



वीरांगना रानी अवन्तीबाई लोधी राजकीय महिला महाविद्यालय, बरेली

**Graduation first year is being conducted by New Education Policy (Semester system)**

**PROGRAMME OUTCOME/ PROGRAMME SPECIFIC OUTCOME/  
COURSE OUTCOME**

**UNDERGRADUATE ARTS (B.A.)**

**1**

**B.A. I [CERTIFICATE IN ENGLISH]**

**PROGRAMME SPECIFIC OUTCOME (PSOS)**

The learners will be able to:

- Understand the nuances of poetic language, structure and composition of idea in Indian English Prose.
- Develop their critical thinking skills & comprehend life skills through the study of prose/short fiction & develop their own creativity by enhancing their writing skills.
- Get enhanced/enriched vocabulary to demonstrate a significant modification in comprehensive skills and writing techniques.
- Be acquainted with the representative poets and writers from 16th century to 20th century
- Develop an understanding of the philosophy of Romanticism and how it was impacted by the revolutions in Europe.
- Interpret the meaning of 'Victorian Compromise' and the 'Victorian paradox' and appraise the different aspects of the Age of Reason.
- Be familiar with the rules and procedures of Practical Criticism.
- Develop knowledge of literary, cultural, and historical contexts of 20th & 21st century literature in English.
- Be acquainted with the basic knowledge of Computer and general processing of various Microsoft applications.
- To investigate and understand the role of computers in developing students'

performance in English Language through computer assisted learning.

- Frame official letters like preparing CVs, filing FIRs, RTI and complaints.
- Create e-mails and navigate web browsers.
- Get acquainted with the art of online writing.

## **SEMESTER 1**

### **COURSE TITLE: ENGLISH PROSE AND ‘COMPUTER & WRITING SKILLS’**

#### **COURSE OUTCOME**

After completing this course, the students will be able to:

- Understand Indian English Writing as a new form of Indian culture and voice in which India converses regularly. They will be able to understand contributions of various authors in the growth of Indian English Writing.
- Understand the formal qualities of a text, intricacies of structure, stylistics and figurative elements found in the text.
- Learn the core elements of structure such as exposition, complication and resolution or denouement.
- Analyse the difference in the prose techniques of different writers like Addison, Lamb and Bacon.
- Make use of word choices, word order, figurative language and imagery to convey meaning/emotion.
- Identify the writings of classic prose and short story writers like Chekhov, Maupassant and O’ Henry.
- Understand the prominence of logic and reason in the 18th century British literature.
- Describe the literary terms related to prose.
- Get a wide exposure of eminent writers like Kalam, Amartya Sen, Anita Desai, Woolf and M.R. Anand.
- Understand the social, historical and political backgrounds of the short story writers like Anton Chekhov through the elaborate and allegorical descriptions in the prescribed text.
- Identify the content, language, style, tone and structure of the essays and short story.
- Comprehend the culture, author’s biography and historical context of the prescribed prose works.

- Do online communication like content writing and blogging.
- Do official communication by writing official letters/complaint letters.
- Practically explore their creative genius in creating blogs and personal websites for vocational purposes

## **SEMESTER 2**

### **COURSE TITLE: READINGS IN ENGLISH POETRY**

#### **COURSE OUTCOME**

After completing this course, the students will be able to:

- Understand the basic terminology and practical elements of poetry
- Comprehend the meaning of words, phrases and sentences in a given context
- Analyse the underlying meaning of a poem by using the elements of poetry
- Be acquainted with the representative poets and writers of 16th ,17th, 18th and 19th and 20th century
- Identify the devices used by the poet, the mood, the atmosphere, the voice, the stanza form, rhyme pattern and metre scheme
- Examine the difference between Shakespearean and Miltonic sonnet forms
- Comprehend the experimental poetry of Metaphysical age and the characteristics of Neoclassical poetry
- Reflect on didactic human values as virtually mirrored in Thomas Gray's poem
- Understand the concept of nature as stated by the romantic poets in literature
- Appreciate the simplicity and lucidity of expression of poets in romantic literature
- Understand the literary terms used by the Victorian poets
- Analyse the existing conflict between faith and doubt in Victorian society
- Discuss the significance of the literary period of the text by analysing the effects of the major events of that period
- Understand the difference between reason and imagination, literature and revolution
- Exposed to the trends in 20th century poetry of Eliot, Yeats and Larkin

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## **B.A. I [CERTIFICATE IN DRAWING AND PAINTING]**

### **SEMESTER 1**

#### **COURSE TITLE: HISTORY OF ART-1 (THEORY)**

## **COURSE OUTCOME**

- Students will recognize and understand major monuments, artists, methods and theories, and be able to assess the qualities of works of art and architecture in their historical and cultural settings. How the then social problems should become subjects of Art

## **COURSE TITLE: DRAWING AND COLOUR STUDIES (PRACTICAL)**

### **COURSE OUTCOME**

- Sketch and render objects (fruits, vegetables, leaf, geometrical shapes etc.) with various medium like Pencil, Pen, ink, water colour, Poster colour, Oil Pastel colour, Dry Pastel, Charcoal Pencil, Colour Pencils etc. Exhibit understanding of (properties of s, wheel & value) and use it judiciously in the creation of visual work.

## **SEMESTER 2**

## **COURSE TITLE: FUNDAMENTALS OF ART (THEORY)**

### **COURSE OUTCOME**

- Students get information about Definition of art. The art language is based on concepts called the ELEMENTS and PRINCIPLES of Design”. Introduction to the basics elements of art, 5 Elements of art : Line Shape Texture Value

## **COURSE TITLE: DRAWING AND SKETCHING (PRACTICAL)**

### **COURSE OUTCOME**

- Sketch and render objects (fruits, vegetables, leaf, geometrical shapes etc.) with various medium like Pencil, Pen, ink, water , Poster , Oil Pastel , Dry Pastel, Charcoal Pencil, Pencils etc. Exhibit understanding of (properties of s, wheel & value) and use it judiciously in the creation of visual work.

3.

## **B.A. I [CERTIFICATE IN FUNDAMENTALS OF HOME SCIENCE]**

## **PROGRAM SPECIFIC OUTCOMES (PSOS)**

At the end of program following outcomes are expected from students:

- Learn about the discipline of Home Science as a holistic field of study covering multiple facets and requirements of human beings in day to day living, for example, achievement of appropriate milestones in personal development; awareness, need and use of family resources; access to adequate nutrition for wholesome development; clothing fundamentals. May have capabilities to start earning by enhancing their skills in the field of Nutrition and Textiles.

## **SEMESTER I HOME SCIENCE PAPER 1**

### **COURSE TITLE: FUNDAMENTALS OF NUTRITION AND HUMAN DEVELOPMENT (THEORY)**

#### **COURSE OUTCOME**

The student at the completion of the course will be able to:

- Prepare the students to understand physiology based courses
- Students will get familiar with different methods of cooking
- Acquaint students with practical knowledge of nutrient rich foods
- Explain the need and importance of studying human growth and development across life span
- Identify the biological and environmental factors affecting human development.
- Learn about the characteristics, needs and developmental tasks of infancy & early childhood years

## **SEMESTER I HOME SCIENCE PAPER 2**

### **COURSE TITLE: COOKING SKILLS AND HEALTHY RECIPE DEVELOPMENT (PRACTICAL)**

#### **COURSE OUTCOME**

- Students will get familiar with different methods of cooking
- Acquaint students with practical knowledge of nutrient rich foods

## **SEMESTER 2 HOME SCIENCE PAPER 1**

**COURSE TITLE: INTRODUCTION TO CLOTHING & TEXTILES & FAMILY RESOURCE MANAGEMENT (THEORY)**

**COURSE OUTCOME**

- Learn about scope of textile and clothing
- Understanding why fabrics are different
- Learn how fabrics can be manufactured
- Understand basic clothing concepts and garment making
- Learn the family resource management as a whole.
- Understand the Decision making and use of resources throughout the Family life cycle.
- Gain knowledge about Time, Money & Energy as a Resource.
- Appreciate Household Equipments for work simplification

**SEMESTER 2 HOME SCIENCE PAPER 2**

**CORSE TITLE: CLOTHING & TEXTILES (PRACTICAL)**

**COURSE OUTCOME**

- Ability to identify fibers and fabrics
- Understanding why fabrics are different
- Learning basic Sewing skills
- Learn how garments are stitched

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**B.A. I [CERTIFICATE IN SOCIOLOGY]**

**PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- This course will introduce students to new concepts of Sociology discipline.
- These concepts will enhance the conceptual learning and understanding of the basic concepts used in Sociology.
- This course will contribute in enriching the vocabulary and scientific temperament of the students.

- The course is designed to incorporate all the key concepts of sociology which would enable the learner to develop keen insights to distinguish between the commonsense knowledge and Sociological knowledge.
- This course provides comprehensive understanding of Indian society.

## **SEMESTER. I**

### **COURSE TITLE: INTRODUCTION TO BASIC CONCEPTS OF SOCIOLOGY**

#### **COURSE OUTCOME**

- This paper will introduce students to new concepts of Sociology discipline. These concepts will enhance the conceptual learning and understanding of the basic concepts used in Sociology. This paper will contribute in enriching the vocabulary and scientific temperament of the students. The course is designed to incorporate all the key concepts of sociology which would enable the learner to develop keen insights to distinguish between the commonsense knowledge and Sociological knowledge.

## **SEMESTER II**

### **COURSE TITLE: SOCIETY IN INDIA: STRUCTURE, ORGANIZATION & CHANGE. (THEORY)**

#### **COURSE OUTCOME**

- This paper is designed in this manner, so that students are introduced to the concepts related to Indian Society. They are made familiar with the Indian Society, its linkages and continuity with past and present. It also gives insights to analyze contemporary Indian society. This paper provides comprehensive understanding of Indian society.

## **SEMESTER II**

### **COURSE II (PRACTICAL)**

### **COURSE TITLE: WRITING SKILL DEVELOPMENT ON TOPICS OF CONTEMPORARY SOCIOLOGICAL IMPORTANCE**

#### **COURSE OUTCOME**

- This is the practical paper introduced in the second semester of the certificate course in order to develop writing skills among the students of Sociology. This would enhance and inculcate the analytical skills among the students. The paper is designed

to enrich the conceptual vocabulary of the students, such that they are equipped with the writing style in Sociology. This paper is presumably beneficial for the students who are interested in the field of Media, Journalism, Essay writer, Column writer, Psephology, Journalism

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## **B.A. I [CERTIFICATE IN MUSIC VOCAL]**

### **PROGRAM SPECIFIC OUTCOMES (PSOS)**

At the end of program following outcomes are expected from students:

- Learn about the fundamental aspects of Indian Music.
- Learn about the historical development of Indian Music and cultural development of India.
- Students will be able to get acquainted with various Ragas and different Taals. They will be able to get acquainted with other genres beside classical and will also be able to perform.
- May have capabilities to start earning by enhancing their skills in the field of Music vocal and Indian Music.

### **SEMESTER 1**

#### **COURSE TITLE: INTRODUCTION TO INDIAN MUSIC (THEORY)**

##### **COURSE OUTCOME**

- On the successful completion of Introduction to Indian Music students will develop a strong foundation on the basic understanding of the Indian Music.

### **SEMESTER 1**

#### **COURSE TITLE: CRITICAL STUDY OF RAGAS AND TAALS (PRACTICAL)**

##### **COURSE OUTCOME**

- This paper focuses on the practical fundamentals of perform a Raag on stage with Vilambt and Drut Khayal. They will be able to perform Tarana, Bhajan, Geet and gazal also. Students will understand the concept of Lay and Layakari.

### **SEMESTER II**

#### **COURSE TITLE: HISTORY OF INDIAN MUSIC (THEORY)**



## **COURSE OUTCOME**

- This paper focuses on the practical fundamentals of perform a Raag on stage with Vilambit and Drut Khayal. They will be able to perform Tarana, Bhajan, Geet and gazal also. Students will understand the concept of Lay and Layakari

## **SEMESTER II**

### **COURSE TITLE: CRITICAL STUDY OF RAAGAS AND TAALS (PRACTICAL)**

## **COURSE OUTCOME**

- The focus of this paper is the student will have acquainted with rich cultural heritage of Indian music. This course will help the students to know the rich history of Indian music from the Vedic age.

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## **B.A. I [CERTIFICATE PHYSICAL EDUCATION]**

### **PROGRAMME SPECIFIC OUTCOMES**

- Physical Education is a very wide subject in which biological, psychological, physical, health and functional aspects of sports and body are studied. It is noteworthy that it is such a subject with the help of which human body both internally and externally can be kept healthy. Students will definitely be able to discharge duties towards themselves and society through this subject. Under this subject, the students can demonstrate excellently their skills and perfection particularly in sports ability, management, leadership, health plan, event management, sports budgeting, physiology, teaching methods, sports psychology and research along with getting information regarding to the importance of Physical Education for DIVYANG

## **SEMESTER I**

### **COURSE TITLE: ELEMENTALS OF PHYSICAL EDUCATION (THEORY)**

## **COURSE OUTCOME**

- Physical education is very wide concept and this subject teaches about introduction and Sociological concept of Physical Education and this also teaches about historical development of physical education in India and other countries. It introduces a general concept of good health and wellness. This program will also help a student to

promote healthy way of living and they will also be able to make fitness and health plan.

## **SEMESTER I**

### **COURSE TITLE: FITNESS AND YOGA (PRACTICAL)**

#### **COURSE OUTCOME**

- Yoga is very helpful in prevention of many diseases and students will learn about it. This subject deals with basic knowledge about and Aerobics and Gymnasium classes which will help students to excel in the fitness industry.

## **SEMESTER II**

### **COURSE TITLE: SPORTS ORGANIZATION AND MANAGEMENT (THEORY)**

#### **COURSE OUTCOME**

- This course is designed to give real time exposure to students in the area of organising an event/ sports. The students will also learn about store management, purchasing and budget making.

## **SEMESTER II**

### **COURSE TITLE: SPORTS EVENT AND TRACK & FIELD (PRACTICAL)**

#### **COURSE OUTCOME**

- To make a plan for organizing an event.
- To organize an Interclass Competition of any games with in the wall.
- To prepare a budget plane for interclass competition within the wall
- Make a Sample Time Table for college.
- Prepare the list of Consumable and Non-Consumable items.
- Prepare a Biodata/ Vita/ curriculum vitae.

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## **B.A. I [CERTIFICATE POLITICAL SCIENCE]**

### **SEMESTER I**

#### **COURSE TITLE: INDIAN NATIONAL MOVEMENT & CONSTITUTION OF INDIA (THEORY)**

## **COURSE OUTCOME**

- Acquaintance to Indian National Movement & Constitution is indispensable for a student to make a sense of Indian Political System. The course is designed to provide a overview of Indian freedom Struggle and key concepts of the Indian constitution to the student, which would evolve him into a conscientious citizen.

## **SEMESTER I**

### **COURSE TITLE: AWARENESS OF RIGHTS & LAWS (PRACTICAL)**

## **COURSE OUTCOME**

- This paper intends to arm the student with basic digital and legal awareness where by the student can leverage this in the job market. It also intends to make the student aware of his basic legal rights which would help him to stand up and help others.

## **SEMESTER II**

### **COURSE TITLE: POLITICAL THEORY & CONCEPTS**

## **COURSE OUTCOME**

- Understanding Political theory is integral and indispensable for a comprehensive and critical study of political science. The course is designed to train a student in the foundational issues of political theory, which is relevant for any in depth study and research.

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### **B.A. I [CERTIFICATE IN PSYCHOLOGY]**

## **PROGRAM SPECIFIC OUTCOMES**

The learning outcomes that a student should be able to exhibit on completion of a degree level program in Psychology are as follows:

- Comprehension about the discipline, its research methods, related theories and models.
- Knack to link up theory with individual experiences and varied applied settings.
- Capacity to practice professional skills in the area of psychological testing, assessment and counselling.

- Development of skills in specific areas related to specific specialization (e.g. psycho diagnostics, counselling, learning disability, health, community mental health and organizational behaviour).
- A general understanding about how knowledge of psychology can be applied to benefit the management and/or amendment of problems of mankind.
- Capability to articulate ideas in appropriate manner, with scientific writing and authentic reporting.
- Sensitivity towards diverse contexts, ethnic groups, minorities, marginalized groups and gender issues
- Development of skills and attributes of empathy, team work, coordination, cooperation, conflict resolution, and congruence.

## **SEMESTER I**

### **COURSE TITLE: BASIC PSYCHOLOGICAL PROCESSES (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

- The students will learn about the fundamental processes and core psychological concepts, models, classical theories, varied perspectives, and will be able to apply them in their own and in others lives. It will also give the learner a clear understanding of the concepts like intelligence, motivation, emotion and personality. It will develop critical analytical skills regarding these individualistic traits

## **SEMESTER I**

### **COURSE TITLE: LAB WORK ( PAPER 2 PRACTICAL )**

#### **COURSE OUTCOME**

- Students will be imparted a variety of skills to design and conduct psychological experiments ensuring controlled conditions, report writing and interpretations of the report.

## **SEMESTER II**

### **COURSE TITLE: BASIC RESEARCH METHODOLOGY AND STATISTICS (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

- The learners will be able to comprehend psychological data and can put them on appropriate scaling method. Moreover, they will be getting hold of essentials of psychological testing along with various kinds of tests implemented.

## **SEMESTER II**

### **COURSE TITLE: LAB WORK/ PSYCHOLOGICAL TESTING ( PAPER 2 PRACTICAL )**

#### **COURSE OUTCOME**

- Students will be conferred an array of skills to carry out experiments in lab settings, design and conduct psychological experiments ensuring controlled conditions, report writing and interpretations of the report.

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### **B.A. I [CERTIFICATE IN GEOGRAPHY]**

#### **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

- This course provides the basic ideas and concepts of Physical & Human aspect of Geography.
- This course intends to orient the learner with the Approaches to the broader discipline of Geography.
- It will help in developing analytical and critical thinking based on the themes and issues of geography.
- It eventually prepares the students to understand the development of the subject and delve around issues suited to the needs of the contemporary world. e) It will help in exhaustive understanding of the basic concepts of Geography and an awareness of the emerging areas of the field.
- Acquisition of in-depth understanding of the applied aspects of Geography as well as interdisciplinary subjects in everyday life.
- Improvement of critical thinking and skills facilitating.
- The application of knowledge gained in the field of Geography in the classroom to the practical solving of societal problems.
- The programme orients students with tradition geographical knowledge along with advance contemporary skills like remote sensing and GIS

## **SEMESTER I**

### **COURSE TITLE: PHYSICAL GEOGRAPHY (THEORY)**

#### **COURSE OUTCOME**

- Students will be able to understand the Earth geomorphic transition from beginning to present day.
- Plate tectonics and related movements
- Landforms carved by various agents of erosion
- Earth's climate and that factors that influence it
- Oceans system and biogeography of the world.

## **SEMESTER I**

### **COURSE TITLE: ELEMENTS OF MAP AND SURVEYING (PRACTICAL)**

#### **COURSE OUTCOME**

On completion of this course, learners will be able to:

- Understand the basic idea of Map, Scale and Topographic sheets

## **SEMESTER II**

### **COURSE TITLE: HUMAN GEOGRAPHY (THEORY)**

#### **COURSE OUTCOME**

On completion of this course, learners will be able to:

- To understand the Concept, Nature, Meaning and Scope of Human Geography
- To understand the natural and Cultural Changes in and around the Human Environs and their interrelationship.

## **SEMESTER II**

### **COURSE TITLE: THEMATIC MAPPING AND SURVEYING (PRACTICAL)**

#### **COURSE OUTCOME**

On completion of this course, learners will be able to:

- Understand the basic idea of Map, Scale and Topographic sheets

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

Student after completing graduation will be able to learn:

- The behavioural patterns of different economic agents, advance theoretical issues and their applications.
- Understand the basic concept of microeconomics.
- Understanding basic concepts of Macroeconomics.
- Acquaint with some basic statistical methods to be applied in economics.
- Acquaint with some basic mathematical methods to be applied in economics.
- Acquaint with some basic theoretical concept of public finance.
- Acquaint with the measurement of development with the help of theories along with the conceptual issues of poverty and inequalities with Indian perspectives.
- : Delineate the fiscal policies designed for developed and developing economics.
- Facilitate the historical developments in the economic thoughts propounded by different schools. To familiarise students with the contribution of Indian Economic Thinkers and the relevance of their contribution.
- Learn the basic concept of monetary analysis and financial marketing in Indian financial markets.
- Learn the development issues of Indian economy.
- Acquaint with some basic concept of environmental economics along with the solution of the environmental problems.
- Learn the real and monetary sides of International economics.
- Familiarise and acquaint with the characteristics of the economy of Uttar Pradesh.
- To familiarize the students about issues of ethics in economic thinking and practice.

## **SEMESTER I**

### **COURSE TITLE: PRINCIPLE OF MICRO ECONOMICS**

#### **COURSE OUTCOME**

- The students are familiarized with basic concepts of microeconomics such as laws of demand and supply and elasticity etc so that he/she can comprehend them & familiarize with day today happenings.
- The students learn and understand the concepts of consumer behaviour like cardinal utility and ordinal utility analysis.

- The students learn and understand application of Indifference curve analysis in deriving demand curves, price effect, income effect and substitution effect.
- The students learn and understand the Theory of production- iso-quants, laws of returns to scale, law of variable proportion.
- The students learn, understand and compare between the Traditional and modern theory of cost.
- Demonstrate an understanding, usage and application of basic economic principles.
- Describe and apply the methods for analyzing consumer behavior through demand and supply, elasticity and marginal utility.
- To analyze the behavioural patterns of different economic agents regarding profit, price, cost etc.
- The decision-making process in different market situations such as perfect competition, monopolistic competition, monopoly and oligopoly markets.
- To deal with the advance theoretical issues and their practical applications of distribution theories.
- General equilibrium, economic efficiency and market failure.

## **SEMESTER II**

### **COURSE TITLE: PRINCIPALS OF MACRO ECONOMICS**

#### **COURSE OUTCOME**

- Students are able to explain national income, comprehend calculation methods of national income, and concepts related to national income.
- Students are able to comprehend classical theory of employment and the Keynesian approach.
- Students are able to comprehend the concept of multiplier and its working.
- Students are able to understand the relationship between inflation and employment.
- Students are able to relate factors determining national income such as consumption, saving and investment.
- Students are able to analyze different phases of trade cycle, demonstrate various trade cycle theories, understand the impact of cyclical fluctuation on the growth of business, and lay policies to control trade cycle.



**B.A. I [CERTIFICATE IN FUNDAMENTALS OF HISTORY]****PROGRAM SPECIFIC OUTCOMES (PSOS)**

At the end of program following outcomes are expected from students:

- Learn about the discipline of History as a holistic field of study covering multiple facets and requirements of— human beings in day to day living, for example, achievement of appropriate milestones in personal development; awareness, need and use of historical resources; access to adequate knowledge system for wholesome development; historical fundamentals.
- May have capabilities to start earning by enhancing their skills in the field of Historical and Traditional— knowledge system, Tourism, Archives and Museums

**SEMESTER I****COURSE TITLE: ANCIENT AND EARLY MEDIEVAL INDIA (TILL 1206 A.D.)****COURSE OUTCOME**

- The present course will be useful in providing historical knowledge to the students.
- It has been constructed in such a way that a student will not only gain knowledge of ancient civilizations of India, but historical development can be understood easily.
- Students will be familiar with the political and cultural development of ancient India. The art, culture and philosophy of religion of ancient India have been included in the syllabus.
- Through this paper a student will get acquainted with historical facts, acquire knowledge of ancient pride of India and develop a positive attitude towards history. This approach will motivate the students to contribute towards nation building by making them aware of the social culture of India.
- This course will develop the logical ability of students to do a rational analysis of historical events and develop students' research aptitude.
- The course presented will inspire the ability of knowledge generation in the students.
- This section studies the political situation in North India. Students can gain knowledge of how political decentralization arose in North India after death of Harsha

and which historical circumstances proved helpful in the origin of Rajputs. It also includes the history of the dynasties of Kashmir, Punjab and Sindh.

- This section gives a historical account of new political conditions and conflicts in India after 1000 AD. Students can gain historical knowledge of political and strategic weakness of India through political conflicts. In this paper, a student will get knowledge of the nature of Muslim attacks and the struggle of Rajputs.

## **SEMESTER II**

### **COURSE TITLE: HISTORY OF MEDIEVAL INDIA (1206 A.D - 1757 A.D)**

#### **COURSE OUTCOME**

- This paper is designed to develop the understanding of India with the advent of Turks , Timurs , Afghans and subsequently the establishment of Mughal rule in some parts of India.
- An emphasis has been laid to cover the regions of India not under the domination of Turks and Mughals in India.
- This paper covers the territorial expansion of various Indian Kings and impact of Medievalism on Indian society and culture.

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### **B.A. I [CERTIFICATE IN HINDI LITERATURE]**

#### **PROGRAM SPECIFIC OUTCOMES (PSOS)**

- विद्यार्थियों को भारतीय ज्ञान परंपरा के अंतर्गत हिंदी साहित्य एवं भाषा का आधारभूत ज्ञान प्राप्त होगा।
- साहित्य के मूलभूत स्वरूप, यथा विभिन्न विधाओं, हिंदी के रोजगारपरक स्वरूप आदि की जानकारी प्राप्त होगी ।
- विश्व की सर्वाधिक वैज्ञानिक भाषा अर्थात् हिंदी में रोजगार कौशल प्राप्त होगा।
- भाषा, साहित्य तथा संस्कृति की अंतरसंबद्धता के प्रति विद्यार्थियों में समझ विकसित होगी।
- विद्यार्थियों में राष्ट्रीयता तथा नैतिक चरित्र की भावना का विकास होगा ।
- कंप्यूटर, सिनेमा, अनुवाद आदि के माध्यम से विद्यार्थियों को नए समाज की चुनौतियों का सामना करने में सक्षम बनाने का प्रयास किया जाएगा।

## प्रथम सेमेस्टर

### प्रश्न पत्र शीर्षक: हिंदी काव्य

#### अधिगम उपलब्धि

- भारतीय ज्ञान परंपरा में हिंदी के विभिन्न कालों के प्रतिनिधि कवियों की कविताओं के विषय में जानकारी देना
- हिंदी काव्य के इतिहास की संक्षिप्त जानकारी देकर विद्यार्थियों को हिंदी कविता के विकास क्रम से अवगत कराना।

## द्वितीय सेमेस्टर

### प्रश्न पत्र शीर्षक: कार्यालयी हिंदी और कंप्यूटर

#### अधिगम उपलब्धि

- हिंदी के विद्यार्थियों को कार्यालय के कार्यों की मूलभूत जानकारी प्रदान करना ताकि वे कार्यालय के समस्त कार्यों को सुगमता पूर्वक कर सकें
- उन्हें कंप्यूटर का मूलभूत ज्ञान देकर कंप्यूटर पर हिंदी में कार्य करने में सक्षम बनाना ताकि वे समुचित रोजगार प्राप्त कर सकें।

## 1

### B.A. I [CERTIFICATE IN SANSKRIT]

#### PROGRAM SPECIFIC OUTCOMES (PSOS)

- विद्यार्थियों को लेखन, वाचन एवं अध्ययन की दृष्टि से भाषागत दक्षता प्राप्त होगी।
- सर्वाधिक वैज्ञानिक भाषा के रूप में संस्कृत भाषा के प्राचीन महत्व एवं उसकी वर्तमान प्रासंगिकता को जानने, समझने योग्य होंगे।
- संस्कृत साहित्य की विभिन्न विधाओं (गद्य, पद्य, नाटक, व्याकरण) इत्यादि से सुपरिचित होकर संस्कृत मर्मज्ञ बन सकेंगे।
- संस्कृत व्याकरण के विभिन्न अंगों के ज्ञान द्वारा भाषा के शुद्ध अध्ययन, लेखन एवं उच्चारण माध्यम से अभिव्यक्ति कौशल का विकास होगा।
- आयुर्वेद, वास्तुशास्त्र, ज्योतिष, नित्यनैमित्तिक कर्मकांड इत्यादि के माध्यम से जीविकोपार्जन के योग्य बनेंगे।

- वैदिक एवं लौकिक संस्कृत साहित्य की समृद्धि एवं तद्विहित नैतिकता व आध्यात्मिकता को अनुभूत कर भारतीय संस्कृति के महत्व को वैश्विक स्तर पर तक पहुंचाने में सक्षम होंगे।
- धर्म- दर्शन, आचार- व्यवहार, नीति शास्त्र एवं भारतीय संस्कृति के मूल तत्वों को जानकर उत्तम चरित्रवान मानव एवं कुशल नागरिक बनेंगे।
- समसामयिक समस्याओं के समाधान के रूप में संस्कृत साहित्य में निबद्ध सर्वांगीणता के प्रति शोधपरक दृष्टि का विकास होगा।

### प्रथम सेमेस्टर

#### प्रश्न पत्र शीर्षक: संस्कृत पद्य साहित्य एवं व्याकरण

##### अधिगम उपलब्धि

- विद्यार्थी संस्कृत साहित्य का सामान्य परिचय प्राप्त कर काव्य के विभिन्न भेदों से परिचित हो सकेंगे ।
- वे संस्कृत पद्य साहित्य की सुगीतात्मकता का सौंदर्यबोध कर सकेंगे ।
- उनमें काव्य में प्रयुक्त रस, छंद, अलंकारों को समझने की क्षमता विकसित होगी।
- पद्य में निहित सूक्तियों एवं सुभाषित वाक्यों के माध्यम से उनका नैतिक एवं चारित्रिक उन्नयन होगा।
- विद्यार्थियों के शब्दकोश में वृद्धि होने के साथ-साथ वे संस्कृत श्लोकों के शुद्ध और सस्वर उच्चारण के कौशल में निपुण बनेंगे।
- संस्कृत व्याकरण का सामान्य ज्ञान प्राप्त कर उसकी वैज्ञानिकता से सुपरिचित हो सकेंगे ।
- संस्कृत वर्णों के शुद्ध उच्चारण कौशल का विकास होगा ।
- स्वर एवं व्यंजन के मूल भेद को समझकर पृथक अर्थावगमन की क्षमता उत्पन्न होगी।
- स्वर, व्यंजन एवं विसर्ग संधि का विशिष्ट ज्ञान एवं उनके अनुप्रयोग का कौशल विकसित होगा।

### द्वितीय सेमेस्टर

#### प्रश्न पत्र शीर्षक: संस्कृत गद्य साहित्य अनुवाद एवं संगणक अनुप्रयोग

##### अधिगम उपलब्धि

- विद्यार्थी संस्कृत गद्य साहित्य का सामान्य ज्ञान प्राप्त कर गद्य काव्य के भेदों से सुपरिचित हो सकेंगे ।

- संबंधित साहित्य के माध्यम से उनका नैतिक एवं चारित्रिक उत्कर्ष होगा। राष्ट्रभक्ति की भावना प्रबल होगी तथा उत्तम नागरिक बनेंगे।
- अनुवाद कौशल में वृद्धि होगी।
- संस्कृत गद्य के धाराप्रवाह एवं शुद्ध वाचन का कौशल विकसित होगा।
- विद्यार्थी संगणक का सामान्य ज्ञान प्राप्त कर अधिगम क्षमता में वृद्धि हेतु इसका उपयोग कर सकने में सक्षम होंगे।
- E-content एवं डिजिटल लाइब्रेरी का उपयोग कर पाने में समर्थ होंगे।
- संस्कृत भाषा एवं साहित्य के नित-नूतन अन्वेषण को खोज पाने तथा उससे स्व-ज्ञान कोष में वृद्धि कर पाने योग्य होंगे।
- संगणक के प्रयोग के माध्यम से संस्कृत ज्ञान के प्रचार-प्रसार एवं आदान-प्रदान में करने में कुशल बनेंगे।
- पारंपरिक एवं वैश्विक ज्ञान में सामंजस्य बनाकर ज्ञान की अभिवृद्धि करने एवं जीविकोपार्जन के नए मार्ग खोजने का कौशल विकसित होगा।

## **UNDERGRADUATE COMMERCE (B.COM.)**

### **PROGRAMME OUTCOMES**

The career options for students pursuing B.Com. Programme is vast and candidates will always have interesting profiles to work at if they play to their strengths. While many B.Com. Graduates may choose the much tried and tested path of CA, CS, CMA and other related fields of study, one has ample opportunity to choose an out-of-the-box career option, as one in travel and hospitality, media and telecommunications depending on the path and degree one chooses.

### **PROGRAMME SPECIFIC OUTCOMES**

- Earning a graduate degree of commerce (B.Com.) is evidence of persistence, determination, intellectual prowess, and the ability to handle challenging environments all of which are sought-after qualities for individuals filling manager and director positions. An employee who has demonstrated success in a long-term situation that requires stamina, discipline, leadership, and the ability to work well with others is going to be in line for growth opportunities within his or her organization.

- B.Com. graduate after completion of course can choose to work in job profile option available to them depending on their caliber and interest area such as Accountant, Auditor, Consultant, Company Secretary, Business Analyst, Finance Officer, Sales Analyst, Junior Analyst, Tax Accountant, Stock Broker, Economist, and Business Development Trainee and so on to explore.

**SEMESTER: I**

**COURSE TITLE: BUSINESS ORGANIZATION**

**COURSE OUTCOME**

After completing this course a student will have:

- Ability to understand the concept of Business Organisation along with the basic laws and norms of Business Organisation.
- Ability to understand the terminologies associated with the field of Business Organisation along with their relevance.
- Ability to identify the appropriate types and functioning of Business Organisation for solving different problems.
- Ability to apply basic Business Organisation principles to solve business and industry related problems.
- Ability to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.

**SEMESTER: I**

**COURSE TITLE: BUSINESS STATISTICS**

**COURSE OUTCOME**

- The purpose of this paper is to inculcate and analytical ability among the students.

**SEMESTER: I**

**COURSE TITLE: BUSINESS COMMUNICATION**

**COURSE OUTCOMES**

- To acquire skills in reading, writing, comprehension and communication, and also to use electronic media for business communication.

**SEMESTER: I**

**COURSE TITLE: INTRODUCTION TO COMPUTER APPLICATION****COURSE OUTCOMES**

- The objective of this course is to provide basic knowledge of computer, DBMS, data base language and word processing.

**SEMESTER: II****COURSE TITLE: BUSINESS MANAGEMENT****COURSE OUTCOME**

After completing this course a student will have:

- Ability to understand the concept of Business Management along with the basic laws and norms of Business Management.
- Ability to understand the terminologies associated with the field of Business Management and control along with their relevance.
- Ability to identify the appropriate method and techniques of Business Management for solving different problems.
- Ability to apply basic Business Management principles to solve business and industry related problems.
- Ability to understand the concept of Planning, Organising, Direction, Motivation and Control etc.

**SEMESTER: II****COURSE TITLE: COMPUTERISED ACCOUNTING (PRACTICAL)****COURSE OUTCOMES**

- The purpose of this paper is provide to knowledge of accounting with computer.

**SEMESTER: II****COURSE TITLE: ESSENTIALS OF E-COMMERCE****COURSE OUTCOMES**

- This course is to familiarize the student with the basics of ecommerce and to comprehend its potential.

**SEMESTER: II****COURSE TITLE: BUSINESS ECONOMICS**

## **COURSE OUTCOMES**

- This course is meant to acquaint the students with the principles of Business Economics as are applicable in business.

## **UNDERGRADUATE SCIENCE (B.SC.)**

### **B.SC. IN SCIENCE (BOTANY)**

Programme outcomes (POs):

Transformed curriculum shall develop educated outcome-oriented candidature, fostered with discovery learning, equipped with practice & skills to deal practical problems and versed with recent pedagogical trends in education including e-learning, flipped class and hybrid learning to develop into responsible citizen for nation-building and transforming the country towards the future with their knowledge gained in the field of plant science.

- ❖ PO 1 CBCS syllabus with a combination of general and specialized education shall introduce the concepts of breadth and depth in learning
- ❖ PO2 Shall produce competent plant biologists who can employ and implement their gained knowledge in basic and applied aspects that will profoundly influence the prevailing paradigm of agriculture, industry, healthcare and environment to provide sustainable development.
- ❖ PO 3 Will increase the ability of critical thinking, development of scientific attitude, handling of problems and generating solutions, improve practical skills, enhance communication skill, social interaction, increase awareness in judicious use of plant resources by recognizing the ethical value system.
- ❖ PO 4 The training provided to the students will make them competent enough for doing jobs in Govt. and private sectors of academia, research and industry along with graduate preparation for national as well as international competitive examinations, especially UGC-CSIR NET, UPSC Civil Services Examination, IFS, NSC, FCI, BSI, FRI etc.
- ❖ PO 5 Certificate and diploma courses are framed to generate self- entrepreneurship and selfemployability, if multi exit option is opted. PO 6 Lifelong learning be achieved by drawing attention to the vast world of knowledge of plants and their domestication.

### **PROGRAMME SPECIFIC OUTCOMES (PSOS):**

### **B.SC. I BOTANY [CERTIFICATE COURSE IN MICROBIAL TECHNOLOGY &**



## **CLASSICAL BOTANY]**

This Programme imparts knowledge on various fields of plant biology through teaching, interactions and practical classes. It shall maintain a balance between the traditional botany and modern science for shifting it towards the frontier areas of plant sciences with applied approach. This syllabus has been drafted to enable the learners to prepare them for self-entrepreneurship and employment in various fields including academics as well as competitive exams. Students would gain wide knowledge in following aspects:

- Diversity of plants and microbes, their habitat, morphology, architecture and reproduction.
- Plant disease causing microbes, symptoms & control.
- Economic value of plants and their use in Human Welfare.

## **SEMESTER 1**

### **COURSE TITLE: MICROBIOLOGY & PLANT PATHOLOGY (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

- After the completion of the course the students will be able to: 1. Develop understanding about the classification and diversity of different microbes including viruses, Algae, Fungi & Lichens & their economic importance.
- Develop conceptual skill about identifying microbes, pathogens, biofertilizers & lichens.
- Gain knowledge about developing commercial enterprise of microbial products.
- Learn host –pathogen relationship and disease management.
- Learn Presentation skills (oral & writing) in life sciences by usage of computer & multimedia.
- Gain Knowledge about uses of microbes in various fields.
- Understand the structure and reproduction of certain selected bacteria algae, fungi and lichens

Gain Knowledge about the economic values of this lower group of plant community.

## **SEMESTER 1**

### **COURSE TITLE: TECHNIQUES IN MICROBIOLOGY & PLANT PATHOLOGY (PAPER 2 PRACTICAL)**

## **COURSE OUTCOME**

After the completion of the course the students will be able:

- Understand the instruments, techniques, lab etiquettes and good lab practices for working in a microbiology laboratory.
- Develop skills for identifying microbes and using them for Industrial, Agriculture and Environment purposes.
- Practical skills in the field and laboratory experiments in Microbiology & Pathology.
- learn to identify Algae, Lichens and plant pathogens along with their Symbiotic and Parasitic associations.
- Can initiate his own Plant & Seed Diagnostic Clinic 6. Can start own enterprise on microbial products

## **SEMESTER II**

### **COURSE TITLE: ARCHEGONIATES AND PLANT ARCHITECTURE (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

After the completion of the course the students will be able to:

- Develop critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms
- Understanding of plant evolution and their transition to land habitat.
- Understand morphology, anatomy, reproduction and developmental changes therein through typological study and create a knowledge base in understanding the basis of plant diversity, economic values & taxonomy of plants
- Understand the details of external and internal structures of flowering plants.

## **SEMESTER II**

### **COURSE TITLE: LAND PLANTS ARCHITECTURE (PAPER 2 PRACTICAL)**

#### **COURSE OUTCOME**

- The students will be made aware of the group of plants that have given rise to land habit and the flowering plants. Through field study they will be able to see these plants grow in nature and become familiar with the biodiversity.

- Students would learn to create their small digital reports where they can capture the zoomed in and zoomed out pictures as well as videos in case they are able to find some rare structure or phenomenon related to these plants.
- Develop an understanding by observation and table study of representative members of phylogenetically important groups to learn the process of evolution in a broad sense.
- Understand morphology, anatomy, reproduction and developmental changes therein through typological study and create a knowledge base in understanding plant diversity, economic values & taxonomy of lower group of plants
- Understand the composition, modifications, internal structure & architecture of flowering plants for becoming a Botanist.

**2**

## **B.SC. 1 CHEMISTRY [CERTIFICATE IN BIOORGANIC AND MEDICINAL CHEMISTRY]**

### **PROGRAM SPECIFIC OUTCOMES (PSOS)**

- Certificate in Bioorganic and Medicinal Chemistry will give the student a basic knowledge of all the fundamental principles of chemistry like molecular polarity , bonding theories of molecules, Periodic properties of more than 111 elements, mechanism of organic Reactions, Stereochemistry, basic mathematical concepts and computer knowledge, chemistry of carbohydrates, proteins and nucleic acids: medicinal chemistry, synthetic polymers, synthetic dyes
- Student will be able to do qualitative quantitative and bio chemical analysis of the compounds in the laboratory.
- This certificate course is definitely going to prepare the students for various fields of chemistry and will give an insight into all the branches of chemistry and enable our students to join the knowledge and available opportunities related to chemistry in the government and private sector services particularly in the field of food safety, health inspector, pharmacist etc.
- Have a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective.

## **SEMESTER I**

### **COURSE TITLE: FUNDAMENTALS OF CHEMISTRY (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

There is nothing more fundamental to chemistry than the chemical bond. Chemical bonding is the language of logic for chemists. Chemical bonding enables scientists to take the 100-plus elements of the periodic table and combine them in myriad ways to form chemical compounds and materials. Periodic trends, arising from the arrangement of the periodic table, provide chemists with an invaluable tool to quickly predict an element's properties. These trends exist because of the similar atomic structure of the elements within their respective group families or periods, and because of the periodic nature of the elements. Reaction mechanism gives the fundamental knowledge of carrying out an organic reaction in a step-by-step manner. This course will provide a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective. Students will gain an understanding of Molecular geometries, physical and chemical properties of the molecules. • Current bonding models for simple inorganic and organic molecules in order to predict structures and important • bonding parameters. The chapter Recapitulation of basics of organic chemistry gives the most primary and utmost important • knowledge and concepts of organic Chemistry. This course gives a broader theoretical picture in multiple stages in an overall chemical reaction. It describes • reactive intermediates, transition states and states of all the bonds broken and formed. It enables to understand the reactants, catalyst, stereochemistry and major and minor products of any organic reaction. It describes the types of reactions and the Kinetic and thermodynamic aspects one should know for carrying out • any reaction and the ways how the reaction mechanism can be determined. The chapters Stereochemistry gives the clear picture of two-dimensional and three-dimensional structure of the • molecules, and their role in reaction mechanism.

## **SEMESTER I**

### **COURSE TITLE: QUANTITATIVE ANALYSIS (PAPER 2 PRACTICAL)**

#### **COURSE OUTCOME**

- Upon completion of this course the students will have the knowledge and skills to: understand the laboratory methods and tests related to estimation of metals ions and estimation of acids and alkali contents in commercial products.
- Potability tests of water samples.

- Estimation of metal ions in samples
- Estimation of alkali and acid contents in samples
- Estimation of inorganic salts and hydrated water in samples

## **SEMESTER II**

### **COURSE TITLE: BIOORGANIC AND MEDICINAL CHEMISTRY (PAPER 1 THEORY)**

#### **COURSE OUTCOME**

- Biomolecules are important for the functioning of living organisms.
- These molecules perform or trigger important biochemical reactions in living organisms.
- When studying biomolecules, one can understand the physiological function that regulates the proper growth and development of a human body. T
- his course aims to introduce the students with basic experimental understanding of carbohydrates, amino acids, proteins, nucleic acids and medicinal chemistry.
- Upon completion of this course students may get job opportunities in food, beverage and pharmaceutical industries.

## **SEMESTER II**

### **COURSE TITLE: BIOCHEMICAL ANALYSIS (PAPER 2 PRACTICAL)**

#### **COURSE OUTCOME**

- This course will provide basic qualitative and quantitative experimental knowledge of biomolecules such as carbohydrates, proteins, amino acids, nucleic acids drug molecules.
- Upon successful completion of this course students may get job opportunities in food, beverage and pharmaceutical industries.

## **B.SC. 1 PHYSICS [CERTIFICATE -IN BASIC PHYSICS & SEMICONDUCTOR DEVICES]**

### **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- This programme aims to give students the competence in the methods and techniques of calculations using Newtonian Mechanics and Thermodynamics.

- At the end of the course the students are expected to have hands on experience in modeling, implementation and calculation of physical quantities of relevance.
- An introduction to the field of Circuit Fundamentals and Basic Electronics which deals with the physics and technology of semiconductor devices is practically useful and gives the students an insight in handling electrical and electronic instruments.
- Experimental physics has the most striking impact on the industry wherever the instruments are used.
- The industries of electronics, telecommunication and instrumentation will specially recognize this course.

## **SEMESTER I**

### **COURSE TITLE: MATHEMATICAL PHYSICS & NEWTONIAN MECHANICS (PAPER 1 THEORY)**

#### **COURSE OUTCOMES (COS)**

- Recognize the difference between scalars, vectors, pseudo-scalars and pseudo-vectors.
- Understand the physical interpretation of gradient, divergence and curl.
- Comprehend the difference and connection between Cartesian, spherical and cylindrical coordinate systems.
- Know the meaning of 4-vectors, Kronecker delta and Epsilon (Levi Civita) tensors.
- Study the origin of pseudo forces in rotating frame.
- Study the response of the classical systems to external forces and their elastic deformation.
- Understand the dynamics of planetary motion and the working of Global Positioning System (GPS).
- Comprehend the different features of Simple Harmonic Motion (SHM) and wave propagation.

## **SEMESTER I**

### **COURSE TITLE: MECHANICAL PROPERTIES OF MATTER (PAPER 2 PRACTICAL)**

#### **COURSE OUTCOMES (COS)**

- Experimental physics has the most striking impact on the industry wherever the instruments are used to study and determine the mechanical properties.

- Measurement precision and perfection is achieved through Lab Experiments.
- Online Virtual Lab Experiments give an insight in simulation techniques and provide a basis for modeling.

## **SEMESTER II**

### **COURSE TITLE: THERMAL PHYSICS & SEMICONDUCTOR DEVICES (PAPER 1 THEORY)**

#### **COURSE OUTCOMES (COS)**

- Recognize the difference between reversible and irreversible processes.
- Understand the physical significance of thermodynamical potentials.
- Comprehend the kinetic model of gases w.r.t. various gas laws.
- Study the implementations and limitations of fundamental radiation laws.
- Utility of AC bridges.
- Recognize the basic components of electronic devices.
- Design simple electronic circuits. 8. Understand the applications of various electronic instruments.

## **SEMESTER II**

### **COURSE TITLE: THERMAL PROPERTIES OF MATTER & ELECTRONIC CIRCUITS (PAPER 2 PRACTICAL)**

#### **COURSE OUTCOMES (COS)**

- Experimental physics has the most striking impact on the industry wherever the instruments are used to study and determine the thermal and electronic properties.
- Measurement precision and perfection is achieved through Lab Experiments.
- Online Virtual Lab Experiments give an insight in simulation techniques and provide a basis for modeling.

## **B.SC. MATHEMATICS [CERTIFICATE COURSE IN APPLIED MATHEMATICS]**

### **PROGRAMME OUTCOME**

- ❖ PO1: It is to give foundation knowledge for the students to understand basics of mathematics including applied aspect for the same.

- ❖ PO2: It is to develop enhanced quantitative skills and pursuing higher mathematics and research as well.
- ❖ PO3: Students will be able to develop solution oriented approach towards various issues related to their environment.
- ❖ PO4: Students will become employable in various govt. and private sectors
- ❖ PO5: Scientific temper in general and mathematical temper in particular will be developed in students.

### **PROGRAMME SPECIFIC OUTCOME**

- PSO1: Student should be able to possess recall basic idea about mathematics which can be displayed by them.
- PSO2: Student should have adequate exposure to many aspects of mathematical sciences.
- PSO3: Student is equipped with mathematical modeling ability, critical mathematical thinking, and problem solving skills etc.
- PSO4: Student should be able to apply their skills and knowledge in various fields of studies including, science, engineering, commerce and management

### **SEMESTER I**

#### **COURSE TITLE: DIFFERENTIAL CALCULUS & INTEGRAL CALCULUS (PAPER 1 THEORY)**

#### **COURSE OUTCOMES (COS)**

- CO1: The programme outcome is to give foundation knowledge for the students to understand basics of mathematics including applied aspect for developing enhanced quantitative skills and pursuing higher mathematics and research as well.
- CO2: By the time students complete the course they will have wide ranging application of the subject and have the knowledge of real valued functions such as sequence and series. They will also be able to know about convergence of sequence and series. Also, they have knowledge about curvature, envelope and evolutes and trace curve in polar, Cartesian as well as parametric curves.
- CO3: The main objective of the course is to equip the student with necessary analytic and technical skills. By applying the principles of integral he learns to solve a variety of practical problems in science and engineering.



- CO4: The student is equipped with standard concepts and tools at an intermediate to advance level that will serve him well towards taking more advance level course in mathematics.

## **SEMESTER I**

### **COURSE TITLE: : PRACTICAL (PAPER 2)**

#### **COURSE OUTCOMES (COS)**

- CO1: The main objective of the course is to equip the student to plot the different graph and solve the different types of equations by plotting the graph using different computer software such as Mathematica /MATLAB /Maple /Scilab/Maxima etc.
- CO2. After completion of this course student would be able to know the convergence of sequences through plotting, verify Bolzano-Weierstrass theorem through plotting the sequence, Cauchy's root test by plotting  $n$  th roots and Ratio test by plotting the ratio of  $n$  th and  $(n + 1)$ th term.
- CO3. Student would be able to plot Complex numbers and their representations, Operations like addition, subtraction, Multiplication, Division, Modulus and Graphical representation of polar form.
- CO4: Student would be able to perform following task of matrix as Addition, Multiplication, Inverse, Transpose, Determinant, Rank, Eigenvectors, Eigenvalues, Characteristic equation and verification of the Cayley-Hamilton theorem, Solving the systems of linear equations.

## **SEMESTER II**

### **COURSE TITLE: : MATRICES AND DIFFERENTIAL EQUATIONS & GEOMETRY**

#### **COURSE OUTCOMES (COS)**

- CO1: The subjects of the course are designed in such a way that they focus on developing mathematical skills in algebra, calculus and analysis and give in depth knowledge of geometry, calculus, algebra and other theories.
- CO2: The student will be able to find the rank, eigen values of matrices and study the linear homogeneous and non-homogeneous equations. The course in differential equation intends to develop problem solving skills for solving various types of differential equation and geometrical meaning of differential equation.

- CO3: The subjects learn and visualize the fundamental ideas about coordinate geometry and learn to describe some of the surface by using analytical geometry.
- CO4: On successful completion of the course students have gained knowledge about regular geometrical figures and their properties. They have the foundation for higher course in Geometry.

## **B.SC. ZOOLOGY [CERTIFICATE COURSE IN MEDICAL DIAGNOSTICS & Public Health]**

### **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

- PSO1 This course introduces System Biology and various functional components of an organism. Emphasis will be on physiological understanding abnormalities and anomalies associated with white blood cells and red blood cells. The course emphasizes cell identification, cell differentiation and cell morphology evaluation procedures. This will enhance hematology analytical skills along with skill of using many instruments.
- PSO 2 The students will learn the basic principles of genetics and how to prepare karyotypes to study the chromosomes.
- PSO 3 How chromosomal aberrations are inherited in humans by pedigree analysis in families.
- PSO 4 The students will have hands-on training in the techniques like microscopy, centrifugation and chromatography, and various biochemical techniques, preparation of slides which will help them in getting employment in pathology labs and contribute to health care system.
- PSO 5 The Certificate courses will enable students to apply for technical positions in government and private labs/institutes.

## **SEMESTER I**

### **COURSE TITLE: CYTOLOGY, GENETICS AND INFECTIOUS DISEASES (THEORY)**

#### **COURSE OUTCOME**

The student at the completion of the course will be able to:

- Understand the structure and function of all the cell organelles.
- Know about the chromatin structure and its location.

- To be familiar with the basic principle of life, how a cell divides leading to the growth of an organism and also reproduces to form new organisms. How one cell communicates with its neighbouring cells?
- Understand the basic principles of genetics and how genes (earlier called factors) are inherited from one generation to another.
- Understand the Mendel's laws and the deviations from conventional patterns of inheritance.
- Comprehend how environment plays an important role by interacting with genetic factors.
- How to detect chromosomal aberrations in humans and study the pattern of inheritance by pedigree analysis in families.

## **SEMESTER I**

### **COURSE TITLE: GENETICS AND INFECTIOUS DISEASES (LAB)**

#### **COURSE OUTCOME**

At the completion of the course students will learn Hands-on:

- To use simple and compound microscopes.
- To prepare slides and stain them to see the cell organelles.
- To be familiar with the basic principle of life, how a cell divides leading to the growth of an organism and also reproduces to form new organisms.
- The chromosomal aberrations by preparing karyotypes.
- How chromosomal aberrations are inherited in humans by pedigree analysis in families

## **SEMESTER II**

### **COURSE TITLE: GENETICS AND INFECTIOUS DISEASES**

#### **COURSE OUTCOME**

The student at the completion of the course will learn:

- To develop a deep understanding of structure of biomolecules like proteins, lipids and carbohydrates
- How simple molecules together form complex macromolecules.
- To understand the thermodynamics of enzyme catalyzed reactions.
- Mechanisms of energy production at cellular and molecular levels.

- To understand systems biology and various functional components of an organism.
- To explore the complex network of these functional components.
- To comprehend the regulatory mechanisms for maintenance of function in the body.

## **SEMESTER II**

### **COURSE TITLE: PHYSIOLOGICAL, BIOCHEMICAL & HEMATOLOGY (LAB)**

#### **COURSE OUTCOME**

The student at the completion of the course will be able to:

- Understand the structure of biomolecules like proteins, lipids and carbohydrates
- Perform basic hematological laboratory testing,
- Distinguish normal and abnormal hematological laboratory findings to predict the diagnosis of hematological disorders and diseases.

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## **Graduation second and Third year are being conducted by Annual Aystem**

### **PROGRAMME OUTCOME/ PROGRAMME SPECIFIC OUTCOME/ COURSE OUTCOME**

#### **PROGRAMME NAME- BACHELOR OF ARTS**

##### **PROGRAMME OUTCOME**

- ❖ The Under graduate students with Arts stream emerge as sensitive and sensible individuals after their acquaintances with the fields of social sciences, literature and humanities.
- ❖ The Under graduate students with Arts stream are aware of social, economic, historical, geographical, political, cultural and literary life of the nation. Thus they develop a close communion with cultural identity of the country.
- ❖ The program prepares the under graduates for various competitive examinations and also for a career in the sphere of academics for which they move ahead with their masters degrees.
- ❖ The programme also inculcates human values in the aspirants and arms them for the future challenges of human life.
- ❖ The students with a Bachelor's Degree in Arts grow to be responsible citizens who are able to communicate their viewpoint effectively.

#### **PROGRAMME NAME -MASTER OF ARTS**

##### **PROGRAMME OUTCOME**

- The Post graduate students with Arts stream emerge as sensitive and sensible individuals after their profound probe into the fields of social sciences, literature and humanities.
- The Programme enables them to have deeper knowledge and develops dexterity for critical analysis in the subject chosen and thus paving the way for up gradation of knowledge
- The Post graduate students with Arts stream are aware of social, economic, historical, geographical, political, cultural and literary life of the nation. Thus they develop a close communion with cultural identity of the country through their specific subject.

- The programme prepares the learners for various competitive examinations and also for a career in the sphere of academics for which they move ahead with their research oriented courses.
- ❖ The Post graduation also inculcates human values in the aspirants and arms them for the future challenges of human life.
- ❖ The Post graduate students are aspirants for masters' degree in a specific subject which prepares them for future research work in a specific field. Hence the programme in social sciences and humanities also enables them to collect related data, be acquainted with various methods of data analysis, strive for findings and study them in the context of human life. It inculcates research oriented outlook.
- ❖ The Post graduation also prepares them to be more sensible and sentient citizens.

### **PROGRAMME SPECIFIC OUTCOME & COURSE OUTCOME**

#### **1 U.G. WITH HINDI LANGUAGE AND LITERATURE**

##### **PROGRAMME SPECIFIC OUTCOME:**

- ❖ The Programme including a study of language and its grammatical construction equips the learners with writing skills as well as a deeper understanding of the growth and development of Hindi.
- ❖ Use of language as a means of creative expression through letters and editorial writings helps them attain writing and communication skills effectively.
- ❖ The Programme inculcates the spirit of understanding, enjoying and criticizing Hindi literature through critical analysis.
- ❖ The learners come to know about the growth and development of various old and new forms of prose and poetry.
- ❖ Under Graduate Programme with Hindi helps students comprehend how writers of different periods use their creative resources of language in fiction, poetry, prose, drama. The learners go through the literature of our renowned writers, their lives and contribution.
- ❖ This study makes them explore the entire range of human experience and provides a deeper insight into life establishing the significance of Hindi in practical life also.
- ❖ They will be able to move in the sphere of higher education and advance research in the field of language and literature.

##### **COURSE OUTCOME**

The Course enlightens the students in following areas:

B.AII Paper-I GEN HINDI - <b>PRAYOJAN MOOLAK HINDI KA SWAROOP</b>	Understanding the development of Hindi through the study of its various forms, tracing the growth of Hindi as National language and the history of Devnagri script
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B.AII Paper-II GEN HINDI- <b>ADHUNIK GADHYA VIDHAYEN</b>	Understanding Grammatical aspect of Hindi language including Dhvani, Shabd and other concepts
B.AII Paper-I HINDI LITT- <b>ADHUNIK HINDI KAVYA</b>	Comprehending Hindi poetry of ancient and medieval periods through the study of the famous works of renowned Hindi Poets like Surdas, Kabirdas, Tulsidas, Bhushan etc.
B.AII Paper-II HINDI LITT- <b>HINDI KATHA SAHITYA</b>	Comprehending the growth of Hindi Drama through the study of the famous plays of Prasad and Mohan Rakesh as well as the one-act plays (Ekanki) of famous playwrights
B.AIII Paper-I HINDI LITT- <b>ADHYATAN KAVYA</b>	Comprehending Hindi poetry of modern age through the study of the famous works of renowned Hindi Poets like Prasad, Nirala, Pant and Mahadevi Verma etc.
B.AIII Paper-II HINDI LITT- <b>HINDI NIBANDH &amp; ANYA GADHYA VIDHAYEN</b>	Comprehending Hindi Story and Novel writing through the study of the famous works of writers like Premchand, Bhagvaticharan Verma and others
B.AIII Paper-III HINDI LITT- <b>HINDI BHASHA EVAM SAHITYA KA ITIHAS &amp; INDIAN KAVYASHASTRA</b>	Comprehending Hindi poetry of post modern age through the study of the famous works of renowned Hindi Poets like Agyeya, Muktibodh, Nagarjun and others
	Comprehending Hindi essay and other prose forms through the study of the famous writers like Dwivedi, Vidhyanivas Mishra, Sharad Joshi and others
	Getting familiarised with the growth of Hindi language, accents, script, development of literature and Indian Poetics

## 2. U.G. WITH SANSKRIT

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Sanskrit makes the students realize the ancient glory and richness of Sanskrit language and literature.
- ❖ Sanskrit is an apt medium to be familiar with ancient Indian history, culture, religion and social structure. It develops a strong conceptual framework regarding our ancient Indian culture and philosophy of life.

- ❖ The programme also enhances the communication skills in the language through reading, writing, listening and speaking. The knowledge of Devnagri script also helps the students comprehend other modern languages like Hindi.
- ❖ The rich literature of the past, Sanskrit Vyakaran, Natyashastra, Kavyashastra and other not only enrich the imagination of the students but also fill them with a sense of pride for their ancient glory.

### **COURSE OUTCOME**

The Course enlightens the students in following areas:

B.AII Paper-I <b>NATAK, GADHYA KAVYA&amp; KAVYASHASTRA</b>	Comprehending Sanskrit drama, prose-poetry and poetics through the study of famous texts and the elements of drama
B.AII Paper-II <b>VYAKARN, NIBANDH &amp; GADHYA NATYA SAHITYA KA ITIHAS</b>	Comprehending elements of Sanskrit grammar, Sanskrit essay- writing and the history of Sanskrit drama
B.AIII Paper-I <b>VEDMANTRA, APATHHITANSH &amp; INDIAN CULTURE</b>	Comprehending Vedmantras through explanatory study, translation of Sanskrit unseen passages in Hindi and a comprehensive study of Indian Culture
B.AIII Paper-II <b>NATAK, VYAKARAN &amp; CHHAND</b>	Comprehending Sanskrit drama through the study of Uttarramcharitam, deeper understanding of Sanskrit grammar and stanza forms
B.AIII Paper-III <b>ADHYATAN SANSKRIT SAHITYA</b>	Getting familiarised with the recent trends in Sanskrit literature through famous texts of prose, poetry and the history of literature

### **3. U.G. WITH ENGLISH LANGUAGE & LITERATURE**

#### **PROGRAMME SPECIFIC OUTCOME:**

- ❖ Under Graduate Programme with English helps students comprehend how writers of different countries and periods use their creative resources of language in fiction, poetry, prose, drama. The learners go through the literature of European countries and India in English language. This study makes them explore the entire range of human experience and provides a deeper insight into life.
- ❖ The study of literary history and critical theories makes them microscope the growth and development of language and literature over the ages and a systematic cognition of close relation with the growth of civilization.
- ❖ Use of language as a means of creative expression through writing short stories and editorial writings helps them attain writing and communication skills effectively.



- ❖ The study of literature of different countries of the concurrent world sensitizes the learners on issues like gender, environment and eco- criticism, marginalized communities etc.
- ❖ The Programme including a study of language and its grammatical construction equips the learners with writing skills for various styles and it also enables them to learn the official documents like letters, contracts, tenders and notices, advertisements etc. The learning of language also becomes an effective means of communication.
- ❖ They will be able to move in the sphere of higher education and advance research in the field of language, literature and cultural theory.
- ❖ The programme also enhances the communication skills in the language through reading, writing, listening and speaking

## COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I GEN ENG- <b>TEXT</b>	Learning language through textual studies like essays and a Novella- <i>Animal Farm</i>
B.AII Paper-II GEN ENG- <b>WRITING SKILLS</b>	Developing writing skills for correct and effective use of language
B.AI Paper-I ENG LITT.- <b>POETRY</b>	Comprehending various poetic forms, stanza patterns and growth of poetry through the study of the famous Poems of renowned English Poets like Shakespeare, Milton, Wordsworth and others
B.AI Paper-II ENG LITT.- <b>PROSE</b>	Comprehending various prose forms and styles through the essays of well known essayists of English Literature like Bacon, Gardiner, Chesterton and others
B.AII Paper-I ENG LITT.- <b>DRAMA</b>	Comprehending theory, forms and the development of English drama through the famous plays of Shakespeare, Congreve and G. B. Shaw
B.AII Paper-II ENG LITT.- <b>NOVEL</b>	Comprehending theory, forms and the development of English fiction through the famous novels of Jane Austen, Thomas Hardy and Charles Dickens
B.AIII Paper-I ENG LITT.- <b>LITERARY MOVEMENTS &amp; LITERARY DEVICES</b>	Mapping the development and growth of English Literature through the study of literary movements and literary history
B.AIII Paper-II (A) optional ENG LITT- <b>INDIAN WRITING IN ENGLISH</b>	Getting familiarised with Prose, Poetry, Drama and Novel produced by the Indian writers (Nissin Ezekiel, Nirad C. Chaudhary, Dattani Anand etc. ) writing in English
B.AIII Paper-III (B) optional ENG LITT- <b>ENGLISH LITERATURE</b>	Learning Indian Literature of prominent Indian Writers like Prasad, Gandhi, Jainendra and Mohan Rakesh through the Translation of their works into

<b>THROUGH TRANSLATION</b>	English Language
B.AIII Paper-III ENG LITT- <b>NEW LITERATURES IN ENGLISH</b>	Getting familiarised with Prose, Poetry, Drama and Novel produced by the writers like Chris Wallace, Albee, Atwood and Alice Walker etc. writing in English as the components of New Literatures in English

#### 4. U.G. WITH ECONOMICS

##### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Economics helps students comprehend economic conditions of the world as well as that of the country.
- ❖ The programme with Economics will enable them to understand economic vocabulary, theories and concepts, methodologies, tools and analysis procedures.
- ❖ Students will be familiarised with the knowledge and application of micro and macro economics for the formulation of policies and planning.
- ❖ As the programme includes areas like statistics, mathematics and economic principles, it enables the learners to assess the real situation of the economy including the size and changes of population, income pattern, growth and development with pattern of savings and investments and social security measures adopted in the country.
- ❖ The students will be able to recognise the roles and responsibilities of businessmen, entrepreneur, managers, consultant, which will help them to adopt skills in these areas.
- ❖ They will be able to move in the sphere of higher education and advance research in the field of Economics, commerce and finance.

##### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>NATIONAL INCOME ANALYSIS, MONEY &amp; BANKING</b>	Comprehending National Income Analysis, Money and Banking including Indian Market and Foreign Exchange
B.AII Paper-II <b>PUBLIC FINANCE AND INTERNATIONAL TRADE</b>	Studying Public Finance through understanding Govt. Budget, Expenditure and Fiscal Policy; terms and theories of International Trade
B.AIII Paper-I <b>ECONOMICS OF LESS DEVELOPED COUNTRIES</b>	Understanding Economics of less developed countries, analysing their problems, policies, development and planning with a vision to equitable world economy
B.AIII Paper-II (A) <b>ECONOMIC POLICY OF INDIA</b>	Comprehending Economic Policy of India including Industrial, Agricultural and Trade policies
B.AIII Paper- II (B)	Studying Quantitative Methods like Algebra and

<b>Quantitative Methods</b>	Calculus for the analysis of statistical data
B.AIII Paper-III <b>History of Economic Thought</b>	Study of the History of Economic Thought including Classical and Neo- Malthusian

## 5. U.G. WITH HISTORY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with History helps students to update themselves with the tradition and heritage of their own country and the others along with developing ethical and social values and a sense of the past.
- ❖ It prepares them for the competitive exams like Civil Services Exam and SSC along with helping them chose a career in academics. Those interested in research may also chose archaeology as their career.
- ❖ It helps them map the social, political, religious and economic conditions of the country and world in various periods of history.
- ❖ The programme also exhorts them for collection of ancient coins, artefacts etc. And visit to various places of historical significance which nurtures the development of skills for getting jobs in museum, archives and libraries.
- ❖ History, through instilling a patriotic fervour, raises the students as sensitive citizens.

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>POLITICAL HISTORY OF MEDIEVAL INDIA FROM 1526 TO 1740 A.D</b>	Comprehending the related history of the given period through Archaeological literary and historical sources and Historiography
B.AII Paper-II <b>HISTORY OF EUROPE FORM 1789 TO 1870 A.D</b>	Understanding history of Europe through the study of various revolution and wars
B.AIII Paper-I <b>POLITICAL HISTORY OF MODERN INDIA FORM 1740 TO 1964 A.D</b>	Understanding history of Modern India from the advent of Europeans to the Vision of New India
B.AIII Paper-II <b>HISTORY OF EUROPE FROM 1871 TO 1950 A.D</b>	Understanding history of Europe through a study of two World Wars and successive Cold War
B.AIII Paper-III <b>HISTORY OF INDIAN CULTURE</b>	Studying the History of Indian Culture from Indus Valley Civilization to the Colonial Era

## 6. U.G. WITH GEOGRAPHY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Geography familiarises the students with geographical phenomenon like different kinds of landforms, geographical position of places, flora and fauna etc.
- ❖ It will enrich the learners with knowledge about physical Geography, climate and impact of climatic changes on human life, environmental issues, significance of climate and environment for maintaining biodiversity in different regions, natural resources and their management and so on
- ❖ The students will also gather information about other related issues of human life like causes and consequences of growth of population in various geographical conditions
- ❖ The programme will also familiarise the students with map studies, interpreting statistical data, space technologies like Satellite images and Aerial photographs model building and GPS system etc.
- ❖ The students will learn survey work with tools like prismatic compass and plane table.
- ❖ The learners will also be acquainted with geo-political issues of the world.

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>ECONOMIC GEOGRAPHY</b>	Comprehending Nature, Scope and development of Economic Geography, Soil and Forest types, Marine resources and Aquaculture, Location factors of Industries, Means of transport
B.AII Paper-II <b>GEOGRAPHY OF INDIA</b>	Understanding India in the context of Asia and the world, Forest resources, Indian Economy, Population-growth, distribution and density, demographic and occupational structure, Regional development & disparities after independence and Detailed geographical study of Gangetic Plain with special reference to Rohilkhand Region.
<b>Lab Work- PRACTICALS</b>	Statistical Analysis, Measures of Central Tendency, Cartographic Representation of Statistical Data, Weather Maps, Aerial Photogrammetric and Remote Sensing
B.AIII Paper-I <b>GEOGRAPHICAL THOUGHT</b>	Understanding The field of geography; its place in the classification of sciences, Dualisms in geography, Geography in ancient period, German school of thought, Soviet geographers and American school
B.AIII Paper-II <b>ENVIRONMENTAL STUDIES</b>	Understanding Geography as a study of Environment, The problems and causes of environmental degradation, Environmental management, Sample studies and Emerging environmental issues
B.AIII Paper-III	Region as a geographical entity and as a component

<b>REGIONAL STUDIES OF ANY ONE OF THE FOLLOWING REGIONS (A) SOUTH WEST ASIA (B) SOUTH EAST ASIA (C) FAR EAST ASIA</b>	of global system, Structure, Population, Strategic importance of the region, detailed regional study of some selected regions
<b>Lab Work- PRACTICALS</b>	Plane table Surveying, Surveying by Prismatic Compass, open traverse, Close traverse, Elimination of error. Bowditch Method, Use of Sextant or Indian clinometers

## 7. U.G./ P.G. WITH POLITICAL SCIENCE

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Political Science familiarises the students with the contribution of European and Asian political thinkers on political thought
- ❖ The Programme will familiarise the learner with world politics as well as dynamics of Indian politics and political theory
- ❖ The learners will be able to understand role and significance of various kinds of governing systems around the world , the role of political parties in democratic set up, relations and conflicts among states as well as centre- state relationship
- ❖ The awareness about human and constitutional rights along with a probe into the fundamentals of Indian Constitution is also imperative
- ❖ The learners will also be acquainted with international relationship and different forms of government in other countries at the P.G level
- ❖ The post graduation programme will also acquaint them with foreign policies of dominant countries of the world and international law
- ❖ With all the significant knowledge the learners will be able to understand socio-political, economic and constitutional environment will enable them to grasp the functioning of Indian Administration, thus making them edified citizens.

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>AN OUTLINE HISTORY OF WESTERN POLITICAL THOUGHT</b>	An acquaintance with Plato, Aristotle, Cicero, Machiavelli, Rousseau, Karl Marx and other prominent thinkers of Europe as well as a study of Main characteristics of Medieval Political Thought
B.AII Paper-II <b>COMPARATIVE GOVERNMENT</b>	Understanding the formation and functioning of the Governments of U.K., U.S.A., Switzerland and France
B.AIII Paper-I	Understanding nature and scope of Public

<b>PRINCIPLES OF PUBLIC ADMINISTRATION</b>	Administration, Bases of Organization, Agencies and Commissions and Personnel Administration
B.AIII Paper-II <b>INDIAN POLITICAL THOUGHT</b>	Understanding Indian Political thought through the study of ancient thinkers like Manu, thinkers of Indian Renaissance, leaders of National Movement and post Independence thinkers
B.AIII Paper-III <b>INTERNATIONAL POLITICS</b>	Studying Nature and Scope of International Politics, Theories and Approaches, The Modern State System, Arms Control and Disarmament, International Law, Global Organization etc.
M.AI Paper-I <b>HISTORY OF POLITICAL THOUGHT (From Plato to Marx)</b>	A profound Study of the History of political through mapping the views of Plato, Aristotle, Cicero, Machiavelli, Rousseau, Karl Marx and other prominent thinkers of Europe
M.AI Paper-II <b>COMPARATIVE POLITICS AND INSTITUTIONS</b>	A Detailed Study of comparative politics through a comparative analysis of the political system, constitutionalism and pressure groups of U.K., U.S.A., Switzerland and France
M.AI Paper-III <b>GOVERNMENT AND POLITICS OF INDIA</b>	A profound Study of the Indian Constituent Assembly, Indian Political System, Central and State Govt. And Social Foundations of Indian Politics
M.AI Paper-IV <b>INTERNATIONAL POLITICS</b>	A detailed Study of the Nature, Scope, Significance and Approaches to International Politics, related theories and ideologies
M.AII Paper-I Compulsory <b>FOREIGN POLICIES OF U.S.A., U.K., CHINA AND INDIA</b>	A profound understanding of the meaning, objectives, determinants and approaches to Foreign Policy in context with the Foreign policies of U.S.A., U.K., China and India
Three optional papers from Group A- Political Theory, Group B- International Politics and Group C- Government and Politics . the following papers from Group B are being taught in the college - Student can also opt for Dissertation on International Politics and Area Studies as one optional paper	
M.AII Paper-II <b>INTERNATIONAL LAW</b>	A profound understanding of the nature, scope, sources, basis, history and development of International Law and its emerging trends with an eye on the laws of war, peace, neutrality and other trends
M.AII Paper-III <b>INTERNATIONAL ORGANIZATIONS</b>	A profound understanding of the nature, scope, sources. history and development of International Organizations- The League of Nations, The United Nations Organizations and others, Prospects of World Govt.
M.AII Paper-IV <b>INDIA'S NEIGHBOURS IN WORLD POLITICS</b>	A detailed Study of the Political Systems, Governing Bodies, Political Parties and Pressure Groups, Major Problems and compulsions of the Foreign Policies of India's neighbours Pakistan, Bangladesh, Bhutan, Nepal and Sri Lanka
M.AII Paper-V <b>VIVA-VOCE</b>	An drive to test the practical understanding of the subject through internal and external assessment and

	interaction
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## 8. U.G. /P.G. WITH SOCIOLOGY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Sociology familiarises the students with the fundamentals of sociological thought and basics of sociology
- ❖ The programme acquaints the learners with distinct features of Indian Society, its emergence through ages, characteristics of Indian cultural including unity in diversity
- ❖ The programme also enlightens the students about Indian social structure, Indian caste system- its impact and consequences, understanding rural, urban and tribal India.
- ❖ The P.G. Programme also prepares the students for social research, probing various social sciences, their relation to sociology, understanding research methodology, essentials of data collection, field studies, making research projects, data analysis using statistical concepts and so on
- ❖ The P.G programme also focuses on studying development theories, understanding industrial problems, population analysis, issues of caste and gender, applications of sociological concepts etc.
- ❖ The U.G. and P.G. programmes enable the students to be sensible citizens who are well versed with various social issues and striving for the way out of the social problems

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>INDIAN SOCIETY: ISSUES AND PROBLEMS</b>	This course is designed to indentify and analyze emerging Social issues and problems form sociological perspective, classifying them into four sets: structural, familial development and organizational
B.AII Paper-II <b>SOCIAL CHANGE AND SOCIAL CONTROL</b>	The course is designed to achieve all aspect of social change as well as of Social Control through sociological perspective and theoretical study
B.AIII Paper-I <b>FOUNDATIONS OF SOCIOLOGICAL THOUGHT</b>	to familiarize the students with the social, political, economic and intellectual contexts in which sociology emerged as a distinctive discipline.
B.AIII Paper-II <b>SOCIAL RESEARCH METHODS</b>	to provide an understanding of the nature of social Phenomena, the issues involved in social research and the ways and means of understanding and studying social reality through quantitative and qualitative research
B.AIII Paper-III <b>PIONEERS OF INDIAN SOCIOLOGY</b>	the students are introduced to some of the Pioneers of Indian Sociology, their thoughts and contribution

M.AI Paper-I Compulsory <b>CLASSICAL SOCIOLOGICAL TRADITION</b>	A profound theoretical insight into the writings of Karl Marx, Emile Durkheim, Max Weber, Vilfredo Pareto to understand Historical, socio- economic background for the emergence of sociology
M.AI Paper-II Compulsory <b>METHODOLOGY OF SOCIAL RESEARCH</b>	To provide a deep understanding of the nature of social Phenomena, the issues involved in social research, its philosophical roots, studying social reality through quantitative and qualitative research and use of statistics.
M.AI Paper-III Optional <b>RURAL SOCIETY IN INDIA</b>	Providing sociological understanding of rural social structure, change and development in India and imparting sociological skills to reconstruct rural community and peasantry
M.AI Paper-IV Optional <b>SOCIOLOGY OF MARGINALISED COMMUNITIES</b>	Sensitizing students to the poverty, deprivation and discrimination of Dalits, tribals and nomadics. Role of ideologies of social reformers, social movements and actions taken
The students can also opt for the papers entitled Gender and Society/ Environment and Society/ Globalization and Society from among the other optional papers	
M.AII Paper-I Compulsory <b>THEORETICAL PERSPECTIVES IN SOCIOLOGY</b>	A profound understanding of the substantive, theoretical and methodological issues that shaped the sociological thought in the later half of the 20th century like structural functionalism, structuralism and post- structuralism, conflict theory and other recent trends
M.AII Paper-II Compulsory <b>PERSPECTIVES ON INDIAN SOCIETY</b>	Conceptualizing Indian society and a profound understanding of the diversity and interconnectedness of the theoretical perspectives on Indian society
M.AII Paper-III Optional <b>URBAN SOCIETY IN INDIA</b>	Providing sociological understanding of urban social structure, change and development in India and imparting sociological skills to reconstruct urban social environment
M.AII Paper-IV Optional <b>POLITICAL SOCIOLOGY</b>	A detailed Study of the Democracy and other Political Systems, theories of Distribution of power, Pressure groups role and status as a citizen of India etc.
The students can also opt for the papers entitled Sociology of Ageing / Industry and Society in India / The Study of Indian Diaspora/ Problems Oriented Project Report from among the other optional papers	
M.AII Paper-V <b>VIVA-VOCE</b>	An drive to test the practical understanding of the subject through internal and external assessment and interaction

## 9. U.G. / P.G.WITH HOME SCIENCE

### PROGRAMME SPECIFIC OUTCOME:



- ❖ Under Graduate Programme with Sociology familiarises the students with the significance of balanced diet and nutrition, health and hygiene, home management, entrepreneurial skills and development of the individual through domestic well being.
- ❖ The programme prepares the learners for acquiring professional skills through the use of handicrafts and other small business activities like catering, Tiffin service etc. And thus contributing to the economic status of the family
- ❖ The P.G. programme also enables the students for choosing a career in the sphere of dietetics and nutrition; the U.G. students can move into the field through related diplomas.
- ❖ The P.G. programme also opens vistas in the sphere of home decor and interior decoration through advanced studies in the area.
- ❖ The Programme at U.G. and P.G. levels develops skills like textile designing, product making, marketing the products through small scale ventures and thus paves the way for self- dependence.
- ❖ If these skills aren't used for professional life, they prepare skilled individual for successful home making
- ❖ The P.G. Programme also prepares the students for research, probing various social sciences, their relation to Home Science, understanding research methodology, essentials of data collection, field studies, making research projects, data analysis using statistical concepts and so on

## COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>FUNDAMENTAL OF FOOD &amp; NUTRITION</b>	This course is designed to understand functions of food and role of nutrients in human body, constituents of food and other related issues
B.AII Paper-II <b>HUMAN DEVELOPMENT</b>	The course enlightens about the development of a child, parenting period, growth from birth to adolescence, personality making and other essentials of human growth
<b>PRACTICAL &amp; VIVA-VOCE</b>	Nutrition during pregnancy, lactation and different ages from childhood to old age, recipe and menu, educational material for children up to 5
B.AIII Paper-I <b>INTRODUCTION TO TEXTILES &amp; CLOTHING</b>	to familiarize the students with the basic knowledge of textiles, selection of appropriate fabric, clothing for various purposes and age groups, clothing construction etc.
B.AIII Paper-II <b>EXTENSION &amp; COMMUNICATION</b>	to provide an understanding of the nature of Extension for sharing knowledge and improving relationships, Extension Education and methods of approaching people
<b>PRACTICAL &amp; VIVA-VOCE</b>	Tie & Die, Block painting, stencil printing paper pattern of Bodice Block and audio-visual aids for a child
M.AI Paper-I	A profound theoretical insight into the advanced

<b>ADVANCED FOOD &amp; NUTRICIAN</b>	functions of food and role of nutrients in human body, constituents of food and other related issues
M.AI Paper-II <b>DIETETICS</b>	to provide a deep understanding of the dietetics and nutrition for the people of different age groups and situations
M.AI Paper-III <b>RESEARCH METHODS AND STATISTICS</b>	Providing understanding of research methods, its philosophical roots, studying social reality through quantitative and qualitative research and use of statistics.
M.AI Paper-IV <b>RESOURCE MANAGEMENT</b>	Sensitizing students to the management of resources in the family for achieving family goals, housing needs and the concept of interior decoration based on elements of art, human resource management for advanced purposes
<b>PRACTICAL &amp; VIVA-VOCE</b>	All the four papers also carry practical works related to the given topics
M.AII Paper-I <b>TEXTILE MANUFACTURE, CATERING AND PROCESSING</b>	to familiarize the students with the advanced knowledge of textiles, manufacture, catering and processing etc.
M.AII Paper-II <b>ADVANCED CLOTHING CONSTRUCTION</b>	to familiarize the students with the advanced knowledge of, selection of appropriate fabric, clothing for various purposes and age groups, clothing construction etc.
M.AII Paper-III <b>CONSUMER ECONOMICS</b>	Providing understanding of consumer economics, principles and other related issues
M.AII Paper-IV <b>ADVANCED CHILD DEVELOPMENT</b>	A detailed and profound study of the development of a child, parenting period, growth from birth to adolescence, personality making and other essentials of human growth
<b>PRACTICAL &amp; VIVA-VOCE</b>	All the four papers also carry practical works related to the given topics

## 10. U.G. / P.G. WITH MUSIC

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Music learn source and origin of Indian Music, the theoretical and practical aspect. The characteristics and practical performance of various Ragas enrich the students with elegance of classical music
- ❖ The P.G. programme also prepares the learners for practical demonstration and stage presentation
- ❖ Through the notation system the students also learn the technicalities of composition
- ❖ The students are also familiarised with Hindustani and Carnatic Music styles, the lives and contribution of the great Musicians of both the forms, the development of Indian Music and famous Gharanas

- ❖ They also come across with the subtlety of Tal, laya and Dhvani and other terminologies of Indian music
- ❖ After the completion of P.G. Programme the learners are capable of choosing the stream as their profession and thus can move ahead either in the area of related research or learn professional skills.
- ❖ The Programmes uplift the young minds and instil into them a cultural sensitivity

## COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>THEORY PAPER</b>	Theoretical study of prescribed Ragas & Talas, notation and layakaris, Bhatkhande & Vishnu Digamber styles, study of other technical terms, short history of music and classification of ragas
B.A II Paper-II <b>PRACTICAL PAPER 1 &amp; 2</b>	Composition of the prescribed ragas, intensive study and demonstration of one chosen Raga and skill in others also
B.AIII Paper-I <b>THEORY PAPER I</b>	Theoretical study of prescribed Ragas & Talas, notation and layakaris, study of other technical terms, musical compositions and swaras
B.AIII Paper-II <b>THEORY PAPER II</b>	Theoretical study of few more technical terms, musical intervals, , study of different schools (gharanas), famous sangeet granthas and contribution of authors and musicians
B.A III Paper-III <b>PRACTICAL PAPER 1 &amp; 2</b>	Composition of all the prescribed ragas, intensive study and demonstration of one chosen Raga and skill in others also
M.AI Paper-I <b>AESTHETICS &amp; SCIENCE OF MUSIC</b>	A profound theoretical insight into the General principles of Aesthetics applied to Music, place of Music among fine arts, features of emotional expressions, Rasas, Chhand, rhythmic patterns, Gomaks and Kaku
M.AI Paper-II <b>HISTORY OF MUSIC (Medieval- 1200-1800)</b>	to provide a deep understanding of the Historical development of Music through tracing contribution of great musicians, an insight into Swara and Ragas and other related issues
<b>VIVA-VOCE &amp; STAGE PERFORMANCE</b>	Practical performance of various . compositions like Khyal and Dhruvpad etc in prescribed ragas
M.AII Paper-I <b>APPLIED THEORY OF MUSIC</b>	to familiarize the students with the characteristics of Ragas, composition and notation, Notation systems, Shruti, comparative study of Hindustani and Karnatak music
M.AII Paper-II <b>MODERN HISTORY OF MUSIC</b>	to familiarize the students with different musical forms of composition, Karnatak forms of Music, study of Indian vocal and instrumental music, significance of group singing and biographies of

	famous musicians
<b>VIVA-VOCE &amp; STAGE PERFORMANCE</b>	Practical performance of various compositions like Khyal and Dhrupad etc. In other prescribed ragas

## 11. U.G. WITH PSYCHOLOGY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Psychology equips the students with comprehension of human Psychology, the subtleties of human behaviour and its effect on social life
- ❖ The learners are also familiarised with applications of Psychological doctrines to human life and its problems
- ❖ Understanding human behaviour and its complexities helps the students find out solutions to the practical human problems in a sensible manner
- ❖ The learners also get acquainted with fundamentals of Psychology, various psychological theories like Psychoanalysis, Psychology of Learning, Abnormalities of human behaviour and so on
- ❖ They are also trained to use various tests like intelligence test on the subjects and study the methods of data analysis, formation of statistical data and method of interpretation
- ❖ Understanding of the emergent properties of brain and nervous system- central nervous system, peripheral nervous system and autonomic nervous system.
- ❖ The students of the programme emerge as sensitive individuals who contribute to the betterment of society

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>PSYCHOTHERAPY</b>	Providing introduction of Psychopathology, mental illness, stress and psychosomatic disorders, anxiety and somatoform disorders, psychotic, mood and personality disorders
B.AII Paper-II <b>SOCIAL PSYCHOLOGY</b>	Detailed understanding of social behaviour, socialization and perceiving others and groups, interpersonal attractions and attitude, group dynamics and leadership, communication, aggression and helping behaviour
<b>PRACTICAL</b>	The students will also perform prescribed practical work like attitude scale, test of aggression, anxiety, stress etc.
B.AIII Paper-I <b>MEASUREMENT &amp; STATISTICS</b>	Understanding techniques, levels and errors of measurement, test construction, research design and distribution, hypothesis testing etc.
B.AIII Paper-II	Understanding introduction to counselling,

<b>COUNSELLING &amp; GUIDANCE</b>	perspectives and types, counselling processes and areas, guidance, types and testing techniques
B.AIII Paper-III (A) <b>ORGANIZATIONAL BEHAVIOUR</b>  (B) <b>HEALTH PSYCHOLOGY</b> (C) <b>ENVIRONMENTAL PSYCHOLOGY</b>	Out of these three optional papers a student can opt for one - (A) Understanding organizational behaviour, training, motivation, job satisfaction and stress. Human engineering, accident and safety etc. (B) Understanding health psychology, health and stress management, illness and future challenges etc. (C) Understanding Environmental Psychology, theories and research, Ecology and stress, effect on behaviour and crowding etc.
<b>PRACTICAL</b>	The students will also perform prescribed practical work and submit the survey report

## 12. U.G. WITH DRAWING & PAINTING

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Drawing & Painting enlightens the learners in basic principles of design and colour and the ability to apply them aesthetically
- ❖ It inculcates in them the ability to synthesize the use of drawing, two-dimensional design, and colour patterns with theoretic studies
- ❖ The learners also able to gain skill in the use of tools and techniques related to the fine art
- ❖ They also learn to draw and colour pictures and portraits of various types, shading and sketching, direct painting form objects etc.
- ❖ The learners are also familiarised with various kinds on Indian arts and paintings like Madhubani
- ❖ The Programme breeds individuals with fine sensibility towards arts and culture.

### COURSE OUTCOME

The Course enlightens the students in following areas:

B.AII Paper-I <b>HISTORY OF INDIAN PAINTING (PRIMITIVE ART AND 1ST CENTURY TO 17TH CENTURY A.D.)</b>	Comprehending Primitive art with reference to Indian Painting, Buddhist Art, Medieval Art, Rajasthani Style, Mughal School and Pahari School
B.AII Paper-II <b>PRACTICAL</b>	Copy from Old Masters (One figure composition), Cast Study Bust/Antique/Life
B.AIII Paper-I	Understanding Definition and Meaning of Art. Six

<b>PHILOSOPHY OF ART AND MODERN INDIAN PAINTING (18TH CENTURY AD UPTO PRESENT AGE)</b>	Limbs of Indian paintings (Shadang), Philosophy of Art, Modern Art in Indian Painting (from 18th Century up to present age), New Trends in Modern Indian paintings and Contemporary Indian Painting after Independence up to present age.
<b>B.AII Paper-II PRACTICAL</b>	Pictorial composition (with minimum two human figures, Portrait Study (Coloured) or Life Study Sketching

### 13. U.G. WITH PHYSICAL EDUCATION

#### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Physical Education helps the students acquire fundamental knowledge of Physical Education, its significance and scope
- ❖ It develops their practical skill and familiarises them with theoretical aspect, thus developing their personality
- ❖ The learners are also acquainted with various kinds of National and International sports, their growth and technicalities
- ❖ They also come across with anatomy and Physiology of various organs
- ❖ The learners also become familiar with Indian Institutes of Physical Education, their functioning and objectives
- ❖ The learners gain skills to communicate effectively and acquire efficiency for entering B.P.Ed., M.P.Ed., and other such programmes

#### COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.AII Paper-I ANATOMY &amp; PHYSIOLOGY IN PHYSICAL EDUCATION</b>	Comprehending Anatomy and Physiology of Exercise, Skeletal and Muscular System, Respiratory and Digestive System and Circulatory System and Blood
<b>B.AII Paper-II HEALTH EDUCATION</b>	Understanding Health and Health Education , Nutrition and balanced diet, effects of Drugs and Tobacco. First Aid, Communicable Diseases, Posture & Concept
<b>PRACTICAL</b>	Athletics (Proficiency, Track events, Rules & regulations) (ii) Select any two games, one from each prescribed group of the (Proficiency, Rules & regulations)
<b>B.AIII Paper-I PSYCHOLOGICAL FOUNDATIONS OF</b>	Understanding about nature and scope of Psychology. Need and importance of Sports Psychology, Growth & Development, Physical, mental, social and

<b>PHYSICAL EDUCATION</b>	Language development during following stages, Learning, Motivation, Emotion and Personality
B.AIII Paper-II <b>ATHLETIC INJURIES &amp; REHABILITATION</b>	Understanding Sports injuries, Prevention of Injuries, Common sports injuries and their immediate treatment, Rehabilitation, Therapeutic Exercises, Sports Massage and Common massage technique and their therapeutic uses.
<b>PRACTICAL</b>	Athletics (Proficiency, Track events, Rules & regulations) (ii) Select any two games, one from each prescribed group of the (Proficiency, Rules & regulations)

## **PROGRAMME NAME- BACHELOR OF SCIENCE**

### **PROGRAMME OUTCOME**

- The Under graduate students with Science stream attain scientific temperament and outlook to the problems of life
- The Programme equips the learners with a scientific approach including observation, precision, analytical skill, logical thinking, clarity of thought and systematic working.
- The programme prepares the under graduates for various competitive examinations and also for a career in the sphere of academics for which they move ahead with their masters degrees.
- The Programme also enables the aspirants to collect information, frame a viewpoint, solve the problems scientifically and express their view effectively.
- This programme prepares the learners to enter diverse fields such as science-education, engineering, industries, survey, banking, planning, business, public service, etc. efficiently.

## **PROGRAMME NAME- MASTER OF SCIENCE**

### **PROGRAMME OUTCOME**

- The Post graduate students with Science stream attain profound relevant scientific temperament and outlook to the problems of life with up gradation of their knowledge
- The Programme equips the learners with a scientific approach including observation, precision, analytical skill, logical thinking, clarity of thought and systematic working in the related field.
- The programme prepares the under graduates for various competitive examinations and also for a career in the sphere of academics for which they move ahead with their research oriented outlook.
- ❖ The Post graduate students are aspirants for masters' degree in a specific subject that provides them the ability to apply knowledge to perform project works scientifically, to analyze and solve problems, evaluate situations scientifically and express their view effectively. Thus it prepares them for future research work in a specific field and studying the findings in the context of human life. It inculcate research oriented outlook.
- ❖ The Post graduation also prepares them to be more sensible and sentient citizens.

### **1. U.G. /P.G.WITH BOTANY**

#### **PROGRAMME SPECIFIC OUTCOME:**

- ❖ Under Graduate Programme with Botany helps the learners comprehend basic concepts of the subject cell biology, Systematics, Biochemistry, Biotechnology Molecular Biology, Biotechnology, Plant Tissue culture experiments, cellular and physiological studies of plants
- ❖ The programme at U.G. and P.G. level equips students with subject domain knowledge and technical skills pertaining to plants in a holistic manner. The learners are familiarised with and gain mastery over the knowledge related to Plant relationship with water, Plant Diversity and its importance in the maintenance of ecological balance
- ❖ Students learn to carry out practical work, in the field and in the laboratory, interpreting plant morphology and anatomy, Plant identification, Vegetation analysis techniques etc.
- ❖ The aspirants learn to use their attained knowledge for applications in human life and society through addressing health, environmental issues, food scarcity etc



- ❖ They attain competence for various analytical and technical skills related to plant sciences.
- ❖ The learners at P.G. level are capable of undertaking research projects using various tools and techniques in plant sciences and develop scientific temperament.

## COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.SC. II PAPER I DIVERSITY OF ANGIOSPERMS: SYSTEMATICS, DEVELOPMENT &amp; REPRODUCTION</b>	This paper highlights General features, Principles of classification and Diversity of Angiosperms: Systematics, Development & Reproduction
<b>B.SC. II PAPER II CYTOLOGY, GENETICS, EVOLUTION &amp; ECOLOGY</b>	Students will gain better knowledge of Cell structure, cell organelles, Cell division etc., Genetics, laws of inheritance and related issues, Mutation, Ecology, relation with other disciplines. Plant types etc.
<b>B.SC. II PAPER III PLANT PHYSIOLOGY AND BIOCHEMISTRY</b>	Students will attain a better insight into Plant and water relationship, Mineral nutrition, Photosynthesis and Chemosynthesis, Respiration, Nitrogen metabolism, Biomolecules, Discovery and nomenclature.etc.
<b>B.SC. III PAPER I PLANT RESOURCE UTILIZATION, PALYNOLOGY AND BIOSTATISTICS</b>	Students will gain an insight into A general account of plants, Conservation of plants resources for a.riculture and forestry, An introductory knowledge to palynology, morphology, viability and germination of pollens, Classification of data etc.
<b>B.SC. III PAPER II MOLECULAR BIOLOGY AND BIOTECHNOLOGY</b>	Students will gain better knowledge of Nucleic acid as genetic material, Structure and properties polysaccharides, aminoacids, proteins, etc., Replication of DNA in prokaryotes and enkaryotes, g and other related topics, Introduction to biotechnology etc.
<b>B.SC. III PAPER III ENVIRONMENTAL BOTANY AND PLANT PATHOLOGY</b>	Students will gain Introductory knowledge of Mineral resources of planet earth, Environmental pollution, Biodiversity and Phytogeography, Etiology of viral, bacterial, fungal and insect-pest diseases etc., Integrated pest disease management
<b>M.SC. I PAPER I</b>	The paper is an in-depth study of classification, phylogeny and

<b>PHYCOLOGY &amp; MICRO- BIOLOGY</b>	inter-relationship, range of structure and organization, sexuality, pigments and hormones and economic importance of Algae general features of algal classes, detailed study of bacteria, actinomycetes, slime moulds, viruses, rickettsia, microplasma, cancer biology and host microbes,
<b>M.SC. I PAPER II MYCOLOGY &amp; PLANT- PATHOLOGY</b>	The paper provides a profound knowledge of general feature, classification and phylogeny of fungi, comparative structure, reproduction and phylogeny of prescribed taxa, antibiotics and lichens, plant diseases- symptoms and control measures etc.
<b>M.SC. I PAPER III BRYOPHYTES PTERIDOPHYTES &amp; GYMNOSPERMS</b>	Students will gain deep knowledge of general feature, classification and fossil history of Bryophytes, comparative morphology, anatomy and reproduction of prescribed taxa, general feature, classification, comparative morphology, anatomy and reproduction, affinities and phylogeny of prescribed Pteridophytes & Gymnosperms
<b>M.SC. I PAPER IV PLANT PHYSIOLOGY &amp; CROP PHYSIOLOGY</b>	The paper is an in-depth study of general Plant Physiology, soil- water relation, mineral element, growth and development, reproductive Physiology etc., general features, principles and processes of Crop Physiology, poor harvest Physiology, stress Physiology, weed control etc.
<b>M.SC. I PAPER V CYTOLOGY &amp; MOLECULAR BIOLOGY</b>	Students will gain deep knowledge of history & techniques of Cytology, ultra structure, chromosomes, cell study etc. , Chemistry and biosynthesis of DNA and RNA, transcriptional control, introduction of genetic material into cells etc.
<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to theoretical studies
<b>M.SC. II PAPER VI MORPHOLOGY TAXONOMY OF ANGIOSPERMS &amp; ECONOMIC BOTANY</b>	Origin and evolution of Angiosperms, Morphology of flower, history, principles, significance and trends in Plant Taxonomy, systems of classification, vegetative and floral characters and economic importance of prescribed families and other features of Economic Botany
<b>M.SC. II PAPER VII PLANT ANATOMY, PLANT EMBRYOLOGY &amp; MORPHOGENESIS</b>	The paper highlights history, techniques, trends and other features of Plant Anatomy, history, trends and other features of Plant Embryology, Experimental Embryology, aims, scope, factors, techniques and trends of Morphogenesis, centres of Morphogenetic study in India
<b>M.SC. II PAPER VIII ECOLOGY, SOIL SCIENCE &amp; PHYTOGEOGRAPHY</b>	The paper throws light on various factors related to Ecology like Plant succession, Limnology, Autecology, vegetational analysis, ecosystem and production ecology etc along with elaborating various factors related to soil science and Phytogeography
<b>M.SC. II PAPER IX BIOCHEMISTRY &amp; PHOTO BIOLOGY</b>	The paper highlights the biochemical basis of life and various factors related to Biochemistry, study of cell, water, carbohydrate, enzymes, vitamins etc., a close study of

	Photobiology- Bioluminescence, Phytochromes and photoblasticity in seeds
<b>M.SC. II PAPER X GENETICS, PLANT BREEDING &amp; BIOSTATISTICS</b>	Helps the learners comprehend various concepts related to genetics and Genetic engineering, significance, objects and issues of Plant Breeding and the role and application of biostatistics
<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to theoretical studies

## 2. U.G. WITH CHEMISTRY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Chemistry helps the students attain recognition of the subject through theoretical and practical work
- ❖ The learners are also familiarised with fundamentals of chemistry covering all the principles and perspectives, the nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions
- ❖ The aspirants learn to analyse organic & inorganic mixtures separations & identification, preparation of compounds and Physical chemistry experiments.
- ❖ The students are made aware of handling the sophisticated instruments/equipments.
- ❖ The learners are capable of undertaking small projects using various tools and techniques in organic and inorganic Chemistry and develop scientific temperament.
- ❖ The learners also develop skill in handling the acidic, poisonous, explosive and other chemicals making themselves employable in any kind of chemical industries. They are also taught about the adverse effects of the obnoxious chemicals

### COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.SC. II PAPER I INORGANIC CHEMISTRY</b>	This paper highlights Chemistry of Elements of Transition Series, Coordination Compounds, Chemistry of Lanthanide and Actinides, Oxidation and Reduction, Acids and Bases and Non-aqueous Solvents
<b>B.SC. II PAPER II ORGANIC CHEMISTRY</b>	Student will gain better knowledge of Electromagnetic and Absorption Spectra, Alcohols, Phenols, Ethers and Epoxides, Aldehydes, Ketones, Carboxylic Acid and Derivatives and Organic Compounds of Nitrogen
<b>B.SC. II PAPER III PHYSICAL CHEMISTRY</b>	Student will attain a better insight into Thermodynamics, Chemical Equilibrium, Electrochemistry and Phase Equilibrium:

<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to theoretical studies
<b>B.SC. III PAPER I INORGANIC CHEMISTRY</b>	Students will gain an insight into Metal-ligand bonding, Thermodynamic and Kinetic Aspects, Magnetic Properties, Electronic spectra of Transition Metal Complexes, Organometallic Chemistry, Silicones, Phosphazenes, Hard and Soft Acids, Bases and Bioinorganic Chemistry
<b>B.SC. III PAPER II ORGANIC CHEMISTRY</b>	Student will gain better knowledge of Spectroscopy, Organometallic, Organosulphur, Hetrocyclic Compounds, Carbohydrates, Amino Acids, Peptides, Proteins, Nucleic Acids, Fats, Oils, Detergents, Synthetic Polymers and dyes etc.
<b>B.SC. III PAPER III PHYSICAL CHEMISTRY</b>	Student will gain Introductory knowledge of Quantum Mechanics, Spectroscopy, Physical Properties and Molecular Structure, Rotational, Raman, electronic and Vibrational Spectrum and Photochemistry of Solutions, Dilute Solutions and Colligative Properties
<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to theoretical studies

### 3. U.G. WITH MATHEMATICS

#### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Mathematics lets the students understand the basic concepts of Mathematics like Algebra, Trigonometry, Calculus, Geometry etc. with simple examples and applications.
- ❖ It also enables the students think critically and analytically through Real ,Complex and Numerical analysis
- ❖ The learners also learn to construct simple geometric examples and proofs
- ❖ They develop a skill to Formulate and develop mathematical arguments in a logical manner
- ❖ The aspirants obtain adequate knowledge of the advanced uses of Mathematics and Statistics and learn to apply their knowledge in various spheres of life
- ❖ The learners also develop skill to formulate and use quantitative models arising in social science, business and other contexts.

#### COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.SC. II PAPER I LINEAR ALGEBRA and MATRICES</b>	This paper highlights various mathematical concepts related to : Linear Algebra and Matrices like Vector spaces and their elementary properties, Linear transformations and their algebra, Symmetric and skew-symmetric matrices and characteristic equation etc.
<b>B.SC. II PAPER II DIFFERENTIAL EQUATIONS and INTEGRAL TRANSFORMS</b>	Student will gain better knowledge of : Differential Equations And Integral Transforms like Formation of a differential equation (D.E.), Differential equations of the first order but not of the first degree, Series solutions of second order differential equations and The concept of transform, etc.
<b>B.SC. II PAPER III MECHANICS</b>	Student will attain a better insight into Dynamics and Statics Velocity and acceleration along radial and transverse directions, Motion in resisting medium, Motion on smooth and rough plane curves, Common catenary, etc.
<b>B.SC. III PAPER I REAL ANALYSIS</b>	Students will gain an insight into concepts of Real Analysis like Axiomatic study of real numbers, . Sequences of real numbers, Sequential continuity, Riemann integral etc.
<b>B.SC. III PAPER II COMPLEX ANALYSIS</b>	Student will gain better knowledge of topics like Functions of a complex variable, Elementary functions, Complex Integration, Singularities and zeros of an analytic function and Argument principle. Etc.
<b>B.SC. III PAPER III NUMERICAL ANALYSIS and PROGRAMMING IN C</b>	Student will gain Introductory knowledge of Numerical Analysis like, Shift operator, Divided differences, Numerical integration, Solution of transcendental and polynomial equations and Programming in C
<b>B.SC. III PAPER IV OPTIONAL</b>	Students are supposed to opt for one optional paper out of the following- IV(A) Number Theory & Cryptography /IV(B) Linear Programming / IV(C) Differential Geometry & Tensor Analysis/ IV(D) Principles of Computer Science/ IV(E) Discrete Mathematics / IV(F) Mathematical Statistics

#### 4. U.G. WITH PHYSICS

##### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Physics understand core concepts of Physics like Kinetic Theory, Mechanics, Electronics , Wave Motion etc.and apply their learning to practical life

- ❖ The learners carry out experiments as per laboratory standards in different fields of Physics as per their syllabus and use their simple experimental experiences like Circuit fundamentals for the safe flow of electricity in their day to day life
- ❖ Thus the learners develop skill in the Experimental and Theoretical Physics
- ❖ The aspirants gain adequate analytical and logical skill for higher Education.
- ❖ They are also able to seek jobs in the related areas
- ❖ The students are also geared up for appearing in competitive exams

## COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.SC. II PAPER I PHYSICAL OPTICS AND LASERS</b>	This paper highlights Interference of a light, Haidinger fringes, Fresnel diffraction, Fraunhofer diffraction, Diffraction gratings, Polarization, Laser system, Application of Lasers etc.
<b>B.SC. II PAPER II ELECTROMAGNETICS</b>	Student will gain better knowledge of Electrostatics, Magnetostatics, Electromagnetic Induction, Dielectrics, Magnetic Properties of Matter, Electromagnetic Waves,
<b>B.SC. II PAPER III ELEMENTS OF QUANTUM MECHANICS, ATOMIC AND MOLECULAR SPECTRA</b>	Student will attain a better insight into Matter Waves, Schrodinger Equation and its Applications, Atomic spectra, Molecular spectra etc.
<b>PRACTICALS</b>	The learning of the students will be strengthened through various practical related to Physical optics, Electrostatics, Moving charges and magnetostatics, Varying fields and electromagnetic theory, Atomic and Molecular Physics Lasers etc.
<b>B.SC. III PAPER I RELATIVITY AND STATISTICAL PHYSICS</b>	Students will gain an insight into Relativity, Statistical physics, The statistical basis of thermodynamics, Some universal laws, Maxwellian distribution of speeds in an ideal gas, Transition to quantum statistics etc.
<b>B.SC. III PAPER II SOLID STATE AND NUCLEAR PHYSICS</b>	Student will gain better knowledge of Crystal Structure, Crystal Diffraction and Reciprocal Lattice, Crystal Bindings, Lattice Vibrations, Nuclear Physics, Nuclear Reactions, Accelerators and detectors, Elementary Particles etc.
<b>B.SC. III PAPER III SOLID STATE ELECTRONICS</b>	Student will gain Introductory knowledge of Diffusion of minority carriers in semiconductor, Transistor parameters, Current and Voltage gain, Field effect transistors and their characteristics, Power Supplies and other Miscellaneous subjects
<b>PRACTICAL</b>	The learning of the students will be strengthened through

	various practical related to Statistical Physics, Solid State Physics, Electronics and Nuclear Physics etc.
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## 5. U.G. WITH ZOOLOGY

### PROGRAMME SPECIFIC OUTCOME:

- ❖ Under Graduate Programme with Zoology makes the students comprehend basic concepts of Zoology like Taxonomy, Evolution, Embryology and Ecology etc.
- ❖ The learners also understand the applications of biological sciences in controlling parasites, vectors and pests, Apiculture, Aquaculture, Pisciculture, Poultry culture, Sericulture, Lac culture, and Animal Behaviour etc.
- ❖ The aspirants also develop competence in handling biological tools and in performing experimental procedures as per their syllabus
- ❖ They also comprehend animal diversity, including knowledge of the scientific classification and evolutionary relationships of major groups of animals
- ❖ The students also come across with relation between structure and functions at different levels of biological organization
- ❖ The students are also geared up for higher education and competitive exams along with seeking jobs in the related fields

### COURSE OUTCOME

The Course enlightens the students in following areas:

<b>B.SC. II PAPER I CHORDATA</b>	This paper highlights Classification and detailed study of Hemichordata, Cephalochordata, Urochordata along with Classification of different classes of vertebrates like Pisces, Amphibia, Reptilia, Aves and Mammalian
<b>B.SC. II PAPER II ANIMAL DISTRIBUTION, EVOLUTION AND DEVELOPMENTAL BIOLOGY</b>	Student will gain better knowledge of Animal distribution, Origin of Life, evolution along with the Aims and scope of Developmental Biology
<b>B.SC. II PAPER III PHYSIOLOGY AND BIOCHEMISTRY</b>	Student will attain a better insight into General physiology with special reference to mammals. Physiology of digestion, respiration, and blood and circulation, excretion and osmoregulation, neural transmission, muscles, endocrine system, thermoregulation, General chemistry and classification of carbohydrates, lipids and proteins; Enzymes

<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to prescribed Chordata, vertebrates, Histology and Physiology
<b>B.SC. III PAPER I APPLIED AND ECONOMIC ZOOLOGY</b>	Students will gain an insight into Parasitology, Vectors and pests, Animal breeding and culture and Wild Life of India
<b>B.SC. III PAPER II BIOTECHNOLOGY, IMMUNOLOGY, BIOLOGICAL TOOLS AND TECHNIQUES AND BIOSTATISTICS</b>	Student will gain better knowledge of Biotechnology, Immunology, Biological Tools and Techniques and Biostatistics
<b>B.SC. III PAPER III ECOLOGY, MICROBIOLOGY ANIMAL BEHAVIOUR AND POLLUTION AND TOXICOLOGY.</b>	Student will gain Introductory knowledge of Ecology, Microbiology Animal Behaviour and Pollution and Toxicology
<b>PRACTICAL</b>	The learning of the students will be strengthened through various practical related to prescribed topics through Stool examination, slides/ specimens and Dissections etc.

## **PROGRAMME NAME- BACHELOR OF COMMERCE**

### **PROGRAMME OUTCOME**

- The Under graduate students with Commerce stream emerge as competent individuals to learn commercial, management, business and entrepreneurial activities.
- The Programme prepares the students for comprehending the significance of business activities in the society and also familiarises them with technical requirements like IT laws, GST system etc related to the business world.
- The Programme enables the under graduates to understand conceptual framework of accounting and develop skills of maintaining accounts.



- The Programme makes the students have fundamental knowledge of entrepreneurial and management skills, banking sector and the challenges of job market.
- The students are also familiarised with management principles, retail trading, insurance transactions, business economics and financial management and corporate sector.
- It also arms the graduates with calibre to face various competitive exams like CA, CS, ICWA, etc and the choice for appearing in MBA or M.Com courses is also open for them.

## **PROGRAMME SPECIFIC OUTCOME**

- After the completion of B.Com the learners will be able to apply different concepts in starting and managing business and realize the social responsibilities, social realities and inculcate an essential value system
- They will be able to realize problems related to employer, employee conflicts.
- The students will be able to recognise the roles and responsibilities of businessmen, entrepreneur, managers, consultant, which will help them to adopt skills in these areas
- The students can also gain skills to work as tax consultant, audit assistant and other financial supporting services.
- They will be able to move in the sphere of higher education and advance research in the field of commerce and finance.
- The Programme enables the students to attain entrepreneurial and management skills, prepares them for banking sector and the challenges of job market.

## **COURSE OUTCOME**

The Course enlightens the students in following areas:

<b>B.COM. II GROUP A-I COMPANY LAW</b>	To provide basic knowledge of the provisions of the Companies Act. 1956, along with relevant case law, The Companies Act, excluding provisions relating to accounts and audit sections, managing agents and secretaries and treasurers Sections 324 - 388E, arbitration, compromises, arrangements and reconstructions - sections 389-396).
<b>B.COM. II GROUP A-II COST ACCOUNTING</b>	This course exposes the students to the basic concepts and the tools used in cost accounting along with Cost Ascertainment and cost records
<b>B.COM. II GROUP B-I PRINCIPLES OF BUSINESS MANAGEMENT</b>	This course familiarizes the students with the basics of principles of management like Planning, Organizing, Motivation, Managerial Control and Management of Change etc.
<b>B.COM. II GROUP B-II</b>	It enables the students to know the basics of Income Tax Act and its implications, Heads of Income: Salaries, Computation of Tax

<b>INCOME TAX</b>	Liability, Tax Management and tax administration etc.
<b>B.COM. II GROUP C-I FUNDAMENTALS OF ENTREPRENEURSHIP</b>	It provides exposure to the students to the entrepreneurial culture and industrial growth so as to preparing them to set up and manage their own small units.
<b>B.COM. II GROUP C-II PUBLIC FINANCE</b>	The Objective of this course is to provide basic knowledge about various intricacies for public finance, Public Expenditure, Public Revenue, Public Debts and Indian Public Finance
<b>B.COM. II GROUP C-III INDUSTRIAL LAW</b>	The purpose of this paper is to orient students about industrial rules and regulations like The Factories Act, Industrial Disputes Act, Indian Trade Unions Act, Employees State Insurance Act and Workman Compensation Act
<b>B.COM. III GROUP A-I CORPORATE ACCOUNTING</b>	This course enables the students to develop awareness about corporate accounting in conformity with the provisions of Companies Act.
<b>B.COM. III GROUP A-II AUDITING</b>	This course aims at imparting knowledge about the principles and methods of auditing and their applications
<b>B.COM. III GROUP B-I MONEY &amp; FINANCIAL SYSTEM</b>	This course exposes the students to the working of money and financial system prevailing in India with emphasis on Money, Finance, Indian Banking System, Process of Credit Creation By Banks etc.
<b>B.COM. II GROUP B-II INFORMATION TECHNOLOGY &amp; ITS IMPLICATIONS IN BUSINESS</b>	The objective of the course is to familiarize the students with the innovations in information technology and how it affects business. An understanding of the ground rules of these technologies will enable the students to appreciate the nittygritty of e-Commerce.
<b>B.COM. II GROUP C-I FINANCIAL MANAGEMENTS</b>	The objective of this course is to help students understand the conceptual framework of financial management, Capital Budgeting- cost and structure, Operating and Financial Leverage, Dividend Policies and Management of Working Capital.
<b>B.COM. II GROUP C-II MANAGEMENT ACCOUNTING</b>	This course provides the students an understanding of the application of accounting techniques for management.
In Group C students can also opt papers Principles of Marketing & International Marketing/ Fundamentals of Insurance & Indian Banking System/ Internet and World Wide Web & Essentials of Commerce/ Human Resource Management & Industrial Relations	

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