## **COURSE OBJECTIVES**

## **DEPARTMENT OF BOTANY**

### **BOTANY GENERAL PROGRAMME:**

### SEMESTER – I

# Course I (Th): Lower Cryptogams (Algae, Fungi, Bacteria & Virus, Plant Pathology, Lichen)

The main objective of this course is to introduce the undergraduate students with the basic

# **Course II (Practical):**

Study of vegetative morphology and reproductive structures of selected representative groups. knowledge of the structure, forms and reproduction of thallophytes.

#### SEMESTER – II

# Course III (Th): Bryophytes, Pteridophytes, & Gymnosperms

**Objective of the course:** The main objective of this course is to introduce the undergraduate students with the basic knowledge of structure, forms and reproduction, evolution of tissue systems, seed habit in higher cryptograms & Gymnosperms.

## Course IV: Practical based on the Botany Course-III

Study of vegetative morphology and reproductive structures of selected representative groups

## **SEMESTER III**

Course V (Th): Morphology, Taxonomy, Development and Reproduction of Angiosperms Objective of the course: The main objective of this course is to introduce the undergraduate students with the terminologies used in description of angiospermic plants, basic knowledge of plant classification, tissues & tissue systems, development of primary & secondary plant bodies and development of male & female reproductive components & their functions.

# Course VI: Practical based on the Botany Course V

Study of vegetative morphology, reproductive structures of selected species, tissue differentiation by double staining technique, permanent slides of embryology.

### SEMESTER IV

# Course VII (Th): Plant Physiology & Economic Botany

Marks: 60

**Objective of the course:** The main objective of this course is to introduce the undergraduate students with the basic knowledge of physiological activities of plants through the mechanisms of absorption of inorganic components & production and functions of organic components & role of external factors upon them.

Course VIII: Practical based on Botany Course VII

### **SEMESTER V**

# Course IX (Th): Cytogenetics, Evolution & Biostatitstics

**Objective of the course:** The main objective of this course is to introduce the undergraduate students with the basic knowledge of structures & function of cell and cell organelles, genetic materials, principles of genetics, modem concepts of evolution and the statistical tools useful in biology.

Course X: Practical based on Course –IX

### SEMESTER VI

# Course XI (Th): Biochemistry, Plant Ecology and Plant Geography

**Objective of the course:** The main objective of this course is to introduce the undergraduate students with the basic knowledge of acid base concept and its importance, importance of macromolecules, ecological importance of plants, their distribution and ecosystem structure & function of ecosystem.

### Course XII Practical based on Course XI

# **BOTANY MAJOR PROGRAMME**

### **SEMESTER-I**

# Major Course I (Th): Algae, Fungi and Lichen

**Objective of the course:** The main objective of this course is to provide basic knowledge of thallus, morphology, reproduction and evolution of lower cryptograms and plant pathology.

# Major Course II (Pr): Based on course I

Algae, Fungi & Lichen

Preparation, drawing, description and identification of the types prescribed for study in theory syllabus and microscopic measurements and camera lucida drawing of fungal types

#### Semester II

# Major Course III (Th): Plant Pathology and Bryophytes

**Objective of the course:** The main objective of this course is to provide fundamental knowledge on the structure, morphology, reproduction, alteration of generation and tissue organisation and spore dispersal mechanisms in Bryophytes.

Major Course IV (Pr): based on course III

### **SEMESTER III**

Major Course V (Th): Pteridophytes, Gymnosperms, and Palaeobotany

**Objective of the course:** The main objective of this course is to provide comparative account of structural morphology, distribution anatomy, reproduction and evolution of seed habit in higher cryptograms; special emphasis is to be given on the stelar structure and evolutionary links.

Major Course VI (Pr): Based on course V

Major Course VII (Th): Microbiology and Biotechnology

**Objective of the course:** The main aim of this course is to introduce the students with the basic knowledge of microbiology and biotechnology in the light of recent developments.

Major Course VIII (Pr): Based on course VII

### **SEMESTER IV**

Major Course IX (Th): Morohology and Taxonomy of Angiosperms

**Objective of the course:** The main aim of this course is to provide fundamentals of Angiosperm morphology and classification with special reference to the polygenerid relationship of various taxa.

Major Course X (Pr): Based on course IX

Major Course XI (Th): Cell Biology and Modern Laboratory Technique

**Objective of the course:** The main objective of this course is to provide fundamental knowledge of structural and functional aspects of cell and cell organelles and the tools and techniques used in modern biological study.

Major Course XII (Pr): Based on course XI

# **SEMESTER V**

Major Course XIII (Th): Development and Reproduction in Angiosperm

Marks: 60

**Objective of the course:** The main objective of this course is to provide fundamental knowledge of structural and functional aspects of cell and cell organelles and the tools and techniques used in modern biological study.

Major Course XIV (Pr): Based on course XIII

Major Course XV (Th): Genetics & Plant Breeding, Biostatistics

**Objective of the course:** The main objective of this course is to introduce the students with the basic knowledge on plant genetics and application of genetic for improvement of crop, application of statistics in biology

Major Course XVI (Pr): Based on course XV

Major Course XVII (Th): Plant Physiology

**Objective of the course:** The main objective of this course is to introduce the students with the basic knowledge on major physiological aspects of plants.

Major Course XVIII (Pr): Based on course XVII.

# Major Course XIX (Th): Plant Ecology, Phytogeography and Evolution

**Objective of the course:** The main objective of this course is to introduce the students with the basic principles and concepts of plant ecology, structure & function of natural plant units, habitat degradation and role of plant on improvement of habitat, conservation ecology, phytogegraphy & evolution.

Major Course XX (Pr): Based on course XIX.

### **SEMESTER VI**

Major Course XXI (Th): Functional and Chemical Biology

**Objective of the course:** The main objective of this course is to introduce the students with the basic knowledge of modern approaches to functional and chemical biology of plants.

Major Course XXII (Pr): Based on course XXI

Major Course XXIII (Th): Molecular Biology and Immunology

**Objective of the course:** The main objective of this course is to introduce the students with the fundamentals of molecular biology and immunology of plants.

Major Course XXIV (Pr): Based on course XXIII.

Major Course XXV (Th): Biophysics and Bioinformatics

**Objective of the course:** The main objective of this course is to introduce the students with the tools and techniques of physical and computer sciences used in biological study.

Major Course XXVI (Pr): Based on course XXV. Major Course XXVII (Th): Utilization of Plants

**Objective of the course:** The main objective of this course is to provide students comprehensive

knowledge of usefulness of plant resources for human welfare.

Major Course XXVIII (Pr): Based on course XXVII

### **DEPARTMENT OF ZOOLOGY**

# ZOOLOGY GENERAL PROGRAMME SEMESTER I

Zoology –I (Th): Animal diversity-I, Systematics & Evolution

**Objective of the course:** The main objective of this course is to introduce the students with diverse forms of invertebrate animals, their structural morphology of group level and classification; evolutionary lives and events.

Zoology- II (Pr): (based on Zoology I)

### **SEMESTER II**

Zoology –III (Th): Animal diversity-II (Chordates) and Developmental Biology

**Objective of the course:** The main objective of this course is to introduce the students with diverse forms of vertebrate animals and the major events of embryological aspects.

Zoology- IV (Practical): (based on Zoology III)

SEMESTER III

**Zoology –V (Th): Cell Biology and Biochemistry** 

Objective of the course: The main objective of this course is to introduce the students with

structure and function of animal cell and biochemical aspects of macromolecules.

**Zoology-VI (Practical): (based on Zoology V)** 

**SEMESTER IV** 

Zoology -VII (Th): Animal Physiology and Endocrinology

**Objective of the course:** The main objective of this course is to introduce the students with the major events of animal physiology and endocrinology.

Zoology-VIII (Pr): (based on Zoology VII)

### **SEMESTER V**

Zoology -IX (Th): Genetics and Molecular Biology

**Objective of the course:** The main objective of this course is to introduce the students with the structure, function and transmission of genetic materials from generation to generation and the basic concepts of molecular biology.

Zoology- X (Practical) (based on Zoology IX)

### **SEMESTER VI**

Zoology -XI (Th): Animal Ecology and Biostatistics

**Objective of the course:** The main objective of this course is to introduce the students with the structural and functional aspects of animal communities with respect to their environment and the basic concepts of application of statistics in biology.

Zoology-XII (Pr): (based on Zoology XI)

### ZOOLOGY MAJOR PROGRAMME

### **SEMESTER-I**

Major Course I (Th): Animal Diversity-I and Systematics

**Objective of the course:** The main objective of this course is to introduce the students with the diverse forms and structures and taxonomic groups of the invertebrate animals.

Major Course II (Practical): Based on Course I

### **SEMESTER-II**

Major Course III (Th): Animal Diversity-II and Comparative Anatomy

**Objective of the course:** The main objective of this course is to introduce the students with the diverse forms and structures of vertebrate animals and their comparative anatomical study.

Major Course IV (Practical): Based on Course III

### **SEMESTER-III**

Major Course V (Th): Biochemistry

**Objective of the course:** The main objective of this course is to introduce the students with the basic knowledge of biochemistry with special reference to macromolecules.

Major Course VI (Practical): Based on Course V

Major Course VII (Th): Bioinstrumentation and Biostatistics

**Objective of the course:** The main objective of this course is to introduce the students with the tools and techniques used in biological study with special reference to instruments & statistics.

Major Course VIII (Practical): Based on Course VII

## **SEMESTER-IV**

Major Course IX (Th): Cell Biology, Histology and Histochemistry

**Objective of the course:** The main objective of this course is to provide fundamental knowledge of structural and histochemical analysis of animal cell & tissues.

Major Course X (Practical): Based on Course IX Major Course XI (Th): Developmental Biology

**Objective of the course:** The main objective of this course is to provide exposer to the students on the fundamentals of embryology of animals.

Major Course XII (Practical): Based on Course XI

**SEMESTER-V** 

Major Course XIII (Th): Genetics and Evolution

**Objective of the course:** The main objective of this course is to introduce the students with the fundamentals of genetic principles and evolutionary trends.

Major Course XIV (Practical): Based on Course XIII

Major Course XV (Th): Mammalian Physiology

**Objective of the course:** The main objective of this course is to provide knowledge on the physiological mechanisms of mammals.

Major Course XVI (Practical):Based on Course V.

Major Course XVII (Th): Environmental Biology and Wildlife Biology

**Objective of the course:** The main objective of this course focuses on the structural and functional interrelationship of animal kingdom with other components of nature and conservation strategies for conservation of wildlife.

Major Course XVIII (Practical):Based on Course XVII

Major Course XIX (Th): Endocrinology

**Objective of the course:** The course focuses on the basic knowledge of endocrine glands of animals and their functions.

Major Course XX (Practical): Based on Course IX

SEMESTER VI

Major Course XXI (Th): Parasitology and Ethology

**Objective of the course:** The main objective of this course is to introduce the students with the complex interaction between animals and their social interrelationship.

Major Course XXII (Practical): Based on course XXI

Major Course XXIII (Th): Molecular Biology and Immunology

**Objective of the course:** The main objective of this course is to focus on development of molecular aspects and immunological concepts in animal science.

Major Course XXIV (Pr): Based on course XXIII

Major Course XXV (Th): Biotechnology and Bioinformatics

**Objective of the course:** The main objective of this course is to introduce the students with the basic knowledge of biochemistry & bioinformatics.

Major Course XXVI (Practical): Based on course XXV Major Course XXVII (Th): Economic Zoology Marks

**Objective of the course:** The main objective of this course is to focus on the utilizations of animal resources for human welfare.

Major Course XXVIII (Pr): Based on course XXVII

# **DEPARTMENT OF CHEMISTRY**

# **Chemistry Major Program**

**Program Outcome**: To understand chemistry in different fields of specialization. To make the learners to have depth in each branch like Inorganic, Organic and Physical Chemistry.

### Course outcome:

### **SEMESTER-I**

MM101:To understand Inorganic, Organic and Physical Chemistry in their advanced treatment

### **SEMESTER-II**

MM 201:To provide the students importance of chemical thermodynamics, non-transition metals, metals alongwith different types of organic reaction

### **SEMESTER-III**

MM 301:To understand Coordination Chemistry, mechanism and the importance of d-and f block elements

MM 303:Importance of Halogenated Hydrocarbons, Chemistry of Carbonyls along-with sulphur containing compound are discussed in this course.

### **SEMESTER-IV**

MM 401:Electrochemistry is one of the topics that really revolutionized the world nowadays. This paper deals with this particular aspect.

MM 403: This paper deals with active methylene compounds, aliphatic and aromatic amines and heterocyclic compounds.

#### **SEMESTER-V**

**MM 501**: This course is designed to impart the ideas of kinetics, solution equilibrium and surface phenomena amongst the students.

MM 503: The objective of the paper is to give knowledge on organometallic compounds, clusters and organic reagents in inorganic analysis.

**MM 505**: To acquire knowledge in different types of organic reaction and to understand biochemistry.

**MM 507**: The objective of the paper is to have knowledge on quantum mechanics with special reference to classical mechanics, symmetry and bonding.

# **SEMESTER-VI**

MM 601: To understand different topics like photochemistry, macromolecules, catalysis and statistical thermodynamics.

**MM 605**: This paper highlights the concept of disconnection approach in organic chemistry as well as different analytical tools like UV, IR, NMR in organic chemistry. Importance of dyes, lipids, polymers are also dealt with.

**MM 607**: This paper deals with the interaction of electromagnetic radiation with matter in various forms.

# Chemistry General Program SEMESTER- I

# Paper NM-101

Objective: To understand chemistry in different fields of specialization. To make the learners to have depth in each branch like Inorganic, Organic and Physical Chemistry

### **SEMESTER-II**

Paper NM-201: Inorganic Chemistry

Objective: To understand Inorganic Chemistry in the form of materials science.

Paper NM-202- Inorganic Lab

# **SEMESTER-III**

Paper NM-301: Organic Chemistry

Objective: To understand Organic Chemistry in the light of different types of reaction – to go for the study of broad field of Organic Chemistry.

Paper NM-302: Organic Lab

### **SEMESTER-IV**

Paper NM-401: Physical Chemistry- 60

Objective: To understand Physical Chemistry in the form of Physical forces which govern our surroundings.

Paper NM-402: Physical Lab

### **SEMESTER-V**

# Paper NM 501: Inorganic + Physical (Theory)

Objective: In this course/paper, nuclear chemistry, preparative chemistry, Bio-Inorganic as well as the importance of electrochemistry, surface phenomena and photo chemical processes are dealing with.

Paper NM 502: Inorganic Lab.

## **SEMESTER-VI**

### Paper NM-601: Organic Chemistry

Objective: To understand the preparative Organic Chemistry as well as the importance of Organic Chemistry in life processes are dealing with.

Paper NM 602: Organic Lab.

# **Department of Mathematics:**

### **Mathematics Major program**

#### Course Outcome

### **SEMESTER-I**

**Course Code: MM 101:** To infuse the classical ideas of algebraic and analytic structures. The students can have a deeper insight of the developments of the generalized notions of Trigonometry. The students will have an orientation towards the vectorial notations of multivariable calculi.

#### **SEMESTER-II**

**Course Code: MM 201**: Objective: Students will be able to use matrix methods for solving liners equations, have ideas on the basics of differential equations and also about the numerical methods of obtaining results where complexity of obtaining analytical solutions is sufficiently high.

### **SEMESTER-III**

**Course Code: MM 301:** Objective: Students will be able to identify the analytical aspects of Mathematical concepts.

**Course Code: MM 302:** Objective: The students will be have a deeper understanding of Coordinate geometry and a broader insight towards the analytical aspects of Mathematics.

### **SEMESTER-IV**

**Course Code: MM 401:** Objective: Students will be able to formulate simple programmes for numerical evaluation of computational problems. By Computer Laboratory, they will be exposed to a hand on experience on various Mathematical Software.

**Course Code: MM 402:** Objective: Students will be able to determine the Mathematical know how of linear programming problems of Operations Research and also to solve then using LPP techniques. Students will be exposed to he further analytical aspects of Mathematical concepts.

### **SEMESTER-V**

**Course Code: MM 501:** Objective: Students will be able to identify the basics of Mathematical Logic and that of the counting principles. Students will be allowed to have insights to more generalized analytical aspects.

**Course Code: MM 502**: Objective: Students will be able to use algebraic structures for explaining geometric concepts. Students will be exposed to the fundamentals of Numbers and their properties .

**Course Code: MM 503:** Objective: Students will be introduced to the fundamental concepts of Fluid Mechanics and its various applications in Physical Sciences.

**Course Code: MM 504:** Objective: Students will be introduced to the Mathematical background of Mechanics and the corresponding problem solving techniques.

#### **SEMESTER-VI**

**Course Code: MM 601**: Objective: Students will be exposed to the Topological Structures and the generalization concepts arising out of Real Analysis.

**Course Code: MM 602:** Objective: The students will be able to identify the relations between Mathematics and Theoretical Computer Science. Students will be introduced to the fundamentals of Graph Theory and different representations of a Graph for practical applications. (A) Discrete Mathematics.

**Course Code: MM 603:** Objective: Students will be able to identify the characteristics of Abstract Algebraic Structures and also can have ideas on the basics of partial differential equations.

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## **Mathematics General Program**

# **Program Outcome:**

### **SEMESTER-I**

**Course Code: NM 101**: Objective: To infuse the classical ideas of algebraic and analytic structures. The students can have a deeper insight of the developments of the generalized notions of Trigonometry. The students will have an orientation towards the vectorial notations of multivariable calculi.

### **SEMESTER-II**

**Course Code: NM 201:** Objective: Students will be able to use matrix methods for solving liners equations, have ideas on the basics of differential equations and also about the numerical methods of obtaining results where complexity of obtaining analytical solutions is sufficiently high.

### **SEMESTER-III**

**Course Code: NM 301:** Objective: The students will be have a deeper understanding of Coordinate geometry and a broader insight towards the analytical aspects of Mathematics.

## **SEMESTER-IV**

**Course Code: NM 401**: Objective: The students will be able to formulate and solve various practical models using Linear Programming techniques and also by using Computer Laboratory they will attain computational proficiency in dealing with Mathematical Software.

### **SEMESTER-V**

**Course Code: NM 501**: Objective: The students will be able to understand the analytical perspective of the complex number system. The students will be able to identify the applicable domain of Mathematics in Physical Sciences.

### **SEMESTER-VI**

**Course Code: NM 601**: Objective: Students will be able to identify the characteristics of Abstract Algebraic Structures and also can obtain insights of statistical tools for solving various practical problem.

Group - B ( Discrete Mathematics & Metric Spaces ): The students will be able to identify the relations between Mathematics and Theoretical Computer Science and also have a detailed idea on Metric Spaces as a prelude to the Topological concepts.

# **Department of Physics:**

# Physics General Course;

**Program Out come**: Students will be able to recognize the universality of the laws of Physics and its application to various branches of science.

# **Course Outcome:**

### **SEMESTER-I**

**PHYG - 101** Objective: Students will have a fair knowledge of the mechanical properties of matter, as well as the relation of heat to other forms of energy such as magnetic, electrical.

### **SEMESTER-II**

**PHYG - 201** Objective: Students will be able to appreciate the versatility of Light as a form of energy as well as its immense applications.

PHYG-202: Practical Paper

### **SEMESTER-III**

**PHYG – 301** Objective: Students will be able to appreciate the fact that electromagnetic forces are the dominant and is also the first example of a unified theory in physics.

### **SEMESTER-IV**

**PHYG - 401** Objective: Students will have an exposure to the field of quantum mechanics and appreciate the fact that is basic to the study of modern physics.

PHYG-402: Practical Paper

### **SEMESTER-V**

**PHYG - 501** Objective: Students will be able to understand fundamental importance of atomic physics to understanding many concepts of modern physics. Further they will be able to have an insight to the basic constituents of matter as well understand the concepts of nuclear fission and Fusion which are important sources of energy

## **SEMESTER-VI**

**PHYG - 601** Objective: The course aims to a good foundation of the versatile field of electronics. Further they will be able to appreciate material Science in general.

PHYG-602: Practical Paper

**Physics Major Course** 

**SEMESTER-I** 

**PHYM 101** Objective: Students will have a fair knowledge of the mechanical properties of matter in the solid and the liquid state.

### **SEMESTER-II**

**PHYM 201** Objective: Students will have a good foundation of the concepts of thermal properties of matter helps in better understanding of several other branches of modern physics.

### SEMESTER-III

PHYM 301 Objective: Students will be able to appreciate as well as apply the versatility of Light.

**PHYM 302** Objective: To attract students towards the realms of electricity trending to electromagnetic theory.

PHYM 303: Practical paper based on Mechanics and Optics

### **SEMESTER-IV**

PHYM 401 Objective: To introduce the interdisciplinizative between mathematics and physics

**PHYM 402** Objective: To introduce students with the quantum phenomenon alongside its various applications which could not be explained by classical physics.

PHYM 403: Practical paper based on Mechanics and Optics

### **SEMESTER-V**

PHYM 501 Objective: To get into higher degree of understanding in mathematical physics

**PHYM 502** Objective: To introduce electrodynamics and then show their applications in various parts of physics.

**PHYM 503** Objective: To acquaint the students with atomic and molecular spectra along with some basic knowledge about laser

PHYM 504 Objective: To get some theoretical knowledge on both analog and digital electronics

**PHYM 505**: Practical paper mainly based on electric circuits.

# **SEMESTER-VI**

**PHYM 601** Objective: To introduce statistical mechanics to the students and their application in some vital fields.

**PHYM 602** Objective: To provide some knowledge into fundamentals of condensed matter physics.

**PHYM 603** Objective: To enable the students to understand fundamental importance of atomic physics to understanding many concepts of modern physics. Further they will be able to have an insight to the basic constituents of matter as well understand the concepts of nuclear fission and Fusion which are important sources of energy

**PHYM 604** Objective: To get some deep insight into advanced LASER and LASER based applications.

PHYM 605: Practicals based on Analog and Digital electronics.

## **Department of English**

# **English major Program**

**Paper I**: Reading Poetry **Paper I**: History of English Society and Culture I (Anglo Saxon to the Restoration)

**Objective**: The paper will identify signposts of English society and culture from the Anglo-Saxons period to the Restoration. The students will be required to acquaint themselves with events, ideas, personalities and texts that form the backbone of each period, with clear awareness of parallel or related trends in the continent

**Paper II**: History of English Society and Culture II (From the 18th century to the 20th Century)

**Objective:** The paper will identify signposts of English society and culture from the 18th century to the twentieth. The students will be required to acquaint themselves with events, ideas, personalities and texts that form the backbone of each period, with clear awareness of parallel or related trends in the continent. Each unit will require the student to study the movements and issues that define the ethos of the period under scrutiny

**Paper III:** History of the English Language, Critical Terms, and Classical Mythology

**Objective:** In Part-A, the students will be required to acquaint themselves with the history of the English language, both synchronic and diachronic, keeping in mind the different elements such as influences, borrowings, and changes. In Part-B, Unit I students will be required to study common critical terms and concepts in order to hone their critical skill and sensibility. In Unit II, they will be required to acquaint themselves with major events and characters in classical mythology to help them connect to western literature as part of larger socio-cultural contexts.

**Objective:** The students will be required to acquaint themselves with major poets and poems from Shakespeare to Eliot. Each unit will require the student to keep abreast of movements and issues that define the ethos of the text under scrutiny.

Paper V: Reading Prose and Fiction

**Objective:** The aim of this paper is to acquaint the students with major essayists, non-fictional prose writers, and novelists from Bacon to Jane Austen. Each unit will require the student to keep abreast of movements and issues that define the ethos of the texts

under scrutiny.

# **Paper VI**: Reading Fiction

**Objective:** The aim of this paper is to acquaint the students with major English novels from Dickens to Lawrence, keeping in mind the different socio-political contexts of their origin and reception. While Unit I will require the student to keep abreast of movements that mark the growth of the English novel, the rest of the units will require them to study issues that define the ethos of the texts under scrutiny.

## Paper VII: Reading Drama

**Objective:** The aim of this paper is to acquaint the students with English drama from Marlowe to Beckett, keeping in mind the cultural contexts of their production and reception. While Unit I will require the student to keep abreast of movements that mark the growth of English drama, the rest of the units will require them to study issues that define the ethos of the texts under scrutiny.

## Paper VIII: Criticism I

**Objective:** The aim of this paper is to acquaint the students with major critical texts from the classical period as well as from the Renaissance and the neo-classical period in order to contextualize critical terms and frames of reference that would be useful for the understanding and analysis of literary texts. Each unit will require the students to keep abreast of movements and issues that define the critical temper of the texts under scrutiny to help them understand the common trajectory of growth of western literary criticism.

# Paper IX: Great European Thinkers

**Objective:** The aim of this paper is to acquaint the students with major philosophical texts from the early modern period to the twentieth century in order to contextualize philosophical terms and frames of reference that would be useful for the understanding and analysis of literary texts. Each unit will require the students to keep abreast of movements and issues that define the critical temper of the texts under scrutiny to help them understand the common trajectory of critical inquiries in philosophical as well as literary-critical texts.

### **Paper X**: Indian Writing in English

**Objective:** The aim of this paper is to acquaint the students with seminal IWE texts in order to help them understand the complexities of Indian life and culture as well as the relevance of IWE in the contemporary world. While Unit I will require the students to keep abreast of the history and reception of IWE, the rest of the units will require them to study issues that define the Indian ethos of the texts under scrutiny.

### Paper XI: Criticism II

**Objective:** The aim of this paper is to acquaint the students with major critical texts from the Romantic period to the twentieth century in order to contextualize critical terms and frames of reference that would be useful for the understanding and analysis of literary texts. Each unit will require the students to keep abreast of movements and issues that define the critical temper of the texts under scrutiny to help them understand the various trajectories of growth of literary criticism.

# **Paper XII**: Literature of the USA

**Objective:** The aim of this paper is to acquaint the students with seminal American texts in order to help them understand the complexities of American culture as well as the relevance of the American ideals to the Indian situation. While Unit I will require the students to keep abreast of the history and reception of the Literature of the USA, the rest of the units will require them to study issues that define the ethos of the texts under scrutiny.

# Paper XIII: Literature in the Postcolonial World

**Objective:** The aim of this paper is to acquaint the students with seminal postcolonial novels in order to help them understand the complex negotiations between the colonizer and the colonized and the transformations in societies and cultures in India, African region.

# **Paper XIV: Introduction to Linguistics and Phonetics**

**Objective:** The general objective of this paper is to introduce to the student to some basic concepts associated with language. It also aims at familiarizing the student with the sound system of English and English syntax to stimulate effective communication in English.

## General English:

# **General English Paper I**

**Objective:** The aim of this paper is to impart some of the basic skills in written communication to the student. While a course in English grammar has not been prescribed, the student is expected to have a sound knowledge of grammar. Apart from learning the use of language, the student would be expected to practise the different modes of writing and comprehension which shall include analysis and interpretation. A majority of the classes shall have to be devoted to working out of exercises by the students. The guidelines for writing of reports, notes, memos, and other specified items shall have to be given in specific classes.

## **General English Paper II**

**Objective:** This paper shall help the student to appreciate different kinds of creative writing and also inculcate desirable social values. These literary texts may be exploited by preparing supportive materials which will facilitate the simultaneous development of language and communication skills as well.

# **General English Paper III**

**Objective:** This paper aims to provide a first hand knowledge of major English poems from the Romantic to the Modern Period by English, American and Indian poets. The eclectic nature of the poems and the drama by a Russian author is meant to acquaint the students with other literary cultures besides English.

### Alternative English :: Paper I

**Objective:** Students opting for this paper are expected to have some command over the English language. Their skills in writing and literary appreciation would be tested and they would be encouraged to develop individual idioms. This paper comprising of poems by English, American and Indian writers is intended to familiarize the students with poetry as a genre and also to appreciate the cultural and social backgrounds against

which these master pieces were produced.

# **Alternative English:: Paper II**

**Objective:** This paper shall help the student to appreciate different kinds of creative writing and also inculcate desirable social values. The non-fictional prose is expected to acquaint the student with the ideas of famous writers and thinkers. The clarity of perception in each of these writers is expected to act as a guiding framework for the student in search of an idiom. Writing assignments should be given to the students on a regular basis.

# Alternative English :: Paper III

**Objective:** This paper aims to familiarize students with literary genres such as fiction and short stories so as to develop the skills necessary for appreciation and interpretation of literature. The novel by the American writer is expected to introduce the student to the American difference in literature. The short stories by some of the famous Indian writers shall open up chapters from India's rich past. They shall also introduce the student to different narrative styles adopted by the writers concerned.

# **Paper: Communication Skills**

**Objective:** The aim of this paper is to prepare students for competitive examinations and to enable them to develop skills and abilities that may be necessary for their future academic and professional needs and interests. These objectives are sought to be realized by systematically sequencing the course content of language comprehension, composition, grammar and oral communication, and providing intensive practice in these components.

# Alternative English: B. Com (3rd Semester)

**Objective:** The paper aims at integrating literature and language for effective communication. Students opting for this paper are expected to have some command over the English language. The paper is designed to hone the skills imparted by the compulsory paper on English Communication. As such, attention shall be paid to the business of using the language for communication with clarity and confidence. Regular writing assignments should be given to the students as part of internal assessment. It is expected that the students of Commerce shall learn the art of business communication with the register integral to the discipline

# **Department of History**

History General Program Semester: I

Semester: I

# HISTORY OF ASSAM: 1228 –1826 Objective:

The objective of this paper is to give a general outline of the history of Assam from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century. It aims to acquaint the students with the major stages of

developments in the political, social and cultural history of the state during the medieval times.

**Semester: II** 

Course: II

**HISTORY OF ASSAM: 1826 - 1947** 

**Objective:** 

The course aims at acquainting the students with the main currents of the sociopolitical and economic developments in Assam during the colonial period.

Semester: III

**Course: III** 

**HISTORY OF EUROPE: 1453-1815** 

**Objective:** 

The objective of this paper is to acquaint the students with the major developments in European politico-economic scenario since the Renaissance till the end of the French Revolution.

**Semester: IV** 

Course: IV

HISTORY OF INDIA FROM THE EARLIEST TIMES TO 1526

**Objective:** 

The objective of this paper is to acquaint the students with the general outline of the history of India from the known earliest times to the coming of the Mughals to India in the first quarter of the 16th century. It is aimed at giving them a comprehensive idea of the developments in all spheres of life during this period.

Semester: V

Course: V

**HISTORY OF INDIA: 1526 - 1947** 

**Objective:** 

This paper aims to acquaint the students with the general course of events in the field of political, social, cultural and economic affairs in India from the foundation of the Mughal Empire in 1526 till Independence in 1947.

Semester: VI

Course: VI (Optional –I)

### HISTORY OF ECOLOGY AND ENVIRONMENT IN INDIA

**Objective:** 

This course intends to acquaint the students with the new discipline of ecological and environmental history. It intends to familiarize them with the relation between ecology and human civilization with particular reference to post independence India. It also attempts to bring the pupils to the understanding of the social and economic conflicts emerging due to environmental factors.

Semester: VI

(Optional –II) Course: VI

Women in Indian History

**Objective:** 

The objective of this course is to describe the Feminist Movement, the key concepts in Women's studies as well as sources for reconstructions of Women's History. It will also describe the status of Women in Indian Society during the Vedic and Medieval period. Further the Reform Movement as well as the role of women in India's Freedom Struggle will be dealt with.

## **Department of Education:**

# **General Program**

### Semester:I

# PAPER – I OBJECTIVES :

- 1) To develop an understanding of meaning nature and scope and aims of education.
- 2) To develop an understanding of major components of education and their relationships.
- 3) To give knowledge on the role of education as an instrument of social change.
- 4) To develop an understanding about curriculum in education.

### Semester:II

## Paper-II

Educational Psychology:

# **Department of Economics:**

Economics General program

### FIRST SEMESTER

### PAPER 1.01 (MICROECONOMIC THEORY)

**Objective:** The objective of the paper is to develop the understanding of some basic concepts of microeconomics, to enhance the economic reasoning of the learners to analyse the behavioural patterns of different economic agents and to deal with the advanced theoretical issues and their practical applications

### **SECOND SEMESTER**

### PAPER 2.01 (MACROECONOMICS)

# **Objective:**

The objective of this course is to acquaint the learners with the basic macroeconomic concepts and the theories of macroeconomics.

### THIRD SEMESTER

## **PAPER 3.01 (Public Economics)**

### **Objective:**

The objective of this course is to acquaint the learners with some basic concepts of public finance along with a reference to the Indian economy.

### FOURTH SEMESTER

# PAPER 4.01 (Issues of Indian Economy)

**Objective:** 

The objective of this course is to acquaint the learners with the salient features of Indian economy. The learners will also be able to know the performance and problems of the primary, secondary and tertiary sectors of Indian Economy.

### FIFTH SEMESTER

# PAPER 5.01 (Elementary Statistics for economics)

# **Objective:**

The course aims to acquaint the learners with some statistical data collecting methods and basic statistical methods that can be applied in economics.

### SIXTH SEMESTER

# **PAPER 6.01 (Development Economics)**

# **Objective:**

The objective of this course is to acquaint the learners with the measurement of development with the help of theories along with the conceptual issues of poverty and inequalities. This will enable the learners to understand the problems from Indian perspective.

# **Economics Major program**

### FIRST SEMESTER

### PAPER 1.01(MICROECONOMICS-I)

**Objective:** The objective of the paper is to develop the understanding of some basic concepts of microeconomics, to enhance the economic reasoning of the learners to analyse the behavioural patterns of different economic agents, to provide opportunity to the students to deal with the advanced theoretical issues and their practical applications.

### SECOND SEMESTER

# PAPER 2.01 (MACROECONOMICS)

**Objectives:** The introduction of the course rests on the following objectives:

- (i) to impart the basics of macroeconomics;
- (ii) to discuss the theories of income and employment;
- (iii) to discuss the theories of consumption function and investment spending;
- (iv) to discuss the determination of interest rate and IS-LM model and
- (v) to impart the ideas about open economy in the context of macroeconomics.

### THIRD SEMESTER

### PAPER 3.01(MICROECONOMICS-II)

**Objective:** The objective of the paper is to develop the understanding of some basic concepts of microeconomics, to enhance the economic reasoning of the learners to analyse the behavioural patterns of different economic agents, to understand the decision making process in different market situations, to provide opportunity to the students to deal with the advanced theoretical issues and their practical applications and to make them realize that good knowledge of microeconomics is very much important for understanding the modern economy functions .

# THIRD SEMESTER PAPER 3.02 (STATISTICAL METHODS IN ECONOMICS)

**Objective:** 

The objective of this course is to acquaint the learners with some basic statistical methods that can be applied in economics.

### **FOURTH Semester**

# PAPER 4.01 (MATHEMATICS FOR ECONOMICS)

# **Objective:**

The objective of this course is to acquaint the learners with some basic mathematical methods that can be applied in economics.

### FOURTH SEMESTER

# PAPER 4.02 (PUBLIC ECONOMICS – THEORETICAL ISSUES)

# **Objective:**

The objective of this course is to acquaint the learners with some basic theoretical concepts of public finance which will enable them to understand the practical issues

### FIFTH SEMESTER

# PAPER 5.01 (DEVELOPMENT ECONOMICS WITH INDIAN PERSPECTIVE – I ) Objective:

The objective of this course is to acquaint the learners with the measurement of development with the help of theories along with the conceptual issues of poverty and inequalities with Indian perspective.

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# PAPER 5.02 (PUBLIC ECONOMICS: POLICY ISSUES)

## **Objective:**

The objective of this course is to acquaint the learners with the fiscal policies designed for developed and developing economies with a special thrust to the federal system of India.

# PAPER 5.03 (HISTORY OF ECONOMIC THOUGHT)

# **Objective:**

The objective of this course is to acquaint the learners with the historical developments in the economic thoughts propounded by different schools.

# PAPER 5.04 (MONETARY THEORIES AND FINANCIAL MARKETS) Objective:

The objective of this course is to acquaint the learners with some basic concepts relating to monetary analysis and financial marketing with a reference to Indian financial markets, which will enable the learners to relate the conceptual issues to the real world situations.

### SIXTH SEMESTER

# PAPER 6.01 (DEVELOPMENT ECONOMICS WITH INDIAN PERSPECTIVE – II) Objective:

The objective of this course is to acquaint the learners with the development issues of Indian economy. The course will also enable the learners to understand the development problems of the Northeast India.

# PAPER 6.02 (ENVIRONMENTAL ECONOMICS)

## **Objective:**

The objective of this course is to acquaint the learners with the basic concepts of environmental economics along with the solution to the environmental problems.

### SIXTH SEMESTER

### PAPER 6.03 (INTERNATIONAL ECONOMICS)

# **Objective:**

The objective of this course is to acquaint the learners with both real and monetary sides of International Economics. To help the students grasp and retain the concepts and thereby to bring excitement of International Economics to the classroom, the syllabus is designed from traditional to modern, theoretical to analytical developments in International Economics.

# PAPER 6.04 (ECONOMIC ISSUES OF ASSAM) Objective:

The objective of this course is to acquaint the learners with the characteristics of the economy of Assam. The learners will also be able to know the performance and problems of the primary, secondary and tertiary sectors of Assam.

# **Department of Political Science:**

Political Science Major program

# **SEMESTER-I**

# PAPER - 10100 PSCM: WESTERN POLITICAL THOUGHT

**Objectives:** The course is designed to introduce the students to the contribution of the main traditionsof western political thinkers to political thought.

#### **SEMESTER-I**

# PAPER - 10200 PSCM: INDIAN GOVERNMENT AND POLITICS

**Objectives:** The basic objectives of the course are to acquaint the students of Political Science with the processes and dynamics of Indian politics. Apart from familiarizing students with the processes and dynamics of Indian Politics, the course also aims at introducing the students to some of the vital contemporary emerging issues of our times such as changing pattern or Centre-State relations, changing role of political parties, emergence of new leadership at different levels, demand for autonomy movement, separatist movement, ethnic conflicts etc. It is envisaged that the course would provide the students with a good exposure to the processes and dynamics of Indian Government and Politics.

### **SEMESTER-III**

# PAPER - 10300 PSCM: PUBLIC ADMINISTRATION

**Objectives:** The main objective of the course is to acquaint the students of Political Science with the basic concept, principle and dynamics of Public Administration. Apart from familiarizing students with the fundamental concepts, the course also aims at introducing the students to some of the vital contemporary concerns of our times such as New Public Administration etc. It is envisaged that the course would provide the students with a good exposure to the core concepts of Public Administration.

## PAPER - 10400 PSCM: INTERNATIONAL RELATIONS

**Objectives:** The course is designed to acquaint the students with important theories and issues of International Relations which will help them to have a proper understanding of the contemporary international issues.

# **SEMESTER-IV**

PAPER - 10500 PSCM: COMPARATIVE POLITICS

**Objectives:** The basic objectives of this paper are to introduce the students with the diverse political systems especially the developed countries along with China and Switzerland. Besides, in order to acquaint them with the innovative concepts incorporated in this syllabus which are also important from competitive examination perspective and others such NET, SLET.

# PAPER – 10600: PSCM: POLITICS OF NORTH EAST INDIA WITH SPECIAL REFERENCE TO ASSAM

**Objectives:** The primary aim of this paper is acquaint withy the students with the sensitive peripheral states of India that has attracted the attention of the social scientists since a few years back. Moreover, being the citizens of the Northeast region it is invariably the concern of the students to have proper understanding of their own area.

### **SEMESTER-V**

### PAPER - 10700: PSCM: POLITICAL THEORY

**Objectives:** This paper aims at providing the students with the knowledge of the basic concepts and ideological orientations of the discipline. It also acquaints the students with the development of the discipline.

# PAPER - 10800: PSCM: INDIAN POLITICAL THOUGHT

**Objectives:** The course is designed to introduce the students to the contribution of the main traditions of Indian political thinking to political thought.

# PAPER – 10900: PSCM: INDIAN FOREIGN POLICY

**Objectives:** The purpose of the course is to acquaint the students with the evolution, development and trends of India's foreign policy.

### PAPER – 11000 PSCM: INTERNATIONAL LAW

**Objectives:** The course is designed to acquaint the students with the basics of International law and the new trends in the realm of International law.

### **SEMESTER-VI**

# PAPER - 11100 PSCM: HUMAN RIGHTS

**Objectives:** The course will provide the basic concepts and issues concerning human rights and will acquaint the students with the contemporary challenges.

# PAPER - 11200 PSCM: INTRODUCTION TO WOMEN'S STUDIES

**Objectives:** The course is designed to generate sensitization for women's issues and problems. It will try to introduce the basic concepts and theories to facilitate the understanding of women's studies. The course will also try to introduce the students to Women's activism in India and the West.

### PAPER – 11300 PSCM: ADMINISTRATION OF RURAL DEVELOPMENT IN INDIA

**Objectives:** Rural Development as the emerging focus of modern Development Administration gains much more importance and significance in the Third World Countries. Development of rural areas has been one of the paramount concerns of the successive Five-year plans. In this context it is necessary to introduce a course on Rural Development. The course Rural Development in India (P

attempt in this direction. The main objective of this course is to familiarize the students with problems and prospects of rural development in India. It will enable them to understand the approaches to rural development, objectives of the various RDPs, implementing Agencies, infrastructure to rural development etc.

### PAPER - 11400 PSCM: INDIAN ADMINISTRATION

**Objectives:** The basic objectives of the course on Indian Administration seek to familiarize the students with the cultural, social, political, economic and constitutional environment as a historical perspective of Indian Administration. It will help the students to develop a broad perspective to understand the nature, character and behaviour of Indian administration. The course will help the students to know various changes and developments, trends and patterns emerging in Indian administration. It is envisaged that the course would provide the students with a good exposure to the process and dynamics of Indian administration.

# Political Science general program

# **SEMESTER-I**

# PAPER - 10100 PSCM: POLITICAL THEORY

**Objectives:** This paper aims at providing the students with the knowledge of the basic concepts and ideological orientations of the discipline. It also acquaints students with the development of the discipline.

### **SEMESTER-II**

# PAPER - 10200 PSCM: INDIAN GOVERNMENT AND POLITICS

**Objectives:** The basic objectives of the course are to acquaint the students of Political Science with the processes and dynamics of Indian politics. Apart from familiarizing students with the processes and dynamics of Indian Politics, the course also aims at introducing the students to some of the vital contemporary emerging issues of our times such as changing pattern or Centre-State relations, changing role of political parties, emergence of new leadership at different levels, demand for autonomy movement, separatist movement, ethnic conflicts etc. It is envisaged that the course would provide the students with a good exposure to the processes and dynamics of Indian Government and Politics.

### SEMESTER-III

# PAPER - 10300 PSCM: PULIC ADMINISTRATION

**Objectives:** The main objective of the course is to acquaint the students of Political Science with the basic concept, principle and dynamics of Public Administration. Apart from familiarizing students with the fundamental concepts, the course also aims at introducing the students to some of the vital contemporary concerns of our times such as New Public Administration etc. It is envisaged that the course would provide the students with a good exposure to the core concepts of Public Administration.

### **SEMESTER-IV**

### PAPER - 10400 PSCM: INTERNATIONAL RELATIONS

**Objectives:** The course is designed to acquaint the students with important theories and issues of International Relations which will help them to have a proper understanding of the contemporary international issues.

### **SEMESTER-V**

### PAPER - 10500 PSCM: ADMINISTRATION OF RURAL DEVELOPMENT IN INDIA

**Objectives:** Rural Development as the emerging focus of modern Development Administration gains much more importance and significance in the Third World Countries. Development of rural

areas has been one of the paramount concerns of the successive Five-year plans. In this context it is necessary to introduce a course on Rural Development. The course Rural Development in India in an attempt in this direction. The main objective of this course is to familiarize the students with problems and prospects of rural development in India. It will enable them to understand the approaches to rural development, objectives of the various RDPs, implementing Agencies, infrastructure to rural development etc.

# **SEMESTER-VI**

# PAPER - 10600 PSCM: HUMAN RIGHTS

**Objectives:** The course will provide the basic concepts and issues concerning human rights and will acquaint the students with the contemporary challenges.