

UNIVERSITY OF KOTA
UNDERGRADUATE SYLLABUS (Geography)
Following the choice based credit system (CBCS)

For academic qualification: Undergraduate certificate, Under graduate Diploma and Three years Bachelor's degree in Arts (B.A)

Discipline: Geography (Subject/Discipline code-GEO)

Semester	Academic Session
Semester I& II	2023-24
Semester III & IV	2024-25
Semester V & VI	2025-26

Scope: All affiliated colleges of the University.

Key features

1. Semester System
2. Multiple Entry and Exit
3. Continuous Assessment
4. Grading System

Guided by

1. Directives of the State Government circulated vide letter no. 418 (10) - 4/2020 दिनांक 08.06.2023

SCHEME

S.NO	Course code	Course Cat.	Title of the Course	Duration of Exam	Teaching Hrs/Week credit			Distribution of marks			Min Pass marks	
SEMESTER I					L	P	C	Inter Ass	Sem. Ass	Total	Inte. Ass	Sem. Ass
1	GEO1001T	DCC	Physical Geography	3 hrs	4	-	4	30	70	100	12	28
2	GEO1002P	DCC	Practical-I <i>Scales and methods of relief representation</i>	4Hrs	2	4	2	-	50	50	-	25
3	AEC-1	AEC	English/Hindi									
SEMESTER II												
4	GEO1003T	DCC	Climatology and Oceanography	3 hrs	4	-	4	30	70	100	12	28
5	GEO1004P	DCC	Practical-II <i>Representation of Socio-Economic-Demographic Data</i>	4Hrs	2	4	2	-	50	50	-	25
6	AEC-2	AEC	Hindi/English									
<i>Exit with certificate in Arts</i>												
SEMESTER III												
7	GEO1005T	DCC	Human Geography	3 hrs	4	-	4	30	70	100	12	28
8	GEO1006P	DCC	Practical-III <i>Representation of Climatic Data</i>	6 hrs	2	4	2	-	50	50	-	25
9	GEC-1	GEC	Environmental Science									
SEMESTER IV												
10	GEO1007T	DCC	Economic Geography	3 hrs	4	-	4	30	70	100	12	28
11	GEO1008P	DCC	Practical-IV <i>Maps & Projections</i>	6 Hrs	2	4	2	-	50	50	-	25
12	GEC-2	GEC	Computer Application									
<i>Exit with diploma in Arts</i>												
SEMESTER V												
13	GEO1009T	DSE	Geography of India	3 hrs	4	-	4	30	70	100	12	28
14	GEO1010T	DSE	Three Northern continents	6 Hrs	2	4	2	-	50	50	-	25

16	GEO1012P	DSE	Practical-Va- <i>Remote Sensing & Image processing</i>	6 Hrs	2	4	2	-	50	100	-	25
17	GEO1013P	DSE	Practical-Vb – <i>Land Surveying & Field Work</i>	6 Hrs	2	4	2	-	50	50	-	25
18	VAC	VAC	MulayPravah									
SEMESTER VI												
19	GEO1014T	DSE	Geography of Rajasthan	3 hrs	4	-	4	30	70	100	12	28
20	GEO1015T	DSE	Geography of three southern continents	3 hrs	4	-	4	30	70	100	12	28
21	GEO1017P	DSE	Practical-VIa- <i>Geographical Information System</i>	6 Hrs	2	4	2	-	50	50	-	25
22	GEO10178P	DSE	Practical-VIb- <i>Socio economic survey Techniques</i>	6 Hrs	2	4	2	-	50	50	-	25

Exit with degree in Arts

कोटा विश्वविद्यालय कोटा

बी.ए. सेमेस्टर पाठ्यक्रम
हिन्दी साहित्य (स्नातक) कोड.....

सर्टिफिकेट पाठ्यक्रम – हिन्दी साहित्य (DCC Paper)
डिप्लोमा पाठ्यक्रम – हिन्दी साहित्य (DCC Paper)
स्नातक पाठ्यक्रम – हिन्दी साहित्य (DSC Paper)



सत्र 2023-24

महाराव भीमसिंह मार्ग, कबीर सर्किल
स्वामी विवेकानन्द नगर
कोटा राजस्थान 324005

Website: uok.ac.in

बी.ए. सेमेस्टर – I

विषय – हिन्दी साहित्य

प्रत्येक प्रश्न पत्र नियमित एवं स्वयंपाठी विद्यार्थियों के लिए 150 अंक का होगा जिसमें सैद्धान्तिक परीक्षा के लिए 100 अंकों का प्रश्न पत्र होगा। **नियमित विद्यार्थियों के लिए आंतरिक मूल्यांकन 50 अंक का रहेगा।** जिसमें 20 अंक असाइनमेंट के होंगे। 20 अंक का लिखित टेस्ट तथा 10 अंक की मौखिक परीक्षा होगी।

स्वयंपाठी परीक्षार्थियों के लिए 50 अंक के आंतरिक मूल्यांकन के अन्तर्गत 40 अंक का असाइनमेंट तथा 10 अंक की मौखिक परीक्षा होगी।

क्रेडिट – 06

कुल व्याख्यानों की संख्या:— 90

सैद्धान्तिक प्रश्नपत्र – प्राचीन काव्य

प्रश्न-पत्र कोड – HIN 101

समयावधि— 3 घंटे

पूर्णांक – 100

नोट : इस प्रश्न पत्र में 02 खण्ड निम्न प्रकार होंगे :

खण्ड – अ

इस खण्ड में प्रत्येक इकाई से 02 लघु प्रश्न लेते हुए कुल 10 प्रश्न होंगे। प्रत्येक लघु प्रश्न का उत्तर लगभग 20 शब्दों में हो।

कुल अंक $2 \times 10 = 20$

खण्ड – ब

इस खण्ड में प्रत्येक इकाई से 02 प्रश्न अथवा व्याख्या लेते हुए कुल 10 प्रश्न अथवा व्याख्याएं होंगी। प्रत्येक इकाई से 01 प्रश्न का चयन करते हुए कुल 05 प्रश्न हल करने हैं। प्रत्येक प्रश्न अथवा व्याख्या का उत्तर लगभग 500 शब्दों में हो।

कुल अंक $5 \times 16 = 80$

पाठ्यक्रम-पाठ्योजना

इकाई – प्रथम

(क) निर्धारित कवि

1. चन्दवरदाई – पृथ्वीराज रासो (लघु संस्करण)पदमावती समय:

चन्द संख्या – 5, 9, 12, 15, 34, 60, 62, 69 = 08 चन्द

UNIVERSITY OF KOTA

U.G. SCHEME OF EXAMINATION FOR AFFILIATED COLLEGES

Certificate Course in ENGLISH (DCC Papers)

Diploma in ENGLISH (DCC Papers)

Bachelor Degree in ENGLISH (DSE Papers)



UNIVERSITY OF KOTA

MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005

List of Papers for B.A. English Semester Titles of the papers					
Year	Sem.	Course Code	Paper Title	Theory	Credits
<i>Certificate Course in English (DCC Papers)</i>					
First Year	I	BAEN -101	English Poetry and Drama - I	Th	06
	II	BAEN-102	English Prose and Fiction - I	Th	06

Examination Scheme

BAEN-101

Semester-I

Paper I - English Poetry and Drama

Contact Hours/Week	:	06 Hours	Maximum Marks	:	150 Marks
Duration of Examination	:	03 Hours	Annual Assessment	:	100 Marks
			Continuous assessment	:	50 Marks

Note: The syllabus is divided into five independent units and question paper will be divided into two sections:

- **Section-A** will carry 20 marks with 01 compulsory question comprising 10 short answer type questions taking two questions from each unit. Each question shall be of two marks.
- **Section-B** will carry 80 marks with equally divided into five long answer type questions. Paper setter shall be advised to set two questions from each unit and students are instructed to attempt five questions by selecting one question from each unit. Unit I to IV will have one question on Reference to Context from each Unit.
- **Continuous Assessment:** 30 marks for mid-term test and 20 marks for Seminars/project report/presentation for regular student. For Non-Collegiate students, 30 marks for report writing and 20 marks for Viva-voce

Unit - I (Detailed Study)

National Education Policy - 2020

Syllabus History University of Kota, Kota (Raj.)

STRUCTURE OF UG HISTORY SYLLABUS

2023

Syllabus checked and modified by:

S.N.	Name	Designation	Department	Affiliation
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

History of India (upto 1200 A.D.)

Programme: B.A. Semester - I

**Year: I Semester: I
Paper-I**

Subject: History

Each paper contains 150 marks. For regular and non collegiates theory paper will be of 100 marks. For regular students internal evaluation of marks 50 are divided into 20 marks for assignment, 20 marks for written test and 10 marks for viva/presentation.

For non collegiate students internal evaluation marks 50 are divided into 30 marks for report writing and 20 marks for viva-voce. Report writing and viva-voce: non collegiate student will prepare report on any topic of each course in minimum one thousand words from the prescribed syllabus of the concerned theory paper/course. The student needs to submit the report to the concerned college within the prescribed time so that the college will arrange viva -voce on the report.

Duration : 3 hours

Question Paper

Max. Marks – 100

Note : The question paper will contain two sections as under –

The question paper consists of section A and section B. Section A for 20 marks and section B for 80 Marks.

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 30 words for each part. Total marks : $10 \times 2 = 20$

Section-B : Contains 10 questions, 2 questions from each unit, attempted 5 questions, by taking one from each unit, answer approximately in 500 words.

Total marks : $16 \times 5 = 80$

Course Code:
HIST 5112

Course Title: History of India (upto 1200 A.D.)

Course Objective: The course lays foundation of the historical study. The present course will be useful in providing a comprehensive understanding to the evaluation of ancient Indian society and the student will be able to identify the forces and factors that shaped the course of glorious ancient Indian history. The students will develop a critical awareness of various categories of sources for the study of ancient Indian history. They will learn the analytical skills to explore the development of India's religious systems, cultural and geographical accomplishments in historical perspective. They will be able to explore the connections between multiple causative factors and assess their relative historical significance. They will understand the process of the rise and decline of imperial states in ancient India. This paper is designed to develop the understanding of the process of transition from ancient period to the early medieval period and figure out the key determinations that made this transition possible. It will develop an understanding of the growing culture and political and economic linkages between North and South Indian. The student will also get familiarized with the development of historical processes in peninsular India far south.

Credits: 6

Core: Compulsory

Max. Marks: 100

Min. Passing Marks: 40

Total No. of Lectures-Tutorials-Practical (in hours per week): 6-0-0

Unit	Topic	No. of Lectures

UNIVERSITY OF KOTA

U.G. SCHEME OF EXAMINATION

AND

COURSES OF STUDY

Certificate Course in Sociology (DCC Papers)
Diploma in Sociology (DCC Papers)
Bachelor Degree in Sociology (DSE Papers)

First Year (July 2023-June 2024)
Second Year (July 2024-June, 2025)
Third Year (July 2025-June, 2026)



Department of Social Sciences
Faculty of Social Sciences

UNIVERSITY OF KOTA
MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005
INDIA

Discipline Centric Core Papers For First Year

Programme: Certificate Course in Sociology

Each paper contains 150 marks for regular and Non-Collegiate students. Continuous assessment of marks 50 are divided into 30 marks for midterm test and 20 marks for Seminars/project report/presentation for regular student. While Continuous assessment of marks 50 are divided into 30 marks for report writing and 20 marks for Viv-voce for Non-Collegiate students.

Semester:- First & Second

BSO 101 Th:- Principles of Sociology

BSO 102 Th: Indian Society

Course Objectives:- This course is designed to impart the knowledge of basic sociological concepts so that students are able to study society and its structure at undergraduate level.

Contact Hours/Week	:	06	Maximum Marks	:	150 Marks
		Hours			
Teaching Hours	:	15-18 Hours	for each unit of the syllabus		
Duration of Examination	:	03	Annual	:	100 Marks
		Hours	Assessment		
			Continuous	:	50 Marks
			assessment		

Note: The syllabus is divided into five independent units and question paper will be divided into two sections:

- **Section-A** will carry 20 marks with 01 compulsory question comprising 10 short answer type questions taking two questions from each unit. Each question shall be of two marks.
- **Section-B** will carry 80 marks with equally divided into five long answer type questions. Paper setter shall be advised to set two questions from each unit and students are instructed to attempt five questions by selecting one question from each unit.

SEMESTER - I

BSO-101

Principles of Sociology

Course/Paper: 101

Max. Marks: 100

BA SOC Semester-I

Time: 3 Hrs.

Unit 1

Nature of Sociology

Meaning of Sociology

The Sociological Perspective

Sociology and other Social Sciences

Scientific and Humanistic orientations to Sociological Study

Unit II

**List of Papers for the Degree of B.A in Political
Science Semester-I, Title of the Papers in
Political Science**

Year	Sem.	Code	Course Code No.	Paper nomenclature	Theory/ Practical	Credits
FIRST YEAR	I	Discipline Centric Core (DCC)	5112	Political Theory	Th.	6
	II	Discipline Centric Core (DCC)	5113	Representative Indian Political Thinkers	Th.	6



POLITICAL SCIENCE

Programme: B.A. Semester - I

**Year: I Semester: I
Paper-I**

Subject: Political Science

Each paper contains 150 marks. For regular and non-collegiates theory paper will be of 100 marks. For regular students internal evaluation of marks 50 are divided into 20 marks for assignment, 20 marks for written test and 10 marks for viva/presentation.

For non collegiate students internal evaluation marks 50 are divided into 40 marks for assignment and 10 marks for viva/presentation.

Duration : 3 hours Question Paper Max. Marks – 100

Question Paper

Max. Marks – 100

Note : The question paper will contain two sections as under –

The question paper consists of section A and section B. Section A for 20 marks and section B for 80 Marks.

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 30 words for each part. Total marks : $10 \times 2 = 20$

Section-B : Contents 10 questions, 2 questions from each unit, attempted 5 questions, by taking one from each unit, answer approximately in 500 words.

Total marks : $16 \times 5 = 80$

Course Code: 5112	Code : DCC	Course Title: Political Theory
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Course Objective: The course is designed to train a student in the fundamental issues of political science. Analyse and understand the principal, ideologies and structure that underpin political system. Seeks to provides insight into concepts like democracy, freedom, justice, equality and individual rights. Addressing issues such as the role of state, governance and the relationship between citizens and their government to create just and effective society. Understanding Politics is integral and indispensable for a comprehensive and critical study of political science.

Credits: 6

Core: Compulsory

Max. Marks: 100

Min. Passing Marks: 40

Total No. of Lectures-Tutorials-Practical (in hours per week): 6-0-0

Unit	Topic	No. of Lectures
Unit I	Political science - Meaning, nomenclature and Scope, Traditional and Contemporary perspectives of Political Science, Behaviourism and Post-Behaviourism, Inter disciplinary approach in Political Science, Relation of Political Science with other Social Sciences.	20
Unit II	State - Theories Development of State as welfare State, Sovereignty; Monistic and Pluralistic theories.	20
Unit III	Concepts - Power, Authority, Legitimacy, Citizenship, Rights, Liberty, Equality and Justice, Political Modernization.	20
Unit IV	Democracy and Dictatorship, Political Parties, Pressure Groups, Theories of representation, Rule of law and Constitutionalism.	15
Unit V	Organs of Government and their functions (with reference to recent trends).- Legislature, Executive and Judiciary,	15

NEP-2020

UNIVERSITY OF KOTA, KOTA



FACULTY OF ARTS

SYLLABUS

B.A. Semester – I & II

Drawing & Painting

Session – 2023-24

SYLLABUS

B.A. SEMESTER- I & II 2023-24

EXAMINATION SCHEME:

SEMESTER-I

Paper code	Paper	Duration	M.M.	Min. Pass Marks
1.1	Theory Paper I Fundamentals of Fine Arts	3 hrs.	35	14
1.1 (a)	Internal assessment theory	1hrs	15	06
1.2	Practical Paper II Study from object (Still life)	5 hrs.	80	40
1.3	Submission work		20	10
		Total	150	

Note: The theory paper consists of two parts: -

Part –I: Carries 10 marks and consist of 10 short types of question. (1 mark of each question).

Part –II: Carries 25 marks. Attempt five questions with the internal choice of every unit. (5 marks of each question). Candidates are required to write each answer with the limit of 250-300 words.

Paper-1.1 Theory Fundamental of fine Arts

UNIT	Topics
Unit-I	Meaning, definition and importance of the Art
Unit-II	Elements of painting – line, form, colour, tone, texture, space.
Unit-III	Principle of compositions – unity, harmony, balance, rhythm, dominance, proportion.
Unit-IV	Six limbs of Indian Art.
Unit-V	Medium of painting-Pencil,Charcoal,Water colour,Oil colour,Acrylic colour, Pastels and Mix-Media

Suggested Books:

1. Studies in Indian Art-V.S.Agarwal.
2. Roop prad kala ke mooladhaar -Shri Kumar Sharma,R.A.Agrawal, international publishing, house, Meerut,2004
3. Fundamentals of design – Donald M.and Enderson
4. Principal, Of Art – R.G Kalingwood
5. The Meaning of Art- Herbert Read
6. Anatomy and drawing – VictorPerard

UNIVERSITY OF KOTA, KOTA
BACHELOR OF COMPUTER APPLICATION (BCA) Exam. 2023-24
(Course Code 5450)

(Applicable for students admitted in Session 2023-24)

1. **Eligibility:** The basic eligibility for admission to the course is 10+2 in any discipline with minimum 48% marks, 5% relaxation in marks will be given to the SC /ST/OBC (except creamy layer) / SOBC / PH candidates. The admission in the course is based on merit of XII class. Reservation policy will be applicable as per the state government rules.
2. **Selection:** Based on merit in qualifying examination.

COURSE OBJECTIVE

The objectives of BCA course are:

- To provide strong foundation in field of Computer Science and Applications.
- To prepare the students with exceptional skills of problem solving, communication and leadership skills.
- To facilitate overall understanding of the requirements of the subjects.
- To prepare the students to provide professional solutions to real time problems.
- To train future industry professionals.
- To impart comprehensive knowledge with equal emphasis on theory and practice.
- To keep the students up-to-speed on all the latest and cutting edge technologies.

PROGRAMME OUTCOME

- Acquire Knowledge of Computer Science, applications, theory and algorithm principles in the design and implementing computer based system.
- To provide thorough understanding of nature, scope and application of computer and computer languages.
- To develop interdisciplinary approach among the students.
- Exhibit clarity on both conceptual and application-oriented skills of Computing, programming for higher studies in Post Graduate programs.
- To Work in the IT sector as system analyst, software developer, web developer, software tester, network administrator, system administrator etc.
- To enhance the skills for working in public sector and Government organizations.
- For providing Technical skill based Education in Schools and Colleges.
- Student will be able to know various issues, latest trends in technology development and thereby innovate new ideas and solutions to existing problems.

BCA SEMESTER WISE SCHEME

First Year

+	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/ Week & Credit			Distribution of Marks			Min Pass Marks	
	Subject Code	Course Type	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
I Year I Sem.	BCA 1001 T	DCC	Introduction to Information Technology	3Hrs	4	...	4	30	70	100	12	28
	BCA 1002 P	DCC	Lab on Internet Applications	3Hrs	-	4	2	-	50	50	-	25
	BCA 1003 T	DCC	Problem Solving Through C- Programming	3Hrs	4	...	4	30	70	100	12	28
	BCA 1004 P	DCC	Lab on Problem Solving Through C- Programming	3Hrs	...	4	2	...	50	50	...	25
	BCA 1005 T	DCC	PC Software Package	3Hrs	4	...	4	30	70	100	12	28
	BCA 1006 P	DCC	Lab on PC Software Package	3Hrs	...	4	2	...	50	50	...	25
	BCA 1007 T	AEC	Hindi/English	1.5 Hrs	2	--	2	--	50	50	--	20
	Semester Total				14	12	20	90	410	500	--	
I Year II Sem.	BCA 2001 T	DCC	Basic Maths	3Hrs	4	...	4	30	70	100	12	28
	BCA 2002 T	DCC	D.B.M.S	3Hrs	4	...	4	30	70	100	12	28
	BCA 2003 P	DCC	D.B.M.S Lab	3Hrs	...	4	2		50	50	...	25
	BCA 2004 T	DCC	D.C.C.N	3Hrs	4	...	4	30	70	100	12	28
	BCA 2005 P	DCC	D.C.C.N Lab	3Hrs	...	4	2	...	50	50	...	25
	BCA 2006 P	DCC	Lab on Application Development using DBMS	3Hrs	-	4	2	-	50	50	-	25
	BCA 2007 T	AEC	Hindi/English	1.5 Hrs	2	--	2	--	50	50	--	20
	Semester Total				14	12	20	90	410	500	--	
	First year Total				28	24	40	180	820	1000		

SECOND YEAR

+	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/ Week & Credit			Distribution of Marks			Min Pass Marks	
	Year / Semester	Subject type	Course Type		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
II Year III Sem.	BCA 3001 T	DCC	Data structures	3Hrs	4	...	4	30	70	100	12	28
	BCA 3002 P	DCC	Lab on Data structures	3Hrs	...	4	2	...	50	50	...	25
	BCA 3003 T	DCC	Digital Electronics and Computer Architecture	3Hrs	4	...	4	30	70	100	12	28
	BCA 3004 T	DCC	Programming in Python	3Hrs	4	...	4	30	70	100	12	28
	BCA 3005 P	DCC	Lab on Programming in Python	3Hrs	...	4	2	...	50	50	...	25
	BCA 3006 P	DCC	Lab on Minor project - I using Python	3Hrs	-	4	2	-	50	50	-	25
	BCA 3007 T	GEC	Environmental Studies	1.5 Hrs	2	--	2	--	50	50	--	20
	Semester Total				14	12	20	90	410	500	--	
II Year IV Sem.	BCA 4001 T	DCC	Operating systems	3Hrs	4	--	4	30	70	100	12	28
	BCA 4002 P	DCC	Lab on Linux Operating System	3Hrs	--	4	2	--	50	50	--	25
	BCA 4003 T	DCC	Software Engineering	3Hrs	4	--	4	30	70	100	12	28
	BCA 4004 P	DCC	Lab on Minor Project-II	3Hrs	--	4	2	--	50	50	--	25
	BCA 4005 T	DCC	Programming with Java	3Hrs	4	--	4	30	70	100	12	28
	BCA 4006 P	DCC	Lab on Programming with Java	3Hrs	--	4	2	--	50	50	--	25
	BCA 4007 T	GEC	Business Communication	1.5 Hrs	2	--	2	--	50	50	--	20
	Semester Total				14	12	20	90	410	500	--	
	Second year Total				28	24	40	180	820	1000		

THIRD YEAR

+	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/ Week & Credit			Distribution of Marks			Min Pass Marks				
	Year / Semester	Subject Type	Course Type		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.			
III Year V Sem.	BCA 5001T	DSE	Elective-I: E-Commerce		3Hrs	4	...	4	30	70	100	12	28		
	BCA 5002T		Elective-I: MIS												
	BCA 5003P	DSE	Elective-I: Technical Paper presentation		3Hrs	-	4	2	1	50	50	-	25		
	BCA 5004P														
	BCA 5005T	DSE	Elective-II: Web Technology		3Hrs	4	...	4	30	70	100	12	28		
	BCA 5006T		Elective-II: Programming With PHP												
	BCA 5007P	DSE	Elective-II: Practical		3Hrs	...	4	2	...	50	50	...	25		
	BCA 5008P														
	BCA 5009T	DSE	Elective-III: Cyber Security		3Hrs	4	...	4	30	70	100	12	28		
	BCA 5010T		Elective-III: Information Security												
	BCA 5011P	DSE	Elective-III: Practical		3Hrs	...	4	2	...	50	50	...	25		
	BCA 5012P														
	BCA 5013T	VAC	MulyaPravah		1.5Hrs	2	--	2	---	50	50	--	20		
Semester Total					14	12	20	90	410	500	--				
III Year VI Sem.	BCA 6001T	DSE	Subject-I: Elective: Artificial Intelligence		3Hrs	4	--	4	30	70	100	12	28		
	BCA 6002T		Subject-I: Elective: Data Science												
	BCA 6003T	DSE	Subject-II: Elective: Cloud Computing		3Hrs	4	--	4	30	70	100	12	28		
	BCA 6004T		Subject-II: Elective: Data Warehousing												
	BCA 6003P	DSE	Subject-II: Elective: Practical		3Hrs	--	8	4	---	100	100	--	50		
	BCA 6004P														
	BCA 6005P	DSE	Major Project		3Hrs		12	6	50	100	150	20	40		
	BCA 6006T	SEC			1.5Hrs	2	--	2	---	50	50	--	20		
Semester Total					10	20	20	110	390	500	--				
	Third year Total				24	32	40	200	800	1000					
	Three Year Degree Total				78	80	120	560	2440	3000					

Syllabus and Course Scheme
Academic Year 2023-24



**UNIVERSITY OF KOTA,
KOTA**

FACULTY OF EDUCATION
Syllabus According to CBCS

Integrated Programme of
B.A.- B.Ed.
Course Code: BAE8900P

Semester-wise Details

Course Code: BAE8900P

First Year Year/ Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Duration of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
I YEAR I Semester	1.1	DCC	Subject-I: Theory-I	3 Hrs	6	---	6	50	100	150	20	40
	1.2	DCC	Subject-II: Theory-I	3 Hrs	6	---	6	50	100	150	20	40
	1.3	DCC	Subject-III: Theory-I	3 Hrs	6	---	6	50	100	150	20	40
	1.4	DCC	Childhood and Growing up	3 Hrs	4	---	4	30	70	100	12	28
	1.9 & 1.10	AEC	Hindi/English	1.5 Hrs	2	---	2	---	50	50	---	20
	Semester Total				24		24	180	420	600		---
I YEAR II Semester	2.1	DCC	Subject-I: Theory-II	3 Hrs	6	---	6	50	100	150	20	40
	2.2	DCC	Subject-II: Theory-II	3 Hrs	6	---	6	50	100	150	20	40
	2.3	DCC	Subject-III: Theory-II	3 Hrs	6	---	6	50	100	150	20	40
	2.4	DCC	Contemporary India and Education	3 Hrs	4	---	4	30	70	100	12	28
	2.5	SEC	Open Year/SUPW Camp	6 Hrs	---	4	2	---	50	50	---	25
	1.9 & 1.10	AEC	English/Hindi	1.5 Hrs	2	---	2	---	50	50	---	20
	Semester Total				24	4	26	180	350	500		
	Final Year Total				40	4	40	300	700	1000		

Syllabus and Course Scheme
Academic Year 2023-24



**UNIVERSITY OF KOTA,
KOTA**

FACULTY OF EDUCATION
Syllabus According to CBCS

Integrated Programme of
B.Sc.- B.Ed.
Course Code: BSE9100P

Semester-wise Details

Course Code: BSE9100P

Year/ Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Duration of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
I YEAR I Semester	1.1	DCC	Subject-I: Theory-I	3 Hrs	4	---	4	30	70	100	12	28
	1.2	DCC	Subject-I: Practical-I	6 Hrs	--	4	2	--	50	50	---	25
	1.3	DCC	Subject-III: Theory-I	3 Hrs	4	---	4	30	70	100	12	28
	1.4	DCC	Subject-II: Practical -I	6 Hrs	--	4	2	--	50	50	---	25
	1.5	DCC	Subject-III: Theory-I	3 Hrs	4	---	4	30	70	100	12	28
	1.6	DCC	Subject-III: Practical-I	6 Hrs	--	4	2	--	50	50	---	25
	1.7	DCC	Childhood and Growing up	3 Hrs	4	---	4	30	70	100	12	28
	1.9 & 1.10	AEC	Hindi/English	1.5 Hrs	2	---	2	--	50	50	---	20
Semester Total				18	12	24	120		480	600		---
I YEAR II Semester	2.1	DCC	Subject-I: Theory-II	3 Hrs	4	---	4	30	70	100	12	28
	2.2	DCC	Subject-I: Practical-II	6 Hrs	--	4	2	--	50	50	---	25
	2.3	DCC	Subject-II: Theory-II	3 Hrs	4	---	4	30	70	100	12	28
	2.4	DCC	Subject-II: Practical -II	6 Hrs	--	4	2	--	50	50	---	25
	2.5	DCC	Subject-III: Open Air/SUPW Camp	3 Hrs	4	---	4	30	70	100	12	28
	2.6	DCC	Subject-III: Practical -II	6 Hrs	--	4	2	--	50	50	---	25
	2.7	DCC	Contemporary India and Education	3 Hrs	4	---	4	30	70	100	12	28
	2.8	SEC	Open Air/SUPW Camp	6 Hrs	--	4	2	--	50	50	---	25
	Semester Total				18	16	26	120		530	650	---
	Final Year Total				36	28	50	240		1010	1250	---

UNIVERSITY OF KOTA

SEMESTER SCHEME

(w.e.f. 2023-24)



M.Sc. (Botany)

MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005

M.Sc. Botany

Semester-I

Paper 1.1 . Biology and Diversity of Lower Plants

1.2. Pteridophyta, Gymnosperms and Paleobotany

1.3. Plant Physiology

1.4. Microbiology and Plant Pathology

1.5. Lab Course I

Objectives

1. Provide knowledge of the habitat, morphology, classification, internal structure and life

cycle of algae, fungi, bryophytes, pteridophytes and gymnosperms.

2. To prepare the absorption spectrum and determine the photosynthetic pigments.

3. Study about the bioassay and physiological effects of different plant growth regulators.

4. To impart basic understanding of the archaebacteria, eubacteria and viruses, and general

account about the immunity, antigens and antibodies.

Paper 1.1-Biology and Diversity of Lower Plants

Course Code-BOT-12101

Duration of Examination: 3 Hours

Maximum Marks	: 100 Marks
Semester Assessment	: 70 Marks
Continuous (Internal) Assessment	: 30 Marks

Note: The syllabus is divided into five independent units and question paper will be divided into two sections.

There will be two sections A and B in the paper. Section A will be comprised of 10 questions having two questions from each unit having no choice. The weightage of each question is 2 marks hence the total weightage of section A is 20 marks.

***Scheme of Examinations
Rules & Regulations
and
Syllabus***

(Effective from Academic Session 2024-2025)

M.Sc. Chemistry

*Third Semester Examination, December 2024
Fourth Semester Examination, June 2025*

Faculty of Science



UNIVERSITY OF KOTA
MBS Marg, KOTA (Rajasthan)-324 005
INDIA

University of Kota, Kota

M.Sc. Chemistry: Semester wise Consolidated Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper			Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points		Distribution of Assessment Marks			Minimum Passing Marks		
	Number of Paper	Code or ID of Paper	Nomenclature of Paper		Teaching Hrs. Th.	Credit Pr.	Points	Internal Assessment	Semester Assessment	Total Marks	Internal Assessment	Semester Assessment
I Semester	Paper-1.1	CHE --- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE --- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.3	CHE --- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.4	CHE --- T	Mathematics for Chemists / Biology for Chemists	3	4	--	4	30	70	100	12	28
	Paper-1.5	CHE --- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (I Semester)			24	16	16	24	120	480	600	48	212
II Semester	Paper-2.1	CHE --- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE --- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.3	CHE --- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.4	CHE --- T	Computer Applications in Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.5	CHE --- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (Opt from Pool-A of the Value-Added Course)	4	--	4	2	50	--	50	25	--
Total (II Semester)				28	16	20	26	170	480	650	73	212
III Semester	Paper-3.1	CHE --- T	Common Paper: Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE --- T	Common Paper: Spectroscopy	3	4	--	4	30	70	100	12	28
	Paper-3.3	CHE --- T	Specialization Paper-I : Group I / II / III / IV / V	3	4	--	4	30	70	100	12	28
	Paper-3.4	CHE --- T	Specialization Paper-II : Group I / II / III / IV / V	3	4	--	4	30	70	100	12	28
	Paper-3.5	CHE --- P	Specialization Paper-III : Group I / II / III / IV / V	12	--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (Opt from Pool-B of the Value-Added Course)	4	--	4	2	50	--	50	25	--
Total (III Semester)				28	16	20	26	170	480	650	73	212
IV Semester	Paper-4.1	CHE --- T	Common Paper: Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE --- T	Common Paper: Recent Methods of Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-4.3	CHE --- T	Specialization Paper-I : Group I / II / III / IV / V	3	4	--	4	30	70	100	12	28
	Paper-4.4	CHE --- T	Specialization Paper-II : Group I / II / III / IV / V	3	4	--	4	30	70	100	12	28
	Paper-4.5	CHE --- P	Specialization Paper-III : Group I / II / III / IV / V	12	--	16	8	--	200	200	--	100
	Total (IV Semester)			24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)				104	64	72	100	580	1920	2500	242	848

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

Groups of Specializations in M.Sc. Chemistry

Year / Sem.	Specialization Papers	Code or ID	Group-I: Inorganic Chemistry	Group-II: Organic Chemistry	Group-III: Physical Chemistry	Group-IV: Analytical Chemistry	Group-V: Industrial Chemistry
2nd Year III Semester	Specialization Paper-I	CHE --- T	Bio-inorganic Chemistry	Organic Synthesis	Nuclear Chemistry	Advanced Analytical Techniques	Fundamentals of Industrial Process Calculations
	Specialization Paper-II	CHE --- T	Photo-inorganic Chemistry	Heterocyclic Chemistry	Physical Organic Chemistry	Analysis of Commercial Products	Fuel, Petrochemicals and Energy Technology
	Specialization Paper-III	CHE --- P	Inorganic Chemistry Practical	Organic Chemistry Practical	Physical Chemistry Practical	Analytical Chemistry Practical	Industrial Chemistry Practical
2nd Year IV Semester	Specialization Paper-I	CHE --- T	Organo-transition Metal Chemistry	Chemistry of Natural Products	Electrochemistry	Instrumental Methods of Analysis	Chemical Process Industries
	Specialization Paper-II	CHE --- T	Polymers	Medicinal Chemistry	Chemical Dynamics	Analysis of Consumers Products	Industrial Management, IPR & Regulatory Affairs
	Specialization Paper-III	CHE --- P	Inorganic Chemistry Practical	Organic Chemistry Practical	Physical Chemistry Practical	Analytical Chemistry Practical	Industrial Chemistry Practical

University of Kota Kota

Scheme of Examination of Value-Added Courses (VAC) of Chemistry for Pool-A and Pool-B under CBCS Scheme

VAC of Chemistry for Pool-A:

Semester (Year)	Code and Nomenclature of Paper	Duration of Exam. (in Hrs.)	Teaching Hrs. / Week and Credits			Distribution of Assessment Marks			Minimum Pass Marks			
			Theory	Practical	Credits	Int. Assess.	Sem. Assess.	Total Marks	Int. Assess.	Sem. Assess.	Total Marks	
II Semester (1 st Year)	CHOI-A--	Analysis of Juices, Jams and Jellies	4	--	4	2	50	--	50	25	--	25
		Analysis of Edible Oils and Fats	4	--	4	2	50	--	50	25	--	25
		Analysis of Milk and Milk Products	4	--	4	2	50	--	50	25	--	25
		Analysis of Food and Food Products	4	--	4	2	50	--	50	25	--	25

VAC of Chemistry for Pool-B:

Semester (Year)	Code and Nomenclature of Paper	Duration of Exam. (in Hrs.)	Teaching Hrs. / Week and Credits			Distribution of Assessment Marks			Minimum Pass Marks			
			Theory	Practical	Credits	Int. Assess.	Sem. Assess.	Total Marks	Int. Assess.	Sem. Assess.	Total Marks	
III Semester (2 nd Year)	CHOI-B--	Air Analysis	4	--	4	2	50	--	50	25	--	25
		Soil Analysis	4	--	4	2	50	--	50	25	--	25
		Water Analysis	4	--	4	2	50	--	50	25	--	25
		Drug Analysis	4	--	4	2	50	--	50	25	--	25

Note:

1. As per required facilities available in the Department/College to run the VAC, any one of the VAC of the chemistry of Pool-A and Pool-B may be offered by the concerned Department/College to the students of any discipline.
2. Theory part of the above-mentioned VAC of the chemistry shall be taught and thereafter practical work of these VAC shall be performed by the Teaching Departments as per the required infrastructure and/or facilities available in the Teaching Department.
3. Assessment of these VAC of the chemistry shall be made internally at Teaching Department level and marks will be uploaded on the University Examination Portal by the concern faculty member/teaching department.

University of Kota, Kota

M.Sc. Chemistry: Inorganic Chemistry Specialization

Semester wise Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper		Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points		Distribution of Assessment Marks			Minimum Passing Marks			
	Number of Paper	Code or ID of Paper		Nomenclature of Paper	Teaching Hrs. Th.	Pr.	Credit Points	Internal Assess.	Semester Assess.	Total Marks	Internal Assess.	Semester Assess.
I Semester	Paper-1.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE ---- T	Organic Chemistry		4	--	4	30	70	100	12	28
	Paper-1.3	CHE ---- T	Physical Chemistry		4	--	4	30	70	100	12	28
	Paper-1.4	CHE ---- T	Mathematics for Chemists / Biology for Chemists		4	--	4	30	70	100	12	28
	Paper-1.5	CHE ---- P	Chemistry Practical		--	16	8	--	200	200	--	100
Total (I Semester)				24	16	16	24	120	480	600	48	212
II Semester	Paper-2.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE ---- T	Organic Chemistry		4	--	4	30	70	100	12	28
	Paper-2.3	CHE ---- T	Physical Chemistry		4	--	4	30	70	100	12	28
	Paper-2.4	CHE ---- T	Computer Applications in Chemistry		4	--	4	30	70	100	12	28
	Paper-2.5	CHE ---- P	Chemistry Practical		--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (<i>Opt from Pool-A of the Value-Added Course</i>)		--	4	2	50	--	50	25	--
Total (II Semester)				28	16	20	26	170	480	650	73	212
III Semester	Paper-3.1	CHE ---- T	Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE ---- T	Spectroscopy		4	--	4	30	70	100	12	28
	Paper-3.3	CHE ---- T	Bio-inorganic Chemistry		4	--	4	30	70	100	12	28
	Paper-3.4	CHE ---- T	Photo-inorganic Chemistry		4	--	4	30	70	100	12	28
	Paper-3.5	CHE ---- P	Inorganic Chemistry Practical		--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (<i>Opt from Pool-B of the Value-Added Course</i>)		--	4	2	50	--	50	25	--
Total (III Semester)				28	16	20	26	170	480	650	73	212
IV Semester	Paper-4.1	CHE ---- T	Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE ---- T	Recent Methods of Organic Synthesis		4	--	4	30	70	100	12	28
	Paper-4.3	CHE ---- T	Organometal Chemistry		4	--	4	30	70	100	12	28
	Paper-4.4	CHE ---- T	Polymers		4	--	4	30	70	100	12	28
	Paper-4.5	CHE ---- P	Inorganic Chemistry Practical		--	16	8	--	200	200	--	100
Total (IV Semester)				24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)				104	64	72	100	580	1920	2500	242	848

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

University of Kota, Kota

M.Sc. Chemistry: Organic Chemistry Specialization

Semester wise Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper			Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points		Distribution of Assessment Marks			Minimum Passing Marks		
	Number of Paper	Code or ID of Paper	Nomenclature of Paper		Teaching Hrs. Th.	Credit Pr.	Credit Points	Internal Assess.	Semester Assess.	Total Marks	Internal Assess.	Semester Assess.
1st Year I Semester	Paper-1.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.4	CHE ---- T	Mathematics for Chemists / Biology for Chemists	3	4	--	4	30	70	100	12	28
	Paper-1.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
Total (I Semester)				24	16	16	24	120	480	600	48	212
1st Year II Semester	Paper-2.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.4	CHE ---- T	Computer Applications in Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (<i>Opt from Pool-A of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
Total (II Semester)				28	16	20	26	170	480	650	73	212
2nd Year III Semester	Paper-3.1	CHE ---- T	Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE ---- T	Spectroscopy	3	4	--	4	30	70	100	12	28
	Paper-3.3	CHE ---- T	Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-3.4	CHE ---- T	Heterocyclic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-3.5	CHE ---- P	Organic Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (<i>Opt from Pool-B of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
Total (III Semester)				28	16	20	26	170	480	650	73	212
2nd Year IV Semester	Paper-4.1	CHE ---- T	Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE ---- T	Recent Methods of Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-4.3	CHE ---- T	Chemistry of Natural Products	3	4	--	4	30	70	100	12	28
	Paper-4.4	CHE ---- T	Medicinal Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.5	CHE ---- P	Organic Chemistry Practical	12	--	16	8	--	200	200	--	100
Total (IV Semester)				24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)				104	64	72	100	580	1920	2500	242	848

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

University of Kota, Kota

M.Sc. Chemistry: Physical Chemistry Specialization

Semester wise Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper			Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points			Distribution of Assessment Marks			Minimum Passing Marks	
	Number of Paper	Code or ID of Paper	Nomenclature of Paper		Teaching Hrs. Th.	Pr.	Credit Points	Internal Assess.	Semester Assess.	Total Marks	Internal Assess.	Semester Assess.
1st Year I Semester	Paper-1.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.4	CHE ---- T	Mathematics for Chemists / Biology for Chemists	3	4	--	4	30	70	100	12	28
	Paper-1.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (I Semester)			24	16	16	24	120	480	600	48	212
1st Year II Semester	Paper-2.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.4	CHE ---- T	Computer Applications in Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (<i>Opt from Pool-A of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (II Semester)			28	16	20	26	170	480	650	73	212
2nd Year III Semester	Paper-3.1	CHE ---- T	Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE ---- T	Spectroscopy	3	4	--	4	30	70	100	12	28
	Paper-3.3	CHE ---- T	Nuclear Chemistry	3	4	--	4	30	70	100	12	28
	Paper-3.4	CHE ---- T	Physical Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-3.5	CHE ---- P	Physical Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (<i>Opt from Pool-B of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (III Semester)			28	16	20	26	170	480	650	73	212
2nd Year IV Semester	Paper-4.1	CHE ---- T	Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE ---- T	Recent Methods of Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-4.3	CHE ---- T	Electrochemistry	3	4	--	4	30	70	100	12	28
	Paper-4.4	CHE ---- T	Chemical Dynamics	3	4	--	4	30	70	100	12	28
	Paper-4.5	CHE ---- P	Physical Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (IV Semester)			24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)				104	64	72	100	580	1920	2500	242	848

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

University of Kota, Kota

M.Sc. Chemistry: Analytical Chemistry Specialization

Semester wise Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper			Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points			Distribution of Assessment Marks			Minimum Passing Marks	
	Number of Paper	Code or ID of Paper	Nomenclature of Paper		Teaching Hrs. Th.	Pr.	Credit Points	Internal Assess.	Semester Assess.	Total Marks	Internal Assess.	Semester Assess.
1st Year I Semester	Paper-1.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.4	CHE ---- T	Mathematics for Chemists / Biology for Chemists	3	4	--	4	30	70	100	12	28
	Paper-1.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (I Semester)			24	16	16	24	120	480	600	48	212
1st Year II Semester	Paper-2.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.4	CHE ---- T	Computer Applications in Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (<i>Opt from Pool-A of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (II Semester)			28	16	20	26	170	480	650	73	212
2nd Year III Semester	Paper-3.1	CHE ---- T	Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE ---- T	Spectroscopy	3	4	--	4	30	70	100	12	28
	Paper-3.3	CHE ---- T	Advanced Analytical Techniques	3	4	--	4	30	70	100	12	28
	Paper-3.4	CHE ---- T	Analysis of Commercial Products	3	4	--	4	30	70	100	12	28
	Paper-3.5	CHE ---- P	Analytical Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (<i>Opt from Pool-B of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (III Semester)			28	16	20	26	170	480	650	73	212
2nd Year IV Semester	Paper-4.1	CHE ---- T	Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE ---- T	Recent Methods of Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-4.3	CHE ---- T	Instrumental Methods of Analysis	3	4	--	4	30	70	100	12	28
	Paper-4.4	CHE ---- T	Analysis of Consumers Products	3	4	--	4	30	70	100	12	28
	Paper-4.5	CHE ---- P	Analytical Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (IV Semester)			24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)			104	64	72	100	580	1920	2500	242	848	

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

University of Kota, Kota

M.Sc. Chemistry: Industrial Chemistry Specialization

Semester wise Scheme of Examinations

Year / Semester	Number, Code or ID and Nomenclature of Paper			Duration of Exam. (in Hrs.)	Teaching Hrs. / Week & Credit Points			Distribution of Assessment Marks			Minimum Passing Marks	
	Number of Paper	Code or ID of Paper	Nomenclature of Paper		Teaching Hrs. Th.	Pr.	Credit Points	Internal Assess.	Semester Assess.	Total Marks	Internal Assess.	Semester Assess.
1st Year I Semester	Paper-1.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-1.4	CHE ---- T	Mathematics for Chemists / Biology for Chemists	3	4	--	4	30	70	100	12	28
	Paper-1.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (I Semester)			24	16	16	24	120	480	600	48	212
1st Year II Semester	Paper-2.1	CHE ---- T	Inorganic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.2	CHE ---- T	Organic Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.3	CHE ---- T	Physical Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.4	CHE ---- T	Computer Applications in Chemistry	3	4	--	4	30	70	100	12	28
	Paper-2.5	CHE ---- P	Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-2.6	VAC -----	Value Added Course (<i>Opt from Pool-A of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (II Semester)			28	16	20	26	170	480	650	73	212
2nd Year III Semester	Paper-3.1	CHE ---- T	Chromatography	3	4	--	4	30	70	100	12	28
	Paper-3.2	CHE ---- T	Spectroscopy	3	4	--	4	30	70	100	12	28
	Paper-3.3	CHE ---- T	Fundamentals of Industrial Process Calculations	3	4	--	4	30	70	100	12	28
	Paper-3.4	CHE ---- T	Fuel, Petrochemicals and Energy Technology	3	4	--	4	30	70	100	12	28
	Paper-3.5	CHE ---- P	Industrial Chemistry Practical	12	--	16	8	--	200	200	--	100
	Paper-3.6	VAC -----	Value Added Course (<i>Opt from Pool-B of the Value-Added Course</i>)	4	--	4	2	50	--	50	25	--
	Total (III Semester)			28	16	20	26	170	480	650	73	212
2nd Year IV Semester	Paper-4.1	CHE ---- T	Environmental Chemistry	3	4	--	4	30	70	100	12	28
	Paper-4.2	CHE ---- T	Recent Methods of Organic Synthesis	3	4	--	4	30	70	100	12	28
	Paper-4.3	CHE ---- T	Chemical Process Industries	3	4	--	4	30	70	100	12	28
	Paper-4.4	CHE ---- T	Industrial Management, IPR and Regulatory Affairs	3	4	--	4	30	70	100	12	28
	Paper-4.5	CHE ---- P	Industrial Chemistry Practical	12	--	16	8	--	200	200	--	100
	Total (IV Semester)			24	16	16	24	120	480	600	48	212
Grand Total (I + II + III + IV Semester)				104	64	72	100	580	1920	2500	242	848

Note: Value Added Courses (VAC) may be opted from Pool-A and Pool-B. List of the VAC for Pool-A and Pool-B is uploaded separately on the University website www.uok.ac.in.

UNIVERSITY OF KOTA

FACULTY OF SCIENCE

M. SC. ZOOLOGY

SYLLABUS AND SCHEME OF SEMESTER EXAMINATION FOR THE ACADEMIC YEAR

2023-24



Semester-I: (July - December 2023)

Semester-II: (January - June 2024)

UNIVERSITY OF KOTA

MBS Marg, Near Kabir Circle, Kota (Rajasthan) 324 005

Syllabus Edition: 2023 (as per NEP 2020)

University of Kota
Master of Science (M. Sc.) Program
Subject/Discipline: Zoology
Scheme of Semester I & II

Semester	Number, Code or ID and Nomenclature of Paper				Duration of Exam (in Hrs.)	Teaching Hrs./Week		Distribution of Assessment Marks						
								Continuous Internal Assessment (30%)		Semester/External Assessment (70%)		Total		
Semester-I	Number of Paper	Code/ID Paper	Code	Nomenclature of Paper		Teaching	Credit Point	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min. Marks	
	Th.	Pr.	Th.											
	Paper- 1.1	ZOO-12201	DCC	Invertebrate: Structure and Functions	3	4	-	4	30	12	70	28	100	40
	Paper- 1.2	ZOO-12202	DCC	Biochemistry	3	4	-	4	30	12	70	28	100	40
	Paper- 1.3	ZOO-12203	DCC	Cell Biology	3	4	-	4	30	12	70	28	100	40
	Paper- 1.4	ZOO-12204	DCC	Evolution and Biostatistics	3	4	-	4	30	12	70	28	100	40
	Paper- 1.5	ZOO-12205	DCC	Practical Lab Course-I	6	-	8	4	-	-	100	50	100	50
	Paper- 1.6	ZOO-12206	DCC	Practical Lab Course-II	6	-	8	4	-	-	100	50	100	50
	TOTAL (SEMESTER-I)				32	24	120	48	480	212	600	260		
Semester-II	Paper- 2.1	ZOO-12211	DCC	Immunology and Biotechnology	3	4	-	4	30	12	70	28	100	40
	Paper- 2.2	ZOO-12212	DCC	Animal Taxonomy	3	4	-	4	30	12	70	28	100	40
	Paper- 2.3	ZOO-12213	DCC	Genetics	3	4	-	4	30	12	70	28	100	40
	Paper- 2.4	ZOO-12214	DCC	Animal Physiology	3	4	-	4	30	12	70	28	100	40
	Paper- 2.5	ZOO-12215	DCC	Practical Lab Course-I	6	-	8	4	-	-	100	50	100	50
	Paper- 2.6	ZOO-12216	DCC	Practical Lab Course-II	6	-	8	4	-	-	100	50	100	50
		GEC	CBCS Paper		1.5	2	-	2	-	-	50	20	50	20
	TOTAL (SEMESTER-II)				32	26	120	48	530	232	650	280		

UNIVERSITY OF KOTA

SCHEME OF EXAMINATION

AND

COURSES OF STUDY



Department of Pure & Applied Physics
Faculty of Science

M.Sc. (Physics)
Course Code PHY11750P

First Semester Examination, December 2023
Second Semester Examination, June 2024

UNIVERSITY OF KOTA
MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005
INDIA

Edition: 2023

Course Structure with Distribution of Marks:

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Conti. Assess.	Sem. Assess.	Total Marks	Conti. Assess.	Sem. Assess.
I Year I Semester	PHY1001	DCC	Mathematical Methods in Physics	3 Hrs	4	--	4	30	70	100	12	28
	PHY1002	DCC	Classical Mechanics	3 Hrs	4	--	4	30	70	100	12	28
	PHY1003	DCC	Quantum Mechanics-I	3 Hrs	4	--	4	30	70	100	12	28
	PHY1004	DCC	Advanced Electronics	3 Hrs	4	--	4	30	70	100	12	28
	PHY1005	DCC	Physics Laboratory-I	6 Hrs	--	16	8	--	200	200	--	100
	Total				16	16	24	120	480	600		--
I Year II Semester	PHY2001	DCC	Statistical Mechanics	3 Hrs	4	--	4	30	70	100	12	28
	PHY2002	DCC	Classical Electrodynamics -I	3 Hrs	4	--	4	30	70	100	12	28
	PHY2003	DCC	Quantum Mechanics-II	3 Hrs	4	--	4	30	70	100	12	28
	PHY2004	DCC	Atomic & Molecular Physics	3 Hrs	4	--	4	30	70	100	12	28
	PHY2005	DCC	Physics Laboratory-II	6 Hrs	--	16	8	--	200	200	--	100
	CBCS Paper			--	2	--	2	--	50	50	--	20
					18	16	26	120	530	650		--

Objectives of the Course:

Innovation and Employability-Physics is fundamental to all physical sciences which explains the nature. Physicists have to be competent enough to design and build new instruments, from satellites to measure the properties of planetary atmospheres to record-breaking intense magnetic fields for the study of condensed matter. Most of the conveniences of modern life are based directly on the understanding provided by physics. Many techniques used in medical imaging are derived directly from physics instrumentation. Even the internet is a spin-off from the information processing and communications requirement of high-energy particle physics.

Department of Pure and Applied Physics, University of Kota, Kota has started the M.Sc.(Physics) course from July, 2007. This course aims to provide a thorough understanding of Physics of both pure and applied nature with extensive theoretical and experimental knowledge in major areas of Physics with specialization in Energy Studies / Plasma Physics / Materials Science. The students after completing the course shall find placements in premier research institutes and companies in India and abroad, qualify NET/GATE/JEST examinations and will be eligible for M.Tech., Ph.D. and teaching.

Duration of the Course:

The course M.Sc. (Physics) shall consist of two academic years divided into four semesters.

Eligibility for Admission:

The basic eligibility for admission to the programme is B.Sc. with Physics, Chemistry and Mathematics with minimum marks for GEN category candidates of Rajasthan-55%; Other state-60%; SC/STOBC/SOBC-Minimum Pass Marks. The admission in the course is based on the merit of the percentage obtained in their B.Sc. course.

Structure of the Programme:

The M.Sc. (Physics) programme consists of:

**SCHEME OF EXAMINATION
RULES & REGULATIONS
AND
SYLLABUS**

(Effective from Academic Session 2023-2024)

B.Sc. Chemistry

*First Semester Examination, December 2023
Second Semester Examination, June 2024*

under

**Choice Based Credit System
(CBCS)**

Faculty of Science



UNIVERSITY OF KOTA
MBS Marg, KOTA (Rajasthan)-324 005
INDIA

Bachelor of Science (B.Sc.): Mathematics Group

Subject Combination: Physics, Chemistry, Mathematics (PCM)

Semester Scheme of Examination

Year / Semester	Serial Number, Code and Nomenclature of Paper			Duration of Examination	Teaching (Hrs./Week) and Credits			Distribution of Maximum Marks			Minimum Pass Marks	
	Number	Code	Nomenclature		Lecture (L)	Practical (P)	Credit (C)	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
1 st Year I Semester	1.1	PHY-----	Physics-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.2	PHY-----	Physics Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.3	CHE ---- T	Chemistry-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.4	CHE ---- P	Chemistry Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.5	MAT-----	Mathematics-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.6	MAT-----	Mathematics Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.9/1.10	AEC-----	General Hindi / General English	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (I Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
1 st Year II Semester	2.1	PHY-----	Physics-II	3 Hrs.	4	--	4	30	70	100	12	28
	2.2	PHY-----	Physics Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	2.3	CHE ---- T	Chemistry-II	3 Hrs.	4	--	4	30	70	100	12	28
	2.4	CHE ---- P	Chemistry Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	2.5	MAT-----	Mathematics-II	3 Hrs.	4	--	4	30	70	100	12	28
	2.6	MAT-----	Mathematics Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	1.10/1.9	AEC-----	General English / General Hindi	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (II Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
Total (I and II Semesters)				57.0 Hrs.	28	24	40	180	820	1000	72	358
2 nd Year III Semester	3.1	PHY-----	Physics-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.2	PHY-----	Physics Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.3	CHE ---- T	Chemistry-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.4	CHE ---- P	Chemistry Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.5	MAT-----	Mathematics-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.6	MAT-----	Mathematics Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.7	GEC-----	Environmental Studies	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (III Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
2 nd Year IV Semester	4.1	PHY-----	Physics-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.2	PHY-----	Physics Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.3	CHE ---- T	Chemistry-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.4	CHE ---- P	Chemistry Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.5	MAT-----	Mathematics-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.6	MAT-----	Mathematics Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.7	GEC-----	Elementary Computer Applications	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (IV Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
Total (III and IV Semesters)				57.0 Hrs.	28	24	40	180	820	1000	72	358

Year / Semester	Serial Number, Code and Nomenclature of Paper			Duration of Examination	Teaching (Hrs./Week) and Credits			Distribution of Maximum Marks			Minimum Pass Marks	
	Number	Code	Nomenclature		Lecture (L)	Practical (P)	Credit (C)	Int. Assess.	Sem. Assess.	Total	Int. Assess.	Sem. Assess.
3 rd Year V Semester	5.1(a)	PHY-----	Physics-V(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	5.1(b)	PHY-----	Physics-V(b): Elective									
	5.1(c)	PHY-----	Physics-V(c): Elective									
	5.2(a)	PHY-----	Physics Practical-V(a): Elective	6 Hrs.	--	4	2	--	50	50	--	25
	5.2(b)	PHY-----	Physics Practical-V(b): Elective									
	5.2(c)	PHY-----	Physics Practical-V(c): Elective									
	5.3(a)	CHE ---- T(a)	Chemistry-V(a): Inorganic Chemistry	3 Hrs.	4	--	4	30	70	100	12	28
	5.3(b)	CHE ---- T(b)	Chemistry-V(b): Organic Chemistry									
	5.3(c)	CHE ---- T(c)	Chemistry-V(c): Physical Chemistry									
	5.4(a)	CHE ---- P(a)	Chemistry Practical-V(a): Inorganic Chemistry Practical	6 Hrs.	--	4	2	--	50	50	--	25
	5.4(b)	CHE ---- P(b)	Chemistry Practical-V(b): Organic Chemistry Practical									
	5.4(c)	CHE ---- P(c)	Chemistry Practical-V(c): Physical Chemistry Practical									
	5.5(a)	MAT-----	Mathematics-V(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	5.5(b)	MAT-----	Mathematics-V(b): Elective									
	5.5(c)	MAT-----	Mathematics-V(c): Elective									
	5.6(a)	MAT-----	Mathematics Practical-V(a):	6 Hrs.	--	4	2	--	50	50	--	25
	5.6(b)	MAT-----	Mathematics Practical-V(b):									
	5.6(c)	MAT-----	Mathematics Practical-V(c):									
	5.7	VAC-----	Value Added Course	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (V Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
3 rd Year VI Semester	6.1(a)	PHY-----	Physics-VI(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	6.1(b)	PHY-----	Physics-VI(b): Elective									
	6.1(c)	PHY-----	Physics-VI(c): Elective									
	6.2(a)	PHY-----	Physics Practical-VI(a): Elective	6 Hrs.	--	4	2	--	50	50	--	25
	6.2(b)	PHY-----	Physics Practical-VI(b): Elective									
	6.2(c)	PHY-----	Physics Practical-VI(c): Elective									
	6.3(a)	CHE ---- T(a)	Chemistry-VI(a): Inorganic Chemistry	3 Hrs.	4	--	4	30	70	100	12	28
	6.3(b)	CHE ---- T(b)	Chemistry-VI(b): Organic Chemistry									
	6.3(c)	CHE ---- T(c)	Chemistry-VI(c): Physical Chemistry									
	6.4(a)	CHE ---- P(a)	Chemistry Practical-VI(a): Inorganic Chemistry Practical	6 Hrs.	--	4	2	--	50	50	--	25
	6.4(b)	CHE ---- P(b)	Chemistry Practical-VI(b): Organic Chemistry Practical									
	6.4(c)	CHE ---- P(c)	Chemistry Practical-VI(c): Physical Chemistry Practical									
	6.5(a)	MAT-----	Mathematics-VI(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	6.5(b)	MAT-----	Mathematics-VI(b): Elective									
	6.5(c)	MAT-----	Mathematics-VI(c): Elective									
	6.6(a)	MAT-----	Mathematics Practical-VI(a): Elective	6 Hrs.	--	4	2	--	50	50	--	25
	6.6(b)	MAT-----	Mathematics Practical-VI(b): Elective									
	6.6(c)	MAT-----	Mathematics Practical-VI(c): Elective									
	6.7	SEC-----	Skill Enhancement Course	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (VI Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
	Total (V and VI Semesters)			57.0 Hrs.	28	24	40	180	820	1000	72	358

Grand Total of Three-Year B.Sc. Degree Programme (I to VI Semesters) **171.0 Hrs.** **84** **72** **120** **540** **2460** **3000** **216** **1074**

Bachelor of Science (B.Sc.): Biology Group

Subject Combination: Botany, Chemistry, Zoology (BCZ)

Semester Scheme of Examination

Year / Semester	Serial Number, Code and Nomenclature of Paper			Duration of Examination	Teaching (Hrs./Week) and Credits			Distribution of Maximum Marks			Minimum Pass Marks	
	Number	Code	Nomenclature		Lecture (L)	Practical (P)	Credit (C)	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
1 st Year I Semester	1.1	BOT-----	Botany-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.2	BOT-----	Botany Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.3	CHE ---- T	Chemistry-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.4	CHE ---- P	Chemistry Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.5	ZOO-----	Zoology-I	3 Hrs.	4	--	4	30	70	100	12	28
	1.6	ZOO-----	Zoology Practical-I	6 Hrs.	--	4	2	--	50	50	--	25
	1.9/1.10	AEC-----	General Hindi / General English	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (I Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
1 st Year II Semester	2.1	BOT-----	Botany -II	3 Hrs.	4	--	4	30	70	100	12	28
	2.2	BOT-----	Botany Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	2.3	CHE ---- T	Chemistry-II	3 Hrs.	4	--	4	30	70	100	12	28
	2.4	CHE ---- P	Chemistry Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	2.5	ZOO-----	Zoology-II	3 Hrs.	4	--	4	30	70	100	12	28
	2.6	ZOO-----	Zoology Practical-II	6 Hrs.	--	4	2	--	50	50	--	25
	1.10/1.9	AEC-----	General English / General Hindi	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (II Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
Total (I and II Semesters)				57.0 Hrs.	28	24	40	180	820	1000	72	358
2 nd Year III Semester	3.1	BOT-----	Botany-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.2	BOT-----	Botany Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.3	CHE ---- T	Chemistry-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.4	CHE ---- P	Chemistry Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.5	ZOO-----	Zoology-III	3 Hrs.	4	--	4	30	70	100	12	28
	3.6	ZOO-----	Zoology Practical-III	6 Hrs.	--	4	2	--	50	50	--	25
	3.7	GEC-----	Environmental Studies	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (III Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
2 nd Year IV Semester	4.1	BOT-----	Botany-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.2	BOT-----	Botany Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.3	CHE ---- T	Chemistry-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.4	CHE ---- P	Chemistry Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.5	ZOO-----	Zoology-IV	3 Hrs.	4	--	4	30	70	100	12	28
	4.6	ZOO-----	Zoology Practical-IV	6 Hrs.	--	4	2	--	50	50	--	25
	4.7	GEC-----	Elementary Computer Applications	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (IV Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
Total (III and IV Semesters)				57.0 Hrs.	28	24	40	180	820	1000	72	358

Year / Semester	Serial Number, Code and Nomenclature of Paper			Duration of Examination	Teaching (Hrs./Week) and Credits			Distribution of Maximum Marks			Minimum Pass Marks	
	Number	Code	Nomenclature		Lecture (L)	Practical (P)	Credit (C)	Int. Assess.	Sem. Assess.	Total	Int. Assess.	Sem. Assess.
3 rd Year V Semester	5.1(a)	BOT-----	Botany-V(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	5.1(b)	BOT-----	Botany-V(b): Elective									
	5.1(c)	BOT-----	Botany-V(c): Elective									
	5.2(a)	BOT-----	Botany Practical-V(a)	6 Hrs.	--	4	2	--	50	50	--	25
	5.2(b)	BOT-----	Botany Practical-V(b)									
	5.2(c)	BOT-----	Botany Practical-V(c)									
	5.3(a)	CHE ---- T(a)	Chemistry-V(a): Inorganic Chemistry	3 Hrs.	4	--	4	30	70	100	12	28
	5.3(b)	CHE ---- T(b)	Chemistry-V(b): Organic Chemistry									
	5.3(c)	CHE ---- T(c)	Chemistry-V(c): Physical Chemistry									
	5.4(a)	CHE ---- P(a)	Chemistry Practical-V(a): Inorganic Chemistry Practical	6 Hrs.	--	4	2	--	50	50	--	25
	5.4(b)	CHE ---- P(b)	Chemistry Practical-V(b): Organic Chemistry Practical									
	5.4(c)	CHE ---- P(c)	Chemistry Practical-V(c): Physical Chemistry Practical									
	5.5(a)	ZOO-----	Zoology-V(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	5.5(b)	ZOO-----	Zoology-V(b): Elective									
	5.5(c)	ZOO-----	Zoology-V(c): Elective									
	5.6(a)	ZOO-----	Zoology Practical-V(a)	6 Hrs.	--	4	2	--	50	50	--	25
	5.6(b)	ZOO-----	Zoology Practical-V(b)									
	5.6(c)	ZOO-----	Zoology Practical-V(c)									
	5.7	VAC-----	Value Added Course	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (V Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
3 rd Year VI Semester	6.1(a)	BOT-----	Botany-VI(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	6.1(b)	BOT-----	Botany-VI(b): Elective									
	6.1(c)	BOT-----	Botany-VI(c): Elective									
	6.2(a)	BOT-----	Botany Practical-VI(a)	6 Hrs.	--	4	2	--	50	50	--	25
	6.2(b)	BOT-----	Botany Practical-VI(b)									
	6.2(c)	BOT-----	Botany Practical-VI(c)									
	6.3(a)	CHE ---- T(a)	Chemistry-VI(a): Inorganic Chemistry	3 Hrs.	4	--	4	30	70	100	12	28
	6.3(b)	CHE ---- T(b)	Chemistry-VI(b): Organic Chemistry									
	6.3(c)	CHE ---- T(c)	Chemistry-VI(c): Physical Chemistry									
	6.4(a)	CHE ---- P(a)	Chemistry Practical-VI(a): Inorganic Chemistry Practical	6 Hrs.	--	4	2	--	50	50	--	25
	6.4(b)	CHE ---- P(b)	Chemistry Practical-VI(b): Organic Chemistry Practical									
	6.4(c)	CHE ---- P(c)	Chemistry Practical-VI(c): Physical Chemistry Practical									
	6.5(a)	ZOO-----	Zoology-VI(a): Elective	3 Hrs.	4	--	4	30	70	100	12	28
	6.5(b)	ZOO-----	Zoology-VI(b): Elective									
	6.5(c)	ZOO-----	Zoology-VI(c): Elective									
	6.6(a)	ZOO-----	Zoology Practical-VI(a)	6 Hrs.	--	4	2	--	50	50	--	25
	6.6(b)	ZOO-----	Zoology Practical-VI(b)									
	6.6(c)	ZOO-----	Zoology Practical-VI(c)									
	6.7	SEC-----	Skill Enhancement Course	1.5 Hrs.	2	--	2	--	50	50	--	20
	Total (VI Semester)			28.5 Hrs.	14	12	20	90	410	500	36	179
	Total (V and VI Semesters)			57.0 Hrs.	28	24	40	180	820	1000	72	358
Grand Total of Three-Year B.Sc. Degree Programme (I to VI Semesters)				171.0 Hrs.	84	72	120	540	2460	3000	216	1074

University of Kota, Kota

Bachelor of Science (B.Sc.): Mathematics (PCM) and Biology (BCZ) Groups

B.Sc. Chemistry

Semester Scheme of Examination

UNIVERSITY OF KOTA

NATIONAL EDUCATION POLICY-2020

SYLLABUS

SEMESTER SCHEME

(w.e.f. 2023-24)



B.Sc. (Botany)

Semester- I & II

MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005

B.Sc. (Botany)
Semester-I
Course code :- 5133 P

BOT I : Diversity and Systemetics of Microbes, Thallophyta, Bryophyta, & plant diseases (Credit-4)

BOT I : Lab Course/Practicals (Credit 2)

Exam Scheme	Time	Max. Marks	Theory	Internal Assessment
Paper I	3 Hrs.	100	70	30
Lab. Course	5 Hrs.	50		

There will be two sections A and B in the paper. Section A will be comprised of 10 questions having two questions from each unit having no choice. The weightage of each question is 2 marks hence the total weightage of section A is 20 marks.

In Section B, there will be 10 questions .Two questions from each unit having internal choice .Students have to attempt total 5 questions (one question from each unit). The weightage of each question is 10 marks hence the total weightage of the section B is 50 marks.

UNIT I

Microbes: Archaebacteria , Viruses : Nature ,Structure and Chemical composition . Bacteriophage . Bacteria-Cell structure, cell wall Composition ,Nutrition, Reproduction and economic importance of Bacteria. General account of *Mycoplasma* and *Cyanobacteria* (*Nostoc* ,*Oscillatoria*) and their economic importance.

UNIT II

Algae : General Characteristics ,Classification and economic importance of Algae. Important features and life history of *Volvox*, *Coleochaete*, *Chara*, *Vaucheria* ,*Ectocarpus* and *Polysiphonia*.

UNIT III

Fungi: , General characteristics, Classification (Alexopolus and Mims), nutrition, reproduction and Economic importance of Fungi. Important features and life history of *Phytophthora* *Albugo*, *Saccharomyces*, *Penicillium*,*Puccinia*, *Ustilago* ,*Agaricus*, *Colletotrichum* and *Alternaria*.

UNIVERSITY OF KOTA

FACULTY OF SCIENCE

B. SC. (PASS COURSE)

ZOOLOGY

**SYLLABUS AND SCHEME OF
SEMESTER EXAMINATION FOR THE
ACADEMIC YEAR**

2023-24



Semester-I (PAVAS) : July - December 2023

Semester-II (BASANT) : January - June 2024

UNIVERSITY OF KOTA

MBS Marg, Near Kabir Circle, Kota (Rajasthan) 324 005

Syllabus Edition: 2023 (as per NEP 2020)

University of Kota
Bachelor of Science (B. Sc.) Program
Subject/Discipline: Zoology
Scheme of Semester I & II

Year/ Semester	Course Code	Credits	Duration of Exam	Maximum Marks		Minimum Marks	
				Semester Exam	Continuous Assessment	Semester Exam	Continuous Assessment
Year 1/ Sem-I	ZOO5134T	4	3 hrs.	70	30	28	12
	ZOO5134P	2	6 hrs.	50		25	
	Total	6		150		40+25	
Year 1/ Sem-II	ZOO5134T	4	3 hrs.	70	30	28	12
	ZOO5134P	2	6 hrs.	50		25	
	Total	6		150		40+25	

Detailed Scheme of Continuous Assessment and End of Semester Examination (EoSE) for the Semester-I & II

Scheme of Continuous Assessment: The continuous evaluation of theory paper which has the practical will be 30 marks and the remaining 70 marks will be devoted to external evaluation. The distribution of marks for continuous and external assessment is proposed as following:

Continuous Assessment Weightage				External Assessment Weightage		Total Marks (Total Credits)	
Regular Students		Private Students		Total	Paper based External Evaluation		
Mid-Term	Seminar/Project Report/Presentation	Report Writing	Viva-voce				
20	10	20	10	30	70	100 (04)	

There will be two mid-term tests each of 10 marks for the regular students. One chance to improve his/her marks of Continuous Assessment (mid-term test) will also be given to the student in the same semester with a fee of Rs. 250/- per paper, after the approval of the competent authority of the College/Department of University.

Seminar/Project Report/Presentation for regular Students: All regular students must prepare a seminar/project report/presentation on the given topic concerning the authority of the College/University at a stipulated time to present the same and to submit the College or Department of University.

Report Writing and Viva-voce for Private Students: Each private student of UG will prepare a report on any topic in a minimum of 1000 words from the prescribed syllabus of the Zoology theory paper of the concerned semester. The student will report to the concerned college at the stipulated time by the College/University to submit the Continuous Assessment Report (CAR).

The report should cover the following information:

1. Name of Course:
2. Name of Student:
3. Father's Name:
4. Examination Form No:
5. Name of College (Centre):
6. Name of Paper:
7. Title of the Topic (Project Report):
8. No. of Unit of Topic (as per prescribed syllabus):
9. No. of Unit of Topic (as per prescribed syllabus):
10. Introduction about the Topic:
11. Detail/Analysis about the Topic:
12. Conclusion of the Topic:
13. References

UNIVERSITY OF KOTA

SCHEME OF EXAMINATION

AND

COURSES OF STUDY



Faculty of Science

Bachelor of Science (B.Sc.)
Physics-Course Code PHY9600P

First Semester (July-December, 2023)
Second Semester (January-June, 2024)

UNIVERSITY OF KOTA
MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005
INDIA

Edition: 2023

B.Sc. (Physics) Semester Scheme

Course Code PHY9600P

B.Sc. (Physics) I and II Semester

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
I Year I Semester	PHY101	DCC	Mechanics	3 Hrs	4	--	4	30	70	100	12	28
	PHY102	DCC	Physics Practical I	6 Hrs		4	2	--	50	50	--	25
	Total				04	02	06	30	120	150	--	
I Year II Semester	PHY201	DCC	Electromagnetism	3 Hrs	4	--	4	30	70	100	12	28
	PHY202	DCC	Physics Practical II	6 Hrs		4	2	--	50	50	--	25
					04	02	06	30	120	150	--	
First Year Total					08	04	12	60	240	300	--	

Option for exit with Certificate in Science (40 Credit Score)

B.Sc. (Physics) III and IV Semester

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
II Year III Semester	PHY301	DCC	Thermal and Statistical Physics	3 Hrs	4	--	4	30	70	100	12	28
	PHY302	DCC	Physics Practical III	6 Hrs		4	2	--	50	50	--	25
	Total				04	02	06	30	120	150		--
II Year IV Semester	PHY401	DCC	Electronics	3 Hrs	4	--	4	30	70	100	12	28
	PHY402	DCC	Physics Practical IV	6 Hrs		4	2	--	50	50	--	25
					04	02	06	30	120	150		--
Second Year Total					08	04	12	60	240	300		--

Option for exit with Diploma in Science (40 Credit Score)

B.Sc. (Physics) V and VI Semester

UNIVERSITY OF KOTA

SCHEME OF EXAMINATION AND

COURSES OF STUDY



Faculty of Science Bachelor of Science (B.Sc.)
Mathematics-Course Code MAT9600P

First Semester (July-December, 2023) Second Semester (January-June, 2024)

UNIVERSITY OF KOTA
MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005
INDIA

Edition: 2023

B.Sc. (Mathematics)
Semester Scheme

Course Code MAT9600P

B.Sc. (Mathematics) I and II Semester

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Internal Assess.	Sem. Assess.	Total Marks	Internal Assess.	Sem. Assess.
I Year I Semester	MAT 101	DCC	Mathematics-1	3 Hrs	4	--	4	30	70	100	12	28
	MAT 102	DCC	Mathematics Practical I	2 Hrs		2	2	--	50	50	--	25
	Total				04	02	06	30	120	150	--	
Year Semester	MAT 201	DCC	Mathematics-2	3 Hrs	4	--	4	30	70	100	12	28
	MAT 202	DCC	Mathematics Practical II	2 Hrs		2	2	--	50	50	--	25
					04	02	06	30	120	150	--	
First Year Total					08	04	12	60	240	300	--	
Option for exit with Certificate in Science (40 Credit Score)												

Objectives of the Course:

- Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
- A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
- Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution.
- Introduction to various courses like group theory, ring theory, field theory, metric spaces, number theory.
- Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- Ability to pursue advanced studies and research in pure and applied mathematical science.

Duration of the Course:

The B.Sc. [Bachelor of Science] program consists of three academic years separated into six semesters. Students who pass the first and second semester examinations have the option of graduating with a science certificate. Additionally, students have the choice to graduate with a diploma in science after completing the examinations for the third and fourth semesters. The student will receive a Bachelor of Science (B.Sc.) degree after successfully completing the three- year curriculum.

Eligibility for Admission:

The basic eligibility for admission to the course is XII with Physics, Chemistry and Mathematics for B.Sc. (Mathematics) with minimum marks as per the Govt. of Rajasthan Norms. The admission in the course is based on merit of XII class.

Structure of the Programme: