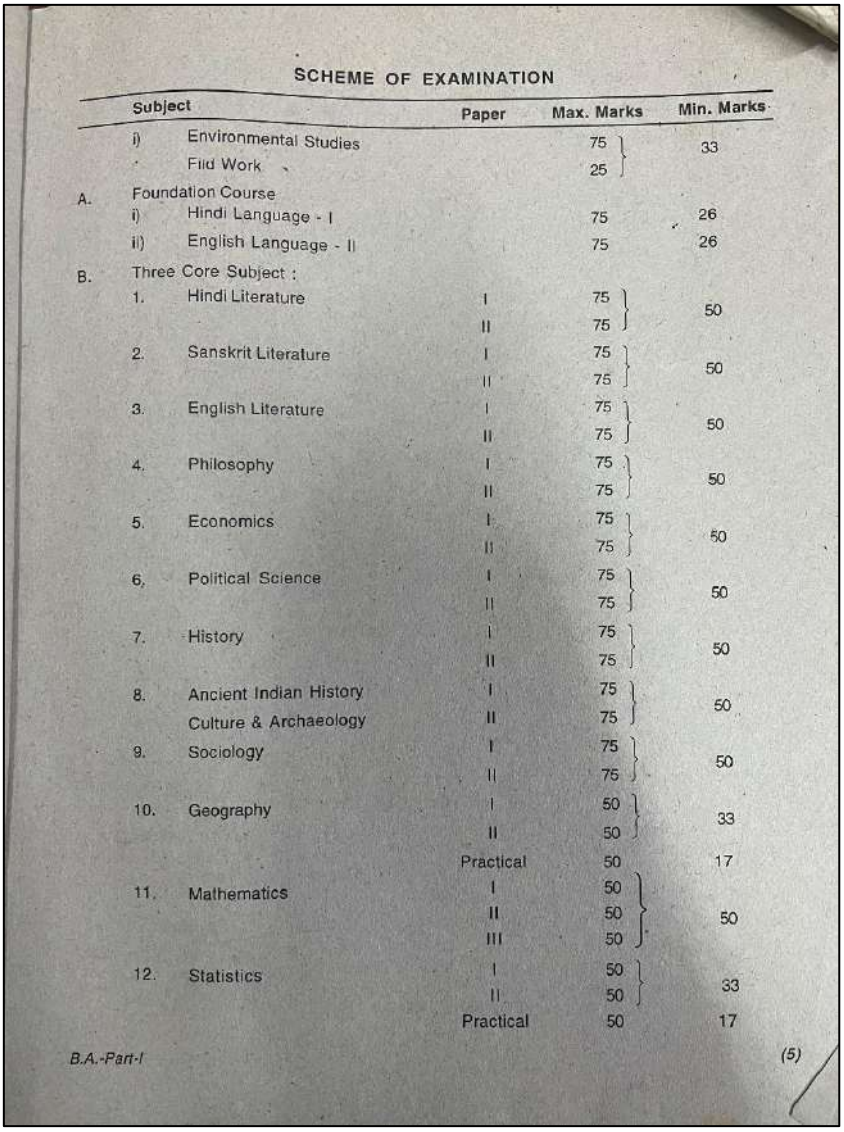
PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES

B.A. – 3 years Undergraduate Programme



SCHEME OF EXAMINATION

	Subject		Paper	Max. Marks	Min. Marks
	i)	Environmental Studies		75	33
		Fild Work		25	
A.	Foundation Course				
	i)	Hindi Language - I		75	26
	ii)	English Language - II		75	26
B.	Three Core Subject :				
	1.	Hindi Literature	I	75	50
			II	75	
	2.	Sanskrit Literature	I	75	50
			II	75	
	3.	English Literature	I	75	50
			II	75	
	4.	Philosophy	I	75	50
			II	75	
	5.	Economics	I	75	50
			II	75	
	6.	Political Science	I	75	50
			II	75	
	7.	History	I	75	50
			II	75	
	8.	Ancient Indian History	I	75	50
		Culture & Archaeology	II	75	
	9.	Sociology	I	75	50
			II	75	
	10.	Geography	I	50	33
			II	50	
			Practical	50	17
	11.	Mathematics	I	50	50
			II	50	
			III	50	
	12.	Statistics	I	50	33
			II	50	
			Practical	50	17

B.A.-Part-I (5)

Programme Outcomes (PO)

PO1. The objective of undergraduate programme in Hindi Literature / English Literature / Economics / Sociology / Home Science is to provide essential guidance to the students to instil innovative and pioneering ideas and concepts so that the prescribed syllabuses in Hindi Literature / English Literature / Economics / Political Science / Sociology / Home Science are in keeping with the changing scenario incorporating unconventional and progressive techniques, multi-disciplinary skills, social welfare, universal incorporation besides self-sustaining and supportive learning.

PO2. This undergraduate programme in Hindi Literature / English Literature / Economics / Sociology / Home Science besides imparting the elementary knowledge of Hindi Literature / English Literature /

Economics / Sociology / Home Science offers a broader perspective to the students familiarizing them with the social application of these subjects and the contribution of Hindi Literature / English Literature / Economics / Sociology / Home Science the advancement of arts and social sciences.

PO3. This programme will enable the students to develop a scientific temperament and take rational decisions based on coherent, analytical and objective reasoning.

PO4. This programme will enable the students to communicate influentially by reading, writing, speaking and listening in one Indian vernacular and articulating globally by associating themselves with different perspectives, people, books and technology.

PO5. This programme will enable the students to develop social interaction, resolve discords, and contribute in building collaborative culture.

PO6. This programme intends to make the students better citizens by enabling them to engage with social issues in a compassionate and empathetic manner and contribute in the task of nation building.

PO7. This programme will enable the students to socially acknowledge different value systems, understand the ethics involved in individual's decision-making and take up the responsibility for themselves.

PO8. This programme will create an environmental awareness among the students and motivate them to work towards the goal of all-round sustainable development.

PO9. This programme will enable the students to engage in persistent self-learning and self-regulating conduct in the background of incessant socio-technological changes.

Programme Specific Outcomes (PSO)

PSO1. After the completion of this programme the students will be able to interpret and use the knowledge of काव्य.

PSO2. After the completion of this programme the students will be able to interpret and use the knowledge of

PSO3. After the completion of this programme the students will be able to interpret and use the knowledge of

PSO4. After the completion of this programme the students will be able to interpret and use the knowledge of

PSO5. After the completion of this programme the students will be able to interpret and use the knowledge of भाषा

PSO6. After the completion of the programme these students will be able to interpret and use the knowledge of भाषा

PSO7. This programme will enable the students to comprehend and utilize the knowledge of Literature in English from 1550-1750 A.D.

PSO8. This programme will enable the students to comprehend and utilize the knowledge of Literature in English from 1750-1900 A.D.

PSO9. This programme will enable the students to comprehend and utilize the knowledge of Modern English Literatures – I.

PSO10. This programme will enable the students to comprehend and utilize the knowledge of Modern English Literatures – II.

PSO11. This programme will enable the students to comprehend and utilize the knowledge of Indian Writing in English.

PSO12. This programme will enable the students to comprehend and utilize the knowledge of American Literature.

PSO13. This programme will enable the students to comprehend and utilize the knowledge of 20th Century Literature in English.

PSO14. This program will provide the students ability to apply knowledge of economics with powerful mathematical and statistical tools.

PSO15. This program will provide the students ability to identify, formulate and solve economic problems.

PSO16: This program will provide the students ability to conduct empirical studies for social science researches and to analyse and interpret them.

PSO17: This program will provide the students knowledge of contemporary social, political and economic issues.

PSO18: This program will provide the students ability to perform as a successful economic analyst for industry, trade, commerce, banking and non-banking financial institutions.

PSO19: This program will provide the students ability to perform as economic advisors to government and policy makers.

PSO20: This program will help the students in acquiring knowledge, competency and confidence to take up career in Indian Economic Service.

PSO21. This programme will enable the students to understand the contribution of main traditions of western political thinkers.

PSO22. This programme will acquaint the students with the basic concepts, principles and dynamic of public administration.

PSO23. This programme provides the students an understanding of Plato and Aristotle's political thought.

PSO24. This programme provides the students background knowledge of the Indian Constitution and its concept and federal features along with an understanding of judicial review and parliamentary supremacy.

PSO25. This programme provides knowledge of the history of International Relation and highlights the great power system, imperialism, nationalism, the two world wars, the cold war and the post-cold war era.

PSO26. This programme provides the students an understanding of contemporary issues like environment, feminism, self-determination, globalization and terrorism.

PSO27. This programme enables the students to learn about different dimensions of legislative processes like law making process, amendment process etc.

PSO28. This programme enables the students to understand the development of political science as an academic discipline and the approaches to the study of political science.

PSO29. This programme enables the students to understand the concepts of liberty, equality, sovereignty, power and authority.

PSO30. This programme will provide the students, knowledge about Sociology and skills that will enable them to think critically and imaginatively about society and social issues.

PSO31. This programme will enable the students to understand the phenomena of shaping of individual biographies by social structures, social institutions, cultural practices and multiple axes of difference and inequality.

PSO32. This programme will enable the students to formulate effective and convincing written and oral arguments.

PSO33. This programme will enable the students to apply sociology & its concept and theories to the real world and acquire a better understanding of the actual life situation.

PSO34. This programme aims at providing a sensible observation power to the students to identify the research problems in field study and develop a perception about human society.

PSO35. This programme will provide the students, knowledge about institutions, social control, social inequality, population composition, population policy, society and culture of India to instil a sense of ethical and social responsibility.

PSO36. This programme will enable the student to understand the integrated function of all system and mechanisms of human body.

PSO37. This programme will enable the student to cultivate a scientific temperament. PSO38. This programme will enable the student to develop a technical knowledge of textile clothing, cloth designing, tailoring, printing art and dyeing methods.

PSO39. This programme is helpful to the student in imparting them with an awareness of community development.

PSO40. This programme will provide the students with an elementary knowledge of food and nutrition as well as enable them to develop their scientific and technical acumen for diet therapy, food chemistry and food preservation.

PSO41. This programme will enable the students to cultivate a scientific temper towards extension education. The student will able to grow a logical methodology for extension education and nursery school pedagogy.

PSO42. This programme will enable the students to acquire knowledge of geomorphological and geotechnical processes.

PSO43. This programme will enable the students to acquire knowledge of physical geography and its correlation with human geography.

PSO44. This programme will enable the students to conduct social survey project.

PSO45. This programme will enable the students to learn various modern instruments and collect the primary data.

PSO46. This programme will enable to learn about writing effective reports and designing credentials.

PSO47. This course will enable the students to gain ability to engage in lifelong learning and will become responsible citizens.

Course Outcomes

Course 1: प्राचीन हिंदी काव्य

CO1. This course will enable the students to scrutinize and understand कबीर (कबीर कांतिकुमार जैन)

CO2. This course will enable the students to scrutinize and understand जायसी संक्षिप्तपद्मावत श्याम सुन्दरदास नागमती वियोग वर्णन

CO3. This course will enable the students to scrutinize and understand सूर (भ्रमर गीतसार- सं आचार्यरामचन्द्र)

CO4. This course will enable the students to scrutinize and understand तुलसी- 'रामचरिमानस'

CO5. This course will enable the students to scrutinize and understand (घनानंद- विश्वनाथ प्रसादमिश्र)

CO6. This course will enable the students to scrutinize and understand विद्यापति

CO7. This course will enable the students to scrutinize and understand रहीम

CO8. This course will enable the students to scrutinize and understand रसखान

Course 2: हिंदी कथा साहित्य

CO1. This course will enable the students to scrutinize and understand प्रेमचंद गबन

CO2. This course will enable the students to scrutinize and understand प्रेमचंद कफ़न

CO3. This course will enable the students to scrutinize and understand जयशंकरप्रसाद - आकाशदीप

CO4. This course will enable the students to scrutinize and understand फणीश्वरनाथरेणु - ठेस

CO5. This course will enable the students to scrutinize and understand मोहनराकेश - मलबे का मालिक

CO6. This course will enable the students to scrutinize and understand भीषम साहनी - चीफ की दावत

CO7. This course will enable the students to scrutinize and understand राजेंद्र यादव- बिरादरी बाहर

CO8. This course will enable the students to scrutinize and understand रांगेय राघव- गदल

CO9. This course will enable the students to scrutinize and understand उपेन्द्रनाथ अस्क, बाल शौरी रेड्डी, शिवानी

Course 3: अर्वाचीन हिंदी काव्य

CO1. This course will enable the students to scrutinize and understand मैथलीशरण गुप्त- भारत-भारती की कविताए

CO2. This course will enable the students to scrutinize and understand सूर्यकांत त्रिपाठी निराली - सखी बसंत आया, वर दे, वीणावादिनी वर दे, हिंदी के सुमनो के प्रति पत्र, तोड़ती-पत्थर, राजे ने अपनी रखवाली की

CO3. This course will enable the students to scrutinize and understand सुमित्रानन्दपंत- बादल, परिवर्तन, खोलता, आज का दुःख कल का आल्हाद, ताज, झंझा, भारत माता

CO4. This course will enable the students to scrutinize and understand माखनलालचतुर्वेदी- बलिपंथीसे, सांझ और ढोलक की थापे

CO5. This course will enable the students to scrutinize and understand स. हीरानंद वात्सायन अज्ञेय सबेरे उठा तो धुप खिली थी सामग्री का नैवेद्य दान, घर, चांदनी जी लो, दूर्वाचल

CO6. This course will enable the students to scrutinize and understand अयोध्या सिंह उपाध्याय "हरिऔध", सुभद्राकुमारी चौहान, श्रीकांत वर्मा

Course 4 हिंदी निबंध तथा गद्य विधाएँ

CO1. This course will enable the students to scrutinize and understand नाटक-अंधेरनगरी-भारतेन्दु हरिशचन्द्र

CO2. This course will enable the students to scrutinize and understand निबंध कोध-आचार्यरामचन्द्रशुक्ल, बसंत-आचार्य हजारीप्रसाद द्विवेदी, उस अमराई ने राम राम कही है- डॉ विद्यानिवासमिश्र, काव्येशुनाट्यम रम्यं- बाबूगुलाबराय, बेईमानी की परत- हरीशंकर परसाई

CO3. This course will enable the students to scrutinize and understand एकांकी- औरंगज़ेब की आखिरी रात- डॉ रामकुमारवर्मा, स्ट्राइक-भुवनेश्वर, एक दिन-लक्ष्मीनारायण मिश्र, दसहज़ार-उदयशंकरभट्ट, मुम्मीटकुरैन-डॉ लक्ष्मीनारायण लाल

CO4. This course will enable the students to scrutinize and understand राहुलसांकृत्यायन, महादेवी वर्मा, हबीब तनवीर

Course 5 जनपदीय भाषा साहित्य (छत्तीसगढ़ी)

CO1. This course completion the students would be able to scrutinize and understand रचनाएं- प्राचीन कविसंत धर्मदास-गुरु पइनयालागोंनाम लखादीजोहो, नैनआग ख्याल घनेरा, भजनकारोभाईरे, आईसनतनपाय के

CO2. This course will enable the students to scrutinize and understand लखनलालगुप्त का गद्य- सोनपान

CO3. This course will enable the students to scrutinize and understand डॉ सत्यभामाअडिल रचित गद्य- सीख सीख के गोंठ

CO4. This course will enable the students to scrutinize and understand विनय पाठक की कविताएं- तयं उठत्ससुरुजाउथे, एक किसिम की नियाव

CO5. This course will enable the students to scrutinize and understand मुकुंद्कौशल-छतीससगढी ग़ज़ल

CO6. This course will enable the students to scrutinize and understand कपिलनाथ कश्यप, रामचन्द्रादेशमुख (रंगकर्मी)

Course 6: हिंदी भाषा- साहित्य का इतिहास तथा काव्यांग विवेचन

CO1. This course will enable the students to scrutinize and understand हिंदी भाषा का स्वरुप विकास- हिंदी की उत्पत्ति, हिंदी की मूल आकर भाषा तथा विभिन्न भाषाओ का विकास। हिंदी भाषा के विभिन्न रूप- बोलचाल की भाषा, रचनात्मक भाषा, राष्ट्रभाषा, राजभाषा, संपर्कभाषा, संचारभाषा

CO2. This course will enable the student to scrutinize and understand हिंदी की शब्द भण्डार- तत्सम, तद्भव, देशज, आगतशब्दावली

CO3. This course will enable the students to scrutinize and understand हिंदी साहित्य का इतिहास- आदिकाल, पूर्व मध्यकाल, उत्तर मध्यकाल एवं आधुनिक काल की सामाजिक, सांस्कृतिक पृष्टभूमि प्रमुख युगप्रवित्तीयां, विशिष्ट रचनाकार और उनकी प्रतिनिधि क्रीतीयां, साहित्यिक विशेषताएं

CO4. This course will enable the students to scrutinize and understand काव्यांग- काव्य का स्वरुप एवं प्रयोज। रास के विभिन्नभेद, विभिन्न गद्य, विभावादि तथा उदाहर। दोहा, सोरठा, चौपाई, कुण्डलिया, सवैय। शब्दालंकार- अनुप्रास, यमक, श्लेष वकोक्ति, पुनरुक्तिप्रका। अर्थालंकार- उपमा, रूपक, उत्प्रेक्षा, अतिश्योक्ति, भ्रांतिमान

CO5. This course will enable the students to scrutinize and understand राजभाषा हिंदी- मालिकमोहम्मद

CO6. This course will enable the students to scrutinize and understand हिंदी भाषा- डॉ भोलनाथतिवारी

Course 7: Literature in English from 1550-1750 A.D.

CO1. This course will enable the students to manifest familiarity of the major texts and traditions of English Literature.

CO2. This course will enable the students to meditate and understand and become acquainted with the different periods of English literature dominated by significant authors like Shakespeare, Milton, Keats etc.

Course 8: Literature in English from 1750-1900 A.D.

CO1. This course will enable the students to meditate and understand and become acquainted with representative knowledge and cultural writings within a considerable number of historical and cultural frameworks.

CO2. This course will enable the students to meditate and understand and have a knowledge about the various stages in the development of English Literature.

Course 9: Modern English Literatures – I

CO1. This course will introduce the students to the stalwarts in Modern English writings like, Eliot, Yeats, Shaw and will enable them to understand and evolve a critical perspective of literatures of this period.

CO2. This course will enable the students to imbibe and appreciate the genres of poetry, prose, drama and fiction in Modern English Literature.

Course 10: Modern English Literatures – II

CO1. This course will introduce the students to the representative authors of Modern English literature like the World-War poets and will enable them to comprehend and evolve a critical outlook of the works of this period.

CO2. This course will empower the students with the knowledge of the characteristic writings in the various genres of Modern English literature and will encourage them to appreciate and evaluate it critically.

Course 11: Indian Writing in English

CO1. This course will acquaint the students with a background knowledge of the different stages of development of Indian Writing in English and will inspire them to appreciate and evaluate it critically.

CO2. This course will familiarize the students with the great Indian writers in English like Tagore and R. K. Narayan and will help them understand and critically appreciate the thematic concerns and trends of Indian writings in English.

Course 12: American Literature

CO1. This course will introduce the students with the history of American literature and help them evolve and critically examine its literary trends, cultural themes, and main artistic features.

CO2. This course will give the students an insight into the various facets of American society and will encourage them to critically consider the literary texts representing its diverse periods and philosophies.

Course 13: 20th Century Literature in English

CO1. This course will enable the students to have knowledge of the general background of 20th Century Literature in English and help them critically appreciate its principal literary forms.

CO2. This course will enable the students to come up with an understanding of the cultural history of 20th Century and will motivate them to critically evaluate the chief trends and thematic considerations as seen in the major literary works of this period.

Course 14: Perspectives and Methodology of Economics

CO1. This course will familiarise the students with different branches of Social Sciences.

CO2. This course will provide the students, knowledge about Methodology of Social Sciences.

CO3. This course will educate the students how to conduct Social and Economic Researches.

CO4. This course will enable the students to understand various quantitative and qualitative economic models.

CO5. This course will enable the students to apply methods and theories of Social Sciences to contemporary Issues.

Course: 15 Micro Economic Analysis I

CO1. This course will provide the students foundation for economic analysis and problem-solving skills.

CO2. This course will provide the students potential to analyse consumer behaviour and consumer decisions.

CO3. This course will provide the students a thorough understanding on firm's production processes and decisions.

CO4. This course will provide the students ability to solve basic micro economic problems.

CO5. This course will provide the students ability to apply micro economic tools and techniques in the operation of real economy.

Course: 16 Micro Economic Analysis II

CO1. This course will enable the students to understand market and factor pricing patterns.

CO2. This course will familiarise the students with Welfare Economics.

CO3. This course will provide the students an understanding of micro economic concepts and its usage in solving specific questions.

CO4. This course will make the students understand the behavioural pattern of consumers in various market situations.

CO5. This course will enable the students to use economic tools and principles in the analysis of economic policies.

Course: 17 Economics of Growth and Development

CO1. This course will acquaint the students with the basic concepts and issues of growth and development.

CO2. This course will provide the students an insight into the modern approaches to economic development.

CO3. This course will enable the students to measure National Income.

CO4. This course will provide the students an insight into the need for sustainable economic development.

CO5. This course will provide the students, knowledge about Human Development Indicators and their role in designing development programmes.

Course: 18 Macro Economics I

CO1. This course will provide the students a thorough understanding of economic issues and their application in macro perspectives.

CO2. This course will provide the students an understanding of system of accounts of Government of India.

CO3. This course will help the students to understand and compare a closed economy and open economy adjustment mechanism.

CO4. This course will enable the students to understand the difference between NI accounting and green accounting.

CO5. This course will provide the students an insight for sustainable future.

Course: 19 Public Economics

CO1. This course will provide the students, knowledge about the budget and fiscal policies.

CO2. This course will enable the students to analyse various issues between centre and state governments.

CO3. This course will provide the students an understanding of the impact of public policies on allocation of resources and distribution of income.

CO4. This course will enable the students to know about the working of the public finance system.

CO5. This course will provide the students a theoretical understanding of state activities.

Course: 20 Macro Economics-II

CO1. This course will provide the students a theoretical understanding of aggregate economy.

CO2. This course will provide the students an understanding to compare classical and Keynesian approaches.

CO3. This course will enable the students to know about the various factors contributing to inflationary and deflationary pressures.

CO4. This course will enable the students to understand the role of monetary and fiscal policies to address economic issues.

CO5. This course will provide the students a thorough understanding of post Keynesian schools of thought.

Course: 21 Environmental Economics

CO1. This course will enable the students to achieve a mission of sustainable society.

CO2. This course will enable the students to protect the environment while promoting development.

CO3. This course will enable the students to acquire the skills of solving environmental problems.

CO4. This course will provide the students an understanding of renewable and non-renewable resources.

CO5. This course will provide the students an understanding of civil, political, economic and social rights.

Course: 22 Introductory Econometrics

CO1. This course will enable the students to learn how to estimate a general class of parametric models or semi- parametric models.

CO2. This course will provide the students, knowledge about hypothesis testing and model selection.

CO3. This course will provide the students, knowledge about Econometric techniques.

CO4. This course will enable the students to acquire estimation and analysing skills.

CO5. This course will enable the students to interpret computer output to solving economic issues.

Course: 23 International Economics

CO1. This course will provide the students a thorough understanding on International Economic System.

CO2. This course will enable the students to learn global economic issues and the role of international institutions in tackling them.

CO3. This course will enable the students to study fundamental theories in International Economics and examine the relative economic problems in the light of models and theories.

CO4. This course will enable the students to understand the mechanism of devaluation and depreciation of currencies and its impact on nations BOP.

CO5. This course will provide the students, knowledge about the functioning of foreign exchange markets and exchange rate systems.

Course: 24 Money and Financial Market

CO1. This course will enable the students to understand basic concepts about financial institutions and markets.

CO2. This course will familiarise the students with the changing role of financial sector of the economy.

CO3. This course will enable the students to understand the role of financial institutions and markets in the modern economies.

CO4. This course will provide the students an understanding about the developmental and stabilising services of financial products.

CO5. This course will provide the students an awareness and practice of e-banking services.

Course: 25 Indian Economy

CO1. This course will provide the students a thorough understanding on Indian Economic System.

CO2. This course will provide the students, knowledge about the policy issues relating to economy of India.

CO3. This course will help the students to know about the structural adjustment program and the transformation of the Indian economy.

CO4. This course will enable the students to know about the sectoral contributions to the growth of the Indian economy.

CO5. This course will provide the students an understanding about the magnitude of poverty and inequality and make them aware about the need for social concern.

Course 26: Mathematics for Economic Analysis

CO1. This course will enable the students to solve optimisation problems of goal equilibrium of a household, business firm or policy makers.

CO2. This course will enable the students to analyse a static equilibrium in which the economic unit or system is modelled as stationary.

CO3. This course will enable the students to analyse quantitative methods to describe an economic phenomenon.

CO4. This course will enable the students to analyse and interpret economic policies in the light of mathematical tool of analysis.

CO5. This course enables the students to conduct quantifiable test and create models to predict future economic activities.

Course 33: Introduction to Sociology

CO1. This course will enable the students to understand the nature and scope of Sociology.

CO2. This course will enable the students to understand the fundamental concepts of society, community, institution association etc.

CO3. This course will enable the students to understand different social groups. CO4. This course will enable the students to understand various social processes.

Course 34: Contemporary Indian Society

CO1. This course will enable the students to acquire knowledge about Indian society and varna vyavastha.

CO2. This course will enable the students to understand the structure and composition of Indian society.

Course 35: Society in India

CO1. This course will enable the students to understand various social problems like, Casteism, Regionalism and communalism etc.

CO2. This course will provide the students knowledge about the various social problems like Dowry, Domestic Violence, Divorce etc.

CO3. This course will enable the students to understand the basic institutions of society.

Course 36: Crime and Society

CO1. This course will enable the students to understand social structure and anomalies.

CO2. This course will enable the students to understand the meanings, causes, consequences and remedies of Terrorism.

Course 37: Sociology of Tribal Society

CO1. This course will enable the students to understand the classification of tribal people.

CO2. This course will provide the students, knowledge about the socio-cultural profile of tribe.

CO3. This course will enable the students to understand various tribal problems.

CO4. This course will enable the students to understand various tribal movements.

Course 38: Social Research Methods

CO1. This course will provide the students understanding to apply social survey and research.

CO2. This course will provide the students understanding to apply research design.

CO3. This course will provide the students understanding to apply techniques of data collection and statistics.

Course 39: Anatomy Physiology & Hygiene

CO1. This course will enable the student to understand the integrated function of all systems of human body.

CO2. This course will enable the students to understand personal hygiene & social hygiene.

CO3. This course will enable the students to gain knowledge of first aid home nursing qualities &responsibility of nurse, care of sick patient.

Course 40: Extension Education

CO1. This course will provide the students with an understanding of the concept, goals and scope of Home Science and its interrelationship with extension education.

CO2. This course will enable the students to understand community development problem and the role of Home Science.

CO3. This course will enable the student to gain knowledge about teaching methods and learning aids.

CO4. This course will enable the students to understand the meaning of extension education and process of extension education.

Course 41: Textile & Fibre Science

CO1. This course will acquaint the students with the actual notion regarding the choice of fabric.

CO2. This course will enable the students to develop their skills in cloth manufacturing.

CO3. This course will familiarise the students with different types of weaves and finishes.

CO4. This course will provide the student with knowledge of textile designing methods of printing, colouring and dying.

CO5. This course will familiarise the students with the washing techniques of different fabrics.

Course 42: Family Resource management

CO1. This course will enable the students to mange any type of situation in family and society.

CO2. This course will enable the students to recognize Indian regional, traditional and contemporary art and its uses.

CO3. This course will provide the students with knowledge of the simplified methods of managing hose hold activities.

Course 43: Human Development

CO1. This course will enable the students to acquire knowledge about child growth & development.

CO2. This course will provide the students, knowledge about adjustment in adolescent period and development of emotional and behavioural characteristics.

CO3. This course will introduce the students with the intervention in the field of human development.

Course 44: Food and Nutrition

CO1. This course will enable the students to understand the concept of an adequate diet.

CO2. This course will provide the students, knowledge about dietary management.

CO3. This course will enable the students to understand balance diets the management of diet in different diseases.

B.Com. - 3 years Undergraduate Programme

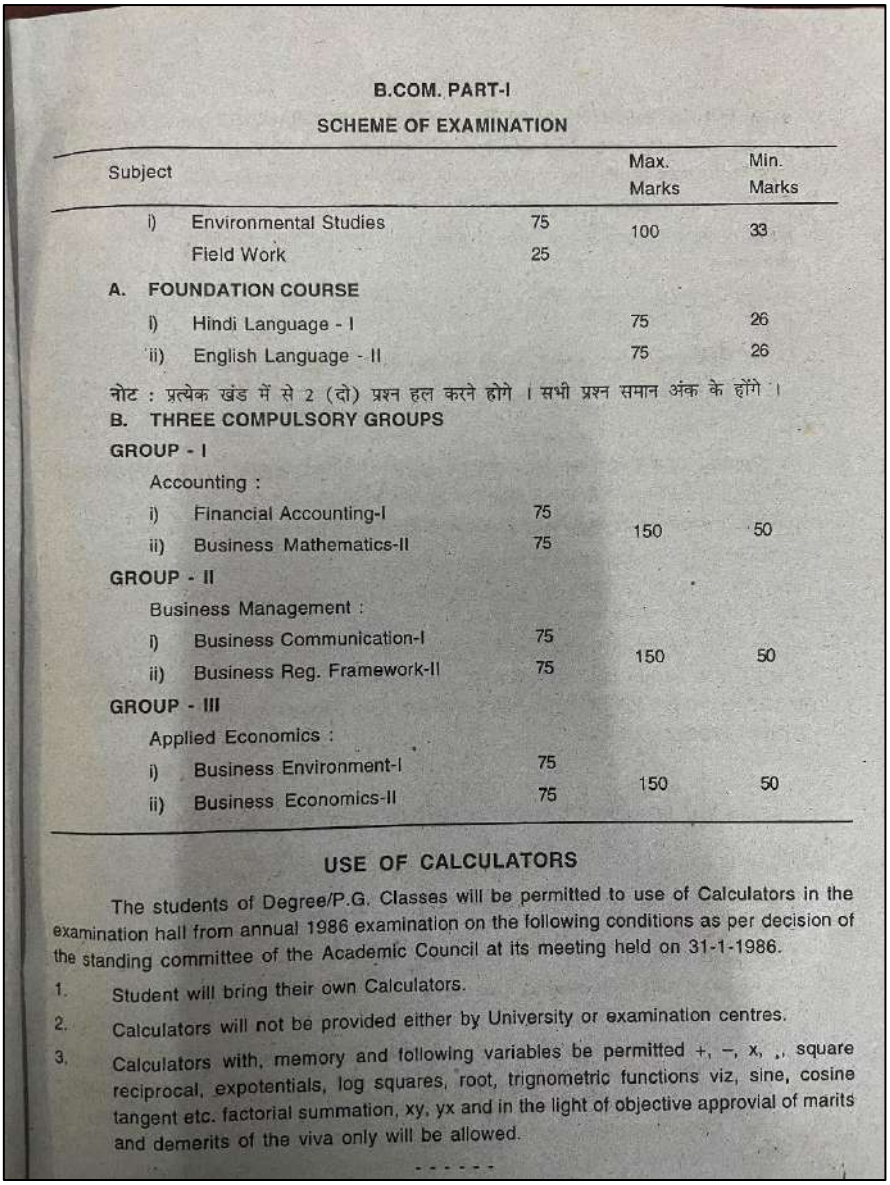
OBJECTIVE OF THE PROGRAMME:

The college follows Pt. RSU, Raipur syllabus for Bachelor in Commerce. Theobjectives of the prescribed course are:

- This program aim to provide students with specific knowledge and skills relevant to theirdisciplines and careers.
- This program satisfies the educational entrance requirements for membership of relevantprofessional bodies.
- To determine and understanding of the principles of accounting, finance, economic andbusiness law.
- To develop numerical abilities of students
- To inculcate writing skills and business correspondence
- To create awareness of law and legalizations related to commerce and business
- To introduce recent trends in business, organizations and industries
- To acquire practical skills related with banking and other business.

PROGRAMME OUTCOME:

1. This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, warehousing etc., well trained professionals to meet the requirements.
2 After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.
3. Capability of the students to make decisions at personal and professional level will increase aftercompletion of this course.
4. Students can independently start up their own business.
5. Students can get thorough knowledge of finance and commerce.
6. The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.



B.COM. PART-I

SCHEME OF EXAMINATION

Subject			Max. Marks	Min. Marks
	i) Environmental Studies	75	100	33
	Field Work	25		
A.	**FOUNDATION COURSE**			
	i) Hindi Language - I		75	26
	ii) English Language - II		75	26
नोट : प्रत्येक खंड में से 2 (दो) प्रश्न हल करने होगे । सभी प्रश्न समान अंक के होंगे ।				
B.	**THREE COMPULSORY GROUPS**			
GROUP - I				
	Accounting :			
	i) Financial Accounting-I	75	150	50
	ii) Business Mathematics-II	75		
GROUP - II				
	Business Management :			
	i) Business Communication-I	75	150	50
	ii) Business Reg. Framework-II	75		
GROUP - III				
	Applied Economics :			
	i) Business Environment-I	75	150	50
	ii) Business Economics-II	75		

USE OF CALCULATORS

The students of Degree/P.G. Classes will be permitted to use of Calculators in the examination hall from annual 1986 examination on the following conditions as per decision of the standing committee of the Academic Council at its meeting held on 31-1-1986.

1. Student will bring their own Calculators.
2. Calculators will not be provided either by University or examination centres.
3. Calculators with, memory and following variables be permitted +, –, x, ,, square reciprocal, expotentials, log squares, root, trignometric functions viz, sine, cosine tangent etc. factorial summation, xy, yx and in the light of objective approvial of marits and demerits of the viva only will be allowed.

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Program Outcomes (PO)

PO1. This programme will enable the students to surmount the challenges and create opportunities in the field of commerce.

PO2. This programme will enable the students to acquire professional skill of working in various business institutions, industries, public/private commercial segments like insurance, banking, stock exchange as managers, accountants, finance officers, financial advisors, trade analysts etc.

PO3. This programme will enable the students to consider critically and take tactful decisions after examining the correctness and effectiveness of their propositions and speculations from personal and professional level.

PO4. This programme will enable the students to interact fluently by reading, writing, speaking and hearing in one particular language and communicate effectively with the world by associating with different individuals, societies, ideologies and methodologies.

PO5. This programme will enable the students to socialize, motivate outlooks, resolve differences and assist in arriving at collaborative decisions.

PO6. This programme will enable the students to become better citizens, deal with the social issues compassionately and contribute in the task of nation building.

PO7. This programme will enable the students to socially acknowledge different value systems, understand the ethics involved in individual's decision-making and take up the responsibility for themselves.

PO8. This programme will create an environmental awareness among the students and motivate them to work towards the goal of achieving an all-round sustainable development.

PO9. This programme will enable the students to engage in a persistent self-learning and self-regulating in the background of extensive socio-technological changes.

Program specific outcomes (PSO)

PSO1. This programme will enable the students to gain expertise in financial accounting.

PSO2. This programme will enable the students to become well acquainted with business communication.

PSO3. This programme will enable the students to become well acquainted with business mathematics.

PSO4. This programme will enable the students to have an understanding of business regulatory framework

PSO5. This programme will enable the students to become well versed in identifying business prospects.

PSO6. This programme will enable the students will have an understanding of business economics.

PSO7. This programme will enable the students to have a knowledge of the basics of corporate accounting.

PSO8. This programme will enable the students to have a knowledge of the fundamentals of company law.

PSO9. This programme will enable the students to have a knowledge of the basics of cost accounting.

PSO10. This programme will enable the students to grasp the principles of business management.

PSO11. This programme will enable the students to have a knowledge of the fundamentals of business statistics.

PSO12. This programme will enable the students to become well acquainted with the basics of entrepreneurship.

PSO13. This programme will enable the students to become well versed with the principles of direct taxation-income tax.

PSO14. This programme will enable the students to have an understanding of the procedures of auditing.

PSO15. This programme will enable the students to have an understanding of the fundamentals, principles and procedures of indirect taxation- GST.

PSO16. This programme will enable the students to become well acquainted with the fundamentals of management accounting.

PSO17. This programme will enable the students to have a knowledge of the basics of insurance.

PSO18. This programme will enable the students to become well versed with the fundamentals banking and money management.

Course Outcomes (CO)

Course 1: Financial Accounting

CO1. This course will enable the students to have an understanding of different concepts of financial accounting.

CO2. This course will enable the students to gain an understanding of various procedures and techniques of accounting along with a proficiency in computerized accounting.

Course 2: Business Communication

CO1. This course will enable the students to realize the significance of communication through its basic concepts and processes.

CO2. This course will enable the students to get introduced to the new trends in the field of business communication.

CO3. This course will enable the students to become familiar with the numerous mediums of communication.

Course 3: Business Mathematics

CO1. This course will help the students in grooming themselves for competitive exams.

CO2. This course will help the students in developing their acumen in making calculations.

CO3. This course will help the students to gain knowledge of the fundamentals of simple and compound interests along with the concept of EMI.

Course 4: Business Regulatory Framework

CO1. This course will make the students familiar with the fundamentals, terms, and provisions of mercantile and business laws.

CO2. This course will enable the students to gain an understanding of the laws governing business, trade and commerce.

Course 5: Business Environment

CO1. This course will familiarize the students with the nature of Business Environment.

CO2. This course will help the students in developing and improving their entrepreneurial skills.

CO3. This course will encourage the students to seek career prospects in the domain of entrepreneurship.

Course 6: Business Economics

CO1. This course will enable the students to learn and apply different economic theories.

CO2. This course will enable the students to develop their capacity of solving business issues through economic reasoning.

CO3. This course will enable the students to gain knowledge about the essentials of micro economic concepts.

Course 7: Corporate Accounting

CO1. This course will familiarize the students with the concept of corporate accounting along with companies Act and Accounting in the context of Indian Accounting standards.

CO2. This course will enable the students to develop and improve their skills in accounting.

Course 8: Company Law

CO1. This course will help the students to acquire an understanding of the concept of company law.

CO2. This course will enable the students to enhance their knowledge about the provisions of companies Act 2013.

Course 9: Cost Accounting

CO1. This course will provide the students an understanding of cost concepts, essentials of cost and ascertainment of materials and costing.

CO2. This course will provide the students a knowledge of the methodology of costing and its application.

Course 10: Principles of Business Management

CO1. This course will provide the students an understanding of the concept of business management.

CO2. This course will enable the students to gain knowledge about numerous functions of business management.

Course 11: Business Statistics

CO1. This course will provide the students an understanding of the concepts of mean, mode and median and their applications.

CO2. This course will enable the students to learn and apply various types of sampling techniques and probability measurement.

Course 12: Fundamentals of Entrepreneurship

CO1. This course will help in building an entrepreneurial temperament in the students.

CO2. This course will motivate the students to opt for entrepreneurship as profession.

Course 13: Income Tax

CO1. This course will provide the students an understanding about the computation of income.

CO2. This course will make the students well versed in the task of submission of Income Tax Returns, Advance Tax and Tax Deducted at Source.

CO3. This course will provide the students an understanding of the methods of tax collection under Income Tax Act.

Course 14: Auditing

CO1. This course will provide the students a knowledge about the principles of Auditing, the process of Auditing along with an understanding of Assurance standards in auditing, Tax Audit and Audit of computerized system.

CO2. This course will provide the students with the expertise of preparing audit reports.

Course 15: Indirect Taxes with GST

CO1. This course will provide the students an understanding of the concept of GST and its application.

CO2. This course will provide the students an understanding of the concept of Excise duty, CENVAT and its application.

CO3. This course will provide the students with an understanding of the process of registration under GST, and help them identify the liable individual for GST registration.

Course 16: Management Accounting

CO1. This course will provide the students with an understanding of the fundamentals of management accounting and its application in a business organization.

CO2. This course will provide the students a knowledge of managerial conduct along with an understanding of the closed structures in business environment.

Course 17: Fundamentals of Insurance

CO1. This course will provide the students a knowledge of the fundamentals of insurance and their application.

CO2. This course will provide the students an understanding of the concepts of Life Insurance, Fire Insurance, Marine Insurance and their applications.

CO3. This course will provide the students an understanding of the roles of insurance agent and their applications.

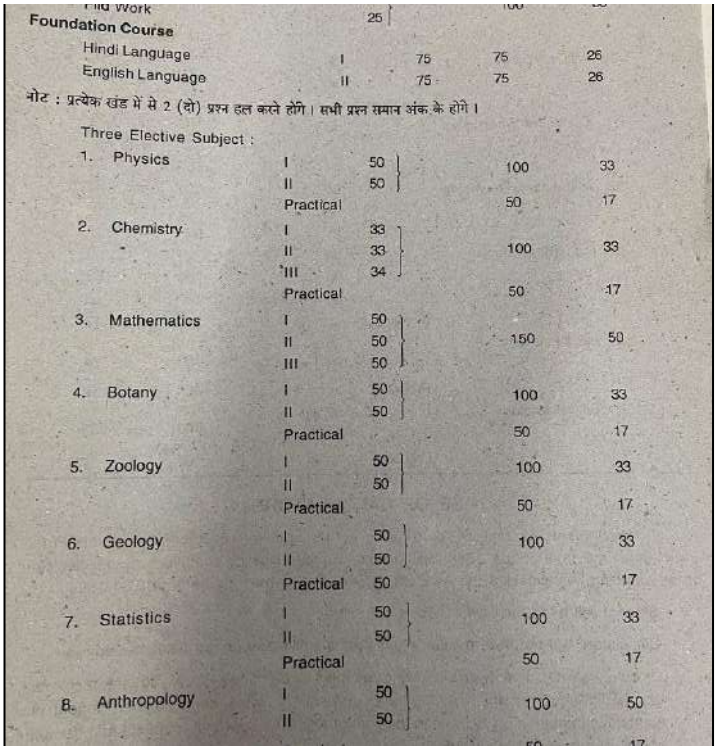
Course 18: Money and Banking

CO1. This course will provide the students an understanding of the fundamentals of banking and their applications.

CO2. This course will enable the students to learn and utilize the knowledge of banking, business and practices.

CO3. This course will enable the students to learn and utilize the novel trends in the banking systems.

B.Sc. (Bio Group) – 3 years Undergraduate Programme Programme Outcomes (PO)



Field Work		25			
Foundation Course					
Hindi Language	I		75	75	26
English Language	II		75	75	26

नोट : प्रत्येक खंड में से 2 (दो) प्रश्न हल करने होंगे। सभी प्रश्न समान अंक के होंगे।

Three Elective Subject :

1. Physics	I	50	100	33
	II	50		
	Practical		50	17
2. Chemistry	I	33	100	33
	II	33		
	III	34		
	Practical		50	17
3. Mathematics	I	50	150	50
	II	50		
	III	50		
4. Botany	I	50	100	33
	II	50		
	Practical		50	17
5. Zoology	I	50	100	33
	II	50		
	Practical		50	17
6. Geology	I	50	100	33
	II	50		
	Practical	50		17
7. Statistics	I	50	100	33
	II	50		
	Practical		50	17
8. Anthropology	I	50	100	50
	II	50		

Purpose of the B.Sc. programme at Govt Arts and Commerce Girls College Raipur is to provide the key knowledge, base, and laboratory resources to prepare students for achieving their career goals as professionals in the field of botany/Zoology/Chemistry/Physics/Maths and related fields. They will be able to work as chemists, technicians in different laboratories and can pursue M. Sc. in Chemistry or may go for research work.

PO1. The objective of undergraduate programme in Botany / Zoology is to provide essential guidance to the students to instil innovative and pioneering ideas and concepts so that the prescribed syllabuses in Botany / Zoology are in keeping with the changing scenario incorporating unconventional and progressive techniques, multi-disciplinary skills, social welfare, universal incorporation besides self-sustaining and supportive learning.

PO2. This undergraduate programme in Botany / Zoology besides imparting the elementary knowledge of Botany / Zoology offers a broader perspective to the students familiarizing them with the social application of these subjects and the contribution of Botany / Zoology in the advancement of biological sciences.

PO3. This programme will enable the students to develop a scientific temperament and take rational decisions based on coherent, analytical and objective reasoning.

PO4. This programme will enable the students to communicate influentially by reading, writing, speaking and listening in one Indian vernacular and articulating globally by associating themselves with different perspectives, people, books and technology.

PO5. This programme will enable the students to develop social interaction, resolve discords, and contribute in building collaborative culture.

PO6. This programme intends to make the students better citizens by enabling them to engage with social issues in a compassionate and empathetic manner and contribute in the task of nation building.

PO7. This programme will enable the students to socially acknowledge different value systems, understand the ethics involved in individual's decision-making and take up the responsibility for themselves.

PO8. This programme will create an environmental awareness among the students and motivate them to work towards the goal of all-round sustainable development.

PO9. This programme will enable the students to engage in persistent self-learning and self-regulating conduct in the background of incessant socio-technological changes.

Programme Specific Outcomes (PSO)

PSO1. This program will enable the students to acquire an understanding regarding biodiversity of algae, fungi, bryophyte, pteridophyta, gymnosperm and microbes.

PSO2. This program will enable the students to acquire knowledge about chemical nature of biomolecules and the concept of enzyme activity.

PSO3. This program will enable the students to acquire an understanding regarding plant movements, water relations, ascent of sap, photosynthesis, respiration and plant hormones.

PSO4. This program will enable the students to learn about nitrogen metabolism and its importance.

PSO5. This program will provide the students an understanding of Phylogeny and Taxonomy of Angiosperms.

PSO6. This program will provide the students knowledge about embryology in angiosperm.

PSO7. This program will help the students in understanding the structure and function of chromosomes, DNA, RNA, and genes.

PSO8. This program will provide the students an understanding of the relationship between plant and environment.

PSO9. This program will help the students in learning and understanding plant utilization.

PSO10. This program will enable the students to understand the nature and basic of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology.

PSO11. This program will enable the students to analyze the relationships among animals, plants and microbes.

PSO12. This program will enable the students to perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell Biology, Genetics, Applied Zoology, Clinical Science and will acquaint them with tools and techniques of Zoology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish Biology, Animal Biotechnology, Immunology and research methodology.

PSO13. This program will enable the students to understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine.

PSO14. This program will enable the students to acquire knowledge about research methodologies, effective communication and skills of problem solving methodologies. PSO15. This program will enable the students to acquire knowledge and inspire them to contribute in the task of nation building.

Course Outcomes

Course 1: Bacteria, Virus, Lichen, Fungi and Algae

CO1. This course will enable the students to acquire knowledge about structure types and recombination in Bacteria.

CO2. This course will enable the students to understand the nature, structure, replication, mode of transmission of virus and bacteriophages.

CO3. This course will enable the students to acquire knowledge about the structure and types of lichens.

CO4. This course will enable the students to acquire an understanding about the classification of fungi and will learn about the life cycle of members like Aspergillus, peziza, puccinia, Alternara and VAMfungi.

CO5. This course will enable the students to acquire knowledge about the general characters, classification, and life cycles of Nostoc, volvox, oedogonium, chara Ectocorpus and polysiphonia.

Course 2: Bryophyte, Pteridophyte, Gymnosperm and Paleobotany

CO1. This course will enable the students to acquire an understanding about the character, classification of Bryophyte and life cycles of Riccia, Marchantia, Pellia, Anthoceros and Moss.

CO2. This course will enable the students to acquire knowledge about the general characteristics and affinities of Bryophyte, pteridophyte, gymnosperm along with an understanding of Hetero spory Seed habit, Apospory, Telome theory and Azolla as biofer tilizer.

CO3. This course will enable the students to acquire an understanding about the characters, classification and life cycle of Psilotum, lycopodium, Equisetum, Selaginella and Marsilea.

CO4. This course will enable the students to acquire an understanding about the characters, classification and life cycles of Ephedra, Pinus and Cycas.

CO5. This course will enable the students to acquire an understanding about the Geological time scale, type of fossil and fossilization as well as some fossil and gymnosperms.

Course 3: Plant taxonomy, Economic botany, Plant anatomy and Embryology

CO1. This course will enable the students to acquire knowledge about Bentham and Hookers classification system, IUCN, herbarium technique and important botanical gardens.

CO2. This course will enable the students to acquire knowledge about important characters of some selected dicot and monocot families along with their economic importance.

CO3. This course will enable the students to acquire knowledge about the botanical name and use of some common fiber, timber, food yielding, fruit providing, spices providing plants along with an understanding about the medicinal plants as well as beverages, and biodiesel producing plants.

CO4. This course will enable the students to acquire an understanding about the root and shoot apical meristem and root and shoot anatomy along with anatomical anomalies in the structures of dicot and monocot stems.

CO5. This course will enable the students to acquire knowledge about whole embryology of plant structure of anther, ovule, male and female gametophyte, pollination, fertilization, dicot and monocot embryo.

Course 4: Ecology and Physiology

CO1. This course will enable the students to acquire elementary knowledge about the introduction and scope of ecology along with morphological and anatomical adaptations in all plants.

CO2. This course will enable the students to acquire an understanding about the population and community characteristics along with the concept of ecosystem and biogeochemical cycles.

CO3. This course will enable the students to acquire knowledge about plant water relation, osmosis, absorption ascent and sap, transpiration mineral nutrition and their deficiency symptoms.

CO4. This course will enable the students to acquire knowledge about photosynthetic apparatus and pigments along with ATP synthesis, C3, C4, C2 cycles, aerobic, anaerobic respiration and R.Q.

CO5. This course will enable the students to acquire knowledge about plant growth harmones, florigen concept photoperiodism, seed dormancy and plant movements.

Course 5: Plant Physiology, Biochemistry and Biotechnology

CO1. This course will enable the students to acquire knowledge about physical properties of life, importance of water in life, osmosis, transpiration and mineral nutrition.

CO2. This course will enable the students to acquire an understanding about the characteristics and functioning of enzymes along with knowledge about mechanism of phloem transport, photosynthetic apparatus, light reaction, dark reaction and ATP formation.

CO3. This course will enable the students to acquire knowledge about respiration ATP as biological currency along with a knowledge about aerobic, anaerobic respiration, nitrogen and lipid metabolism.

CO4. This course will enable the students to obtain knowledge about the process of Growth and development, Growth cycle, plant Harmones, plant movements and photoperiodism.

CO5. This course will enable the students to acquire knowledge about Biotechnology- tools and technique of recombinant DNA technology along with Gene mapping concept, plant tissue culture, biology of agrobacterium and achievements in crop biotechnology.

Course 6: Ecology and Utilization of Plants

CO1. This course will enable the students to acquire knowledge about plant, environment, atmosphere, light, soil, temperature and biota along with morphological, anatomical and physiological responses of all plants.

CO2. This course will enable the students to acquire an understanding about the characteristics of community ecology, ecosystem and biogeochemical cycles.

CO3. This course will enable the students to obtain knowledge about Population Ecology along with Forests and grasslands of India.

CO4. This course will enable the students to acquire knowledge about the utilization of plants, with reference to food plants, fibres, vegetables oil firewood and timber yielding plants.

CO5. This course will enable the students to acquire knowledge through the study of plants providing spices, medicinal plants, beverages and rubber.

Course 7: Animal Diversity – Invertebrates

CO1. This course will enable the students to understand the general classification rules on animal classification.

CO2. This course will enable the students to classify Protista up to all phylum using examples from parasitic adaptation.

CO3. This course will enable the students to classify Phylum metazoa with taxonomic keys.

CO4. This course will enable the students to acquire an understanding of Phylum Nematoda with special reference to pathogenic Nematodes.

Course 8: Ecology, Zoogeography and Animal Behaviour

CO1. This course will enable the students to gain an understanding of the distribution of fauna in different parts of the world.

CO2. This course will enable the students to understand animal behaviour and response of animals to different instincts.

CO3. This course will enable the students to acquire knowledge about the interaction of biotic factors.

CO4. This course will enable the students to enrich their knowledge about various kinds of Animal adaptations.

Course 9: Animal Diversity – Vertebrates & Developmental Biology

CO1. This course will impart the students with the conceptual knowledge of vertebrates, their adaptations and associations in relation to their environment.

CO2. This course will enable the students to classify phylum Protochordates to Mammalia.

CO3. This course will provide the students with an understanding of Complex Vertebrate interactions

CO4. This course will provide the students with an understanding of the basic concepts of developmental biology.

Course 10: Cell Biology, Genetics and Evolution

CO1. This course will provide the students with an understanding of the structural and functional aspects of basic unit of life i.e., cell concepts.

CO2. This course will provide the students with an understanding of Mendelian and non mendielian inheritance.

CO3. This course will enable the students to acquire an understanding of the concept behind genetic disorder, gene mutations and learn about various causes associated with inborn errors of metabolism.

CO4. This course will provide the students with an in-depth knowledge about the theories of Evolution.

CO5. This course will provide the students with knowledge about the eras and evolution of species.

Course 11: Physiology and Biochemistry

CO1. This course will provide the students with an understanding about the mechanisms that work to keep the human body alive and functioning

CO2. This course will provide the students with a physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed.

CO3. This course will enable the students to understand the interactions and interdependence of physiological and biochemical processes.

Course 12: Animal Physiology Genetics and Evolution

CO1. This course will enable the students to understand the concepts of endocrine systems and homeostasis along with a brief account of genetics and organic evolution.

CO2. This course will enable the students to gain fundamental knowledge in the field of animal physiology, genetics and evolution.

CO3. This course will enable the students to acquire an elementary knowledge of physiology and endocrine systems.

CO4. This course will enable the students to gain fundamental knowledge of physiology of homeostasis.

CO5. This course will provide the students with an understanding of basic concepts of genetics, laws of inheritance and central dogma of biology.

CO6. This course will provide the students with an understanding of genetic basis of evolution, human karyotyping and speciation.

Course 13: Applied Zoology

CO1. This course will provide the students with an understanding of the concepts of fisheries, fishing tools and site selection.

CO2. This course will provide the students with an understanding of aqua culture systems, induced breeding techniques and post harvesting techniques.

CO3. This course will provide the students with an understanding of the composition of blood, blood born diseases, autopsy and biopsy.

CO4. This course will enable the students to acquire knowledge about the types of immunity, antigens-antibodies and their properties.

Course 14: Animal Biotechnology

CO1. This course will impart the students with knowledge of culture animal cells in artificial media.

CO2. This course will provide the students with knowledge of animal cells in culture and about the growth of cell lines.

CO3. This course will enable the students to acquire a practical knowledge about the use of recombinant DNA technology and genetic engineering.

Course 15: Environmental and Conservation Biology

CO1. This course will impart the students with knowledge about environment and conservation biology

CO2. This course will provide the students with knowledge in the field of responses to Laws of limiting factor, Laws of Minimum, Laws of Tolerance.

CO3. This course will provide the students with the knowledge about the variety of ecosystem – freshwater, marine and terrestrial.

CO4. This course will provide the students with the conceptual approach of population characteristics and dynamics.

CO5. This course will provide the students with knowledge about the growth curves, sigmoid curve, J curve and hyperbola; logistic equation, concepts relating to growth and pyramids.

CO6. This course will encourage the students to become competent researchers or take up the profession of teaching.

Course 16: Molecular Genetics and Developmental Biology

CO1. This course will provide the students with knowledge of genetics, developmental biology and organogenesis.

CO2. This course will provide the students with a practical knowledge of molecular biology.

CO3. This course will enable the students to acquire knowledge about gametogenesis, cleavage mechanisms, gastrulation and help them in understanding the role of hormones in metamorphosis and regeneration.

CO4. This course will provide the students with an insight into maintaining healthy relationships with their opposite gender and allow them to make right choice about their life partner thus preventing congenital/consanguineal diseases.

Course 17: Toxicology

CO1. This course will provide the students with an elementary knowledge of toxic substances and their mechanism of action.

CO2. This course will enable the students to acquire an understanding about the study of adverse effects of chemical substances on living organisms.

CO3. This course will help the students in enhancing their skill in environmental and occupational toxicology.

CO4. This course will provide the students with opportunities for research projects and internships in the field of toxic pollutants on environment and food chain.

Course 18: Biodiversity and Conservation

CO1. This course will enable the students to acquire knowledge about biodiversity, conservation and practical methods of conserving environment and organisms.

CO2. This course will provide the students with knowledge of biodiversity, endangered species and biosphere reserves.

CO3. This course will provide the students with knowledge of biodiversity and conservation and will help in increasing their awareness about human life and their dependence on biological species and natural ecosystem.

CO4. This course will enable the students to acquire knowledge about environmental science, natural resources management and animal sciences.

CO5. This course will provide the students with an understanding of climate challenges and conservation of biodiversity.

CO6. This course will provide the students with knowledge of the threats to biodiversity including habitat destruction, exhaustive use of natural resources and climate change.

CO7. This course will provide the students with the knowledge about management actions that are used to mitigate threats to biodiversity including selecting wildlife corridors, ecosystem restoration and control of pest, plants and animals.

B.Sc. (Maths Group) – 3 years Undergraduate Programme

Programme Outcomes (PO)

PO1. The objective of undergraduate programme in Mathematics / Physics / Chemistry is to provide essential guidance to the students to instil innovative and pioneering ideas and concepts so that the prescribed syllabuses in Mathematics /Physics / Chemistry are in keeping with the changing scenario incorporating unconventional and progressive techniques, multi-disciplinary skills, social welfare, universal incorporation besides self-sustaining and supportive learning.

PO2. This undergraduate programme in Mathematics / Physics / Chemistry besides imparting the elementary knowledge of Mathematics / Physics / Chemistry offers a broader perspective to the students familiarizing them with the social application of these subjects and the contribution of Mathematics / Physics / Chemistry in the advancement of mathematical, physical and chemical sciences and technologies.

PO3. This programme will enable the students to develop a scientific temperament and take rational decisions based on coherent, analytical and objective reasoning.

PO4. This programme will enable the students to communicate influentially by reading, writing, speaking and listening in one Indian vernacular and articulating globally by associating themselves with different perspectives, people, books and technology.

PO5. This programme will enable the students to develop social interaction, resolve discords, and contribute in building collaborative culture.

PO6. This programme intends to make the students better citizens by enabling them to engage with social issues in a compassionate and empathetic manner and contribute in the task of nation building.

PO7. This programme will enable the students to socially acknowledge different value systems, understand the ethics involved in individual's decision-making and take up the responsibility for themselves.

PO8. This programme will create an environmental awareness among the students and motivate them to work towards the goal of all-round sustainable development.

PO9. This programme will enable the students to engage in persistent self-learning and self-regulating conduct in the background of incessant socio-technological changes.

Programme Specific Outcomes (PSO)

PSO1 This program will enable the students to develop their critical thinking skill.

PSO2 This program will provide the students with the ability to identify, locate and evaluate a piece of information and use that information effectively to solve a problem at hand.

PSO3 This program will enable the students to formulate and develop mathematical arguments in a logical manner.

PSO4 This program will enable the students to acquire knowledge and understanding in advanced areas of mathematics and statistics.

PSO5 This program will provide the students with the ability to understand, formulate and use quantitative models in social sciences.

PSO6 This programme will enable the students to understand and apply the fundamentals of Mechanics, Oscillations and Properties of Matter.

PSO7 This programme will enable the students to understand and apply the fundamentals of Electricity, Magnetism and Electromagnetic theory.

PSO8 This programme will enable the students to understand and apply the fundamentals of Thermodynamics, Kinetic Theory, and Statistical Physics.

PSO9 This programme will enable the students to understand and apply the fundamentals of Wave, Acoustics and Optics.

PSO10 This programme will enable the students to understand and apply the fundamentals of Relativity, Quantum Mechanics, Atomic, Molecular and Nuclear physics.

PSO11 This programme will enable the students to understand and apply the fundamentals of Solid State Physics, Solid State Devices and Electronics

PSO12. After the completion of this programme the students will be able to understand the practical application of the fundamentals of organic, inorganic and physical chemistry.

PSO13. This programme will educate the students with a systematic progression of the subject knowledge and enable them to classify directly.

PSO14. This programme will introduce the students to the different branches of chemistry namely, inorganic, organic, physical chemistry and expose them to the diversified aspects providing a broader outlook of the subject.

PSO15. After the completion of this programme the students will acquire the ability to access and interpret information, solve problems and evaluate actions.

PSO16 This programme will provide the students with the ability to communicate clearly and effectively.

Course Outcomes (CO)

Course 1: Algebra and Trigonometry

CO1 This course will enable the students to assess the inverse of matrix, Canonical form of a matrix and apply the Clayey – Hamilton theorem.

CO2 This course will enable the students to describe the theorem in Group theory and Ring theory.

CO3 This course will enable the students to describe subgroups, normal subgroup, co-sets and cyclic group.

CO4 This course will enable the students to describe functions, their type, relations and equivalence relation.

CO5 This course will enable the students to apply De-Moivre's theorem to solve related problems in inverse trigonometry function and hyperbolic function.

Course 2: Calculus

CO1 This course will enable the students to test the continuity and differentiability of functions of one variable, ε-δ definition of limit as well as expansion of function by Taylor's and Maclaurin's series and find the nth derivative of product of two functions by Leibnitz theorem.

CO2 This course will enable the students to calculate and solve the definite and indefinite integrals of function, volumes, surfaces area of any curve.

CO3 This course will enable the students to trace curves in Cartesian as well as in Polar coordinates and acquire knowledge about asymptotes and curvature.

CO4 This course will enable the students to solve the differential equation of different order and degree.

CO5 This course will provide the students an understanding about different simultaneous equations.

Course 3: Vector Analysis and Geometry

CO1 This course will enable the students to determine and calculate (vector and scalars) dot and cross products of three and four vectors and acquire knowledge about the gradient divergence and curl.

CO2 This course will enable the students to solve and verify Gauss, Green's and Stokes theorem.

CO3 This course will enable the students to solve Vector Integration and differentiation.

CO4 This course will enable the students to describe Cone, Sphere, Cylinder, Generating Lines, Straight line, Plane etc.

CO5 This course will enable the students to learn to trace curve of conicoids (hyperboloid, paraboloid, ellipsoid).

Course 4: Advanced Calculus

CO1 This course will provide the students with the knowledge to determine the series and alternating series and different types of tests to find convergence of the series.

CO2 This course will provide the students with the ability to determine the Jacobian of two, three and more variables.

CO3. This course will provide the students with the ability to find the limit of a function of one and two variables and test its continuity, differentiability and partial derivatives of functions.

CO4. This course will provide the students with the ability to change the variables from independent to dependent and solve maxima and minima of function of two or more variables.

CO5. This course will enable the students to determine the Beta – Gamma functions and solve the double and triple integrations and be able to find the area bounded by two curves.

Course 5: Differential Equations

CO1. This course will provide the students with the ability to solve the ordinary and partial differential equations and series solution of differential equation.

CO2. This course will provide the students with the knowledge to compute the Laplace and Inverse Laplace transformation of the given equation and solve the differential equation with the use of Laplace transformation.

CO3. This course will provide the students with the ability to describe and solve differential equations, by Charpit's method and Monge's method.

CO4. This course will provide the students with an understanding to solve boundary value problems.

Course 6: Mechanics

CO1. This course will enable the students to find the velocity and acceleration of a moving particle.

CO2. This course will provide the students with an understanding to compute the equilibrium condition of particles and acquire knowledge about catenary.

CO3. This course will provide the students with an understanding to describe and solve Capler's law of motion, central axis and knowledge about the Law of conservation of energy.

CO4. This course will enable the students to find projectile motion, and motion of a particle on rough and smooth planes.

Course 7: Analysis

CO1. This course will provide the students with knowledge to determine the Fourier series of full and half range of any function of one variable.

CO2. This course will provide the students with knowledge to apply Schwarz and Young's theorem on various functions.

CO3. This course will provide the students with the ability to analyze the convergence of all type of trigonometric real functions.

CO4. This course will provide the students with an understanding to describe the complex numbers, elementary transformation and conformal mapping.

Course 8: Abstract Algebra

CO1. This course will provide the students with the ability to use various forms of "Sylow theorem" and identify the whole structure of group.

CO2. This course will enable the students to analyze ring, polynomial ring, homomorphism, isomorphism of ring and Modulus.

CO3. This course will provide the students with the ability to analyze Vector space, homomorphism, isomorphism, Kernel of homomorphism of function, Dimension of vector spaces, and acquire knowledge about the linearly dependent and independent set of vectors.

CO4. This course will provide the students with the ability to analyze linear transformation, Canonical forms, bilinear forms and Dual spaces.

CO5. This course will provide the students with the knowledge to determine inner product of two Vectors, Inner product space and Gram-Schimdt orthogonalization process.

Course 9: Advanced Discrete Mathematics

CO1. This course will provide the students with the ability to describe Graphs, Trees, Spanning Trees, Circuits, finite state machine and their types.

CO2. This course will provide the students with an understanding to describe the difference between Mealy and Moore machine.

CO3. This course will provide the students with the ability to compute the output of a finite state machine corresponding to their next state of the given input.

CO4. This course will provide the students with the knowledge about Logic circuits, propositions, its types and logical equivalence relation.

CO5. This course will provide the students with the ability to describe conjunctive normal form and disjunctive normal form of given function.

Course 10: Mechanics, Oscillation and Properties of Matter

CO1. This course will provide the students ability to understand the laws of motion, and their application to various dynamical situations, notion of inertial frames and concept of Galilean invariance along with knowledge about the concept of conservation of energy, momentum, angular momentum and their application to basic problems.

CO2. This course will provide the students ability to understand expression for the moment of inertia about the given axis of symmetry for different uniform mass distributions.

CO3. This course will enable the students to understand and apply the principle of elasticity, viscosity and surface tension.

CO4. This course will enable the students to understand and apply Kepler's law of the motion of planets and satellite in circular orbit, through the study of law of Gravitation.

CO5. This course will provide the students ability to explain the phenomena of simple harmonic motion and the properties of systems executing such motions.

Course 11: Electricity, Magnetism and Electromagnetic Theory

CO1. This course will enable the students to demonstrate Gauss law, Coulomb's law for the electric field and apply it to systems of point charges as well as line, surface and volume distribution of charges.

CO2. This course will enable the students to demonstrate a working understanding of capacitors.

CO3. This course will enable the students to describe the magnetic field produced by magnetic dipoles and electric currents and explain Faraday-Lenz and Maxwell laws to articulate the relationship between electric and magnetic fields.

CO4. This course will enable the students to apply various network theorems and their applications.

Course 12: Thermodynamics, Kinetic Theory and Statistical Physics

CO1. This course will enable the students to describe the basic concepts of laws of thermodynamics, the concept of entropy and the associated theorems, the thermodynamic potential and their physical interpretations.

CO2. This course will provide the students an understanding to describe about Maxwells' thermodynamic relations.

CO3. This course will provide the students with an understanding to describe the basic concepts of gases, Maxwell-Boltzmann distribution law, equitation of energies, mean free path of molecular collisions etc.

CO4. This course will provide the students with an understanding to describe about the real gas equations, Vander Waal equation of state, the Joule-Thompson effect etc.

Course 13: Wave, Acoustics and Optics

CO1. This course will provide the students an understanding to describe the principle of superposition of waves and the formation of standing waves.

CO2. This course will provide the students with an understanding to apply basic knowledge of principles and theories about the behaviour of light and the physical environment to conduct experiments.

CO3. This course will provide the students with an understanding to use the principle of waves and superposition to explain the physics of polarisation, interference and diffraction.

CO4. This course will provide the students with an understanding to describe the working of optical instruments like biprism, interferometer, diffraction grating, and holograms.

CO5. This course will provide the students with knowledge to describe the spontaneous emission of radiation, optical pumping, and population inversion as well as Ruby laser and He- Ne laser.

Course 14: Relativity, Quantum mechanics, Atomic, Molecular and Nuclear Physics

CO1. This course will provide the students with the knowledge to describe the main aspects and inadequacies of classical mechanics and understand historical development of quantum mechanics as well as its ability to discuss and interpret experiments that reveal the dual nature of matter.

CO2. This course will provide the students with an understanding to describe the theory of wave measurements, wave packets and uncertainty principle.

CO3. This course will provide the students with an understanding of the central concepts and principle of quantum mechanics, and the Schrodinger equations.

CO4. This course will provide the students ability to describe the properties of nuclear structure of atomic nucleus.

CO5. This course will provide the students with an understanding to calculate the decay rates and of radioactive decays.

CO6. This course will provide the students with knowledge to describe the fission and nuclear processes to produce nuclear energy in nuclear reactor and stellar energy in stars.

Course 15: Solid State Physics, Solid State Devices and Electronics

CO1. This course will provide the students with knowledge to describe the crystalline and amorphous substances and diffraction of X-rays by crystalline materials.

CO2. This course will provide the students with an understanding to describe the lattice vibrations, phonons and Einstein and Debye theory of specific heat of solids.

CO3. This course will provide the students with knowledge to describe the band theory of solids and an understanding to differentiate insulators, conductors, and semiconductors.

CO4. This course will provide the students with an understanding to describe the N- and P- type semiconductors, P-N junctions, application of PN junction for different type of rectifier and voltage regulators.

CO5. This course will provide the students with knowledge to describe the PNP and NPN transistors and their applications as amplifiers and oscillators.

Course 16: Inorganic Chemistry

CO1. This course will provide the students an understanding of the principles for filling of electrons in orbitals and will enable them to describe atomic structure and periodic properties.

CO2. This course will enable the students to understand the electronic configuration of given atomic number.

CO3. This course will provide the students an understanding to draw molecular orbital diagrams of different molecules and will enable them to describe chemical bonding.

CO4. This course will enable the students to describe the salient features of alkali and alkaline earth metals.

CO5. This course will enable the students to describe p-block elements and Inorganic Chemical Analysis.

CO6. This course will enable students to describe chemistry of Elements of First, second and third transition series.

CO7. This course will enable the students to describe oxidation, deduction and chemistry of coordination compound along with its applications and principles involved in extraction of the elements.

CO8. This course will enable the students to describe electronic structure in chemistry along with oxidation, ionic radii, contraction, occurrence, isolation of lanthanide and actinide elements.

CO9. This course will enable the students to describe acids and bases with different concepts and relative strength of acids and bases along with physical properties, types and general characteristics of non-aqueous solvent.

CO10. This course will enable the students to acquire an understanding of the thermodynamic and kinetic aspects of metal ligand bonding in transition metal complexes.

CO11. This course will enable the students to acquire knowledge about the types of magnetic behaviour, methods of determining magnetic susceptibility and electronic spectra of transition metal complexes.

CO12. This course will provide the students with knowledge about the definition, nomenclature, preparation and properties of organometallic chemistry.

CO13. This course will provide the students with knowledge about the essentials and trace elements in biological process and an understanding about the importance of bioinorganic compounds.

CO14. This course will provide the students knowledge about the classification, strength, hardness and softness of hard and soft acids and bases.

CO Lab- This course will enable the students to perform qualitative semimicro analysis of inorganic mixture containing radicals with an understanding of the chemistry of different reactions.

CO Lab- This course will provide the students with a practical knowledge to perform basic experiments of separation techniques using paper chromatography to differentiate metals.

CO Lab- This course will provide the students with an understanding to perform gravimetric analysis of a given compound.

Course 17: Organic Chemistry

CO1. This course will provide the students with an understanding of different types of hybridisations, electronic structure and bonding, mechanism of organic reactions.

CO2. This course will provide the students with knowledge about stereochemistry of organic compounds like optical isomers and geometrical isomers.

CO3. This course will provide the students with knowledge of the structure, molecular formula, mechanism, confirmation of alkane and cycloalkane.

CO4. This course will provide the students with knowledge of the mechanism, chemical reactions, structure of aliphatic hydrocarbons alkane, alkene and alkyne.

CO5. This course will provide the students with an understanding of the mechanism of stereochemistry and chemical reactions of aromatic ring compounds.

CO6. This course will provide the students with knowledge of chemistry of preparation and mechanism of organic halide.

CO7. This course will provide the students with knowledge about nomenclature, properties, relative reactivity of 1˚, 2˚, 3˚ alcohols, structure, bonding and acid character of phenols.

CO8. This course will provide the students with knowledge about nomenclature, general preparation, structure, reactivity, mechanism and use of aldehydes, ketons and their derivatives.

CO9. This course will provide the students with knowledge about preparation, structure and bonding, physical and chemical properties including acidity, effects of carboxylic acids and carboxylic acid derivatives.

CO10. This course will provide the students with knowledge about organic compounds preparation, chemical reactions and mechanism of nitrogen containing compounds and reactivity along with structure and nomenclature of amines.

CO11. This course will provide the students with knowledge about organometallic compounds, organo-sulphur compounds and organic synthesis via, enolates.

CO12. This course will provide the students with knowledge about biomolecules, carbohydrates, proteins and nucleic acids.

CO13. This course will provide the students with an understanding of synthetic polymers and synthetic dyes.

CO14. This course will enable the students to describe mass spectroscopy, infrared spectroscopy, UV-visible spectroscopy, NMR, CMR spectroscopy and magnetic resonance imaging (MRI).

CO Lab- This course will provide the students with a practical knowledge about performing qualitative analysis of functional group and learning melting point.

CO Lab- This course will provide the students with a practical knowledge about performing qualitative analysis of unknown organic compound containing simple functional groups.

CO Lab- This course will provide the student with a practical knowledge about performing analysis of an organic mixture containing two solid compounds.

Course 18: Physical Chemistry

CO1. This course will provide the students with an ability to obtain different types of mathematical values like log, antilog, integration, differentiation, maxima and minima, probability.

CO2. This course will provide the students with a knowledge about gaseous state chemistry and different laws, behaviour of real gases, Joule Thomson effect, liquefaction of gases and molecular velocities.

CO3. This course will provide the students with knowledge about liquid state chemistry, magnitude of intermolecular force, structure and properties of liquids, viscosity and surface tension along with an understanding of colloidal state and classification of optical, kinetic and electrical properties of colloids.

CO4. This course will enable the students to understand solid state, their law of constancy of interfacial angles along with crystal systems, Bravais lattices and crystal defects.

CO5. This course will provide the students with knowledge about the rate law, rate constant, order and molecularity of reactions and rate determining step along with an understanding of homogenous and heterogenous catalysis and types and characteristics of catalysis.

CO6. This course will provide the students with knowledge about thermochemistry, law of thermochemistry and its applications along with an ability to obtain calculation of bond energy and resonance energy from thermochemistry data and effect of temperature and pressure on enthalpy of reactions.

CO7. The students will be able to describe intensive and extensive variables, state and path functions, various systems and laws of thermodynamics.

CO8. This course will provide the students with knowledge about chemical equilibrium and their quantitative dependence on temperature and pressure along with an understanding to calculate pH for different salts and derivation and applications of buffer solution.

CO9. This course will provide the students with knowledge about phase rule, phase component and degree of freedom and application of phase rule of different component system.

CO10. This course will provide the students with knowledge about photochemistry and law of photochemistry along with an understanding of quantum efficiency and actinometry.

CO11. This course will provide the students with knowledge about quantum mechanics with black body radiation, Planck's radiation and photoelectric effect along with an understanding of heisenberg's uncertainty principle and schordinger wave equation and applications.

CO12. This course will provide the students with knowledge about quantum mechanical approach of molecular orbital theory along with an understanding of calculation of energy levels from wave functions.

CO13. This course will provide the students with knowledge about the law of thermodynamics, Nernst heat theorem, application and limitation of Nernst heat theorem, physical properties, molecular structure and magnetic properties of dipole moment.

CO Lab- This course will provide the students with a practical knowledge to perform basic experiments related to surface tension and viscosity.

CO Lab- This course will provide the students with a practical knowledge to perform basic experiments related to Beer- Lambert Law and to obtain concentration of the given solution of the substance.

Course Outcomes (CO) of the Courses common to all the UG Programmes stated above Course:

Foundation Course - Hindi Language

CO1. This course will introduce the students to the writings, letters, articles, stories, poems, satires etc. of writers like, Mahatma Gandhi, Acharya Narendra Dev, Vasudev Sharan Agarwal, Hari Thakur, Pt. Madhavrao Sapre, Munshi Premchand, Suryakant Tripathi Nirala, Harishankar Parsai, Swami Vivekanand, Sumitranandan Pant, Ramdhari Singh Dinkar, Mohan Rakesh, Yogesh Atal etc.

CO2. This course will introduce the students to the commercial Hindi language used in official communication, media, business, commerce and machine language.

CO3. This course will provide the students knowledge about the parts of speech in Hindi language such as noun, pronoun, verb, adjective and translation from Hindi to English and viceversa.

CO4. This course will provide the students knowledge about the word usage in Hindi language including synonyms, antonyms, homonyms, phrases, idioms, sayings and sentence formation, summarisation, unseen passage, classification of words into dignified and non dignified category along with their usage.

CO5. This course will provide the students an understanding of the Hindi language script (Devnagri Lipi), its form, features and the etymology of words.

CO6. This course will introduce the students to social development and development of Hindi language in the three periods namely, ancient, medieval and modern period.

CO7. This course will teach the students the usage of different style in making statements through examples and the construction of sentences in different styles of Hindi Language.

CO8. This course will enable the students to understand environmental, political, national and cultural significance in Hindi language along with its critical analysis.

Course: Foundation

Course - English Language

CO1. This course will enable the students to rewrite the sentences as directed choosing the correct alternatives, filling the blanks, connecting conjunctions and clauses and correcting errors with accurate use of grammatical structures.

CO2. This course will enable the students to enhance the grasp of general language skills, comprehend a passage, attempt the questions based on the text and title it suitably with the correct understanding of the issues raised in the passage. In addition to it, this course will enable the students to build their vocabulary power substituting indicated sections with suitable words as well as understand synonyms, antonyms, prefixes, suffixes and differentiation of similar sounding words through their usages in sentences.

CO3. This course will enable the students to draft a paragraph on the given topic, framing sentences to support the development of thought.

CO4. This course will enable the students to write letters both formal and informal.

CO5. This course will enable the students to write a report with appropriate narration of facts and figures in a coherent manner.

CO6.This course will enable the students to expand an idea concentrated and expressed in a proverb, idiom, a good / popular thought or a poetic line in order to build the power of expression with clarity, brevity and coherence avoiding repetitions and unnecessary digressions.

CO7. This course will enable the students to learn the art of compression through precis writing of a passage by careful understanding of the text, being objective, maintaining the theme and remaining as concise as possible without having to change the crux of the subject matter.

CO8. This course will enable the students to write short / long answers to the questions based on the prescribed text.

Course: Environmental Studies and Human Rights

CO1. This course will enable the students to acquire knowledge about the multi-disciplinary nature of environmental studies and recognize the definition, scope and importance of natural resources namely, renewable and nonrenewable resources with reference to forest resources, water resources, mineral resources, food resources, energy resources and land resources.

CO2. This course will enable the students to acquire knowledge about the concept, structure and function of ecosystem with reference to energy flow in the ecosystem, ecological succession and ecological pyramids etc.

CO3. This course will provide the students an understanding of biodiversity and its conservation with reference to biodiversity at global, national and local levels and also make them learn about the threats to biodiversity like habitat loss, poaching of wildlife and man-wildlife conflict.

CO4. This course will enable the students to acquire knowledge about the causes, effect and control measures of air, water, soil, marine, noise and nuclear pollution and will make them learn about the role of an individual in prevention of pollution.

CO5. This course will introduce the students to the concept of environmental management with reference to development from unsustainable to sustainable along with other issues like rain water harvesting, climate change, global warming, wasteland reclamation, environmental legislation and role of information technology in protection of environment and human health.

CO6. This course will provide the students knowledge about the historical development and concept of human rights along with issues like, protection of human rights, elimination of all kinds of discrimination against women and rights of the child etc.

CO7. This course will provide the students knowledge about the impact of human rights norms in India, human rights under Indian constitution, directive principles of state policy under the constitution of India along with enforcement of human rights in India, protection of human rights, national / state human rights commission, human rights court and fundamental duties.

EVS

Programme Outcome: -

The Programme makes Students aware about:

- The major environmental Change
- An aptitude and altitude towards conserving the environment
- Effects on the ecosystem and Eco- chain of the changing environment
- Use geospatial technologies (including global positioning systems, geographic information systems, and remote sensing) to address environmental problems
- To demonstrate ecosystems in the context of coupled human-environmental interactions.
- To competently implement an individual or group scientific project, which my include literature review, experimental design, data collection, data analysis, and reporting.

Course Outcomes

Students shall be able to:

- Explain the concept of Natural Resources: Renewable, Non-Renewable.
- Understand and explain the Earth's Resources: Land, Mineral, Water.
- Discern the natural catastrophes, interpret risk assessment and apply disaster management methods.
- Explain basic concepts of Ecosystem and understand discern Biochemical cycles
- Understand and explain basic concepts of Production ecology; measure productivity of an ecosystem and discern biogeochemical cycles.
- Explain types of forests in India and understand and explain concepts of Deforestation, Afforestation, Joint Forest management and Social forestry.
- Understand and explain the concept of
- Biodiversity and apply the methods of biodiversity conservation.

Environmental Pollution andManagement:

This course aims to provide an understanding of the global environmental problems caused by human activities, fundamental concepts of air, water, noise and land pollution, their sources and impact on environment.

- To measure and monitor air, water and waste pollution, remediate problems and examine the latest technologies in the field.
- This course intends in developing critical skills sets for students aiming to pursue a career as an environmental scientist.

b) Solid Waste Management:

- Understand the basic concept of Municipal solid waste and collect, handle, treat and dispose Municipal Solid Waste (MSW).
- Explain the methods of solid waste management
- Explain the basic concepts and apply various methods of Hazardous and Biomedical Waste management.

c) Environmental Management

Students shall be able to:

- Explain the basic concepts of Environmental impact Assessment (EIA) and Environmental impact Statement (EIS), PublicParticipation.
- Apply the impact assessment methodologies, its assessment andlegislation of EIA
- Analyze and carry Environmental Audit (EA) for industries and interpret the significant Environmental Act.
- Understand the concept of sustainable development andpeople's participation in Environmental protection and

environmental issues.

Programme Specific Outcomes: -

The aim of this course is to make our younger generation Environment conscious. The contents of the course are aimed at exposing the students to the fundamental concepts of Environment so that they can appreciate the importance of individual efforts to protect and preserve our environment. Judicious use of our resources will not only help present generation but also the future generations in meeting their needs. This can be achieved by spreading Environmental awareness.

Master of Commerce

OBJECTIVE OF THE PROGRAMME:

The college follows Pt RSU Raipur syllabus for Master of Commerce. The objectives of the prescribed course are:

- To opens up innumerable career options and opportunities to the aspiring managers both in India and abroad.
- To train the student to develop conceptual and applied skills for effective problem solving and right decision making in routine and special activities relevant to financial, management, banking transaction of a business.
- M.Com program also prepares one to start a business of his/ her own in the capacity of an entrepreneur.
- Prepares the students for positions of leadership in business organizations at the local and national levels.
- Prepare the students to apply Statistical methods and skilled use of tools for modeling and analysis of business data.
- Facilitate the students to apply capital budgeting techniques for investment decisions.
- To train the student in project works, which is compulsory in 4th sem.

PROGRAMME OUTCOME:

The Master of Commerce programme ensures:

- To acquaint a student with conventional as well as contemporary areas in the discipline of Commerce.
- To enable a student well versed in national as well as international trends.
- To enable the students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors nature of various financial instruments.

- To provide in-depth understanding of all core areas specifically Advanced Accounting managerial Economics, Income Tax Law & Accounts, Statistical analysis, corporate legal frame work, business Economics, Specialized Accounting ,Business law, Advanced Statistics, Tax Planning &management, Advance Cost Accounting, Management Accounting, Accounting for managerial decisions, IN Group (A) - Marketing, Group (B)management, Group (c) Banking and Insurance, Group (D) Taxation & Accounting and Project work as well.

COURSE OUTCOME:

The Master of Commerce course shall be spread over four semesters. In each semester, there shall be theory courses and practical. Written examinations shall be completed by the end of the each Semester and Project Work is compulsory at the end of fourth semester. There shall be numerical marking in evaluation. A candidate who has obtained a Bachelor's degree of this University or of a statutory University recognized by this university as equivalent to the Bachelor's Degree shall be eligible to seek admission in M.Com. Course.
Every candidate thus admitted shall pursue regularly the prescribed courses in each of the four semesters successively.

At the end of the M.Com. Course the student will be able to:

- Work as accountant in any private or Government sector.
- Work as an Auditor, manager, Accountant.
- Pursue research in their chosen areas.
- Work as Data Analyst
- Work as an investment consultants after a brief internship in suitable organizations absorbed in Banking and Insurance sector as executives.
- Pursue professional courses like CA, CMA, CS and other accounting fields.

B.Sc. Home Science

Programme Outcome

To equipped students for possible entrepreneurial ventures in various areas for foods and nutrition

- To acquaints Girls with Meal Planning for low and high economic group, for every disease, for every age group.
- To develop capacity for good communicative skills, child counseling and pre- school and school teaching, child rearing practices
- To acquaints with proper notion regarding choice of fabrics, to develop skills for clothing construction
- Become aware of the need, competencies, and skills to be developed for Empowerment and be motivated for self-improvement from the perspectives of personal and national development
- Become aware of the inter-disciplinary of home science education and its potential for personal and professional enhancement.

- Develop an ability to improve the nutritional quality of food.
- Become aware of the interventive and preventive family measures.

Course Outcome

Community nutrition & applied life sciences-

- To understand the physiology of human body,

Introduction to HD and family dynamics-

- Become aware of their interaventive and preventive family welfare measures. Understand the dynamics of the families in distress and crises

Introduction to textile and clothing-

- To acquaints with proper notion regarding choice of fabrics, to develop skills for clothing construction

Fundamentals of food and development

- To understand the importance of adequate diet and importance of meal planning

Life span development, methods and materials for young children

- To understand the issues faced and adjustments required at each stage across the life span . To understand the significance of various creative activities and teachers role in implementing them.

Textile And Laundry Science

- Have hand on training in dress making and textile designing and acquire better enterprise management skills, teach them the differences in laundering processes used for different fabrics

Food preservation-

- Understand the nature of microorganism involve in food spoilage, food infections and intoxication. Understand the importance of microorganism in food biotechnology.

Family Resource Management

- To gain knowledge and principles of planning, various types of residential space and able to choose furnishing materials; develop the skill of drawing house plans and creating designs for furnishing items.

Community Development

- Perspective and approaches, socioeconomic analysis of communities- To study the ideology of organizing people in development, appreciate collective actions for weaker section for their own development.

Extension Education

- Organize adult education and non formal education programmes for children and women; understand the national efforts towards the urban and rural development.

Foundation of Art and Design

- Develop an understanding to the application of art principles in design composition of traditional and contemporary art , architecture , textile sad n interior designs. Develop skill in creating designs and making art objects.

Personal Empowerment and Computer Basics-

- Know the basics of computer. To be able to use computers for educational information and research

Nutritional Biochemistry

- To obtain an insight into the chemistry of major nutrients and physiologically important compounds. Understand the biological processes and systems as applicable to human nutrition.

Early Childhood Acre and Education-

- To provide practical experiences of working with children which will enable students to develop necessary skill to work effectively with preschooler in various settings?

Consumer Economics

- To become aware of the consumers problems in the market and to realize the importance of the effective role of consumer in the market.
- To gain knowledge about dietary management in common ailments, know the factors affecting the nutrient need during the life cycle and the RDA for various age groups.

Apparel Making and Fashion Designing

- Familiarize with the essentials of apparel making. To enable the students to produce fashion sketches of the garments in an appealing manner with all the detail.

Communication Process in Development

- To understand the process of communication in development work and develop skills in use of media and methods.

RESOURCE MANAGEMENT

M.Sc. (HOME SCIENCE) PREVIOUS

1st SEMESTER

Marking Scheme:

PART I - THEORY

No.	Title	Marks			
		Theory	Test	Seminar	Total
Paper I	Research Methodology	80	10	10	100
Paper II	Theory of Management	80	10	10	100
Paper III	Consumer Economics	80	10	10	100
Paper IV	Environment Management	80	10	10	100

PART II - PRACTICAL

	Practical	Marks
Practical I	Communication Technology	100

PAPER - I

RESEARCH METHODOLOGY

Max. Marks: 80

Objectives :

- To understand the significance of research methodology in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.

UNIT-I 1. Science, scientific methods, scientific approach.

2. Role of research in Home science discipline.

3. Objectives of research: Explanation, control and prediction.

4. Types of research: Historical, Descriptive, Experimental, case study,

5. Social research and survey: Meaning, definition, nature, scope, objects, types. distinction between social survey & research.

6. Pre-testing and pilot survey.

UNIT-I 7. **Definition and identification of research problem.**

- Selection of research problem.
- Justification.

8. **Fact, Theory and concept.**

9. **Hypothesis :** Definition, sources, characteristics, importance, main difficulties in formation of hypothesis, disadvantages, Limitations and Delimitations of the problems.

10. **Types of variables.**

UNIT-II 11. **Basic principles of research design:**

- Purposes of research design: fundamental, applied and action, exploratory, and descriptive, experimental, ex-post facto.
- Longitudinal and cross sectional, co-relational.

12. **Data gathering instrument.**

- Observation,
- Questionnaire,
- Interview,
- Scaling method,

B.H.Sc PART - III

MARKING SCHEME

Group No.	Paper No.	Subject	Theory M. Mark	Practical M. Makr	Thoery M. Makr	Practical M. Mark
I		Foundation Course				
	(A)	Hindi Language	75		26	
	(B)	English Language	75		26	
II	(A)	Nutritional Biochemistry	50	25	33	09
	(B)	Food Preservation	50	25		09
III	(A)	Early Childhood Education	50	25	33	09
	(B)	Extension Education	50	25		09
IV	(A)	Foundation of Art and Design	50	25	33	09
	(B)	Apparel Making	50	25		09
		Total	600			

DISTRIBUTION OF MARKS IN VARIOUS PRACTICAL

S. No.	Name of the Practical	Total Mark	Distribution			
			Sessi.	Viva		Marks
01.	Nutritional Biochemistry	25	5	5	Titration	
					Identification of CHO	10
					Blood	05
02.	Food Preservation	25	5	5	Preparation	10
					Presentation	05
03.	Early Childhood Education	25	5	5	Preparation & Teaching	05+10
04.	Extension Education	25	5	5	Practical - (2)	15
05.	Foundation & Art & Design	25	5	5	Practical - (2)	15
06.	Apparel Making	25	5	-	Embraidry & Texture	05+05
					Stitching or Designing	10

MARKING SCHEME OF B.SC (HOME SCIENCE) PART - II

Group No.	Paper No.	Subject	Theory M.Marks	Practical M.Marks	Theory M.Marks	Practical M.Marks
I	(A)	Enviromental Studies	75			
		Fild Work	25		33	
		Foundation Course				
	(B)	English Language	75		26	
	(C)	Hindi Language	75		26	
I	(A)	Nutritional Management in Health and Diseases	50	25	33	09
	(B)	Textile and Laundry Science	50	25		09
III	(A)	Community Nutrition and Applied life Sciences	50	25	33	09
	(B)	Communication Process	50	25		09
IV	(A)	Life Span Development	50	25	33	09
	(B)	Consumer Economics	50	25		09

B.SC (HOME SCIENCE) PART - II

DISTRIBUTION OF MARKS IN VARIOUS PRACTICALS

No.	Name of the Practical	Total Marks	Distribution			Marks
			Sessioned	Viva	Practical	
01.	Nutritional Management Health & Diseases	25	05	05	Planning	08
					Cooking + Presentaion	07
02.	Textile and Laundry Science	25	05	05	Stain Removal	05
					Tie & Dye	05
					Printing	05
03.	Community Nutrition and Applied life Sciences	25	05	05	Spotting	10
					Blood Practicals	05
04.	Communication Process	25	05	05	Preparation of Audio Visual Aids - 2	15
05.	Life Span Development	25	05	05	Practical	15
06.	Consumer Economics	25	05	05	Practical	15

B.Sc (Home Science) PART - I

MARKING SCHEME

S.N.	Subject Group Paper	M.M. Theory	M.M. Practical	Total	Min. Marks. Theory	Pract.
Group - I						
A.	Environmental Studies	75		100	33	
	Fild Work	25				
	Foundation Course					
B.	Hindi Language - I	75		75	26	
C.	English Language - II	75		75	26	
Group - II						
A.	Fundamentals of Food & Nutrition	50	25	75	33	09
B.	Introduction to Resource Management Ecology & Environment	50	25	75		09
Group - III						
A.	Introductin Human Development & Family Dynamics	50	25	75	33	09
B.	Introduction to Textile and Clothing	50	25	75		09
Group - IV						
A.	Community Development perspechives & Approaches Socio-Economic analysis of community.	50	25	75	33	09
B.	Personal Empowerment & Computer Barics	50	25	75		09

DISTRIGUTION OF MARKS IN VARIOUS PRACTICALS

(ENCLOSURE -2)

S.No.	Name of the Practical	Total M.	Ses-sinal	Viva	Practical	Marks
1.	Fundamentals of food & Nutrition	25	05	05	A. Preparation & Pre-sentation) any one Reopie.....	10
					B. Taste	05
2	Introductica to Resource Management, Eco. & Environment.	25	05	05	(On Ecology & Any Two)	8+7
3	Introduction to Human Dev. & Family Dynamics.	25	05	-	A. Preparation of any one articla of Baby Kit	10
					B. Preparation of Baby Toy or wearing Food or Imm. Chart.	10
4	Introduction ot textile & Clothing	25	05	-	A. Drafting	05
					B. Stiching	10
					C. Weave	05