PROGRAMME OUTCOME 2019-20
NAME OF THE PROGRAMME: B.Sc. BOTANY

PROGRAMME OUTCOME OF B.Sc BOTANY:

After completion of the three year degree programme of B.Sc Botany student should be able to:

- Achieve scientific temperament in and outside the scientific community
- Know about different types of lower and higher plants their evolution from algae to angio sperm plants their economic and ecological importance and medicinal values.
- Acquire knowledge about cell organelles and their biological function.
- Gather knowledge on Molecular biology that gives insight about chemical properties of nucleic acid and their role in living system
- Have knowledge about laws of inheritance, various genetic interactions chromosomal abrasions and multiple alleles
- Describe morphological and reproductive characters of plant and also identify different plant families and classification
- Use modern botanical techniques and decent equipments

PROGRAMME SPECIFIC OUTCOME OF B.Sc. BOTANY:

On completion of B.Sc. Botany programme students are specifically able to:

- Know advance techniques in plant science
- Acquire fundamental botanical knowledge
- Explain plant life, reproductions and their survival in nature
- Understood role of living and fossil plants in our life
- Start mushroom cultivation, fruit reservation and horticultural crops and planning about garden design of plot.
- Create awareness about cultivation and conservation
- Gather knowledge on sustainable utilization of biodiversity. Field visits to gardens crops sites, nurseries, horticultural fields.

COURSE OUTCOME OF B.Sc. BOTANY

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Microbiology and Phycology	• Basic study on microbial world • Study on Bacteria and Cyano bacteria • general characteristics of Algae, Chlorophyta, Charophyta, Xanthophyta, Phaeophyta and Rhodophyta • Practical knowledge on Microbiology and Phycology
	C-II	Biomolecules and Cell Biology	• Structure and characteristics of Bio-molecules, Enzymes, Lipids, Proteins etc. • Structure, Chemical property and function of cell and nucleus. Cell and Nucleus. • Practical knowledge on cell biology

II	C-III	Mycology and Phytopathology	• Application of Fungi in food industry. • General characteristics of Fungi and allied fungi • Role of fungi in Biotechnology
			• Concepts, symptoms regarding Phytopathology • Practical knowledge on Mycology and Phytopathology
	C-IV	Archegoniate	• Unifying features of Archegoniates • general characteristics of Pteridophytes and Gymnosperms • Study on Palae botany • Practical knowledge on Archegoniate
	C-V	Anatomy of Angiosperms	• Introduction and scope of plant anatomy, forensics and pharmacognosy. • Ideas on Tissues ,Stem, Root and Leaf • Adaptive and protective systems • Practical knowledge on Anatomy
	C-VI	Economic Botany	• Origin of cultivated plants and their importance. • Study on spices and drugs • Morphology, processing, uses and health hazards of Tobacco • Knowledge on Oils & Fats, Natural • Rubber and Timber Plants with special reference • Practical knowledge on Economic Botany
	C-VII	Genetics	• History and principles of inheritance of genetics • Variation in Chromosome number, Structure & chromosome mapping. • Types and Detection of gene mutations • Population and evolutionary genetics • Practical knowledge on Genetics
IV	C-VIII	Molecular Biology	• Carriers of genetic information and organization of DNA and chemistry of DNA synthesis • Processing and modification of RNA • Regulation of Transcription and protein synthesis. • Practical knowledge on Molecular • Biology

	C-IX	Plant Ecology and Phytogeography	• Concept of Ecology • Formation, composition and biological components of Soil • Structure, processes and functional aspects of Ecosystem • Practical knowledge on Plant Ecology and Phytogeography
	C-X	Plant Systematics	• Identification, classification and nomenclature of Plants • Terms and concepts on Phylogene
			• Practical knowledge on study of vegetativeand floracharactersof somematerials
V	C-XI	ReproductiveBiologyof Angiosperms	• History andscope on Reproductive BiologyofAngiosperms • Pollination and fertilisation • Concepts on self compatibility • Development,structurefunctionsof Endosperm • Practical knowledge on Anther, Pollen Grains, Ovuleand Embryogenesis
	C-XII	Plant Physiology	• Plant-waterrelationship • Translocationinphloem • Mineral nutrition and Nutrient Uptake • PhysiologyofFlowering • Practical knowledge on Plant Physiology
VI	C-XIII	PlantMetabolism	• Concepts of Metabolism and Mechanismofsignal transduction • Carbonassimilation, Oxidationand • MechanismofATP synthesis • Lipid metabolism and Nitrogen metabolism • Practical knowledge on Plant Metabolism
	C-XIV	PlantBiotechnology	• Plant tissueculture • Recombinant DNA • ApplicationsofBiotechnology • Practicals related to Plant Biotechnology

NAME OF THE PROGRAMME: B.Sc. CHEMISTRY

PROGRAMME OUTCOME OF B.Sc CHEMISTRY

After completion of the three year degree programme of B.Sc. Chemistry students should be able to:

- Develop scientific temper
- Develop research oriented skills
- Enrich the basic concepts in Chemistry
- Enhance the skills instrument handling
- Create awareness o f impact of chemistry on the environment and society

PROGRAMME SPECIFIC OUTCOME OF B.Sc. CHEMISTRY:

On completion of B.Sc. Chemistry programme students are able to:

COURSE OUTCOME OF B.SC. CHEMISTRY

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Inorganic Chemistry-I	• Brief idea about Atomic Structure • Concept of Covalent bond and various theories • Chemical Bonding in inorganic compounds •Practical of Acid-Base titration and oxidation-reduction titrimetry
	C-II	Physical Chemistry-I	• Knowledge of Gaseous, Liquid and Solid States • Study about Ionic Equilibria •Practical work related to Surface Tension, Viscosity, pH- metry and Ionic Equilibria
II	C-III	Organic Chemistry-I	• Basic concept and bonding in Organic Chemistry • Brief idea on Steriochemistry • Concepts of Aromatic Hydrocarbon • Practical work related to Chromatography and basic Organic Chemistry
	C-IV	Physical Chemistry-II	• Concepts of Chemical Thermodynamics • Criteria of equilibrium • Study on Solutions and Colligative properties • Practical work related to Chemical Thermodynamics

III	C-V	Inorganic Chemistry-II	•Knowledge on general principles of Metallurgy and Acids & Bases • Chemistry of s and p Block elements • Fundamentals of Noble Gases and Inorganic Polymers • Practical work of Iodimetric Titration and Inorganic preparation
	C-VI	Organic Chemistry-II	• Study of chemistry of Halogenated Hydrocarbons • Study on Alcohols, Phenols, Ethers and Epoxides • Idea on Carboxyl Compounds
			•Preparation ,properties and reaction of Carboxylic acids and their Derivatives •Practical work related to preparation of Organic compounds
	C-VII	Physical Chemistry-III	• Concepts of Phase Equilibria • Study on Chemical Kinetics • Knowledge on Catalysis and Surface Chemistry • Practical works related to Physical Chemistry
IV	C-VIII	Inorganic Chemistry-III	• Study on Coordination chemistry • Concept Of Transition Elements • Detail analysis of Bioinorganic Chemistry • Practical work of Inorganic preparation, Complexometric titration,Gravimetric analysis
	C-IX	Organic Chemistry-III	•Preparation and reactions of nitrogen containing functional groups • Preparation and their synthetic applications of Diazonium Salts • Study on Heterocyclic Compounds, Alkaloids and Terpenes •Experiments related to qualitative organic analysis of organic compounds
	C-X	Physical Chemistry-IV	• Study about Electrochemistry • Brief idea about electrical properties of atoms and molecules • Practical works related to Conductivity and Potentiometry
V	C-XI	Organic Chemistry-IV	• Fundamentals of UV,IR,NMR-Spectroscopy • Occurrence, classification and biological importance of Carbohydrates • Experiments related to Organic Chemistry

	C-XII	Physical Chemistry-V	• Concepts of Quantum Chemistry • Fundamentals of Chemical Bonding • Study on Molecular Spectroscopy • Experiments related to Spectroscopy /Calorimetry and Spectrophotometric Titration
VI	C-XIII	Inorganic Chemistry-IV	• Classification and analysis of Organometallic Compounds • Basic theoretical principles involved in Qualitative Analysis of cations and anions • Thermodynamic & kinetic aspects and reaction mechanism of metal complexes • Experiment related to Qualitative Analysis of Mixtures
	C-XIV	Organic Chemistry-V	• Classification and Characteristics of Amino acids, Peptides,Proteins,Enzymes, Nucleic Acids and Lipids • Concepts of energy in Biosystem

			• Structure and importance of Pharmaceutical compounds • Classification, Colour and Constitution of Dyes • Practical works related to estimation of some organic compounds

NAME OF THE PROGRAMME: B.COM.

PROGRAMME OUTCOME OF B.COM.

After completion of the three year degree programme of B.Com Commerce student should be able to:

- To make the students learn the writing and interpretation books of accounts
- Impart and develop the oral and written communication, Information Technology and statistical skills as well as legal knowledge
- To develop and inculcate entrepreneurial skills among the students.
- To make themselves more productive, self reliant and constructive for benefit of society

PROGRAMME SPECIFIC OUTCOME OF B.COM. COMMERCE:

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C1	Financial Accounting	• The Course outcome of this paper is to • Impart skills for recording various kinds of business transactions • Acquire conceptual knowledge of financial accounting
	C2	Business Law	• Impart basic knowledge of the important business laws • To discuss some important case studies of partnership laws, Indian contract act, negotiable instrument • Know the relevant case laws, partnership
II	C3	Cost Accounting	• Acquaint with concepts used in cost accounting • Have knowledge on various methods involved in cost ascertainment • To make students get in depth knowledge regarding various methods involved in cost ascertainment
	C4		• Impart basic knowledge of the

		Corporate Law	provisions of the Companies Act, 2013 and depository Act, 1996 • Acquaint with case studies involving issues in corporate laws • To make students acquire knowledge about the legal work of the corporate sector • To know ways and methods to deal with different issues in corporate laws and how to overcome the same
III	C5	Corporate Accounting	• Acquire conceptual knowledge of the Corporate Accounting • Learn the techniques of preparing the financial statements • To learn various techniques of preparing financial statements of companies along with accounting treatment of various situation like floating of shares amalgamation and liquidation of company
	C6	Income Tax Law and Practice	• Provide knowledge and equip with the application of principles and provisions of Income Tax Act, 1961 • Have knowledge on heads of income and provisions governing them • To be acquainted with the application of principles and provisions of various sources of income for taxation purpose
	C7	Management Principles and Application	• Provide the students with an understanding of basic management concepts, principles and practices • Make use of different management principles in the course of decision making in different forms of business organizations
IV	C8	GST and Indirect taxes	• Have basic working knowledge about GST laws • Know about GST Council and regulatory framework • To enrich the students with the principles

			and provisional of GST • To acquaint the students with basic provision of GST law and how it works
	C9	Fundamentals of Data Management	• Have basic working knowledge on Word Processing • Be able to prepare Presentations • Know the basics of Data Base Management System • Using MS excel for various data analysis maintenance of accounting data by applying data base management system • Practical application of various designing tools • Preparing PPT using ms PowerPoint for presentations
	C10	Management Accounting	• Acquaint with basic concepts of Management Accounting • Basic understanding of tools and techniques used for managerial decision making • Keep a check on cost control
V	C11	Computerized Accounting and e-filing of Tax Returns	• Have knowledge on Computerized Accounting Package by using generic software Designing Computerized Accounting System • E-filing of Tax returns • Creation of company ledger accounts payroll accounting data management in accounting software • Use of DBMS package for various accounting data base and report generation • Preparation and submission of online tax return epayment tax returns
	C12	Fundamentals of Financial Management	• Familiarize the students with the principles and practices of Financial Management • Understand finance in a better way • Have insight to practical management of

			long and short finance for real business • To understand business in a better way
VI	C13	Auditing and Corporate Governance	• Provide knowledge of auditing principles, procedures and techniques in accordance with current legal requirements and professional standards • Give an over view of the principles of Corporate Governance and corporate social responsibility • To be well conversed with concept of CSR
	C14	Business Mathematics	• Familiarize the students with the basic mathematical tools • Apply mathematical tools to business and economic situations • Application of various mathematical tools to business and economic situations

NAME OF THE PROGRAMME: B.A.ECONOMICS

PROGRAMME OUTCOME OF B.A. ECONOMICS:

After completion of the three year degree programme of B.A Economics student should be able to:

- Apply economic theories to issues in fields of economics
- Present economic theory and applications in written and oral form
- Explain and estimate economic models using data, test hypotheses and interpret the estimates

PROGRAMME SPECIFIC OUTCOME OF B.A. ECONOMICS:

On completion of B.A Economics programme students are able to:

- Understand and analyse economics behavior in practice
- Be exposed to alternate approaches to economics problems
- Write clearly in economic point of view

COURSE OUTCOME OF B.A. ECONOMICS

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Introductory Micro Economics	• To expose the students to the basic principles of microeconomic theory . • Emphasis on thinking like an economist • Application of microeconomics concepts to analyse real life situations. • Brief idea on ten principles of economics and market forces • Concepts on budget constraints, applications ,Firm & market structures • Value of marginal product of labour and demand for labour
	C-II	Mathematical Methods forEconomics-I	• To transmit basic mathematics that enables the study of economic theory • Application of mathematical techniques to economic theory. • Economic models to know about preliminaries and functions of real variables • Derivatives of a function and its applications • Knowledge on matrix and determinants

II	C-III	Introductory Macro Economics	• To be aware of the preliminary concepts associated with determination and measurement of macroeconomic variables. • Understanding the basic theoretical framework of Macro economics such as GDP, GNP, NDP and NNP • Concepts on evolution and functions of money • Classical approach of determination of national income
	C-IV	Mathematical Methods forEconomics-II	• To transmit the body of basic mathematics that enables the study of economic theory on micro economics, macro economics, statistics and econometrics • Illustrating the methods of applying mathematics to economic theory in general • Study ofoptimization of with equality constraints
III	C-V	MicroEconomics-I	• To have a sound training in micro economic theory to formally analyse the behavior of individual agents • To facilitate understanding of the basic concepts by using mathematical tools • To have an idea on the behavior of the consumer and producer as well as the behavior of competitive firms
	C-VI	MacroEconomics-I	• Basic idea on formal modeling of macro economy in terms of analytical tools • Knowledge on various alternative theories of output and employment determination in a closed economy • To have basic idea on various theoretical issues related to an open economy
	C-VII	Statistical Methods for Economics	• To have basic concepts on statistical analysis • To study and measure their relationship between variables • Idea on index number and time series • Development of probability and probability distributions
IV	C-VIII	MicroEconomics-II	• To emphasize on conceptual clarity on mathematical tools and reasoning • To have knowledge on market, general equilibrium and welfare, imperfect markets
	C-IX	MacroEconomics-II	• Introduction to the long run dynamic issues like growth and technical progress • To provide micro–foundations to the various aggregative concepts

			• Concepts on classical, Keynesian, Monetarist and New classical Macro economic thoughts
	C-X	Research Methodology	• To develop research orientation and to acquaint with fundamentals of research methods • Introduction to the basic concepts used in research and to scientific social research methods and their approach • Knowledge on sampling techniques, research designs and techniques of analysis
V	C-XI	IndianEconomy-I	• To study major trends in economic indicators and policy debates in India in the post independence period • To analyse growth stories and current challenges and economic planning in India
	C-XII	Development Economics-I	• Concepts on aggregate models of growth and cross-national comparisons of the growth experience. • To explore and develop measures of inequality and connections between growth and inequality • To link political institutions to growth and inequality • To study alternative concepts of development and their justifications.
VI	C-XIII	IndianEconomy-II	• To examine sector-specific policies and their impact • To evaluate rapid changes taking place in the country • Study on environmental policies related to Indian economy
	C-XIV	Development Economics-II	• To analyze concepts on demography and their evolution • To study structure of markets • To study governance of communities and organizations and to link them to questions of sustainable growth • To study the role of globalisation
V (DSE)	DSE-I	Economic History of India , 1857-1947	• To expose the key aspects of Indian economic development during the second half of British period. • To evaluate the process of economic development in India during colonial rule • To study economic development of India after independence.

	DSE-II	Odisha Economy	• Major trends in economic indicators in pre and post independent period. • Economic policies undertaken during pre and post independent period.
VI (DSE)	DSE-III	Agricultural Economics	• Study of the significance of agriculture in Indian Economy. • Agricultural marketing and pricing policies. • Indian Agriculture during the period of linearization.
	DSE-IV	Dissertation	• To make the students familiar to empirical content to the subject apart from the class room teaching. • To expose students to the social and real world contexts in which the subject taught in the class room are applied. • Project writing and investigation on a topic under the supervision of a faculty member.

NAME OF THE PROGRAMME: B.A. ENGLISH (HONS.)

PROGRAMME OUTCOME OF B.A. ENGLISH (HONS.)

After completion of the three year degree programme of B.A. English (Hons.) student should be able to:

- Teach the basic concepts of English language and literature
- Apply literary critical perspectives
- Promote cultural values through English language

PROGRAMME SPECIFIC OUTCOME OF B.A. ENGLISH (HONS.):

On completion of B.A English programme students are able to:

- Understand the basics of literature and language
- Understand the literary merit and creative use of English language
- Get familiarize with the classic prose and poetry in English literature

COURSE OUTCOME OF B.A. IN ENGLISH

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	British Poetry and Drama:14th-17th Centuries	• To expose the students to some important texts from early modern period covering the origin of modern English poetry • To examine the renaissance that put British poetry and drama on the arena of greatness
	C-II	British Poetry and Drama: 17th-18thCenturies	• To be familiar with Jacobean and 18th Century British poetry and drama • To gain knowledge about satire and the Comedy of Humours. • To experience satiric poetry and the comedy of manners
II	C-III	BritishProse:18th Century	• To get acquainted with a novel form of literature i.e. the essay • To know about the shift of emphasis from reason to emotion
	C-IV	Indian Writing in English	• To experience Indo-Anglian writing in various forms • To enlighten oneself through representative poems, novels and plays

III	C-V	British Romantic Literature	• To get acquainted with the Romantic period and its important writers. • To gain knowledge about return to nature, subjectivity, desire to personal freedom through the texts. • To be aware of the weakening of classicism on poetic form.
	C-VI	British Literature: 19th Century	• Tointroduceandexploitthe19th century British literature in prose forms. • To read Jane Austen and Charles Dickens.
	C-VII	British Literature: early2o th Century	• To analyse crisis in western society. • Studying poetry of Eliot, Yeats and Owen.
IV	C-VIII	American Literature	• To have an overview of important American writers. • To study the works of Arthur Miller and Ernest Hemingway as canonical texts.
	C-IX	European Classical Literature	• To gain exposure on European classic literaturefrom18th century BC to 5th Century AD. • To know about the important European texts. • Study of Homer and Aristotle.
	C-X	Womens' Writing	• To read women writers from different nations and their cultural significance. • To examine critically Patriarchy, gender and combination of desire and power.
V	C-XI	Modern European Drama	• To b e introduced to the best dramatic literature of modern Europe. • Study of Ibsen, Ionesco and Brecht.
	C-XII	Indian Classical Literature	• To create an awareness regarding the rich and diverse literary and aesthetic culture of ancient India. • Reading Kalidasa and Sudraka.

VI	C-XIII	Post Colonial Literature	• To introduce the students to post-colonial literature. • To know about compliance, resistance, Mimicry, subversion. • To study Raja Rao, Jean Rhys and Fugard.
	C-XIV	Popular Literature	• To know about children literatures, detective fiction, campus fiction and the popular and folk roots of literature.

NAME OF THE PROGRAMME : B.A. HISTORY (HONS)

PROGRAMME OUTCOME OF B.A. HISTORY:

After completing a the three year degree programme of B.A History (Hons.) a student would be able to:

- Understand to evaluate and recognize socio-economic and political structure of Indian history along with understanding of development in every aspect of human civilization.
- Identify and analyze basic historical concepts
- Enable to evaluate and synthesize historical materials and culture

PROGRAMME SPECIFIC OUTCOME OF B.A. HISTORY (HONS.):

On completion of B.A History (Hons.) programme students would be able to:

- Work as a teacher in schools, high schools, as a conservator in any museum and tourist guide for historical monuments.
- Find employment with archaeological survey of India or with private farms related to archaeology besides pursuit career in archival activity.

COURSE OUTCOME OF B.A. HISTORY

SEMESTER	COURSE (COR	SUBJECT	COURSE OUTCOME
I	C-I	History of India-I	• Study on ancient Indian history with the knowledge of historical geography and identification of ancient historic sites and their importance • Knowledge on Neolithic and Chalcolithic culture • Study on Socio and Political organization with religious beliefs and practices of the Harappan civilizations • Basic idea on early and later Vedicage
	C-II	Social Formations and Cultural Pattern of the Ancient World	• Study of evolution of man and Neolithic culture • Bronze age civilization • Knowledge on ancient Greece-its politics, economics
II	C-III	History of India- II	• Study on economy and society during the period 300 BCE to circa CE 300 • Changing political formations during Mauryan and post Mauryan empires. • Broad knowledge on Gupta age and post Gupta age during the period circa CEfourth century to CE750 • Knowledge on religion, culture, philosophy and society during the Buddhism and Jainism
	C-IV	Social Formations and Cultural Pattern of the Medieval World	• Polity and economy in ancient Romean din Europe from 7^{th} to 14^{th}centuries. • Religion and culture in Medieval Europe, especially analysis on medieval church, Monastic communities and Papacy. • Origin and religious developments of Shariah

III	C-V	History of India-III(c.75-1206)	• Study on political structures of early medieval India mainly of Rajputs, Cholas • Trade & commerce and agrarian structure with social changes in the period c.750-c.1206 • Knowledge on Puranic traditions of Buddhisim and Jainism • Religious and cultural developments and evolution of regional styles of temple architecture
	C-VI	Rise of Modern West-I	• Study on transition on feudalism to capitalism • Early colonial expansion such as voyages and explorations • Emergence of European states Spain, France, England & Russia • Study one economics developments of 16th century
	C-VII	History of India-IV(c.1206-1526)	• Survey and consolidation of the Sultanate of Delhi • Society and economy and emergence of regional identities especially in Bahamanis, Vijayanagar and Odisha • Knowledge on Sufi silsilas and Bhakti movements
IV	C-VIII	Rise of Modern West-II	• Basic ideas on socio- economic and political crises and development of science from renaissance in 17th century Europe • Origin and spread of Mercantilism in European economy • Significance, political and socio-economic issues of the American revolution.
	C-IX	History of India-V(c.1526-1750)	• Establishment and consolidation of Mughal rule in India • Land rights, revenue system of Zamindars and Peasants • Suphimysticals and intellectual interventions
	C-X	Historical Theoriesand Methods	• Basic ideas on definition, nature, scope, object, value, and scope of history • Traditions of historical writing during ancient Greek and ancient Roman traditions • Applications of historical methods and interdisciplinary practices of history
V	C-XI	History of ModernEurope-I(c.1780 -1880)	• Extensive study on French revolution and its European repercussions • Restoration and revolution such as 1830 July revolution and 1848 February revolution • Study on Socio-economic transformation and remaking of states during late 18th to late 19thcentury
	C-XII	History of India- VII(1750-1857)	• Extensive study on expansion, consolidation, imperial ideology, education, economy and society of colonial power • Popular resistances of Santhal uprising and Indigo rebellion • Causes and consequences of 1857 movement

VI	C-XIII	History of India-VIII(c.1857-1950)	• Reforms and revivals such Brahma Samaj , Arya Samaj and Aligarh movements • Swadeshi movement–trends upto 1919 • Ideas and movements of Gandhi an nationalism after 1919
	C-XIV	History of Modern Europe-II(1880-1939)	• Knowledge on liberal democracy, working class movements and socialism in the 19^{th} and 20^{th}centuries • Growth of fascism and Nazism and the Spanish civil war • Major intellectual trends such as mass education, theory of Darwin and Freud since circa 1850
V (DSE)	DSE-I	History of united States of America-I	• Thorugh knowledge on discovery of the new world along with its ancient civilization. • Colonization of America • American revolution and formation of United states with the establishment of the republic an form of government.
	DSE-II	History and Culture of Odisha	• A sense of knowledge on the historical geography and dynastic history of the land –Odisha. • Cultural achievement through the ages.
VI (DSE)	DSE-III	History of united States of America-II	• Knowledge on the evolution of democratic ideas in USA • Black and feminist movement in USA • Different phases of industrialization in USA.
	DSE-IV	Project work	• Helps to imbibe a sense of analytical and research aptitude in the young minds during the undergraduate level.

NAME OF THE PROGRAMME: B.Sc MATHEMATICS

PROGRAMME OUTCOME OF B.SC MATHEMATICS

After completion of the three year degree programme of B.Sc Mathematics student should be able to:

- Understand mathematical ideas from basic axioms
- Use the concepts of analysis in solving problems
- Pursue careers in academia, industry and the other areas of Mathematics
- Equip themselves with necessary analytic and technical skills to handle problems of mathematical nature as well as practical problem

PROGRAMME SPECIFI COUTCOME OF B.SC MATHEMATICS

- Recognize and appreciate the connections between theory and applications
- Following dependently the survey articles, scholarly books, and online sources
- Work effectively in scientific, government, financial, and other positions
- Have a broad background in Mathematics
- Have an appreciation of how its various sub-disciplines are related
- Ability to use techniques from different areas, and an in-depth knowledge about topics chosen

COURSE OUTCOME OF B.SC MATHEMATICS

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Calculus	• Use Leibnitz's rule to evaluate derivatives of Higher order. • able to study the geometry of various types of functions, evaluate the area, volume using the techniques of integrations. • able to identify the difference between scalar and vector, acquired knowledge on some of the basic properties of vector functions.
	C-II	Discrete Mathematics	• to acquaint students with basic counting principles, set theory and logic, matrix theory and graph theory • acquire knowledge will help students in simple mathematical modelling
			• study advance courses in mathematical modelling, computer science, statistics, physics, chemistry etc

I	C-III	Real Analysis	• to have the knowledge on basic properties of the field of real numbers, studying Bolzano-Weierstrass Theorem, sequences and convergence of sequences, series of real numbers and its convergence etc. • able to handle fundamental properties of the real numbers that lead to the formal development of real analysis and understand limits and their use in sequences, series, differentiation and integration • appreciate how abstract ideas and rigorous methods in mathematical analysis can be applied to important practical problems
	C-IV	Differential equation	• to familiarize the students with various methods of solving differential equations and to have a qualitative applications through models • to solve problems to understand the methods • to solve differential equations and is able to model problems in nature using Ordinary Differential Equations
III	C-V	Theory of Real functions	• to have knowledge on limit- theorems on functions, limits of functions, continuity of functions and its properties, uniform continuity, differentiability of functions, algebra of functions and Taylor's theorem and, its applications • working knowledge on the concepts and theorems of the elementary calculus of functions of one real variable • work out problems involving derivatives of function and their applications • use derivatives to analyze and sketch the graph of a function of one variable and obtain absolute value • can take all other analysis courses after learning this course and relative extreme of functions
	C-VI	Group Theory-I	• to introduce students to basic concepts of group theory and examples of groups and their properties • lead to future basic courses in advanced mathematics, such as Group theory-II and ring theory • idea on concept and examples of groups and their properties

			• understand cyclic groups, permutation groups, normal subgroups and related results • can opt for courses in ring theory, field theory, commutative algebras ,linear classical groups etc. • can apply this knowledge to problems in physics, computer science ,economics and engineering.
	C-VII	Partial differential equations and system of ODEs	• exposure to Charpit's Method, Jacobi Method and solve wave equation, heat equation, Laplace Equation etc. • learn classification of Partial Differential Equations and system of ordinary differential equations • to take more courses on wave equation, heat equation, diffusion equation, gas dynamics, nonlinear evolution equations etc.
IV	C-VIII	Numerical Methods and Scientific Computing	• to acquaint students with various numerical methods of finding solution of different type of problems, which arises in different branches of science such as locating roots of equations, finding solution of systems of linear equations and differential equations, interpolation, differentiation, evaluating integration • can handle physical problems to find an approximate solution • can opt for advance courses in numerical analysis in higher mathematics
	C-IX	Topology of Metric spaces	• to impart knowledge on open sets, closed sets, continuous functions, connectedness and compactness in metric spaces. • learn to work with abstract topological spaces
	C-X	Ring Theory	• to gather knowledge on modern algebra which deals with ring theory like rings, subrings, ideals, ring homomorphisms and their properties • help students to continue more courses in advanced Ring theory modules and Galois groups
V	C-XI	Multivariable Calculus	• to introduce functions of several variable to a student after he has taken a course in one variable calculus • introduction to partial derivatives and several of its consequences and double and triple integrals along with line integrals which are fundamental to all streams where calculus can be used

			• to calculate partial derivatives, directional derivatives, extreme values and can calculate double, triple and line integrals • have idea of basic vector calculus including green's theorem , divergence theorem and Stokes theorem
	C-XII	Linear Algebra	• to introduce a student the basics of linear algebra and some of its application • use of this knowledge after undergraduate program • applications in computer science, finance mathematics, industrial mathematics, bio mathematics etc.
VI	C-XIII	Complex analysis	• to provide an introduction to the theories for functions of a complex variable • concepts of analyticity and complex integration • Discussion on Cauchy's theorem and its applications, the calculus of residues and its applications • to handle certain integrals not evaluated earlier • counting the zeros of polynomials
	C-XIV	Group Theory-II	• to be exposed to more advanced results in group theory after completing a basic course • introduction to results on auto morphism, commutator subgroup, group action sylow theorems etc • to study more on field theory • to learn on direct products, group actions, class equations and their applications with proof of all results

NAME OF THE PROGRAMME: B.A.PHILOSOPHY

PROGRAMME OUTCOME OF B.A. PHILOSOPHY

- After completion of the three year degree programme of B.A Philosophy student should be able to:
- Demonstrate creative thinking, innovation, inquiry, evaluation and synthesis of information
- Improve their understanding on ethics and their application to contemporary moral problems of society
- Lead peaceful and harmonious life

PROGRAMME SPECIFI C OUTCOME OF B.A. PHILOSOPHY:

On completion of B.A Philosophy programme students are specifically able to:

- Act morally and ethically as the very meaning of Philosophy is 'way of life or 'way of Valuable life
- Develop reasoning power to understand something systematically or methodically
- Develop critical thinking and proper use of language

COURSE OUTCOME OF B.A. PHILOSOPHY

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	General Philosophy	• Acquire fundamental concepts, terms, definitions about philosophy • Develop an ability to assess the relevance of information to the particular moral problem • Understand different philosophical concepts like realism, idealism, conceptualism
	C-II	Logic and Scientific Method	• Develop an ability to assess rational inquiry in logical concepts • Draw certain conclusions through observation, analysis, hypothesis etc by scientific method • Distinguish valid from
II	C-III	Systems of Indian Philosophy-I	• To know about the depth of knowledge of Indian Metaphysics, epistemology and ethics • To cultivate various systems or schools in Indian philosophy such as heterodox and orthodox schools in Indian philosophy
	C-IV	Symbolic Logic	• To define proposition and argument

			• Express natural language arguments in symbolic language by means of symbolisation
III	C-V	Ethics	• Acquire fundamental concepts, terms, definitions and principals in the study of ethics • Understand various moral problems like violence, punishment, evil etc. • Develop moral character, conduct and behavior
	C-VI	History of Greek Philosophy	• Introduce basic epistemological issues and problems of Greek philosophy • To understand the nature of pre-Socratic thought and post-Socratic thought • To understand Socratic's method, Epistemology and ethics
	C-VII	Systems of Indian Philosophy-II	• Develop an ability to assess the relevance of Upanisadic view of Atma and Brahman • Knowledge about Maya, Brahman, liberation, Atma in reference to Shankar and Ramanuja To understand different types of Yoga system of Patanjali popularly known as Astanga Yoga • To know about Indian epistemology
IV	C-VIII	Contemporary Indian Philosophy	• To understand different Philosophical concepts given by Tagore • To assess philosophical teachings of Vivekananda, Sri Aurovindo, Radhakrishnan and M K Gandhi
	C-IX	History of Modern European Philosophy	• To understand different methods, concepts and techniques in European Philosophical • Develop an ability to know about European epistemology and metaphysics

	C-X	Philosophy of Language	• Develop an ability to assess the relevance of linguistic philosophy • To understand the nature of word, word meaning, ambiguity and vagueness • Acquire knowledge about sentence and proposition
V	C-XI	Western Classics: Meditations of Rene Descartes	• Acquire fundamental concepts, skepticism, and nature of God in Descartes' philosophy • Clearly understand the meaning of "Cogito ergo Sum"

			• To know about mind-body dualism, primary and secondary quality
	C-XII	Indian Text : Isa Upanishad	• Develop and ability to understand the relevance of Isa Upanishad in present society • Express the nature of Mantra • To understand various aspects of Brahman(Para and Apara) • Vidya and Avidya, Samabhuti and Asamabhuti
VI	C-XIII	Social and Political Philosophy	• To understand the nature of justice, liberty and equality • To know about political doctrines • Ability to know about origin and development of human rights • To know about different concepts of Humanism, Feminism, Marxism, Anarchism, Secularism. • Origin and progress of Bhoodan Movement.

	C-XIV	Applied Ethics	• Acquire fundamental knowledge about applied ethics • To understand the basic structure of animal rights and taking life of humans like 'Euthanasia' • Ability to assess the relevance of ethics in business and bio-medical issues

NAME OF THE PROGRAMME: B.SC. PHYSICS

PROGRAMME OUTCOME OF B.Sc. (Hons.) PHYSICS:

After successful completion of the three year degree programme of B.Sc PHYSICS student should be able to:

- A clear understanding of concepts ofPhysics.
- Capacity to think and analyze the experiments onPhysics
- Solve problems and think methodically
- A scientific bent of mind to create an awareness towards impact of Physics on thesociety
- Have knowledge to inculcate scientific temperament in and outside the scientific community.

PROGRAMME SPECIFIC OUTCOME OF B.Sc PHYSICS:

On completion of B. Sc. Physics programme students are able to:

- Gain the knowledge of Physics
- Understand good laboratory practices
- Make aware and handle the sophisticated instruments/equipment
- Develop research-oriented skills
- Go for higher studies such as M. Sc.(Physics), Integrated M.Sc., MBAetc.
- Appear in various competitive examinations for jobs in Govt., Private Sector or Public Sector
- Join in Govt./Private Schools as teachers

COURSE OUTCOME OF PHYSICS:

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Mathematical Physics- I	• To gain Knowledge on Calculus,Differential equations and Dirac Deltafunction. • Recapitulate the Vector Calculus and to study Vectors under rotations. • To study about Orthogonal Curvilinear Co-ordinates (Cartesian, spherical polar and cylindrical co-ordinatesystems) and have a general idea on Gradient, Divergence and Curl in different Coordinate Systems. • Acquire a detailed knowledge on Vector Differentiation,Vector Integration and apply it to study Gauss' Divergence Theorem, Green's and Stokes Theorem. • Practical knowledge related to computer programming and numerical analysis to emphasize its role in solving problems inPhysics.
	C-II	Mechanics	• To get knowledge on Rotational dynamics, Elasticity ,Fluid motion and Oscillations. • To study Law of Gravitation and also to gain knowledge on central force motion. • Basic idea of Global Positioning system (GPS). • Gain detailed background of Einstein's Special theory Of Relativity and it's applications in different aspects. Also to get familiar with the

			concept of Four Vector. • Practical knowledge related toMechanics.
II	C-III	Electricity and Magnetism	• To get basic idea on electric field, potential and potential energy. • Solving Gauss law having charge distributions with Spherical, Cylindrical and Planar symmetry. • Getting used to method of images and it's applications. • To know about magnetic field and it's various applications. • To understand dielectric Properties of matter, Magnetic Properties Of matter and Electromagnetic Induction. • Knowledge on Magnetic Susceptibility,Permeabilityand Hysteresis • Incorporating the idea of Kirchoff's laws for AC circuits, LCR Circuits,Quality Factor. • Analysis of Network theorems (Thevenin,Norton , Superposition and Reciprocity theorem). • Practical knowledge related to Electricity and Magnetism.
	C-IV	Waves and Optics	• To understand four basic principles of geometrical optics and study them under one single platform that is Fermat's Principle. • Solve the Process of image formation by less cumbersome method Matrix Formulation. • To know the advantages of using multiple lenses in eyepieces and the distinction between Ramsden and Huygen's eyepieces. • To know the theory of interference pattern by different Optical instruments. • Acquire knowledge on production and theory of diffraction phenomena of light with zone plate and diffraction grating. • Distinguish between transverse and longitudinal waves and energy propagation mechanism. • Solve the wave equations. • Gain knowledge on superposition of two mutual perpendicular waves and on Lissajous figures with their uses.

III	C-V	Mathematical Physics- II	• To expand periodic functions in a series of sine and cosine functions and determination of Fourier Coefficients. • Idea on Complex representation of Fourier series. • To study term by term differentiation and integration of Fourier Series. • To understand Frobenius method and it's applications to differential equations, mainly Legendre and Hermite Differential equations. • Acquire idea on Beta and Gamma Functions and relation between them. • Gain knowledge on Theory of Errors. • To solve partial differentialequations. • Practical knowledge related to use of computational methods to solve physical problems by using *SCILAB*.
	C-VI	Thermal Physics	• To get a clear understanding oflaws of thermodynamics andentropy. • To have idea on Thermodynamic Potentials. • Derivations and applications of Maxwells Thermodynamic Relations. • To know how absolute zero insustainable. • Clear understanding of Kinetic Theory Of Gases which includes detailed study of Maxwell Boltzmann Law and also Law Of Equipartition Of Energy. • Get idea on Behavior of Real Gases. • Practical knowledge connected to ThermalPhysics.
	C-VII	Digital Systems and Applications	• Differentiate between Analog and Digital Circuits. Idea on different Logic Gates and Boolean Algebra. • Basic idea on Data Processing Circuits, Arithmatic Circuits and Timers. • Qualitative knowledge on Integrates Circuits and its applications. • Detail study about CRO and Shift Registers and Counters. • To know how to store data by RAM & ROM and memory organization. • Practical knowledge concerning Digital Systems and Applications.

IV	C-VIII	Mathematical Physics-III	• Extensive knowledge on Complex Analysis and Residual theorem. • Study of Fourier Integral Theorem ,it's main propertiesand also representation of Dirac Delta Function as Fourier Integral. • Acquire Knowledge on Inverse Fourier Transform. • Applications and idea of Laplace Transform. • Practical knowledge related to *SCILAB* based simulations experiments based on Mathematical Physics problems.
	C-IX	Elements of Modern Physics	• To study briefly about different Atomic Spectra and models leading to emergence of Quantum idea. • To know about the interesting aspect of wave-particle duality and Heisenberg Uncertainty Principle. • To gain knowledge onthe properties of nucleus , Liquid Drop Model and interesting facts on Magic Numbers. • To understand the concept of radioactivity and decays law.
			• Brief Discussion on Fusion and Fission. • Practical knowledge on Atomic Physics and Quantum Physics.
	C-X	Analog Systems and Applications	• Idea on Semiconductor diodes ,Two Terminal Devices and their applications. • Study of transistor connections and their applications as amplifier. • Understanding Of Coupled Amplifier,Feedback in Amplifiers. • To have clear study on Sinusoidal oscillators and Op-Amps .Also applications of Op-Amps as Adder, Subtractor, Differentiator etc. • Practical knowledge related to Electronics and Analog Systems.
V	C-XI	Quantum Mechanics and Applications	• Basic idea on inadequacy of Classical Mechanics leading to introduction of Quantum mechanics and it's different terms such as wave function, Operators. • Proper understanding of Time Dependent and Independent Schrodinger's Equation deriving the general solution of it. • To get clear idea on Momentum Space wave Function and application of Heisenberg's Uncertainty Principle. • Detailed knowledge of Bound State Problems and to know about Quantum mechanical scattering and tunneling.

			• Idea on Behavior of Atoms in Electric and Magnetic Fields . • To offer knowledge on Normal and Anomalous Zeemaneffect. • Practical knowledge connected to use of C/C++/ *SCILAB* for solving problems based on QuantumMechanics.
	C-XII	Solid State Physics	• Study on crystalstructure of Solids. • To understand the principles and techniques of X-rays diffraction. • Qualitative Description of Elementary Lattice Dynamics. • To give an extended knowledge about magnetic properties of matter and LASERS. • To know about Dielectric Properties Of Materials and Band Theory. • Knowledge on Superconductivity. • Practical knowledge related to Solid StatePhysics.
	DSE-I	Classical Dynamics	• To get accustomed to Lagrange and Hamilton Equations. • Acquire knowledge on Postulates of Special Theory Of Relativity. • Idea on Four Vectors and different Applications.
	DSE-II	Nuclear And Particle Physics	• Study On Intrinsic Properties and Constituents Of Nucleus. • Different Nuclear Models giving idea on nuclear shell structure. • To gain knowledge of Detectors for Nuclear Radiations and Particle Accelerators. • Basic Idea of various elementary particles and it's families and to have clear idea of its different aspects.
VI	C-XIII	Electromagnetic Theory	• To get clear understanding on formulation of Maxwell'sequations. • To illustrate the boundary value problems of electrodynamics and EM Wave Propagation in Unbounded and Bounded Media. • To apply Maxwell's equations to solve problems in classical electrodynamics. • To understand Polarization of EM Waves and Poynting vector. • Basic knowledge on Optical Fibres. • Practical knowledge related to Electromagnetic Theory.

	C-XIV	Statistical Mechanics	• To gather knowledge on macro- andmicro-states and definition and types of Ensemble. • Clear idea on Phase Space and Gibb's Paradox. • To study specific heat with applications. • Extensive Knowledge on the properties and laws related to thermal radiation. • To get accurate idea of Quantum Statistics based on Fermi-Dirac and Bose-Einstein statistics. • Practical knowledge related to Statistical Mechanics.
	DSE-III	Nano Materials And Applications	• To illustrate different Nanoscale Systems, Nanostructures. • Idea on Synthesis Of Nanostructure Materials through different approach. • Study Of Characterization Of Nanomaterials through X-Ray Diffraction and Optical Microscopy. • Applications Of Nanoparticles to Solar Cells, Quantum Dots, Optical Switching and many more.

NAME OF THE PROGRAMME: B.A. POLITICAL SCIENCE

PROGRAMME OUTCOME OF B.A. POLITICAL SCIENCE:

After completion of the three year degree programme of B.A Political Science student should be able to:

- Analyse and formulate political and policy problems
- Discuss the major theories and concepts of political science and its related fields
- Developacademicproficiencyinthefieldsofpublicadministration,political theory and international relations

PROGRAMME SPECIFIC OUTCOME OF B.A. POLITICAL SCIENCE:

On completion of B.A Political Science programme students are able to:

- Serve as a teachers in schools, high schools
- Serve as a political person, advisor
- Are able to go for higher study such as PG,LLB, MSW, MBA etc.

COURSE OUTCOME OF B.A. POLITICAL SCIENCE

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Understanding Political Theory	• Introduces political science and political theory and defines the basic terminology, concepts and principles of the discipline. • Identify, explain and compare the major perspectives and dominant approaches in political science. • Critically evaluate the recent most approach to political science, like Post-Modernism. • Understand democracy, different dimensions, types of democracy and related issues like participation and
	C-II	Constitutional Government and Democracy in India	• Acquaints the students with our constitution, its philosophy, basic objectives and the fundamental rights and directive principles. • Understand the nature and functions of our parliamentary democracy and the structure and function of different organs of the government.. • Understand our federal structure, which provides for a strong centre and the democratic decentralization, which aims to take democracy to the grassroot level.

II	C-III	Political Theory- Concepts and Debates	• Conceptual understanding of different normative concepts in political theory like liberty, equality, rights, justice etc. • Critical and reflective analysis and interpretation of these dominant issues and debates in political theory. • Critical analysis of major debates in political theory, which confront the political scientists and philosophers perpetually.
	C-IV	Political Process in India	• To understand the political processes, dynamics & culture of our political system.
			• Study the nature, function & role of different parties & party system in India. • To know the role of caste, class, gender, religion & region in Indian politics.
III	C-V	Introduction to Comparative Government and Politics	• To know the basic concepts & different approaches of comparative politics. • Historical background and the nature of capitalism, socialism and colonialism. • Comparative study of the pol.systems of UK Brazil Nizeria China
	C-VI	Perspectives on Public Administration	• To explain the meaning, nature, evolution, significance and different dimension of Public Administration. • To explore the recent trends in Public Admn like feminism &ecological conservation • Analysis of classical, contemporary theories and major approaches of PA.
	C-VII	Perspectives on International Relations & World History	• To explain the meaning, nature and evolution of International Relations. • To elaborate international relations in different theoretical paradigms like realism, liberalism, Marxist approach & feminist approach. • Overview of major political developments and events in the 20th century like world wars, cold war, collapse of USSR n emergence of post cold war world order. • To make one aware of the implicit Euro-centrism of IR
IV	C-VIII	Political Processes and Institutions in Comparative Perspective	• To explain comparative methods to the study of politics and processes. • Analysing different concepts like democratization, federalism, party system, electoral system etc.

	C-IX	Public Policy and Administration in India	• Studies the interface between public policy and administration in India. • Discuss the issues of decentralisation, financial management, citizens and administration • Analysis of different types of social welfare programmes in India.
	C-X	Global Politics	• Explains the meaning, nature, perspectives and different dimensions of globalization and its impact on state and its sovereignty. • To analyse the changing nature of relationship between the State and transnational actors and networks • Elaborate the global issues such as proliferation of nuclear weapons, climate change, and international terrorism and human security.

V	C-XI	Classical Political Philosophy	• Elaborates different themes and concepts of the philosophies of Plato and Aristotle. • Studies political philosophies of modern philosophers like, Hobbes, Locke, Rousseau.
	C-XII	Indian Political Thought-1 (Ancient and Medieval)	• To study Indian political thought, including precolonial period. • Studies the political thought of Manu, Vedvyasa, Kautilya, Barani, Kabir and Abul Fazal. • Knowledge on the thoughts of Kabir and • Abul Fazal. • As whole, the course is meant to provide a sense of the broad streams of Indian thought while focusing a specific knowledge of individual thinkers and texts.
VI	C-XIII	(Contemporary) Modern Political Philosophy	• Introduces the concepts of modernity and the discourses around modernity. • Discusses the political philosophies of Rousseau, J.S. Mill, Wollstonecraft, Marx. • Study on contemporary philosophy of • Lenin, Maotsetung, Gramsci and Rawls

	C-XIV	(Modern Indian Political Thought) Indian Political Thought-II	• Introduces a wide span of thinkers and themes of modern Indian political thought. • Studies the general themes that have been produced by thinkers from varied social and temporal contexts. • To analyse the philosophies of Rammohan Roy, Pandita Ramabai, Vivekananda, Gandhi, Ambedkar, Tagore and Savarkar • Comparative study of secularism and socialism of Nehru, socialism of Lohia and total revolution of J.P. Narayan

NAME OF THE PROGRAMME: B.A. PSYCHOLOGY

PROGRAMME OUTCOME OF B.A. PSYCHOLOGY:

After completion of the three year degree program of B.A Psychology students should be able to:

- Understand and apply the concepts and principles of basic psychological processes
- Perceive, understand and analyze life in a very positive way
- Help and promote self and people in general in different aspects of life

PROGRAMME SPECIFIC OUTCOME OF B.A. PSYCHOLOGY:

On completion of B.A Psychology program students are able to:

- Take higher studies in any branch of psychology to pursue a career in any branch of psychology.
- Become a demonstrator at under graduate level colleges
- Undertake competitive exams of different types

COURSE OUTCOME:

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Introductory Psychology	• Define the term psychology and demonstrate command of the basic terminology, concepts and principles of the discipline • Gain knowledge of scientific methodology-the variety of ways in which psychological data are gathered and evaluated/interpreted • Identify and compare the major perspectives in psychology: Recognize how each approach views human thought and behaviour • Understand the physiology and biochemical links of human behaviour
	C-II	Basic Developmental Processes	• Understands the nature, types, and principles of development Understand the processes of formation of life and development during pre-natal and post-natal periods • Understand about the different aspects of preparation of future life
II	C-III	Basic Psychological processes	• Understand the basic sensory actions and the processes of integration of sensory actions in creating and interpreting perceptual events • Changing Gain knowledge of the important processes and principles of human learning as well as the structural functional attributes of human memory to help conserve the learning outcomes • Understand the structural and functional properties of language and the way it helps thought, communication, problem solving and decision making through development of concepts, ideas, images and so on.
	C-IV	Processes of Human Empowerment	• Know the structural components and functional dynamics of both intelligence and personality • Understand the significance of emotion and motivation in behaviour management

III	C-V	Psychological Statistics	• Understand significant aspects of social behaviour as resulting in happiness, well-being and personal growth • The nature of psychological variables and how to measure them using appropriate scale • The process of describing and reporting statistical data • The methods of drawing inferences and conclusions for hypothesis testing by using appropriate statistical analysis
	C-VI	Social Psychology	• Know the scope of studying social psychology and the methods to gather data in the social context to explain them • Understand the significance of social cognition, attitudes, stereotypes and prejudices in explaining human behaviour in social contexts • Understand the significant aspects of group behaviour and social influence that constitute the core of human relationships
	C-VII	Environmental Psychology	• Understand the interactional relationships between environment and behaviour • Understand the problems occurring to ecology and environment at the present time • Understand different psychological approaches to the study of man-environment relationship
IV	C-VIII	Psychopathology	• Understand the differences between normality and abnormality along with the perspectives explaining them • Know the importance and use of assessment techniques in identifying different forms of maladaptive behaviour • Learn the symptoms, causes and treatment of anxiety disorders, mood disorders and schizophrenia
	C-IX	Educational Psychology	• Define educational psychology and give examples of the different topics education psychologists study • Describe the developmental issues faced by school age children • Describe the challenges presented by children with ability differences • Explain the role of motivation on learning and classroom behaviour • Describe classroom management techniques • Indentify commonly used standardized tests, their
	C-X	Psychological Assessment	• Understand the basic facts about psychological assessment • Understand the process of test construction and standardization • Understand about the assessment of different types of skills and abilities

V	C-XI	Organizational Behaviour	• Understand different concepts and dynamics related to organizational system, behaviour, and management • Identify steps managers can take to motivate employees in the perspectives of the theories of work motivation • Understand the tricks of power and politics management in the organizational set up • Understand significance of human resource development, evaluation and management for the interest and benefit of the organization
	C-XII	Health Psychology	• Know the basics of health and illness from the Bio-psychosocial perspectives • Understand the significance of behavioural and psychological correlates of health and illness • Understand the significant aspects of coping and importance of health enhancing behaviour
	DSE-1	Psychological Research & Measurement	• Know the basics of Psychological research and measurement • Understand the importance of research in psychology to make it a science. • Understand the significance of scaling methods, experimental designs, assessment of personality, intelligence etc.
	DSE-2	Psychology & Social Issues	• Understand different important social issues from psychological angel • Understand the family system, poverty, social stratification etc. as important social systems. • Understand political behaviour, health and wellbeing, Anti-social behaviour, violence in society and how to control them.

VI	C-XIII	Counselling Psychology	• Understand the purpose of counseling and practice of counseling ethically following different approaches • Understand the basics of counseling process and use them for counseling students, families, couples, distressed, and handicaps
	C-XIV	Positive Psychology	• The goal of positive psychology and the basic behaviour patterns that result in positive human growth from the point of view of leading positive psychologists • The concepts of flow and happiness and the related theories and models explaining happiness behaviour and its consequences • All the precursors to positive psychology from character
	DSE-3	Contemporary Applied Psychology	• To understand the application of Psychology in different fields like community, rehabilitation, helping the disadvantaged, information technology etc. • To understand the issue of gender, psychology in economic development, and application of psychology in defence.
	DSE-4	Research Project	• To acquaint students about the research work and to undertake a minor research project.

NAME OF THE PROGRAMME - B.A SANSKRIT

Programme outcome of B.A. Sanskrit (Honours)

- The programme has enabled U.G. Level students of Sanskrit to be introduced with Indian age old heritage, accumulating in the last fifty centuries, exercising inexpressible impact on the life and culture of the Indian, with the explicit aim of inspiring as well as uplifting qualitatively each and everyone directly or otherwise concerned with.

Course outcome of B.A. Sanskrit (Honours)

- The students can take the knowledge about classification of veda.
- Date of Rigveda, socio economic life in the age of Rigveda.

Sl.No	Core	Subject	Course out come
1	Core - 1	Moral Teachings and Basics of Sanskrit	• Help to learn moral lesions • Help to promote ethical value.
2	Core - II	Drama and History of Sanskrit Literature	• Help to know the style of play and playwright. • gives an idea about development of Sanskrit Literature
3	Core - III	Drama and Dramaturgy	• Gives a thorough lesion regarding the development Indian Drama and its various aspects.
4	Core - IV	An Introduction to the Technique of PaninianGrammar and Pragody	• The Grammar consists of four components. Astadhyayipa system of about 4000 grammatical rules.
5	Core - V	Poetry and History of Sanskrit literature.	• Lyric poetry attained a high stage of development even in very early period of the vedic literature.
6	Core - VI	Metarules of paninian Grammar	• Metarules constrain the application of other rules throughout the grramar
7	Core - VII	Cases and case ending Persian Grammar	• It is almost irresponsible to learn a foreign language without the study of grammar.
8	Core - VIII	Inscriptions and Bhagavat Gita	• Inscriptions the writing on stone metal, or some materials as an important historical
9	Core - IX	Case and Case endings of Paninian Grammar	• All the words and phrases used in a particular language or subject
10	Core - X	Prose and Prose writing	• It is the most common form of writing as is most human conversation vasatu
11	Core - XI	Ornate in Sanskrit and History of Sanskrit	• using unusual words and complex constructions.

		literature.	
12	Core - XII	Veda, Vedic Grarmmar and History of vedic literature	• Vedic grammar has never till now. Sanskrit hundreds of Paninian sutras deal with the large of Vedas.
13	Core - XIII	Arthashastra, Dhrmasastra and Ayurveda	• The Arthasastra is an Indian treatise on politics, economics, military strategy, the function of the state and social organization.
14	Core - XIV	Technical Literature in Sanskrit	• Sanskrit literature refers to texts composed in Sanskrit language.
15	DSE - 1	Socio-Political Thought in Ancient Indian	• Ancient India did not farm any subject of social science and abrast of the nature of civilization of India
16	DSE - II	Vastu	• According to Vastu Sastra the main entrance to home is not only the entry point for the family but also for energy
17	DSE - III	Ethical Literature in Sanskrit	• Through its narrative it ordains good conduct and infuses morality in human mind.
18	DSE - IV		• Project work

NAME OF THE PROGRAMME – B.A. EDUCATION

PROGRAMME OUTCOME OF B.A EDUCATION:

After completion of the three year degree of B.A Education student should be able to

- Differentiate between the broader & narrower meaning of education
- Understand the different branches of Philosophy and their impact on education.
- Understand how education is a life-long process.
- Realize how education brings an all round development in a child.

PROGRAMME SPECIFIC OUTCOME OF B.A EDUCATION:

On completion of B.A Education programme students are able to:

- Join in nursery teacher training programme which enable them to work as a nursery teacher.
- Take admission in a teacher training institution for C.T & B.Ed, training degree which is required for teaching profession in schools.
- Join in higher educational institution to get post-graduate degree which is required for lectureship in Education discipline.

COURSE OUTCOME OF B.A. EDUCATION

SEMESTER	COURSE CORE	SUBJECT	COURSE OUTCOME
I	C - 1	Basics in Education	• Understand the concept & functions as education. • Study on the contribution of some eastern and western educators towards education. • Explain how education and Philosophy are closely related. • Appreciate the contribution of various Indian Schools of Philosophy to the field of education.
	C - II	Education and Society	• Get Knowledge about the causes of social change. • Understand how education plays as an instrument in Social change & control. • Describe the aims of education from Sociological perspective. • Get knowledge about the various agencies of education and their functions.
II	C-III	The learner and learning process	• Explain the relationship between education and Psychology.

			• Understand how Psychological theories and principles can be applied in teaching learning situation. • Understand various methods used to study human behavior.
	C- IV	Pedagogical skills	• Understand the relationship between teaching and learning. • List out different approaches and methods of teaching. • Define different types of task of teaching. • Explain the concept of pedagogy.
III	C - V	Technology and innovations in Education	• Understand the concept of educational technology. • Explain various approaches to educational technology with examples. • Describe different models of teaching and their use in effective class room teaching. • Know about the innovations in educational technology.
	C - VI	Pedagogy of school subjects.	• Explain the aims and objectives of teaching different school subjects. • Know the different teaching methods for various school subjects. • Understand the use of various teaching aids in class room situation. • Prepare lesson Plan for various school subjects.
	C VII	Statistics in Education	• Describe the application of statistics in the field of education. • Present the data in various graphical forms. • Compute the co-relation between two individuals and two groups by different methods. • Examine relationship between different types of variables of a research study.
IV	C - VIII	Curriculum Development and Educational guidance	• Explain the modern concept of curriculum. • Understand the different types of curriculum. • Explain National curriculum Framework (2005).

			• Explain the role of a teacher in organizing guidance and counseling services. • Understand the concepts of different types of guidance service.
	C - IX	Educational assessment & evaluation	• Understand the concept of test, measurement, assessment and evaluation. • Classify educational objectives in terms of specific behavioral form. • Explain the characteristics of good measuring instruments. • List different types of assessment techniques.
	C - X	Introduction to educational Research	• Understand the nature purpose and scope of research in educational field. • Select and explain an appropriate method for a research study. • Select appropriate tools and techniques for the collection of data. • Describe the procedure of preparation of research report.
V	C - XI	History of Education in India	• Get a clear information regarding education in ancient period. • Critically examine the educational system in medieval period. • Evaluate the education system during British period with special emphasis on the commissions and committees. • Elaborate the status of education during past independence period.
	C – XII	Comparative Education	• Compare the educational system of China & Japan. • Compare the educational system of U.K and USA. • Compare the structure, curriculum and evaluation system of India with that of China, Japan, U.K. and USA.
	DSE - I	ICT in Education	• Explain the concept and scope of ICT in education. • Explain the various approaches in adoption and use of ICT in education. • Demonstrate the use of v arious computer software such as word-processing, Spread sheets and

			presentation. • Describe the importance of open source soft ware in education.
	DSE - II	Special education	• Know about the concept of exceptional children. • Elaborate the policies and programs of special education. • Identify the different types of special children. • Explain the role of resource teacher and special teacher.
VI	Core - XIII	Educational Planning, Administration and Management	• Know the functions of educational management and administration. • Get a clear picture of the functions of state level educational bodies SCERT, BSE & OPEPA. • Have a clear idea about the sources of financing in education. • List down various types of educational administration.
	Core - XIV	Contemporary concerns in Indian education	• Describe the present position of elementary and secondary education. • Have a clear idea about the present position of higher education in India. • Explain the emerging concerns of value oriented education. • Have a clear understanding about the equalization of educational opportunities.
	DSE – III	Distance education	• Explain the importance of distance education. • Develop a clear idea about different type of distance education institutions. • Describe the functions of IGNOU and NIOS. • Understand the needs and problems of distance learner.

NAME OF THE PROGRAMME: B.A. ODIA

On completion of B.A Odia students are able to:

Semester	Core	Subject/Topic	Course out come
1	C - 1	History of Ancient Odia literature (from 7th to 16th century)	• Detail knowledge on ancient literature and authors. • Pre-Sarala Yuga, Sarala Yuga and Panchasakha sahitya • Detail knowledge of ancient religion, language, culture and scripts.
	C - II	Medieval Odia literature	• Detail knowledge about medieval era and social, political, cultural, religious and literary development of the society.
2	C - III	Modern Odia literature	• To know about modern Odia literataure and renessain. • To have a knowledge on Poems, Stories of Radhanath Ray, Fakir Mohan Senapati and Madhusudan Rao, Gangadhara Meher. • Detail knowledge on establishment of printing machines and publication of Articles and Magazines.
	C - IV	Post independent Odia literature	• Detailed study of post independent Odia Poems, Novels, short stories, Drama, one act play, Prose and criticism of critics & biography.
3	C - V	Historical development of Odia language	• Origin and progress of Odia literature. • Historical development of Odia scripts and languages. • Study on “Charyapada” & “Sarala Sahitya. • Relation of Odia language with other languages.
	C - VI	Origin of Odia language Definition structure and origin of Odia language	• To know about the definition • Regional shape and Charge of Odia language. • To know about the importance of standard language, collacal language, Manaka and spoken language. • Change of different Odia words and

			change of prose.
	C - VII	Use of Odia literature and grammar (odiabhasara prayoga and bebaharika byakarana)	• Knowledge about social and cultural aspects of Odia literature. • Process of correct writing in Odia • Knowledge about Morphology • Construction and use of Odia letters, words and sentences.
4	C - VIII	Odia Lokasahitya O Sanskruti (Folk lore of Odia literature)	• To know about definition, origin and classification of Folk lore and Odia folk lore. • Knowledge of Folk songs, Folktales, legends, Folk culture, Folk tales and Folk Drama etc.
	C - IX	Sahitya Tatwa (Prachya O Pachhatya)	• Knowledge on phonetics • Concepts of classicism and Romanticism. • Concepts and classification of Translation.
	C - X	Odia Sahitya Srasta	• To know about Jagannath Dash, Upendra Bhanja, Bhim Bhoi, Sachidananda Routray and their creation • Novelist Gopinath Mohanty and his Novels Dramatist Jagan Mohan Lal and Gopal Chhotray, Women writer Binapani Mohanty and her short stories.
5	C - XI	Odia Kabita Prachina Ru Adhunika	• A detail study on Gadaparba (Sarala Dash), Kishore Chandranana Champu, Chilika and Poems of Balram Das – Sriram Koili, Mohabahu – Bana Mali Das and study on modern poems of Gangadhara Meher, Mayadhara Mansingh, Sitakanta Mohapatra and Ramakanta Rath.
	C - XII	Odia Katha O Natya Sahitya Odia Nataka O Ekankika	• Novel of Manoj Dash – Akashara Ishara. • Govinda Das – Amabasyara Chandra • A study on short story of Fakir Mohan, Godabarish, Surendra Mohanty and Prativa Ray. • A study on the drama of Bijaya Kumar Satapathy – Mangala

			Amangala and Bilwamangal. • O SabasesaLoka – Narayan Sahoo • Detail study on Ekankika Sandhya Asarava Bhuta – Pranabandhu Kar, Abiskara – Manoranjan Dash, Chhadmabesi - Biswajeet Das
6	C - 13	Odia Gadya Sahitya	• A study on autobiography of Dr.Krishnachandra Panigrahi " Mo Samayara Odisha". • Bhramana Kahani of Golok Bihari Dhala – London Chithi, Criticism of Prof.Dasarathi Dash – Kabya Sambad Ratha Saptaka – Chandra Sekhar Rath • A study on Modern prose of Biswa Nath Kar, Mayadhara Mansingh, Chandra Sekhar Rath – Moha Srota, Nija Daitwa and Namakaran retrospectively.
	C - 14	Odia Bhasara Bebhaharika Prayoga	• Detailed study on writing an Art, letter writing, Advertisement process, Editorial writing, Feature writing, writing style of Books, letters and Magazines.

Semester	DSE	Subject	Course outcome
Semester - 5	DSE -1	History of Odisha Religion and Culture of Odisha	• To know about history of Odisha and Udrajati. • Study of culture of Odisha – Art, Trade, war & SriJagannath • Different religion in Odisha and its development • Study of Suryavansh, Boudha Culture and its reflection
	DSE -2	Computer	• Study of computer, soft ware, Hard ware, Internet, social website etc.

Semester - 6	DSE - 3	Odia Sahitya Adhyayana Modern Poems (Travel story Vrahamana Kahani	• Study on the Novel of Bibhuti Pattnayak – Chhabira Manisha • Study of the short stories of Sachidananda Routray "Mashanira Phula", Akhila Mohan Pattnayak – "Dimiri Phula", Krishnaprasad Mishras – "Mukha" & Ravi Pattanayaks – Ratnakar • To know about the drama of Bijaya Mishra – "Banaprastha". • Detailed study on Modern Poems of Radhanath Ray, Gopabandhu Dash, Baikuntha nath Pattanayak, Nanda Kishore Bala, Saubhagya Ku. Mishra- • Kanchukira Bhabana • Bandira Sandhya Anuchinta • Yatra Sangeeta • Prabhata Abakash • Samudra O Mun • To know about "Paschhima Pathika"
	DSE – 4th		• Project on Loka Sahitya

NAME OF THE PROGRAMME: B.Sc. ZOOLOGY

PROGRAMME OUTCOME OF B.Sc ZOOLOGY:

After completion of the three year degree programme of B.Sc. Zoology student should be able to:

- Understand the Physiology, Genetics, Biochemistry, Ecology and Evolution
- Create an awareness of the impact of Zoology on the environment, society Demonstrate, solve and understanding of major concepts in all disciplines of Zoology
- Use modern techniques, equipments and Zoology softwares
- Inculcate the scientific temperament in and outside the scientific community

PROGRAMME SPECIFIC OUTCOME OF B.Sc ZOOLOGY:

On completion of B.Sc. Zoology programme students are able to:

- Study and understand the Cell and cell organelle, cell cycle• Understand the concepts of Ecology, Fishery and Evolution.
- Gather knowledge on Vertebrate animals and Genetics through Theory and Practical
- Understand good laboratory practices and safety
- Develop research oriented skills
- Make aware and handle the sophisticated instruments/equipments.
- Gain the knowledge of Invertebrates through theory and practical
- Understand the Knowledge of Physiology and Biochemistry

COURSE OUTCOME OF B.Sc ZOOLOGY:

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSEOUTCOME
I	C-I	Non-chordates-I:Protistato Pseudocoelomates	• Study of Life cycle of Plasmodium vivax, Trypanosoma gambiense and Entamoeba hystolytica. • General characteristics and classification of Cnidaria & Ctenophora. • General characteristics and classification of Platyhelminthes and Nemathelminthes • Practical knowledge on Non-chordates
	C-II	Principles of Ecology	• Understand effect of Temperature and Light on animals • Understand different types of Ecosystem and dynamics of ecosystem • Understand Concept, Characteristics, growth and Regulation of population • Understand Community structure, Characters and Community Succession • Gain knowledge on Biodiversity and its conservations. • Study on concept of Biostatistics, measures of Central tendency, dispersion, standard deviation, chi-square test,

	C-III	Non-chordates-II: Coelomates	• General characteristics and classification of Coelomates and Annelids • General characteristics and classification of Arthropoda and Onycophora • General characteristics and classification of Mollusca and Echinodermata • Practical knowledge on Coelomates
	C-IV	Physiology: Life Sustaining system	• Study on Physiology and Digestion • Physiology of Respiration • Renal physiology and Blood • Physiology of Heart • Practical knowledge on Life Sustaining System
III	C-V	Diversity and Distribution of Chordates	• General characteristics and outline classification of Protochordates • General characteristics of Agnantha, Pisces and Amphibia • General characteristics and classification of Reptilia and Aves • General characteristics and classification of Mammals and Zoogeography • Practical knowledge on Diversity and Distribution of Chordates
	C-VI	Physiology: Controlling and Coordinating Systems	• Structure, location, classification and functions of tissues • Hystology of different types of muscles, testis and ovary • Structure of neuron, synaptic Transmission, reflex action, • Mechanism of hearing and vision • Hystology of Endocrine glands • Classification of hormones and mechanism of hormone action • Practical knowledge on Controlling and • Coordinating Systems.
	C-VII	Comparative Anatomy of Vertebrates	• Structure, function and derivatives of integument and skeletal system. • Digestive and Respiratory System • Circulatory and Urinogenital System • Nervous System and Sense Organs • Practical knowledge on anatomy of vertebrates

IV	C-VIII	Biochemistry of Metabolic Processes	• Study of Bio molecules • Structure, significance and biological importance of carbohydrates &Lipids, Proteins • Overview of Metabolism • Carbohydrates, Lipid and Protein Metabolism • Nomenclature, classifications and effects of Enzymes • Practical knowledge on Biochemistry and Metabolic processes.
	C-IX	Cell Biology	• Overview of cells and plasma membrane • Structure and functions of Cytoskeleton and Endomembrane System • Structure and semi-autonomous nature of mitochondria and Peroxisomes • Cell cycle and its regulation, apoptosis and cancer • Practical knowledge on Cell Biology
	C-X	Principles of Genetics	• Understand the Mendel's law of Heredity • Understand the Gene Mutation and Chromosomal Mutation • Sex determination and sex linked Inheritance • Recombination in Bacteria and Viruses &Transposable Genetic Elements • Practical knowledge on Genetics
V	C-XI	Developmental Biology	• Introduction to Developmental Biology, epigenesist and mosaic and regulative development , cell-cell interactions, • Differential gene expression. • Gametogenesia & Fertilisation • Early Embryonic Development • Late Embryonic Development • Post Embryonic Development • Teratogenesis, Stem cell culture, Amniocentesis • Practical knowledge on Developmental Stages of Frog and chick embryo.
	C-XII	Molecular Biology	• Features of Nucleic acid, DNA Replication& • repair • Transcription factors and regulation of transcription • Post-transcriptional modification and processing of Eukaryotic RNA • Gene regulation &regulatory RNAs • Practical knowledge on Molecular Biology

VI	C-XIII	Immunology	• Knowledge on Immune system and Immunity • Hematopoiesis , cells and organs of Immune system
			• Antigens, B and T cell epitopes Immunoglobulins , structure • And functions of different types of • Immunoglobulins Antigen and antibody interaction • Monoclonal antibodies and Hybridoma technology • Major Histo compatibility and complement system • Cytokines , Hypersensitivity and Vaccines. • Practical knowledge on Immunology
	C-XIV	Evolutionary Biology	• Theories, Evidences of Evolution and • Extinction • Process of Evolutionary changes • Species concept and Speciation • Concept of origin and Evolution of Man • Practical knowledge on Evolutionary Biology