Autonomous Institution with affiliation to Krishna University, Machilipatnam)

## ORGANIC CHEMISTRY COURSE STRUCTURE

### I SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22OCH101	General Chemistry	4	0	0	Core	30	70	4
R22OCH102	Organic Chemistry	4	0	0	Core	30	70	4
R22OCH103	Inorganic Chemistry -1	4	0	0	Core	30	70	4
R22OCH 104	Physical Chemistry –1	4	0	0	Core	30	70	4
R22OCH 105	Personality Development Through Life Enlightenment Skills	3	1	0	Core	30	70	3
R22OCH 106	Organic Chemistry Lab-1	0	6	0	Core	30	70	3
R22OCH 107	Inorganic Chemistry Lab	0	6	0	Core	30	70	3
<b>TOTAL FOR FIRST SEMESTER</b>						<b>210</b>	<b>490</b>	<b>25</b>

### II SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / DSE/SEC	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22OCH 201	Organic Spectroscopy	4	0	0	Core	30	70	4
R22OCH 202	Physical Chemistry -2	4	0	0	Core	30	70	4
R22OCH 203	Inorganic Chemistry -2	4	0	0	Core	30	70	4
R22OCH 204	Research Methodology & IPR	3	1	0	SEC	30	70	3
<b>DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY ONE)</b>								
R22OCH 205	Heterocyclic Chemistry	4	0	0	DSE	30	70	4
R22OCH 206	Chemistry of Bioorganic compounds	4	0	0	DSE	30	70	4
R22OCH 207	Polymer Chemistry	4	0	0	DSE	30	70	4
<b>LAB PRACTICALS</b>								
R22OCH 208	Organic Chemistry lab-2	0	6	0	Core	30	70	3
R22OCH 209	Physical Chemistry lab	0	6	0	Core	30	70	3
<b>TOTAL FOR SECOND SEMESTER</b>						<b>210</b>	<b>490</b>	<b>25</b>
<b>At the end of 2<sup>nd</sup> semester, every student must undergo summer Internship/ Apprenticeship/Project work/Industrial training/Research based Project work for Six weeks and must prepare a report concerned as per approved project guidelines, and submit the same to the College 14 days before the commencement of third semester end examinations.</b>								

L – Lecture, T- Tutorial & P – Practicals

### III SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / ID/DS/ SE/OE/ MOOCS	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22OCH 301	Organic Reactions and Mechanisms	4	0	0	Core	30	70	4
<b>DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY THREE)</b>								

R22OCH 302	Medicinal Chemistry	4	0	0	DSE	30	70	4
R22OCH 303	Organometallic Chemistry	4	0	0	DSE	30	70	4
R22OCH 304	Chemistry of Natural Products	4	0	0	DSE	30	70	4
R22OCH 305	Organic Photo chemistry and pericyclic reactions	4	0	0	DSE	30	70	4
R22OCH 306	Green Chemistry	4	0	0	DSE	30	70	4
R22OCH 307	Biological Chemistry	4	0	0	DSE	30	70	4
<b>LAB PRACTICALS</b>								
R22OCH 308	Organic Chemistry Lab-3	0	6	0	Core	30	70	3
R22OCH 309	Organic Chemistry Lab-4	0	6	0	Core	30	70	3
<b>OPEN ELECTIVE (INTERDISCIPLINARY/MULTIDISCIPLINARY) COURSES (CHOOSE ANY ONE)</b>								
R22OCH 310	Chemistry in daily life	3	0	0	OEC	30	70	3
R22OCH 311	Environmental Chemistry	3	0	0	OEC	30	70	3
R22OCH 312	Techniques for modern industrial application	3	0	0	OEC	30	70	3
<b>TOTAL FOR III SEMESTER</b>						<b>210</b>	<b>490</b>	<b>25</b>

### ANALYTICAL CHEMISTRY COURSE STRUCTURE

#### III SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / ID/DS/ SE/OE/ MOOCS	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22ACH 301	Separation Methods	4	0	0	Core	30	70	4
<b>DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY THREE)</b>								
R22ACH 302	Applied Analysis-I	4	0	0	DSE	30	70	4
R22ACH 303	Chemical and Spectral Methods of Analysis	4	0	0	DSE	30	70	4
R22ACH 304	Quality Control and Standard Methods of Analysis	4	0	0	DSE	30	70	4
R22ACH 305	Bio Inorganic chemistry, Bioorganic & Bio Physical Chemistry	4	0	0	DSE	30	70	4
R22ACH 306	Green Chemistry	4	0	0	DSE	30	70	4
R22ACH 307	Food Chemistry	4	0	0	DSE	30	70	4
<b>LAB PRACTICALS</b>								
R22ACH 308	Classical Methods of Analysis Practical	0	6	0	Core	30	70	3
R22ACH 309	Spectral Methods of Analysis Practical	0	6	0	Core	30	70	3
<b>OPEN ELECTIVE (INTERDISCIPLINARY/MULTIDISCIPLINARY) COURSES (CHOOSE ANY ONE)</b>								
R22ACH 310	Chemistry in daily life	3	0	0	OEC	30	70	3
R22ACH 311	Environmental Chemistry	3	0	0	OEC	30	70	3
R22ACH 312	Techniques for modern industrial application	3	0	0	OEC	30	70	3
<b>TOTAL FOR III SEMESTER</b>						<b>210</b>	<b>490</b>	<b>25</b>