DEPARTMENT OF MATHEMATICS

PROGRAM NAME :- BSC MATHEMATICS PROGRAM OUTCOME:-

- PO01. Scientific temper will be developed in students .
- PO02. Students will be aware of and able to develop solution oriented approach towards various social and environmental issues.
- PO03. Students accure basic practical skills & technical knowledge along with domain knowledge of different subjects in the science stream.
- PO04. Students will become employable they will be eligible for career opportunities in industry or will be able to opt for entrepreneurship.
- PO05. Students will become possess basic subject knowledge required for higher studies, professional and applied courses like management studies & law etc.

PROGRAM SPECIFIC OUTCOMES:-

- PSO01. A students should be able to recall basic fact about mathematics.
- PSO02. Students also able to display knowledge of convention such as notations, terminology.
- PSO03. Students are equipped with mathematical modeling ability, problem solving skills , creative talent, and power of communication necessary for various kinds of employment.
- PSO04. Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
- PSO05. Students should be able to use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.

COURSE OUTCOMES:-

BSC 1st YEAR MATHEMATICS

- ALGEBRA AND TRIGNOMETRY
 - CO01. Students to learn elementary operations on matrix, Eigen values & Eigenvectors and the characteristic equations of a matrix.
 - CO02. To learn basic matrix Algebra and method to find solution to system of linear equations.
 - CO03. Students understand about mapping, equivalence relations and partition, divisibility of integers and congruence relations.
 - CO04. After completing the course students are able to solve group theory and important theorems on group.
 - CO05. Students to learn operations on polynomial finding GCD of two polynomial & roots of polynomial.

• CALCULUS AND VECTOR ANALYSIS

- CO01. To learn basic properties of real numbers and its subsets which is backbone of real analysis.
- CO02. After completing the course students are able to solve, differential calculus , integral calculus and ordinary differential equation.
- CO03. Students are able to solve first and second order differential equations.
- CO04. Students are learn vector analysis , vector integration , general equation of second degree , tracing a conics etc.

CO05. To learn some important theorems like gauss, greens, stokes and problems based on these theorems.

• ENVIRONMENT STUDIES

- CO01. Students learn the rule of environment & ecosystem.
- CO02. Makes students aware about waste management.
- CO03. Students create best ecosystem by learn about environment.
- CO04. Exposes learners to the impact of industrial development of agriculture.
- CO05. Students learn appreciate concept and method from ecological & physical science and their applications in environmental problem solving.

BSC 2nd YEAR COURSE OUTCOMES

• Advanced calculus :-

- 1. Students will be able to solve convergent and divergent for sequence and series.
- 2. To learn real limits and continuity of two variable function.
- **3.** To study the notion of continuity, uniform continuity & differentiability of multivariate function.
- **4.** To study about Jacobeans, envelopes and evaluates, maxima &minima and saddle point of function of two variable.
- 5. Students also learn about beta and gamma functions.

• LAPLACE TRANSFORMATION, FORIOR SERIES AND MECHANICS:-

- 1. To learn the evaluation of Laplace transformation of different type of function and their derivatives and integration.
- 2. To study differential equation of multi order degree char pit method, Jacobi method, method of image etc.
- 3. To learn to evaluate the furor series of various even and odd functions.
- 4. To study Analytical conditions of equilibrium of coplanar forces on mechanics.
- 5. To study forces of three dimensions, point sot's central axis, stable and unstable equilibrium, null lines and planes.

BSC 3rdYEAR COURSE OUTCOMES

• ANALYSIS AND ABSTRACT ALGEBRA

- 1. To equip students with basic mathematical tools such as open and closed set, continuity, connectedness, compactness which for we to study general topology, real & complex analysis.
- 2. To study various type of sets & relations and concept of countable and uncountable sets.
- 3. Study concept of sequence & series and hence find sum of infinite term with different method.
- 4. To study notion of lub and gld which help to learn integers.
- 5. To learn fundamental properties and mathematical tools such as closure, identity, inverse and generators.
- 6. To study algebraic structure 'groups' in detail which is useful in study of rings, modules, algebraic topology and analysis.

• DISCRETE MATHEMATICS

- 1. Students are able to solve sets and prepositions, relations and functions, graphs and planner graph etc.
- 2. To study about trees, finite state machine, Recurrence Relation and Recursive Algorithm etc.
- 3. Students learn about Boolean algebra.
- 4. To learn lattice, all basic properties of Boolean algebra.
- 5. Also learn Boolean function, propositional calculus, design and implementation of digital network, switching circuits.

MSC MATHEMATICS

PROGRAM OUTCOME FOR MSC STUDENTS :-

- 1. Students will get advanced knowledge of principal method and clear perception of innumerous power of mathematical ideas and fools.
- 2. Will be able to apply their skills and knowledge.
- 3. Translate information presented verbally into mathematical forms.
- 4. Students will be able to find out and analyze scientific reasoning for various things.
- **5.** Students get a relational understanding of mathematical concepts and concerned structures.

PROGRAM SPECIFIC OUTCOMES FOR MSC STUDENTS

- 1. Students will get skill outcome in mathematics.
- 2. Students are able to live good life, To get job at higher education and school level as teacher and assistant professors.
- 3. Develop capacity of critical reasoning, theoretical applied and communication skills.
- 4. After Complete msc program students will be able for logical thinking and problem solving nature.
- 5. Get a positive attitude towards mathematics as an intresting and valuable subject of study.

COURSE OUTCOME FOR MSC 1st YEAR STUDENTS

- ALGEBRA , REAL ANALYSIS , TOPOLOGY AND COMPLEX ANALYSIS
- 1. Linear algebra after learning this course students are ready to learn higher mathematics, statics and computer language.
- 2. After the completing the course students will be able to solve group theory, normal series ,rings and modules etc.
- 3. Students able to solve the Riemann-stieltjes integral, function of several variable , power series, sequence and series of function.
- 4. Students gets knowledge about all properties and theorem on topological space.
- **5.** To learn complex integral meromorfic function , residues and poles , linear and bilinear transformation properties and classifications.

COURSE OUTCOME FOR -MSC FINAL

- 1. Students will be able to solve measure theory related on Integration theory and also know about Hilbert space and Banach space.
- 2. Students will be able to solve fuzzy sets and all properties related on fuzzy sets and there applications.
- 3. To learn Research on mathematics after completing the course of subject operation research .
- 4. Students solve partial differential equation and also attraction and potential .
- 5. Students learn skill for solving fluid mechanics and gravitations.

DEPARTMENT OF CHEMISTRY

Chemistry Program Outcomes, Program Specific Outcomes and Course Outcomes. Chemistry Program Outcomes:

Name of the Program – B.Sc. Chemistry

Duration and pattern – Three Years Degree course with Annual Examination pattern

At the end of the three year program in Chemistry the students will able to:

- ✓ Get a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical, Inorganic, Organic and Physical Chemistry.
- Design and carry out scientific experiments as well as accurately record and analyse the results of such experiments.
- Demonstrate problem solving skills, critical thinking and analytical reasoning as applied to scientific problems.
- ✓ Clearly communicate the results of scientific work in oral, written and electronic formats to both scientists and the public at large.
- ✓ Explore new areas of research in both chemistry and allied fields of science and technology.
- Recognize the central role of chemistry in our society and use this as a basis for ethical behavior in issues facing chemists including an understanding of safe handling of chemicals, environmental issues and key issues facing our society in energy, health and medicine.
- ✓ Explain why chemistry is an integral activity for addressing social, economic, and environmental problems.
- ✓ Function as a member of an interdisciplinary problem-solving team.
- ✓ Also they expand the knowledge available opportunities related to chemistry in the government services through public service commission particularly in the field of food safety, health inspector, pharmacist etc.
- ✓ Afford a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective.
- ✓ Achieve the skills required to succeed in graduate school, professional school and the chemical industry like cement industries, agro product, Paint industries, Rubber industries, Petrochemical industries, Food processing industries, Fertilizer industries etc

COURSE OUTCOME

CLASS : B.SC.I YEAR[INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY]

At the end of the course the students will be able to:

- Explain the fundamental properties of atoms, molecules, the electronic structure of atoms and itsinfluence on chemical properties ,molecular geometries of selected molecular species, the basic (colligative) properties of solutions.
- * This course covers fundamental principles and laws of chemistry.
- Topics include quantum mechanics, quantum numbers and electronic configurations of the atomic structure, periodicity, chemical reactions and chemical bonding.
- Laboratory experiments and computer-based exercises augment and reinforce the basic principles discussed in lecture as well as provide practical examples.

- Discuss the principles of organic chemistry that include chemical bonding, nomenclature, structural isomerism, stereochemistry, chemical reactions and mechanism.
- Explain the functional groups and different class of organic compounds.
- Discuss the structures and properties of organic and biomolecular species.
- ✤ Explain nucleophiles, electrophiles, electronegativity, and resonance.
- Describe the hybridization and geometry of atoms and the 3-D structure of organic molecules.
- Demonstrate proper laboratory safety and techniques and expression of the results of their experiments.
- Explain simple quantum mechanical treatments of atoms and molecules
- Demonstrate the ability to write electronic configurations, orbital diagrams, Lewis electron dot formula, and quantum numbers for electrons in the ground state
- Explain the fundamentals of electronic structure and bonding in conjugated and aromatic systems.
- Theories of reaction rates: Collision theory and activated complex theory of bimolecular reactions. Comparison between the two theories. Effect of temperature on the rate of reaction.
- ✤ The students will understand Arrhenius equation, Concept of energy of activation.
- * This course covers fundamental principles and laws of chemistry.
- Topics include quantum mechanics, quantum numbers and electronic configurations of the atomic structure, periodicity, chemical reactions and chemical bonding.
- Laboratory experiments and computer-based exercises augment and reinforce the basic principles discussed in lecture as well as provide practical examples.

CLASS B.SC.II YEAR [INORGANIC ,ORGANIC AND PHYSICAL CHEMISTRY]

- The students will be able to understand basic thermodynamic functions like Free Energy, Helmholtz Free Energy, Gibb's Free Energy, Variation of Gibb's free energy with Pressure and Temperature, Gibbs-Helmholtz equation, van't Hoff reaction isotherm and van't Hoff reaction isochore and their thermodynamic aspects.
- State and apply the laws of thermodynamics; perform calculations with ideal and real gases; design practical engines by using thermodynamic cycles; predict chemical equilibrium and spontaneity of reactions by using thermodynamic principles.
- Electrochemistry in solution phase, Conductivity, equivalent and molar conductivity, Kohlrausch law.
- The students will also be able to determine ionization constant of weak electrolyte, solubility and solubility product of sparingly soluble salts using conductance measurement.
- Bonding fundamentals for both ionic and covalent compounds, including electro negativities, bond distances and bond energies using MO diagrams and thermodynamic data.
- The bonding models, structures, reactivity's, and applications of Hydrogen peroxide, ozone and hydrides.
- Students will understand different aspects of IUPAC nomenclature of organic compounds.
- Students will be able to explain fundamental concept of organic reaction mechanism and preparations and reactions of alkyl halide, alcohols, phenols, organometallics and epoxides.
- ✤ To recognize and assign names to aldehydes and ketones.
- To write the mechanism for nucleophilic addition and nucleophilic addition-elimination reactions of aldehydes and ketones, and be able to predict the products of such reactions.

- Be able to explain the relative reactivity of carbonyl compounds toward nucleophilic addition.
- Know the Redox reaction, study the Crystal Field Theory and Solve the cell reaction and calculate EMF.
- Calculate interplanar distance and derive Schrodinger's time dependent and independent.
- Study the electronic configuration of lanthanides and actinides and Get knowledge of Crystalline solid.
- Understand different operation in stoichiometric and understand the p-type semiconductor and n-type of semiconductor.

Class B.Sc. III [INORGANIC , ORGANIC AND PHYSICAL CHEMISTRY]

- Students will be able to know metal ligand bonding in transition metal complexes and their magnetic properties.
- ✤ To develop understanding of the Bio-inorganic chemistry.
- ◆ To develop understanding on Organometallic compounds and Bioinorganic chemistry.
- ✤ To study Hard and Soft acids and bases, Inorganic Polymers.
- Students will study about heterocyclic compounds, organometallic reagents.
- ✤ To understand organic synthesis via enolates.
- To study UV, IR and NMR spectroscopy and functioning of infra-red spectroscopy, UV- visible spectroscopy and NMR spectroscopy.
- Determine structure of compound by spectroscopic methods
- Able to know Biomolecules such as carbohydrate, amino acids, proteins and nucleic acids.
- Students will be able to understand synthetic polymers and synthetic dyes.
- Students will be able to explain concepts of quantum mechanics, vibrational spectroscopy and Raman Spectrum.
- Students will learn about concepts related to Electrochemistry.

M.Sc. Chemistry Program Outcomes

- Students will be able to think creatively (divergently and convergent) to propose novel ideas in explaining facts and figures or providing new solution to the problems in chemistry.
- The skills of observations and drawing logical inferences from the scientific experiments will also be developed.
- Students will realize how developments in any science subject helps in the development of other science subjects and vice-versa and how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments.
- Students will imbibe ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.
- They will also realize that pursuit of knowledge is a lifelong activity and in combination with untiring efforts and positive attitude and other necessary qualities leads towards a successful life.
- Skills in research and industrial field: Students will build a scientific temper and will be able to learn the necessary skills to succeed in research or industrial field.
- In addition they will acquire the skills in handling scientific instruments, planning and performing in laboratory experiments.

- Students will develop various communication skills such as reading, listening, speaking, etc., which we will help in expressing ideas and views clearly and effectively.
- Apply various aspects of chemistry in natural products isolations, pharmaceuticals, dyes, textiles, polymers, petroleum products, forensic etc. and also to develop interdisciplinary approach of the subject.
- Collaborate effectively on team-oriented projects in the field of Chemistry or other related fields.
- Communicate scientific information in a clear and concise manner both orally and in Writing. And inculcate logical thinking to address a problem and become result oriented with a positive attitude.
- Explain environmental pollution issues and the remedies thereof and apply the knowledge to develop the sustainable and eco-friendly technology in Industrial Chemistry.
- Have developed their critical reasoning, judgment and communication skills.
- Augment the recent developments in the field of green and eco-friendly reactions, pharmaceutical, Bioinorganic Chemistry and relevant fields of research and development.
- Enhance the scientific temper among the students so as to develop a research culture and implementation of the policies to tackle the burning issues at global and local level.

COURSE OUTCOME

CLASS - M.Sc. Chemistry SEMESTER – I & II

- This course aims at acquainting students to concept of Crystal field and Ligand field theory.
- The symmetry, magnetic properties and spatial arrangements of molecules are studied in good detail.
- > Students will be able to analyse the point group of chemical molecules.
- > They will learn the relation of structure to magnetic properties.
- Students will be able to understand the structure and arrangement of ligands around different oxidation state of metals.
- Students will learn the theoretical basis of stability of different electronic states and to make a correlation between structure and stability of different metal compounds.
- This course aims at acquainting students with the knowledge of organic reaction mechanisms of aromatic electrophilic substitution and aromatic nucleophilic substitution reactions.
- It provides an introduction to the synthesis of complex organic molecules. Transformations for C-X and C-C bond-formation, functional group reactivity, chemoselectivity, regioselectivity and the strategy of multistep synthesis will be the core topics that are covered.
- Concepts include strategy/retrosynthesis, advanced aromatic chemistry, protecting groups, stereochemistry, enolates and other carbonyl chemistry, alkene synthesis, reduction/oxidation (introductory), heterocycles, cross-coupling reactions and other modern methods of synthesis.
- Aims at to accustom the students the basic concepts of thermodynamics along with the non-ideal systems including the basic Debye Huckel theory.

- Students will be guided to apply phase rule to various systems (2 and 3 component systems) and introduction to the basic concepts of non-equilibrium thermodynamics along with the applications is another purpose.
- Students will explain statistical chemistry and thermodynamics as logical consequences of the postulates of statistical mechanicsto apply the principles of statistical mechanics to selected problems; Apply techniques from statistical mechanics to a range of situations.
- Modern theoretical and experimental methods used to study problems of molecular structure and bonding; emphasis on spectroscopic techniques.
- Illustrate the principles behind the Metal Ligand equilibria in solution with respect to the formation, their Kinetic and thermal stability, and determinations, crystal field theory of transition metal complexes in octahedral and tetrahedral geometry.
- Understand concepts of partial molar properties, concept of fugacity and their determination methods including Debye-Huckel theory to strong electrolytes and also learn the thermodynamics of electrified interface.
- Recognize symmetry elements in a molecule; State the point group a molecule belongs to;
- Develop skills in numeracy and problem solving. The subject specific skill is the acquisition of a theoretical framework which underlies much of spectroscopy.

CLASS - M.Sc. Chemistry SEMESTER – III& IV.

- Organic reaction mechanism to predict and account for the most commonly encountered reaction mechanisms in organic chemistry including aromatic substitution reaction, addition reactions, elimination reactions and rearrangements as well as basics of amino acids and peptides.
- The student will learn to perform rigorous characterization of their compound using 1and 2- dimensional NMR techniques (1 H and 13C)Mass spectrometry, infrared spectroscopy and UV-Vis spectroscopy
- Have the core idea about advanced organic chemistry principles and theories to develop research oriented skills in applied organic chemistry.
- Understand the concept and definitions of Aliphatic nucleophilic and electrophilic substitution reactions, fundamentals of free-radicals, pericyclic chemistry.
- In depth knowledge about organic chemical reactions with a focus on principles for effective synthetic strategies.
- Describe and apply stereo chemical concepts such as Chirality, stereoisomerm and stereo selectivity in relation to chemical transformations.
- Encompass achieved advanced knowledge about the interactions of electromagnetic radiation and matter and their applications in organic spectroscopy to elucidate the structure of the organic compounds.
- > After studying Course the student shall be able to understand the following concepts.
- ▶ Reaction mechanism of various reactions of C-C and C-N bond forming reactions.
- > Oxidation reactions and their mechanism and Reduction reactions and their mechanism.
- Basic concepts of asymmetric synthesis and idea of Chemo selectivity and stereos electivity.
- Medicinal Organic Chemistry, Drug-receptor interactions, Metabolism of the drugs in thebody and its Classification of the according to therapeutic use or action.
- Synthesis of various classes of the drugs, Mechanism action of different classes of drugs, Significance of antibiotics and steroids and Chemical and biosynthesis of various antibiotics and steroids.

- Organic reaction mechanism of the chemical reaction, Purification of the organic compounds by crystallization, precipitation and distillation by physical and chemical methods.
- This course aims at acquainting students with the detailed knowledge of pericyclic as well as photochemical reactions. Starting from the very basic ideas, and moving towards the classification using different approaches, electro cyclic and sigma tropic rearrangements will be discussed.
- Students will learn the basic difference between photochemical and thermal reactions. Based on the different principles of photochemistry, they will be able to solve different practical problems.
- This course aims at acquainting students to the knowledge of transition metal compounds with bonds to hydrogen. Such compounds have wide synthetic applications from study point of view.
- Students will be able to characterize theoretically the type of bond of hydrogen with the transition metal and able to understand the reducing properties of compounds and the chemical reactions.
- Objectives of the Course is to recognize and draw particular carbohydrate structures, Know general structural elements of cyclic monosaccharide's and disaccharides, and their implications for structure/function.

B.Sc. I Zoolgy

Learning Objectives-

- 01. To understand the structure and purpose of basic components of prokaryotic and eukaryotic cells, especially cell organelles.
- 02. To understand the animal kingdom.
- **03**. To understand fertilization process.
- 04. To understand the fundamentals of embryonic development.
- 05. Learning outcomes of the Programs and courses are discussed with studentsat the end of topic by the leading faculty.

Learning Outcomes-

- 01. To encourage the Students in different field of Zoology.
- 02. To create awareness among students for the basic and applied areas of Zoology.
- 03. To educate good laboratory practices in students and to trained them about proper handling of lab instruments.
- 04. The Student will be able to understand, classify and indentify the diversity of animals.
- 05. To understand the application of Zoology and daily life.
- 06. Gain the knowledge about identification of Non-Chordates and chordate specimens.
- 07. Students are able to handle microscopes.

B.Sc. II Zoology

Learning Objectives

- 01. Explain the anatomy of various systems.
- 02. Explain the physiological processes in mammals.
- 03. Diagrammatically represented the working of different organs.
- 04. Illustrate the reproductive cycles with hormonal control.
- 05. Justify the endocrine disorders.
- 06. Explain the theories and evidences of organic evolution.
- 07. Understand the concepts of sericulture, fisheries along with pest management techniques & also apiculture & poultry faming.
- **08**. Explain about Ethology.

Learning Outcomes

- 01. Students are able to understand and describe the physiology & functions of different systems.
- 02. Students are able to understand how to physiological parameters are measured in mammals.
- 03. Students will learn about fisheries management and poultry farming.
- 04. Able to know about the methods of control of various insects pest.
- 05. Also gain the knowledge about handling of pesticides.
- 06. Gain skill about slide preparation, staining and mounting.

B.Sc. III Zoology

Learning Objectives

- 01. To describe the interaction between organisms and environment.
- 02. To understand the exchange of nutrients within the ecosystem.
- **03**. To describe the population dynamics.
- 04. Explain the basic concepts of toxicology.
- 05. Explain about pathogenic micro-organisms.
- 06. Explain the structure and functions of Bio molecules.
- 07. Explain the principles of separation techniques.
- 08. Discuss the linkage groups and gene frequency.

Learning Outcomes-

- 01. The Students knows his role in nature as a Protector, Preserver and Promoter of life which he has achieved by learning, observing and understanding life.
- 02. To understand, analyze, evaluate natural resource issued and act on a life style that conserves nature.
- 03. Gain skill about determination of pH and other bio instruments.
- 04. Illustrate the working of microscopes.
- 05. Students are able to describe various biological interactions.

M.Sc. Zoology Program Outcomes:

- 1) Students gain knowledge and skills in the fundamentals of animal sciences.
- 2) To take awareness amongst students for the basic and applied areas of zoology.
- **3)** Demonstrate and apply the fundamental knowledge of the basic principles of major fields of zoology.
- 4) Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment.
- 5) To orient students about the importance of abiotic and biotic factors of environment and their conversation.
- 6) Understand the complex evolutionary processes and behavior of animals.
- 7) Correlates the physiological processes of animals and relationship of organ systems.
- 8) Understand the environment conversation processes and its importance, pollution control and biodiversity.
- 9) Gain knowledge about small scale industries like sericulture, fish farming, poultry farming and vermicompost preparation.
- **10)** To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.
- 11) Develops empathy and love towards the animal.

M.Sc. Zoology Program Specific Outcomes:

- 1) Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology, and applied zoology.
- 2) Analyze the relationships among plant, animals and microbes.
- **3)** Understands the application of biological sciences in Aquaculture, sericulture, apiculture, fish farming and poultry farming.
- 4) Perform procedures as per laboratory standards in the area of taxonomy, physiology. Ecology, cell biology, genetics, applied zoology, clinical science, tools and techniques of zoology, toxicology, entomology, biochemistry, animal biotechnology, immunology and research methodology.
- 5) Gain knowledge about research methodology, effective communication and skills problem of problem-solving methods.
- 6) Contribute the knowledge for nation building.

Course Outcomes:

M.Sc. 1st Semester

- 1) Knowledge of classification of non-chordates along with studies on various physiological functions and interactions of non-chordates organisms with specimens.
- 2) Understand animal behavior and response of animals to different instincts.
- 3) Understand the basic mathematics and biostatics
- 4) Students will be able to understand an overview of ecology and environmental concepts.

M.Sc. 2nd Semester

- 1) Understand Endocrine glands and hormones justify the endocrine disorder.
- 2) Illustrate the reproductively cycles with hormonal control diagrammatically represent the reproductive cycle.
- 3) Give knowledge of molecular cell biology (Bio membranes mechanism of cell cycle, Biology of cancer etc.)
- 4) Students gain knowledge about various tools and techniques used in biological systems and their uses in research.

M.Sc.3rd Semester

- 1) Gain knowledge of comparative anatomy of vertebrates.
- 2) Students gain knowledge in areas of responses to systematic position, general organization and affinities of taxonomy.
- 3) Provide knowledge about immune system and allow the students to create insight as how to improve their immune system and good health.
- 4) Gain knowledge regarding the various theories of evolution, evolutionary process such as speciation, natural selection, origin of higher categories.

M.Sc.4th Semester

- 1) Imparts knowledge about various metabolic and physiological mechanism of the human body, understand about neurophysiology and receptors.
- 2) Gain knowledge about structures, functions and reactions of the various molecules.
- 3) Students gain knowledge about cell biology and also composition and function of cell.
- 4) Gain knowledge about cellular organization and molecular organization.
- 5) The students will be well-equipped to become very competent in research or teaching field after completion of this course.

DEPARTMENT OF BOTANY

Programme Outcome(B.Sc.)

To provide knowledge of scientific aspects of Botany, zoology and chemistry.

To develop Scientific temperament.

To develop critical thinking.

To build confidence ,better communication skills and creativity

To enrich the problem-solving capability and understanding of concept here in.

To develop writing ,teaching and presentation skills.

To promote group activities ,team work ,social values.

To motivate the students for being an active learner.

To familiar with thical approaches within concernedubjects and make them agood citizen.

Course outcomeB.Sc.Part-1 (Botany)

Paper-1bacteria virus fungi lichen and algae

CO1-Students will be ablet ounderstand lifecycle of virus and viral diseases.

CO2-studentswillbeabletounderstandtypes,structureandlifecycleofbacteria. Theywillbeawareaboutbacterialdiseases.

CO3-Students will be able to understand life cycle and importance of algae.

CO4- Studentswillbeabletounderstandlifecycleianddiseasesoffungus.

CO5- Studentswillbeableto understandimportanceofcyano bacteria and lichens.

CO6-Students will be able to understand importance of mush room technology.

Paper–2 bryophytes pteridophytes gymnosperms and paleobotany

CO1-Students willbeabletounderstandbasicconceptofbryophytes.

CO2-Students will be able to understand basic information of living and fossil pteridophytes.

CO3-Studentswillbe abletounderstand livingandfossilgymnosperms.

CO4-Students will be able to know evolution during different era of geological times cale.

CO5-Students will be able to understand fossilization methods.

Practica l(B.Sc.1)

CO1-Students will be able to study practically algae, fungi, gymnosperm, Bryophyta and pteridophyte.

B.Sc. Part - 2 (Botany)

Paper-1 plant taxonomy economic botany plant anatomy and embryology

CO1-Students will be able to understand classification, binomial nomenclature, Herbarium

andBotanicalgarden.

CO2- Studentswillbeabletounderstandcharacteristicsofsomeangiospermfamily.

CO3-Studentswillknoweconomicimportanceofsomevaluableplants specially in Chhattisgarh state

CO4 -Students will be able to understand basic concept of anatomy in angiosperms.

CO5-Students will beabletounderstandbasic conceptof embryologyinangiosperm.

Paper-2ecology and plant physiology

CO1- Students will be able to understand Introduction and scope of ecology- environmenta ndecological factors, hydrophytic and xerophytic and piphytic plants.

CO2-Students learnaboutpopulationcommunitycharacteristics, Raunkeir's lifeforms, ecological niches,

Ecosystemand biogeochemicalcycles.

CO3-Plantwaterrelation:diffusion,osmosis,typesofsoil,waterholding,mineral,nutritionandabsorption.

CO4-Photosynthesis-photosyntheticapparatus, lightreactionmechanism,ATP,C3,C4, CAMpath wayofcarbon, Respiration:aerobicandanaerobicrespiration.

CO5 -plantgrowthhormones:Auxin,Gibberellin,cytokinin,florigen,photoperiodism,vernalization, seeddor mancy,andgerminationplantmovement.

Practical(B.Sc.2)

CO1- students will be able to understand and perform practical related to – plantdescription, plantanatomy, plantembryology, photosynthesis, respiration, diffusion and osmosis, gro wthhormones

B.Sc.Part-3(Botany)

Paper–1analytical technology plant pathology experimental embryology alimentary biostatics environmental pollution and conservation

CO1-studentswillbeableto understand the principal and application of analytical instrumentation and chromatography technique

CO2- students will be able to understand plant tissue culture techniques.

CO3-students will be able to understand concept of plant pathology, various disease causing pathogens, disease symptoms and their treatment.

CO4-studentswillbeabletounderstand the concept of ecology and its conservation pollution green house gases are you CN categories hot spots and sustainable development

CO5-Studentswillbe able to understand concept of concept of biostatics like mean median mode standard deviation standard error

Paper–2genetics molecular biology biotechnology and biochemistry

CO1-studentswillbeabletounderstandcell concept cell organelles and organization genetics mandelian laws and gene concept

CO2-students will be understand the structure and forms of DNA RNA as genting material DNA duplication in context of prokaryotic cells gene regulation and expression as well.

CO3-students will be able to understand recombinant DNA technology it's tools like enzymes vectors application of biotechnology genetic modified plants monoclonal antibodies, DNA fingerprinting.

CO4-students will be able to know the structure chemical composition and metabolism of protein, carbohydrates and fat.

CO5-students will be able to understand the concept of enzyme theories and actions enzyme kinetics nomenclature and classification of enzymes and their inhibition.

Practical

CO1- Students will be able to perform practical biotechnological techniques like plant tissue culture

CO2-observing plant disease symptoms

DEPARTMENT OF FORESTRY

Program Outcomes, Program Specific Outcomes and Course Outcomes.

Program Outcomes B.Sc Forestry

- To make a forester who can impart his services and knowledge for the development, Conservation and protection of forest and forest resources.
- To make the Foresters to compete the needs of country for conserving, protecting and scientific management of the Forest to ensure the existence of massive forest cover for sustenance of Biodiversity conservation, environment and climate change.

Specific outcomes

- To make a complete forester who can handle the various task of forest for their sustainable development.
- > The Knowledge of forestry can help to cater the needs of forest and other disciplines.

Course outcomes of B.sc forestry part one.

The part one course consist of ten units in which the various branches of forestry is included-Silvicultre, Silviculture systems, Regeneration, Soil etc

- Understanding forest and Forestry
- Silviculture science deals with raising of forestry crops .
- > The types of forest present in India and Botanical areas of India.
- Nursery Establishment.
- Study of Soil –Soil formation, Soil properties etc.
- Regeneration methods Artificial and Natural Regeneration.
- > Tending operations- such as thinning, Pruning, Improvement Felling etc.
- > Silvicultural Systems and Silvics of important Species of india.
- > Plantation in problematic areas such as mined, ravine areas etc.
- > Importance of Soil and water conservation, watershed management etc.
- Seed collection methods, seed testing, seed treatment, methods of seed sowing etc.

Course outcomes of B.sc forestry part two.

- The part two course consist of ten units in which the various branches of forestry is included- Social forestry, forest management, Forest mensuration Wood Anatomy, Minor forest produce, Forest based industries.
- Social Forestry schemes , economic benefits and importance
- ➢ Joint Forest management − constraints and Benefit
- Forest management Management of forest, sustained yield, normal Forest, rotation and growing stock
- Forest Organisation administrative, Silvicultural, territorial, functional etc.
- Forest mensuration Height and diameter measurement of trees their methods and techniques.
- ➢ Wood anatomy- structure of woods their properties .
- Minor forest produce

- ➢ Forest based Industries − Lac , Paper, and katha .
- > Logging, communication and Transportation of Timbers and other forest products.
- > Forest and Tribal symbiotic relation, livelihood schemes etc.

Course outcomes of B.sc forestry part three

- The part Three course consist of ten units in which the various branches of forestry is included- Ecology, Law, Wild life Management, Soil Science, Forest Pathology, Forest Entomology, Forest Protection, Forest Engineering.
- Ecology- Concept, Energy flow, Ecological Pyramids etc
- ▶ Wildlife management Tiger Project, National Parks, Sanctuaries etc.
- ➢ Wildlife Protection Act − 1972.
- Forest Policies -1894,1952,1988
- ▶ Indian Forest act 1927 & Forest conservation Act 1980.
- Study of Soil –Soil formation, Soil properties, Soil Pollution etc.
- ➢ Forest pathology, Diseases Types of Diseases, Wilting etc.
- ▶ Forest Entomology Study of insects, their effect, Control Measures etc.
- ▶ Forest Protection- from Man, Wild animals, Fungus, Fire, Grazing etc.
- ▶ Forest Engineering- Building materials, Types of Forest Bridges etc.

Geology department

Bsc-I

- 1. Ensuring and atmosphere conductive to teaching and learning
- 2. Preparing for the competitive world
- 3. Promotion of the leadership qualities
- 4. Adopting students friendly approaches to teaching and learning as far as practicable

Bsc-II

- 1. Collaborative learning is encouraged during the field training programs and educational tour
- 2. Encouraging standard research activities of faculty members and students
- 3. Assist students in competitive examination(JAM etc)

Bsc-III

- 1. Concept of plate tectonic
- 2. Concept of time in geological studies
- 3. Internal structure of earth
- 4. Cosmic abundance of elements
- 5. Concept of crystallography
- 6. Physical properties of rock forming mineral

B.Sc part-I (Computer Science/Information Technology)

Fundamentals Of Information Technology

LO1. Understand different Computer Peripherals

LO2. Understand and apply different Software components.

LO3. Learn WWW & Browsers .

LO4. Learn E-Commerce architectures and applications.

LO5. Schedule CPU time using scheduling algorithm for processors

LO6. Compare various device scheduling algorithms

Programming Using C

After completing this course, students will be able to:

LO1. Create and initialize variables, constant, arrays, pointers, structures and unions.

LO2. Manipulate values of variables, arrays, pointers, structures, unions and files.

LO3. Create the function that can receive variables, arrays, pointers and structures.

LO4. Define functions that can receive variables, arrays, pointers and structures.

LO5. Create open, read, manipulate, write and close files. LO6. Select and use appropriate data structures for the given problems

LO6. Learn about the components of a Computer System.

LO7. Learn about the software and its classification.

LO8. Learn the statements of a C Language

LO9. Develop small application program in C Language.

PROGRAM OUTCOME

- 1. Give students an in-depth understanding of why computers are essential components in business, education and society.
- 2. Introduce the fundamentals of computing devices and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software, the Internet, networking and mobile computing.
- 3. Provide hands-on use of Microsoft Office applications Word, Excel and PowerPoint.
- 4. Completion of the assignments will result in MS Office applications knowledge and skills.

B.Sc part-II (Computer Science/Information Technology)

COMPUTER HARDWARE

- LO1. Understand different Computer Peripherals
- LO2. Understand and apply different Software components.
- LO3. Learn WWW & Browsers .
- LO4. Learn E-Commerce architectures and applications.

Programming Using C++

- LO1. Declare, initialize and process variables, constants and arrays
- LO2. Read and print values from keyboard using Scanner and Dialog boxes
- LO3. Create statements for decisions and loops
- LO4. Define functions and return values.
- LO5. Create classes, objects and constructors.
- LO6. Understand and apply OO design concepts.
- LO7. Create, open, manipulate and close files using Streams.
- LO8. Create applets for drawing shapes and playing audio clips.
- LO9. Able to understand the concept of object oriented programming.
- LO10. Use the benefits of object oriented design and understand when it is an appropriate
- LO11. Methodology to use & Design object oriented solutions for small systems involving multiple objects.

PROGRAM OUTCOME

- 1. Knowledge and Understanding: On successful completion of this subject the students have the programming ability in C Language.
- 2. Intellectual Cognitive/ Analytical Skills: Enhancing Logical Thinking and Reasoning Skills through Collaborative Learning in C Programming.
- 3. Practical Skills: Students would be capable of developing various applications to solve deluge of real world problems. They can also learn to make system software as well as application software.
- 4. These existing languages could become base for developing new languages which can inherent its features. On the backend of various embedded systems, these languages are deployed.
- 5. Transferable Skills: In many multinational companies they can work effectively in a group or team to achieve goals and can show initiative and leadership abilities

- 6. To take review or tour of Programming in C and make aware of limitation of C, thereby need of the origin of C++.
- 7. To impart knowledge in such a way that students should be able to use of concept of Object Oriented Programming Approach in their programming skills.
- 8. To imbibe with the knowledge of implementation of various features of C++ i.e.
- 9. concept of Object, Object communication, Encapsulation, Data hiding, overloading, inheritance, polymorphism etc.
- 10. To impart the basic concepts of data structures and algorithms
- 11. To teach efficient storage mechanisms of data for an easy access.
- 12. To design and implementation of various basic and advanced data structures.
- 13. To introduce various techniques for representation of the data in the real world.
- 14. To improve the logical ability

B.Sc part-III (CS/IT)

Computer software

- LO1. Appreciate the need for DB approach and understand the components and roles of DBMS
- LO2. Write SQL queries for the given problem statement
- LO3. Apply DB system development life cycle to business problems
- LO4. Develop ER diagram for representing conceptual data model
- LO5. Convert ER diagram into a set of relations representing logical data model
- LO6. Implement a set of relations in the chosen DBMS product, such as ORACLE
- LO7. Create and manipulate files.
- LO8. Write queries for given problem statement
- LO5. Connect to through command line and through PHP MYADMIN
- LO6. Apply Cookies, Sessions and Validation.

Amplifier

- LO1.To understand basics of analog electronics.
- LO2.To study different types of sensors.
- LO3. To understand different types of signal conditioning circuits.
- LO4.To learn data conversion techniques.

LO5. The student will demonstrate knowledge of analog electrical devices, particularly operational amplifiers and their applications.

LO6. The student will be able to utilize items such as decibels, Bode plots, and negative feedback for circuit analysis.

LO7.The student will use a mathematical and problem solving approach for design and analysis, based on fundamental DC and AC circuit principles and math concepts. This will include the use of computer simulations.

LO8. The student will demonstrate facility at constructing and troubleshooting op amp circuits in the laboratory with proper use of test equipment.

LO9. The student will demonstrate appropriate communication skills, particularly technical reports through the laboratory.

LO10. The student will demonstrate the ability to work as part of a technical team, particularly in the laboratory.

LO11. To apply knowledge of analog systems in different applications.

Data Structure

LO1. Understand different methods of organizing large amount of data using data structure.

LO2. Able to choose appropriate data structure as applied to specified problem definition.

LO3. Understand various techniques for representation of the data in the real world.

LO4. Able to compute the complexity of various algorithms.

LO5. Able to understand internal structure of compiler and interpreters

Computer Software

LO1: To study various types of semiconductor devices, elementary electronic circuits and systems.

LO1: To bridge the gap between Theoretical and practical knowledge.

PROGRAM OUTCOMES

- PO1. Identify and define the problem statement
- PO2. Define and justify scope of the proposed problem
- PO3. Gather and analyze system requirements

PO4. Propose an optimized solution among the existing solutions

- PO5. Practice software analysis and design techniques
- PO6. Develop technical report writing and oral presentation skills
- PO7. Develop a functional application based on the software design
- PO8. Apply coding, debugging and testing tools to enhance the quality of the software
- PO9. Construct new software system based on the theory and practice gained through this exercise

PO10. Prepare the proper documentation of software projects following the standard guidelines

PO11. Learn technical report and oral presentation skill

PO12: Able to acquire knowledge of data security and its importance.

PO13: Design E-R Model for given requirements and convert the same into database tables.

PO14: Able to use database techniques such as SQL & PL/SQL.

PO15: Understand and able to implement concept of transactions.

PO16: Use advanced database Programming concepts.

PROGRAM SPECIFIC OUTCOMES (PSO)

PO1: Apply standard software engineering process and strategies in software project development using open source programming environment to deliver a quality product for business success.

PO2: Acquaintance with latest trends in technological development and thereby innovate new ideas and solutions to existing problems.

PO3: Conceptual grounding in computer usage as well as its practical business applications.

PO4: To demonstrate advanced skills in the effective analysis design and realization of business system utilizing contemporary information technology.

M.Sc (Computer Science)

Programme Outcome:

This program develops human resource for IT industries as well as equipped students to start their own business as a software developer, database administrator, programmer, system analyst. The Master in Computer Science Program of department of Computer Science aims to educate student to identify and analyze complex scientific, societal, industrial problems and reaching effective software solutions using principles of mathematics, appropriate software tools, programming languages. It aims to provide technology-oriented students with the ability to design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the societal and environmental considerations. This program develops human resource for government organizations, IT industries as well as equipped students to start their own business as a software developer, database administrator, programmer, system analyst, data scientist, web application developer, system programmer, software testing, expert system designer.

PO01 An ability to apply the theoretical knowledge of Mathematics and Computational Sciences to model and solve real time problems.

- PO02 An ability to understand, analyze and design efficient algorithms...
- PO03 Development of soft skills and practicing professional ethics
- PO04 An ability to design efficient protocols for advanced communication technology
- PO05 Acquire knowledge of contemporary computational issues
- PO06 In depth knowledge of foundations of computing
- PO07 An ability to understand and solve emerging research problems
- PO08 Develop programming skills to implement research projects.

Programme Specific Outcomes (PSOs):

PSO1: Students will be able to adapt the skills to implement effective solutions for need based problems by applying knowledge gained through different programming languages, tools and software covered in the syllabus of program.

PSO2: Student will be able to learn working and type of operating systems, distributed operating systems, its process, memory and file management which enables them to take appropriate optimized decisions for applying necessary algorithms.

PSO3: Students will be able to handle network related problems by studying data communication network, network security courses. Students learn to troubleshoot fault detection in combinational switching circuits, learn and utilize the concepts of mobile communications.

PSO4: Students will be able to learn and apply the concepts of software engineering which is essentially important while working on big modules and or projects.

PSO5:Students will be able to apply and implement the working of compilers which also tends them towards system programming.By using various components students will be able to implement a efficient scalable software solution in the form of web or windows application.

PSO6:Students are prepared for research oriented concepts of data mining and data warehousing. Student will learn the necessity and importance of data preprocessing, data integration, data discretization. Students learn the concepts of OLAP technology, data mining methods, various classification and prediction methods, accuracy and error measures, various methods of cluster analysis, graph mining and mining sequence patterns.

PSO7:Studentswill be able to understand and implement the mathematical modeling of graphical objects required to be drawn/used in differnent kind of graphical applications. Students learn Remote method invocation for cross-platform data access applications, application related to artificial intelligence using Prolog language, digital image processing techniques.

PSO8:Student will be able to understand finite automata, non-deterministic finite automata, regular set and regular expression, applications of finite automata, regular and context-free grammar, Turing machine, its design and modification, decidability and undecidability of problems.

PSO9:Students will be able to apply software testing knowledge and engineering methods, distinguish characteristics of structural testing methods, design and conduct a software test process for a software testing project, understand and identify various software testing problems and solve these problems by designing and selecting software test models, criteria, strategies, and methods.

PSO10: Students of this programme will be able to function effectively both as a team leader and team member on multi disciplinary projects to demonstrate computing and management skills.

PSO11: Students will be able to communicate effectively and present technical information in oral and written reports.

PSO12: Students will be able to develop perspective with respect to ethics, social, cultural and cyber regulations

Bachelor of Computer Applications (BCA)

Program Outcomes (PO):

BCA programme has been designed to prepare graduates for attaining the following specific outcomes:

An ability to apply knowledge of mathematics, computer science and management in practice.

An ability to enhance not only comprehensive understanding of the theory but its application too in diverse field.

The program prepares the young professional for a range of computer applications computer organization, techniques of Computer Networking, Software Engineering, Web development, Database management and

An ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability in multidisciplinary teams with positive attitude.

An ability to communicate effectively. In order to enhance programming skills of the young IT professionals, the program has

introduced the concept of project development in each language/technology learnt during semester.

PO1: Computational information: Appreciate and apply mathematical organization, computing and domain information for the conceptualization of computing models from clearharms.

PO2: Difficulty Analysis: Talent to classify, significantly evaluate and prepare complex computing problems using fundamentals of computer knowledge and request domains.

PO3: Drawing / Improvement of Solutions: Facility to transform composite production scenarios and present-day issues into problems, explore, recognize and propose included solutions using rising technologies.

PO4: Accomplish Investigations of Compound Computing Troubles: Ability to invent and ways experiments interpret data and present well up to date conclusions.

PO5: Current Implement Procedure: Skill to select recent computing tools, skills and techniques compulsory for original software solutions

PO6: Proficient Principles: Facility to apply and give expert principles and cyber systems in a universal monetary situation.

PO7: Ultimate Education: Identify the need for and enlarge the ability to appoint in permanent education as a Computing qualified.

PO8: Mission Administration: Skill to recognize administration and computing philosophy with computing acquaintance to supervise projects in multidisciplinary environments.

PO9: Announcement Usefulness: Converse successfully with the computing society as well as culture by being able to know successful documentations and presentations.

PO10: Public & Ecological Alarm: Ability to make out cost-effective, green, public, fitness, authorized, moral issues concerned in the use of processor expertise and other significant tasks applicable to qualified observers.

PO11: Personality & Group Job: Ability to job as a part or manager in various teams in multidisciplinary situations.

PO12: Modernization and Private Enterprise: Classify opportunities, private enterprise dream and use of original thoughts to build worth and means for the betterment of the human being and the world.

Program Specific Outcome (PSO)

PSO1: An ability to enhance the application of knowledge of theory subjects in diverse fields.

PSO2: Develop language proficiency to handle corporate communication demands.

PSO3: Preparing students in various disciplines of technologies such as computer applications, computer networking, software engineering, JAVA, database concepts and programming.

PSO4: In order to enhance programming skills of the young IT professionals, the concept of project development in using the technologies learnt during the semester has been introduced.

PSO5: To enhance knowledge in robotics, provide experimental hardware equipment for teaching the basics of robotics, robot dynamics and control, and robot system design and application.

PSO6: To enhance logical ability and programming concepts by implementing programming lab.

PSO7: Preparing students for future aspects by building and improving their creativity, social awareness, and general knowledge.

PSO8: Encouraging students to convert their start-up idea to reality by implementing.

PSO9: Ability to understand the changes or future trends in the field of computer application.

PSO10: Ability to identify, formulate, analyse and solve problems of programming using different languages.

Course Outcome (CO)

BCA- Mathematics I

CO1: Students will be able to demonstrate competency in the areas that comprise the core of the mathematics major.

CO2: They will be able to solve applied problems with the application of differentiation and integration.

CO3: They will be able to use appropriate technologies to solve mathematical problems.

CO4: They will be able to apply matrices in different industry problems.

CO5: They will be able to generate mathematical models to solve different types of practical problems.

BCA- Programming, Principle& Algorithm

CO-1: They will be able to understand basic terms used in programming.

C0-2: They will be able to design an algorithmic solution for a given problem.

CO3: They will be able to write a C programme for a given algorithm.

CO4: They will be able to use different data structures and update basic data files.

CO5: They will be able to trace out the error and resolve it using debugging and develop logical and analytical thinking.

BCA- Computer Fundamental and office automation

CO1: They can classify the computers in different categories based on their capabilities.

CO2: They will be able to discuss an understanding of the importance of algorithms in the development of computer applications.

CO3: They may identify computer hardware and peripheral devices.

CO4: They will be able to discuss the evolution of computers in different generations.

CO5: They will be able to manage the files.

BCA- Computer Fundamentals and Office Automation Lab

CO1: Students will learn about the four basic functions of the computer.

CO2: Students were made familiar with the need of computers in our daily lives.

CO3: Students will be made familiar with application software's.

CO4: With the help of labs, students became familiar with computers, and the various technologies related to them.

BCA- Programming Principles and Algorithms Lab

CO1: It helped us to know that to code is like learning how to read and write in a different medium, thus, enabling us with creative and expressive power.

CO2: Students will be made familiar with logic building and systematic programming.

CO3: Students will be made aware of and apply appropriate coding skills for different requirements or scenarios.

CO4: With the help of the lab, students will be able to practice and learn planning by thinking through the steps necessary to achieve our end goal.

CO5: It will help students to gain an ability to move past debugging, frustrations and continue to find solutions to help complete their projects.

BCA- Environmental Studies

CO1: This course will help students understand the importance of these resources and how to preserve these resources.

CO2: Environment studies will also help students to develop the knowledge and skills required to address challenging environmental issues.

CO3: It will help them understand how their decisions and actions affect the environment

CO4: Students will be made aware about the various types of pollution, and how to minimize them.

CO5: It will motivate them to keep our environment healthy and safe so that everyone canlive a healthy life.

BCA- Mathematics II (MATHS)

CO1: Reason mathematically about basic discrete structures such as numbers, sets, used in computer science

CO2: Familiar with Determinant and Matrices.

CO3: Formulate Limit, Continuity and Differentiability.

CO4: Familiar with propositional calculus.

CO5: Master the basic set theory. BCA- C Programming (C Prog.)

CO1: Understand the difference between object oriented programming and proceduraloriented language and data types in C.

CO2: Program using C features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.

CO3: Simulate the problem in the subjects like Operating system, Computer networks and real world problems

BCA-: Digital Electronics & Computer Organization (DECO)

CO1: Have a thorough understanding of the fundamental concepts.

CO2: Techniques used in digital electronics.

CO3: To understand and examine the structure of various number systems and its application in digital design.

BCA-: Computer Laboratory and Practical Work of C Programming

CO1: To impart adequate knowledge on the need of programming languages and problem solving techniques.

CO2: To develop an in-depth understanding of functional and logical concepts of C Programming.

CO3: Acquire logical thinking, Implement the algorithms and analyze their complexity, Identify the correct and efficient ways of solving problems

CO4: Implement real time applications using the power of C language features.

BCA- Object oriented programming with C++

CO1: Understand the difference between the top-down and bottom-up approach. **CO2:**

Describe the object-oriented programming approach in connection with C++. CO3:

Apply the concepts of object-oriented programming.

CO4: Illustrate the process of data file manipulations using C++.

CO5: Apply virtual and pure virtual function & complex programming situations.

CO6: Ability to design and develop Object Oriented systems

BCA- Data Structure Using C & C++

CO1: Understanding the linear and non-linear data structures, sorting and searchingoperations, File structures.

CO2: Analyse the performance of - Stack, Queue, and Lists.

CO3: Analyse the performance of Trees, Graphs, Searching and Sorting techniques.

CO4: Implement all the applications of Data structures in a high-level language.

CO5: Design and apply appropriate data structures for solving computing problems

BCA- Computer Architecture & Assembly Language

CO1: Understand the theory and architecture of central processing unit.

CO2: Analyse some of the design issues in terms of speed, technology, cost, performance.

CO3: Design a simple CPU with applying the theory concepts.

CO4: Use appropriate tools to design verify and test the CPU architecture.

CO5: Learn the concepts of parallel processing, pipelining and inter processor communication.

CO6: Understand the architecture and functionality of central processing unit.

BCA- Computer Laboratory and Practical Work of OOPS

CO1: Describe the procedural and object-oriented paradigm with concepts of streams, classes, functions, data and objects.

CO2: Understand dynamic memory management techniques using pointers, constructors, destructors, etc

CO3: Describe the concept of function overloading, operator overloading, virtual functions and polymorphism.

CO4: Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.

CO5: Demonstrate the use of various OOPs concepts with the help of programs. **BCA- Computer Laboratory and Practical Work of DS**

CO1: Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.

CO2: Understand basic data structures such as arrays, linked lists, stacks and queues.

CO3: Describe the hash function and concepts of collision and its resolution methods.

CO4: Solve problem involving graphs, trees and heaps.

CO5: Apply Algorithm for solving problems like sorting, searching, insertion and deletion ofdata.

BCA : Computer graphics and Multimedia Applications (CGMA)

CO1: Be able to identify computer Graphics and Tools.

CO2: Be familiar with Multimedia applications.

CO3: Understand Graphical formula in3-D to 2-Dimensional objects.

CO4: To follow a series of stages collectively known as Graphics Pipeline.

CO5: Primary role is to render the digital content in a human comprehensible form on a

BCA : Operating System (OS)

CO1: To understand the basic components of a computer operating system, and the interactions among the various components.

CO2: The course will cover an introduction on the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems.

CO3: Responsible for allocating resources to users and processes

CO4: Some operating systems implement significant OS functionality in user-mode, e.g. User-mode such as Linux.

CO5: Program execution, Access to I/O devices – Display, disk, network, printer, keyboard, camera, etc. Controlled access to files – Access protection, System access – User authentication.

BCA : Software Engineering (SE)

CO1: Enables students to embrace problem solving and learning as a natural aspect of their work.

CO2: Enhances value and is valued by their professional teammates.

CO3: Gain to have broad and deep knowledge of the technical issues that they face.

CO4: Basic knowledge and understanding of the analysis and design of complex systems.

CO5: To develop methods and procedures for software development that can scale up for large systems and that can be used consistently to produce high-quality software at low cost and with a small cycle of time.

BCA : Optimization Techniques (OT)

CO1: Ability to apply the theory of optimization methods and algorithms to develop and for solving various types of optimization problems.

CO2: Ability to go in research by applying optimization techniques in problems of Engineering and Technology.

CO3: The purpose of optimization is to achieve the "best" design relative to a set of prioritized criteria or constraints (In equations).

CO4: Enrich about maximizing factors such as productivity, strength, reliability, longevity, efficiency, and utilization.

CO5: The decision making process about Information System, Industry-Engineering and Manufacturing Systems, Multicriteria Decision Making and Operations and Supply Chain Management.

CO6: Programming User-interface issues.

CO7: Concepts of 2D & 3D object representation.

CO8: Implementation of various scan & clipping algorithms .

CO9: Visibility detection & 3D viewing Implementation of a project based on learnedconcepts.

BCA-: Introduction to DBMS

CO1: Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL.

CO2: Apply relational database theory and be able to describe relational algebra expression, tuple and domain relation expression fro queries.

CO3: Recognize and identify the use of normalization and functional dependency, indexing and hashing technique used in database design.

CO4: Recognize/ identify the purpose of query processing and optimization and also demonstrate the basic of query evaluation.

CO5: apply and relate the concept of transaction, concurrency control and recovery in database.

BCA-: Computer Network

CO1: Understand the overview of networks OSI model and Physical Layer.

CO2: Obtain the knowledge about error deduction and correction in Data Link Layer.

CO3: Obtain the knowledge about packet switching network and addressing in Network Layer.

CO4: Acquire the knowledge about TCP in Transport Layer.

CO5: Ability to understand client/Server programming, WWW and Email using Application Layer.

CO6: To understand the Concept of E-commerce and Business Strategy in Electronic Age and different models of E-Commerce.

CO7: Administer and Maintain B2B E-Business sites.

CO8: Understand the Internet Architecture and Electronic Payment System.

CO9: Demonstrate the knowledge of Legal and Regulatory policy issues in E-commerce.

CO10: Determine the protection methods from public policy issues.

CO11: Evaluate E-commerce models and identify the requirements for starting up and operating E-business sites.
BCA-: Numerical Methods

CO1: This course is an introduction to a broad range of numerical methods for solving mathematical problems that arise in Science and Engineering.

CO2: The goal is to provide a basic understanding of the derivation, analysis, and use of these numerical methods, along with a rudimentary understanding of finite precision arithmetic and the conditioning and stability of the various problems and methods.

CO3: This will help you choose, develop and apply the appropriate numerical techniques for your problem, interpret the results, and assess accuracy.

CO4: The problems cover (i) systems of linear equations, linear least squares problems, and eigenvalue calculation; (ii) interpolation, approximation, and integration of functions; (iii) initial values problems governed by ordinary differential equations; (iv) nonlinear scalar equations.

CO5: Such methods include techniques for simple optimisation, interpolation from the known to the unknown, linear algebra underlying systems of equations, ordinary differential equations to simulate systems, and stochastic simulation under random influences.

BCA-: Minor Project

CO1: Understanding of how practices impact on different selected groups of students (potential withdrawers; actual withdrawers; disabled students; low participation and ethnic minority groups).

CO2: Recommendations and model of practice for institution and sector.

CO3: Student tool to aid identification, articulation and measurement of activities that contribute to Belonging and Intimacy.

CO4: Longitudinal view of the student experience from 1st to final year including key decisionmaking episodes.

CO5: Integrated data set related to retention and methodology for continued analysis.

CO6: It makes the student confident in designing an Online Project with advancedtechnologies of their choice.

CO7: Students are trained to meet the requirements of the industry.

CO8: students will able to develop a project professionally.

CO9: students will be able to prepare a SRS report.

CO10: To be able to develop good presentation skills.

BCA-: Viva-Voice on Summer Training

CO1: To offer the opportunity for the young students to acquire on job the skills, knowledge, attitudes, and perceptions along with the experience needed to constitute a professionalidentity.

CO2: To provide means to immerse students in actual supervised professional experiences.

CO3: To give an insight into the working of the real organizations.

CO4: To appreciate the linkages among different functions and departments.

CO5: To develop perspective about business organizations in their totality.

BCA-: Computer Laboratory and Practical Work of DBMS CO1:

Design and implement a database schema for given problem.

CO2: Capable to design and build a GUI application.

CO3: Apply the normalization techniques for development of application software to realistic problems.

CO4: Formulate queries using SQL DML/DDL/DCL commands.

CO5: To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modelling, designing, and implementing a DBMS.

Program Outcomes (POs)

After the completion of the program the learner will be able to

PO-1: Make use of internet for searching and downloading information on web, sending or receive e-mails.

PO-2: Prepare presentation and perform computation on excel sheet.

PO-3: Handle windows and Linux operating system for general purpose applications and networking.

PO-4: Develop general purpose application based on C/C++ and HTML based languages.

PO-5: Perform various office activities on computer system such as installation of software, handling of printer and scanner, internet connection along with troubleshooting of system.

PO6: It will equip the students with skills required for designing, developing applications in Information Technology.

PO7: Students will able to learn the latest trends in various subjects of computers & information technology.

PO8:The PG Diploma is aimed at graduates with a computing background and provides a detailed coverage of the key concepts and challenges in data and resource protection and computer software security.

PO9: To give hands on to students while developing real life IT application as part of the study.

PO10: To train graduate students in basic computer technology concepts and information technology applications. PO6: Design and develop applications to analyze and solve all computer science related problems.

Fundamentals of Computer& Information Technology

Upon the completion of the course the learner will be able to

CO-1: Familiarization with the types of computer, peripheral devices, memory management, multimedia and number system.

CO-2: Learn about working of various input and output devices.

CO-3: Learnt about binary number representation along with its operations.

CO-4: Understand theoretical framework of internet and associated application of the internet.

CO-5: Acquire the knowledge about the binary number representation along withits operations.

CO-6: Understand of the role of computers in business, education and society.

After the completion of the course the learner will be able to

- Understand different phases of Systems Development life cycle.
- Understand how projects are initiated and selected, define a business problem and determine the feasibility of a proposed project.
- Apply information gathering methods effectively to elicit human information requirement.
- Understand prototyping and develop logical DFD's that illustrate theproposed system.
- Create data dictionary and choose an appropriate decision analysis method for analyzing structured decision and creating process specification.
- Design input-output for user interface and database for storing• data.

Problem Solving using C & C++ Lab

Upon the completion of the course the learner will be able to CO-1:

Understand of various concepts of programming language. CO-2:

Develop logics and analytical ability solve problem.

CO-3: Learn about procedural programming using functions. CO-4:

Acquired various flow control statements.

CO-5: Learn about various storage classes along with user defined data types. CO-6: Acquire knowledge of file handling

CO-7: Work with arrays of complex structure data types.

CO-8: Understanding a concept of functional hierarchical code organization.

CO-9: Understand the benefits of Object-Oriented Programming (OOP) as compare to Traditional Programming approach and resolve problem in domain of object- oriented programming.

CO-10: Familiarization with a widely range of features of object-oriented programming using C++

CO-11: Understand Object oriented approach for finding solutions to various problems with the help of C++ language.

CO-12: Understand the concept of polymorphism with the help function overloading and virtual functions.

CO-13: Acquire various types of various types and forms of inheritance.

CO-14: Understand basic of generic functions and classes.

PGDCA-201 Database Management System

Upon the completion of the course the learner will be able to

CO-1: Familiarization with various features and applications of Database Management system.

CO-2: Acquire knowledge about database languages (DDL, DML, DCL)

CO-3: Learn how to design a database by using different data models.

CO-4: Understand the database handling during execution of the transactions along with concurrent access.

CO-5: Ability to perform various types of SQL queries.

CO-6: Able to design a good database using normalization, decomposition and functional dependency

SAD

Objectives of the Course: Study the basic taxonomy and terminology of the computer networking and DATA COMMUNICATION

- Enumerate the layers of OSI model and TCP/IP model.
- •Gain core knowledge of Network layer routing protocols and IP addressing.

• Program Learning Outcomes: Students will come to learn the cell structure and various layers of ATM.

- Various classes of IP Addressing
- Data Compression Techniques
- Cryptography
- •Creating, renaming, deleting, disabling user account in Windows NT

Objectives of Course: PC-PACKAGES

Give students an in-depth understanding of why computers are essential components in

• Business, education and society. Provide hands-on use of Microsoft Office applications Word, Excel and PowerPoint.

- Completion of the assignments will result in MS Office applications knowledge and skills.
 - \checkmark COURSE OUTCOMES At the end of this course the student shall be able to:
- •Understand the basic terminology of computers

•Understand the practical concepts of MS Word, MS Excel, MS PowerPoint, and MS Access.

DEPARTMENT OF COMMERCE

Programme Outcomes Commerce (B.COM/M.COM):-

- 1. Enables learners to get theoretical and Practical exposure in the commerce sector like Accounts, Marketing, Management etc.
- 2. Develops communication skill and build confidence to face challenges of the corporate would.
- 3. Enhances the capability of decision making at personal and profession level.
- 4. Makes student industry ready and develop various managerial and accounting skill for better professional opportunities.
- 5. Develops entrepreneurial skill amongst learners.

Programme Specific Outcomes Commerce B.COM 1ST YEAR :-

- <u>ACCOUNTANCY</u>
 - 1. In calculate knowledge of various accounting concepts and policies.
 - Introduces the students to working knowledge of accounting standards issue way the ICAI.
 Understands the techniques of consignment Branch & Accounting methods.
 - 4. Imparts conceptual knowledge of various accounting concepts, conventions & policies.
 - 5. Create awareness about company accounts with provision of various company etc.

• ECONOMICS

1. Familiarizes the students with the basic concepts of micro economics and its applications to business situations.

2. Guides the students towards understanding the real world market situations and business applications .

3. Enables understanding of relationship between different market structures and how they compare & contrast with one another

4. Enables understanding of how a firm sets price for its products by using different methods.

• <u>MATHS</u>

- 1. Introduce mathematic to under graduate students of commerce so that they can use them in the field of commerce & industries to solve the problem.
- 2. Facilitates decision making with the help of decisions making techniques .
- 3. Prepare students to develop skill to solve financial problems .
- 4. Creates awareness of application by Derivatives to concepts in economics .
- 5. Enables understanding the concepts of shares, mutual funds and investment management.

• **BUSINESS COMMUNICATIONS**

- 1. Demonstrates effective use of communication technology .
- 2. Develops critical understanding of different practices associated with business communication.
- 3. Corporate communication helps future managers & employees in performing managerial functions smoothly.
- 4. Creates awareness, imparts knowledge, shapes attitudes and overall improves overall interaction between people.
- 5. Equips the students to learn the principles of effective communication so that they can communicate with confidence in the corporate world.

• **BUSINESS ENVIRONMENT**

- 1. Understand the concept, factor of the business environment and five year plans of India.
- 2. Examine the concept and role of social environment, ethics and corporate governance.
- 3. Understand various government policies institution and its role in business.
- 4. Develop insights of economic policies RBI role, process of economic reforms .
- 5. Develop knowledge of technological environment ,issues in technology acquisition & transfer .

Business Regulory Framework

- 1. Will become aware of law related to seller.
- 2. Provides on overview of the basic concepts relating to industrial law.
- 3. Provides knowledge of partnership Act and LLP Act.
- 4. Act as a guide post for minimally accepted behavior in the society.

• Environmental studies

1. Makes students to learn the role of environment and ecosystem.

2.Creats awareness about the relationship between population & environment .

3. Makes students aware about waste management 4. Exposes learners to the impact of industrial development of agriculture.

B.COM 2nd YEAR:-

• <u>COST ACCOUNTING</u>

- 1. Imparts knowledge of various costs on the basis of elements of cost, behavior and functions.
- 2. Helps in ascertaining the cost of material labor and overhead allocation .
- 3. Imparts knowledge on various emerging concepts of cost accounting like cycling costing, bench making etc.
- 4. Familiarizes various cost accounting techniques and procedures.
- 5. Provides on overview of other cost accounting methods used in business.

• **BUSINESS STATISTICS**

- 1. Introduces statistics to undergraduate students of commerce so that they can use them in the field of commerce & industries to solve the real life problems.
- 2. Facilitates decision making with the help of decision making techniques.
- 3. Prepare students to develop skill to solve financial problems.
- 4. Creates awareness of applications of derivatives to concepts in economic.
- 5. Enables understanding the concepts shares ,mutual funds & investment management.

• <u>CORPORATE ACCOUNTING</u>

- 1. Provides legal knowledge about banking regulating acts, the function of SEBI, amendment and new company act and securitization of law in India.
- 2. Enhances knowledge and various aspects of the corporate and securities law for learns.
- 3. Enable understanding the concepts shares mutual funds & investment management.
- 4. Enables a financial experts determine the value of assets in a portfolio.
- 5. Creates understanding of evaluation of securities with the help of contain fundamental business factors.

• <u>COMPANY LAW</u>

- 1. Students will understand of the concepts company law.
- 2. They will come to know the process of formulation and registration of company.
- 3. They will understand the importance and of memorandum of association and article of association.
- 4. They will understand legal rules related to issue of prospectus and shares.
- 5. They will come to know the process of winding up the company.

• PRINCIPAL OF BUSS MANAGEMENT

- 1. Complete knowledge of management and its functions.
- 2. Clarity about the nature of management .
- 3. Skill to apply different management styles in routine tasks.
- 4. To impart knowledge about the rule of management in business organization.
- 5. To enable the students to understand the evolution of management.

• <u>FUNDAMENTAL OF ENTERPRENERSHIP</u>

- **1.** Define the concepts related to entrepreneurship, entrepreneur, functions , development programs, motivation , rural ad small scale enterprise.
- 2. Examine the concepts related to entrepreneurship entrepreneur , functions , development programs .
- **3.** Evaluate the concepts related to entrepreneurship entrepreneur , functions ,development programs motivation , rural and small scale enterprise .
- 4. Synthesize the concepts related to entrepreneur, functions, development programs.
- **5.** Explain the concepts of entrepreneurship entrepreneur , functions , development programs and motivation.

B.COM.FINAL YEAR

1.Auditing :-

- 1. Imparts knowledge of audit , types of audit, principles and techniques of auditing .
- 2. Enables to get knowledge of audit planning and Documentation .
- 3. Enables understanding of the audit procedures and policies .
- 4. Studies the role of audit in financial statements and execution of audit in companies.
- 5. Creates understanding of the need and benefits of having audit of Financial statements.

2. Management Accounting :-

1. Enables understanding of functions, advantages , limitations of Management Accounting.

2. Acquaints the students will basic techniques of analysis and interpretation of financial statements .

3. Imparts knowledge to the leaner about how to prepare vertical financial statements.

4. Helps the learners to know about divided policy of companies and how working capital is calculated .

5. Know the entry modes in the Management Accounting .

3. Indirect Taxation :-

1. Enables learners go acquire the knowledge of Goods and Services.

2. Explores the process of Registration, place and value of supply and computation of tax liability.

3. Provides learners an idea of the process and techniques of calculation of taxability and tax liability .

4. Studies their impact on business decision making .

5. Provides an in-depth study on the various provisions of Indirect Tax laws .

4. Financial Management :-

1. Updates students with working knowledge of accounting standards issued by ICAI.

2. Impacts , conceptual knowledge of various accounting concepts conventions and policies .

3. Imparts concepts knowledge about accounting treatments of problems .

4. Helps students in gaining practical knowledge of Accountancy .

5. Provides knowledge of ling term investment decisions , planning and risk of investment projects with it .

5. International Marketing :-

1. Creates understanding on how globalization has brought about an increasing connectedness of business, markets, people and Information across countries.

- 2. Studies the perpose and benefits of International marketing .
- 3. It helps in the growth of business at global level .
- 4. Creates understanding of what is international market .
- 5. Finance industry at international levels .

6. Principles of marketing :-

- 1. learn about the media planning, scheduling and media decisions.
- 2. Analyze about the target audience .
- 3. Describe and apply the basic techniques of Marketing .
- 4. Analyze and degien process .
- 5. Understand the Marketing concepts, evaluation and its activity.

7. Finance Market Operation :-

- 1. Understand the key tools and techniques of operation .
- 2. Examine the layout design planning, retail formats.
- 3. Student will understood proper strategies for talent engagement and retention .
- 4. The students will understand the concepts of finance and its relevance in organizations .
- 5. know the sub process and barriers in Finance .

PROGRAM OUTCOMES MANAGEMENT BBA/PGDBM

- 1.Upon Completions of the program the individual must demonstrate maturity , professionalism and tem working skills.
- 2.Upon Completions of the program the students will have general idea of the operation in business.
- 3.Upon Completion of the program the individual will be have specialized akill to deal with area specific issues of concern.
- 4.Upon Completion of the program, the individual will be able to apply technological knowhow for business Advancements .
- 5.Upo Completion of the program , the individual will be capable of analyzing, investigating and solving critical business issues.

PROGRAME SPECIFIC OUTCOME :-BBA – 1ST :-

1.<u>Financial Accounting :-</u>

- 2. Demonstrate a good Understanding the concept of double entry system and principles of accounting.
- 3.Apply critical thinking and problem solving skill for preparation of trading and profit and loss account and balance sheet of sole trader.
- 4. Understand of various method of maintain Accounts of department .

5.Learn accounting for branches and department .

6.Develop Understanding about the accounting of single entry system and its difference with double entry system.

2. <u>Business Mathematics :-</u>

1. Introduces Mathematics to U.G. students of management so the they can use them in the field of management to solve the real life problems.

- 2. Facilitates decision making with the help of decision making techniques.
- 3. Prepares student to develop skills to solve financial problems.
- 4. Creates awareness of applications of Derivatives to concepts in Economics.
- 5. Enables Understanding the concept of shares Mutual funds and Investment management.

3. Business Environment :-

- 1. Understand the concept, factor of the business environment and five year plans of India .
- 2.Examine the Concept and role of social environment, ethics and corporate governance.
- 3.Understand various government policies, institution and its role in business.
- 4. Develop insights of economic policies, RBI role, process of economic Reform.
- 5. Develop knowledge of Technological environment issues in technology acquisition and Transfer .

4. <u>Business Management :-</u>

1. Understand the Concept of management, its levels and functions.

- 2.Determine the managerial roles and skills , with special attentions to managerial Responsibility for effective and efficient achievement of goals .
- 3.Understand the planning process, its types and various decisions making models.
- 4. Ascertain the nature of organization structure , and its different types explaining spam of control .
- 5. Understand directing principles, its Components and apply the control methods.

5. <u>Business Organizations :-</u>

1.Understanding the essentials of successful business and businessman.

- 2.Knowledge about industrializations and various impact of it on the economy.
- 3. Knowledge of various factors to be considered while setting up a new business unit .
- 4. Familization with the Recent trends in wholesale and Retail trade .

5.To learn about stock exchange and produce exchange.

6. <u>Computer Fundamental :-</u>

1. Knowledge of MS Office .

2. Ability to work with hardware device.

3. Initiations in the process of making PPTs Representing data using graphs and charts etc.

4. To learn the use of Computers in Various fields such a business, education, hospital etc.

5.To Impart knowledge of adding multimedia in documents.

6. Environmental studies :-

1. Memorizing the concepts related to the ecological bio diversity of our planet .

2. Interpreting important processes associated with the evaluation of life on earth.

3. Applying the concept related to ecology sustainable life on earth .

4. Analyzing the importance of wildlife, protections and its role in preserving the food chain .

5. Formulating the plan for Environmental disaster management .

BBA 2ND

• Business statictics

1. Understand the meaning of statistical terms used in business statistics.

2. Analyze statistical data using measures of central tendency dispersion and skeconess .

3.Calculate and interpret the simple correlation for a set of data

4.Construct index numbers and its use

5.Test the eduefuacy of index number formulae.

<u>Managerial Economics</u>

1. Develop understanding to take business decisions in different business situation using theory and concept.

2. Analyzing Consumer behavior and their utility for their consumption through utility consumer equilibrium, indifference curve and demand concept.

3. Apply the concept of demand and elasticity practically.

4. Evaluate the relationship between police and crutput determination in different market structure .

5.Demonstrate future demand of a procedure using qualitative and quantitative techniques .

• **Business Communication**

1. Develop Communication skills.

2. Ability to communicate effectively.

3.Learn business manners.

4.Skill to prepare Resume , CV and job application letter .

5.Learn how to deal with banking correspondence .

• Marketing Management

1. Knowledge of core concepts of marketing and the role of marketing in Business and society .

2.Skill to analyze the interaction of marketing, and environmental forces .

3. Ability to analyze marketing strategies based on product, price, place, and promotion objectives.

4. Clarity about product classification and differentiation .

<u>Personal Management</u>

1.Learn about the work study method.

2. To explain the concept of Total Quality Management.

3.Introduce the students about the concept of production and operations management

4. To enable the student understand the new product design and its development

5.To describe the process of supply chain management.

• Organization Behavior

- 1. Knowledge about industrialization and various impacts of it on the economy.
- 2. Familiarization with the recent trends in wholesale and retail trade.
- 3.Knowledge about various concepts.
- 4.Skill to use as a practical tool fie trade.
- 5. Ability t think system about problems .

BBA 3rd YEAR

Financial Management :-

- 1. Develop an insight into management of finances of a company.
- 2. Understanding of various methods and techniques to estimate, reuse and incest the finances .
- 3.Knowledge to carious sources of finance available to businessmen these days.
- 4.Frmiliarzation with the concept of compounding and time value of money.
- 5.To Understanding the process of selecting investment projects.

Entrepreneurship and Small Business Management :-

- 1.Skill to become an entrepreneur.
- 2.Knowledge about the factors required t start as good entrepreneur.
- 3.Knowledge of financial and non financial assistance provided by government and various commercial banks.
- 4.Learn the ways to face challenges in the business .
- 5.To know about the various EDPs being organized by government.

Production Management :-

- 1. Knowledge regarding the application of total Quality management .
- 2. Familiarzation with the work study method and its importance.
- 3. Acquire skill in production and management .
- 4. To describe the process of supply chain management .

5. To introduce about the concept , new product design and development of production management .

Business Law :-

- 1.Knowledge regarding the relevance of various acts and their principal implication.
- 2.Understanding of the provision of various law relevant to the business .
- 3. Familization with the terminology of Acts under business law .
- 4.T explain the rules, provision, procedure and penalties given under acts.
- 5. Provides a brief idea about the Indian laws.

Management Information System :-

- 1.Students will be able to understand the leadership role of management Information system in achieving business competitive advantages through informed decision making .
- 2.Students will be able to analyze and synthesize business information and system to facilitate evaluation of strategic alternatives.
- 3.Students will be able to effectively Communicate strategic alternatives to facilitate decision making .

- 4. Students will be able to establish and understanding of the various techniques for system analysis and sending .
- 5.Students will be able to develop an understanding og the principles and techniques used in the system Development life cycle.

PC Software :-

- 1.Demonstrate a good understanding of various software used in business analytics and other related activities .
- 2.Develop and in depth understanding of how the statistical data is used using statistical software and spreadsheets.
- 3.Display a better understanding statistical tools and performing them using popular software like S{SS and MS Excel.
- 4. Analyzing data looking at different situations . Perform the multivariate stati.

Department Of English

UG Class: I, II and III.

Goals, Objectives and Learning Outcomes:

Course Outcomes:

By the end of this course students will be able to-

- 1. Students will heighten their awareness of correct usages of English Grammar in writing and speaking.
- 2. Students will improve their speaking abilities in English both in terms of fluency and comprehensibility.
- 3. Students will give oral presentations and receive feedback on their performances.
- 4. Students will improve their reading skills through extensive reading.

Reading Goals:

1. Write analytically and creatively that is to express ideas clearly and incisively in their writing in ways required both inside and outside of the academy.

To accomplish this goal a student will be able to-

- 1. Compose a well-constructed essay.
- 2. Utilise literary terminology, critical methods and various senses of interpretation in their writing.
- 3. Apply the rules of English Grammar.
- 4. Formatting and documenting conventions of our discipline.
- 5. Employ methods of active reading, including annotating, summarizing, questioning and synthesizing.

Course Objectives for Reading and Vocabulary:

- 1. To develop reading speed.
- 2. To build academic vocabulary.
- 3. To discuss and respond to context of the text orally and in writing.
- 4. To reflect on and evaluate learning and performance and set goals per progress.
- 5. To demonstrate behaviour and attitude appropriate college environment.

Student Learning Outcomes:

- 1. Student will attain and enhance competence in the four modes of literacy: Listening, Speaking, Reading and Writing.
- 2. Students will develop their ability as critical readers and writers.
- 3. Students will develop reading skills and reading speed.
- 4. Students will paraphrase information from outside sources effectively and accurately.
- 5. Students will write to academic essays in which they demonstrate their understanding of writing as a series of tasks.

Course Objectives writing and Grammar:

This course will develop student's ability to-

- 1. Students will build an elementary understanding of form, meaning and use in varied discourse settings.
- 2. Students will write sentences and paragraphs which use targeted grammar structures.
- 3. Students will edit their own and their classmates' sentences and paragraphs.
- 4. Students will use basic grammatical structures in short conversations and discussions.
- 5. Build academic vocabulary
- 6. Use pre writing strategies to specific topics.

Students Learning Outcomes:

Give writing prompt, the students will be able to-

- 1. Write a paragraph with a topic sentences, support and concluding sentences.
- 2. Write an effective introduction and conclusion.
- 3. Produce coherent and unified paragraph.
- 4. Produce a well organised academic energy.
- 5. Produce appropriate vocabulary and correct verb forms.

Listening:

Goal- Apply the skills and strategies of a successful listener.

Course Objectives for Listening-

This course will develop students' ability to-

- 1. Understanding the meaning of words, phrases and sentences in a context.
- 2. Following directions given orally.
- 3. Taking organised notes on lectures and listening passages.
- 4. Identifying speaker's purpose and tone.
- 5. Making inferences and predictions about spoken discourses.

Speaking:

Goal- Apply the skills and strategies of a successful speaker.

Course Objectives for Speaking and Oral Presentation:

This course will develop the students' ability to-

- 1. Pronouncing English Correctly and intelligibly.
- 2. Speaking intelligibly while making sentences, asking questions, reporting events, giving instructions and commands.
- 3. Putting ideas in proper sequences.
- 4. Describing accurately what He / She observes and experiences.
- 5. Discussing and responding to content of a reading and of a listening passage.

Students Learning Outcomes:

Give a topic to research and present in class, the students will be able to-

- 1. Focusing the topic.
- 2. Applying research procedures.

- 3. Locating and selecting relevant information.
- 4. Producing appropriate vocabulary.
- 5. Producing accurate grammatical form.
- 6. Giving an oral presentation in class using effective delivery strategies.

हिन्दी विभाग

कोर्स आउटकम

बी.बी.ए./बी.सी.ए./बी.ए./बी.एस.सी./बी.काॅम. - भाग - 1 हिन्दी भाषा आधार पाठ्यक्रम

1^v प्रथम वर्ष के विद्यार्थी हिन्दी भाषा में आधार पाठ्यक्रम में प्रथम इकाई मं पल्लवन ए पत्राचार ए पारिभाषिक शब्दावली और अनुवाद के बारे में सीखेंगे।

2^v दूसरी इकाई में शद ए वाक्य ए शुद्धि ए पर्यायवाची ए विलोम ए अनेकार्थी ए अनेक शब्दों के एक शब्द और सामाजिक जीवन में प्रयोग होने वाले मुहावरों ए लोकोक्तियों के बारे में पढ़ेंगे।

3^{*v*} तीसरी इकाई में देवनागरी लिपि क्या है **ए** इसकी विशेषताएं एवं वर्तनी का मानक रूप के महत्व के बारे में सीखेंगे।

4^v चैथी इकाई में विद्यार्थी कम्प्युटर में हिन्द के अनुप्रयोग करना सीखेंगे और हिन्दी में पदनाम के बारे में पढ़ेंगे।

5ण पाँचवीं इकाई में अपठित ए संक्षेपण के बारे में सीखेंगे।

बी.बी.ए./बी.सी.ए./बी.ए./बी.एस.सी./बी.काॅम. - भाग - 2 हिन्दी भाषा आधार पाठ्यक्रम

1^ए द्वितीय वर्ष में खंड ''क'' में विभिन्न लेखकों के निबंध जैसे - महात्मा गांधी जी द्वारा लिखा गया निबंध 'सत्य और अहिंसा' **ए** विनोबा भावे (ग्राम सेवा) **ए** आचार्य नरेन्द्र देव (युवकों का समाज में स्थान) **ए** हरी ठाकुर (डाॅ. खूबचंद बघेल) **ए** वसुदेव शरण अग्रवाल (मातृभूमि) **ए** भगवत शरण उपाध्याय (हिमाल की व्युत्पत्ति) आदि पढ़ेंगे।

2^ण खंड 'ख' हिन्दी भाषा और उसके विविध रूप जैसे कार्यालयीन भाषा*ए* मीडिया की भाषा*ए* वित्त एवं वाणिज्य की भाषा*ए* मषीन की भाषा के विषय में विस्तार से अध्ययन करके इसके महत्व को जानेंगे।

3ण खंड 'ग' में संज्ञा ए सर्वनाम ए विषेषण ए क्रिया विषेषण ए समास ए संधि एवं संक्षिप्तियां पढ़ेंगे। बी.बी.ए./बी.सी.ए./बी.ए./बी.एस.सी./बी.काॅम. - भाग - *3* हिन्दी भाषा आधार पाठ्यक्रम

1^v तृतीय वर्ष में विद्यार्थी सुमित्रानंदन पंत द्वारा लिखित कविता "भारत माता" के बारे में पढ़ेंगे। परषुराम की प्रतिक्षा ए रामधारी सिंह दिनकर ए बहुत बड़ा सवाल ए मोहन राकेष का नाटक ए कथन की शैलियों के बारे में पढेंगे।

2ण विकासषील देषों की समस्याओं ए प्रोद्योगिकी एवं नगरीकरण का अध्यन करेंगे।

3ण पर्यावरण प्रदूषण और धारणीय विकास एवं कार्यालयीन पत्र के महत्व की जानकारी प्राप्त करेंगे।

4^v भारत के संदर्भ गरीबी तथा बेरोजगारी के प्रकारों के बारे में जानकारी प्राप्त करेंगे और इन्हें दूर करने के प्रयासों के बारे में पढेगे।

5ण अनुवाद करने और अनुवादक के गुणों के बारे में सीखेंगे।

6^ψ ऊर्जा के अर्थ व महत्व के बारे में सीखेंगे तथा घटनाओं **ए** समारोहों आदि का प्रतिवेदन और विभिन्न प्रकार के निमंत्रण पत्रों को लिखना सीखेंगे।

बी.ए. हिन्दी साहित्य भाग-*1*

प्रथम प्रष्न पत्र - प्राचीन हिन्दी काव्य

प्रथम वर्ष के छात्रों के लिए प्रथम प्रष्न पत्र प्राचीन हिन्दी काव्य के अंतर्गत पांच कवियों को पाठ्यक्रम में समाहित किया गया है जिनमें कबीर **ए** जायसी **ए** सूरदास **ए** तुलसीदास एवं धनानंद एवं दु्रत पठन के कवियों मंें विद्यापति **ए** रहीम **ए** रसखान हैं। इन कवियों की कविताएं आज भी संजीवनी बुटी के समान है जो छात्र-छात्राओं में सामाजिक चेतना जागृत कर सकता है। यह पाठ्य सामग्री छात्र-छात्राओं को समाज की नमी धारा से जोड़ने की दिषा में कार्य करेगा एवं उने भीतर की क्षमताओं को गति प्रदान करेगा।

द्वितीय प्रष्न पत्र - हिन्दी कथा साहित्य

प्रथम वर्ष छात्रों के लिए द्वितीय प्रष्न पत्र हिन्दी कथा साहित्य के अंतर्गत आठ कहानियों को सम्मिलित किया गया है जिनमंे प्रसाद ए प्रेमचंद ए यषपाल ए रेणु ए मोहन राकेष ए भीष्म साहनी ए राजेन्द्र यादव ए रागेय राघव की कहानियों को पाठ्यक्रम में स्थान दिया गया है। इनकी कहानियां साधारण मनुष्य को जातिधर्म से लेकर मानवीय समस्याओं के निदान का सबसे सुगम मार्ग प्रषस्त करती है।

बी.ए. हिन्दी साहित्य भाग-*2*

प्रथम पत्र प्रष्न - अर्वाचीन हिन्दी काव्य

बी.ए. भाग दो के छात्र-छात्राओं के लिए निर्धारित किये गये पाठ्रयक्रम में आठ कवियों को स्थान दिया गया है जिनमें मैथिलषरण गुप्त **ए** निराला **ए** पंत **ए** माखन लाल चतुर्वेदी **ए** अज्ञेय हरिऔध **ए** सुभद्रा कुमारी चैहान **ए** श्रीकांत वर्मा की कविताएं हैं। इन कविताओं में ''मनुष्य की मुक्ति'' की तरह'' कविता की मुक्ति के आधारभूत प्रत्यय खोजे गये हैं। छात्र-छात्राओं के लिए अर्वाचीन हिन्दी कविता आत्म परिस्कार और आत्म संघर्ष का भरापूरा संसार अर्जित करने का मार्ग प्रषस्त करती है।

द्वितीय प्रष्न पत्र - गद्य रंग

इस द्वितीय पत्र के अंतर्गत नाटक **ए** एकांकी और निबंधों को पाठ्यक्रम में रखा गया है। छात्रों के दृष्टिकोण से पाठ्यक्रम में शामिल किये गये नाठक **ए** एकांकी एवं निबंध प्रासांगिक हैं इनका अध्ययन करने के पश्चात छात्रों मे ंसमाज के प्रति कर्तव्य बोध की भावना जागृत होगी तथा समाज को देखने की दृष्टि में परिवर्तन आयेगा।

बी.ए. हिन्दी साहित्य भाग - **3**

प्रथम प्रष्न पत्र - जनपदीय भाषा (छत्तीसगढ़ी)

बी.ए. अंतिम हिन्दी साहित्य के प्रष्न पत्र के अंतर्गत पांच रचनाकारों को सम्मिलित किया गया है जिनमें संत धर्मदास **ए** लखनलाल गुप्त **ए** सत्यभामा आडिल **ए** विनय कुमार पाठक **ए** मुकुन्द कौषल हं। दुरत पठन के अंतर्गत सुन्दरलाल शर्मा रामचन्द्र देषमुख **ए** कपिलनाथ कष्यप् हैं। इन रचनाकारों की रचनायें छात्रांे में छ.ग. के प्रति अगाध समर्पण और माटी की सोंधी महक को प्रतिबिंबित करते हुये उनके मन को परिष्कृत कर प्रेम को जागृत करती है जिसके कारण उनमें अपने अंचल के रचनाकारों को जानने का अवसर प्राप्त होता है। इस प्रष्न पत्र के अंतर्गत छात्र हिन्दी भाषा का उदय और विकास के विभिन्न क्षेत्रों का अध्ययन करेंगे साथ ही हिन्दी साहित्य के इतिहास का गम्भीर अध्ययन करते हुए काव्य के स्वरूप एवं प्रयोजन तथा व्याकरणिक भाग के विभिन्न पहलुओं की जानकारियां प्राप्त करेंगे। इस पाठ्यक्रम के माध्यम से छात्र-छात्राओं के भाषायी एवं व्याकरिणक दृष्टि परिस्कृत होगी और भाषा पर अधिकार प्राप्त कर सकेंगे।

स्नातक/एम.ए. हिन्दी प्रथम सेमेस्टर

प्रथम प्रष्न पत्र ''हिन्दी साहित्य का इतिहास''

हिन्दी साहित्य का इतिहास साहित्य की आधारषिला है। इसके द्वारा हिन्दी साहित्य के उद्भव एवं विकास **ए** युगीन सामाजिक **ए** आर्थिक **ए** धार्मिक एवं साहित्यक पारिस्थितियों की जानकारी प्राप्त होती है। छात्र-छात्राओं को प्रारंभिक ज्ञान होना बहुत आवष्यक है इसलिए आदिकाल से आधुनिक काल का संपूर्ण अध्ययन इसके अंतर्गत किया जाता है।

द्वितीय प्रष्न पत्र

प्राचीन एवं मध्यकालीन काव्य में आदिकाल भक्तिकाल एवं रीतिकाल की काव्य प्रवृत्तियों एवं विद्यापति ए कबीरदास ए मालिक मोहम्मद जायसी ए सूरदास ए तुलसीदास ए बिहारी ए घनानंद ए जैसे प्रर्वतक कवियों की रचनाओं से विद्यार्थियोंको अवगत कराना ।

तृतीय प्रष्न पत्र - आधुनिक गद्य साहित्य नाटक एवं निबंध

इस प्रष्न पत्र के अंतर्गत जयषंकर प्रसाद **ए** मोहन राकेष **ए** आचार्य रामचन्द्र शुक्ल **ए** परसाई **ए** भारतेन्दु हरिषचंद्र **ए** धर्मवीर भारती आदि साहित्यकारों के व्यक्तित्व एवं कृतित्व से छात्र-छात्रों को परिचित कराना एवं उनके रचनाओं में स्थित सामाजिक समरसता को अभिव्यक्त करना मुख्य उद्देष्य है।

चतुर्थ प्रष्न पत्र - भाषा विज्ञान

हिन्दी भाषा एवं भाषा विज्ञान के विविध रूपों अंगों तथा शाखाओं का परिचय देना एवं भारतीय आर्य भाषाओं के विकासक्रम की सही जानकारी प्रदान करना इस प्रष्न पत्र का ध्येय

है।

एम.ए. हिन्दी द्वितीय सेमेस्टर

प्रथम प्रष्न पत्र

हिन्दी साहित्य का इतिहास (आधुनिक काल) हिन्दी साहित्य के इतिहास के द्वारा छात्र-छात्राओं में साहित्य सृजनषीलता के विविध रूपों को विकसित करना एवं इतिहास के प्रति बोध को जागृत करना ही मुख्य उद्देष्य है।

द्वितीय प्रष्न पत्र - मध्यकालीन काव्य

इस पाठ्यक्रम के द्वारा छात्र-छात्राओं में मध्यकालीन काव्य के प्रति कलात्मक अभिव्यंजना को व्यक्त करवाना ही प्रमुख उद्देष्य है।

तृतीय प्रष्न पत्र - आधुनिक गद्य साहित्य (उपन्यास एवं कहानी)

इस पाठ्यक्रम के द्वारा छात्र-छात्राओं में उपन्यास एवं कहानी के प्रति अभिरूचि उत्पन्न करना साथ ही मनुष्य के मन के भीतर दिये मनोवैज्ञानिक धारणाआंे को अभिव्यक्त करना तथा मूल्यांकन क्षमता विकसित करना है।

चतुर्थ प्रष्न पत्र - हिन्दी भाषा

इस प्रष्न पत्र के अंतर्गत भाषा के वैज्ञानिक आधार को स्पष्ट करते हुए उसके ऐतिहासिक पृष्ठभूमि का वर्णन करना एवं हिन्दी की स्वनिम व्यवस्था को जानने की क्षमता विकसित करना मुख्य कार्य है।

एम.ए. हिन्द तृतीय सेमेस्टर

प्रथम प्रष्न पत्र - भारतीय काव्यषास्त्र

यह पाठ्यक्रम छात्रों में भारतीय साहित्य में दिये हुए रहस्यों को जानने की प्रेरणा देता है तथा साहित्य के सांस्कृतिक बोध से परिचय करवाता है।

द्वितीय प्रष्न पत्र - आधुनिक काव्य

आधुनिक काव्य के माध्यम से छात्र-छात्राओं को आधुनिक काव्य की विषेषताओं से परिचय करना एवं विकास क्रम को बताना एवं आधुनिक युग के कवियों उनके रचनाओं से अवगत कराना है। छात्र-छात्राओं में संवेदना तथा ज्ञान क्षितिज के विस्तार के लिए इस पाठ्यक्रम का अध्ययन अत्यंत आवष्यक एवं प्रसांगिक है।

तृतीय प्रष्न पत्र - प्रयोजन मूलक हिन्दी

इस पाठ्यक्रम के द्वारा जीवन और समाज की विभिन्न आवष्यकताओं और दायित्वों के पूर्ति हेतु विभिन्न व्यवहार क्षेत्रांे में उपयोग की जाने वाली भाषा के माध्यम से रोजगार प्राप्त करने की संभावनाओं को तलाष करना ही मुख्य उद्देष्य है।

चतुर्थ प्रष्न पत्र - भारतीय साहित्य

इस पाठ्यक्रम के द्वारा छात्रों को भारतीय साहित्य के अखिल भारतीय परिप्रेक्ष्य से अवगत कराना है। हिंदीतर भाषाओं के साहित्य का स्थूल परिचय देना एवं हिन्दी मेें अनुदित साहित्य का परिचय देते हुए उसमें व्यक्त भारतीयता की पहचान कराना है।

एम.ए. हिन्दी चतुर्थ सेमेस्टर

प्रथम प्रष्न पत्र - पाष्चात्य काव्य शास्त्र

इस पाठ्यक्रम के माध्यम से छात्र-छात्राओं में रचना के वैषिष्टय एवं मूल्य बोध के उद्घाटन के लिए काव्यषास्त्र का ज्ञान अपरिहार्य है। इनसे छात्रों में साहित्य समज्ञ विकसित होती है। साथ ही वह सूक्ष्य दृष्टि मिलती है जिसके आधार पर साहित्य के मर्म और मूल्य की वास्तविक परख की जा सके।

द्वितीय प्रष्न पत्र - छायावादेत्तर काव्य

छात्रों को छायावादेत्तर हिन्दी काव्य की प्रवृत्तियों का परिचय कराते हुए उसके विकास क्रम एवं तात्कालिक स्वरूप का मूल्यांकन कराना है।

तृतीय प्रष्न पत्र- पत्रकारिता

इस पाठ्यक्रम के द्वारा छात्रों मे समाज में हो रहे सामाजिक बदलावों को अवगत कराना एवं नवीन दृष्टि विकसित करना है।

चतुर्थ प्रष्न पत्र - लोक साहित्य एवं छत्तीसगढ़ी भाषा

इस प्रष्न पत्र के माध्यम से छात्र-छात्राओं को हिन्दी जगत में विद्यमान विभाषाओं में अमूलू लोक साहित्य संपदा का अध्यापन करना है।

DEPARTMENT OF POLITICAL SCIENCE:-

Program offered :-3 Years Degree Programme

Name of the class – B.A.

Duration and pattern :- 3 years

Degree course with annual examination pattern.

Program outcome –Bachelor of Arts (B.A)

- 1. To develop writing, teaching and presentation skill.
- 2. To promote group activities, team work and social values.
- 3. To motivate the students for being an active learner.
- 4. To gain the ability to assess the statistical arguments and thus, the analytical skills.
- 5. Ability to work on political case studies and engage with social and political problems.
- 6. Ability to gather information and organize as per the purpose.
- 7. It allows to think creatively and critically.

Class-B.A.(UG)

Subject- Political Science

Introduction to Political Science

Program specific outcome :-

1. The study of political science students are excepted to develop critical thinking and arguments.

2.Study of political systems around the world will not give knowledge but will also trained the students towards comparative approaches and methods.

3.Learning the fundamental of Indian government and politics is important for Indian students and has a job prospect particularly in civil services and other competitive examinations.

4.Students will have an understanding on the international political system as it and as ought to be.

5.By studying organizational and administrative behaviour is public administration students are expected to acquire leadership and management skills.

6. The study of human rights will empower students to stand for the protection and promotion of basic human rights and thus contribute to national and international peace.

7.Students will learn the principles of equality and think for the equal participation of women in political system.

8.Students will have understanding of India's bilateral relationship with other countries as well as the country's role in global political regimes.

Course outcome of Political Science:-

B.A. I year :--political science; Political theory (concepts, theories, institution)

1. To understand the nature and scope of Political theory.

2.To understand significance of political theory.

3.To acquaint with the theories approach concept and principles of political theory.

4.To Interpret assess information regarding variety of political theory.

5.To understand the various traditional and modern theories of Political science.

6.To evaluate the theories of origin of the state.

7.To comprehend the sources of political information.

Political Theory:-

1.To understand the concept of state, nation and civil society.

2.To understand the elements and factors of state and nation.

3.To know about the meaning sovereignty, type and characteristics.

4. To analyze critically the theories of monism and pluralism .

5.To learn the origin of the concepts such as Law, power, authority and legitimacy.

6. To analyze the meaning of organs of government and theory of separation of power.

B.A.II YEAR:- (Indian Government and Politics)(Government and politics)

1.To understand the philosophy of Indian constitutions.

2. To identify the cause, impact of British Colonial rule.

3.To appreciate the various phase of Indian national movement.

4. To understand the various Government of Indian acts their provision and reforms.

5.To know the salient features in making of Indian constitution.

6. To appreciate the fundamental rights and duties and the directive principle of state policy.

B.A.III YEAR:-(political theory Ancient and Medieval political thought)

1.To demonstrate knowledge of key thinkers and concepts.

2.To understand the nature, methods and significance of political thought.

3.To analyze the theory of ancient and medieval political thought of Greek and India.

4.To understand the relationship between religion and politics in early modern western political thought.

5.To acquire knowledge about modern political thinkers and theirs view on state craft.

6.To appreciate the concept liberty representative government.

7.To thoroughly compare the democratic revolution and creation of civil society.

B.A.III YEAR:-(International relation)

To understand the evolution, scope and significance of international relation and the rise of sovereign state system.

1. To analyze the history of international relational through the cause and phases of colonialism.

2.To criticize the various ideologies which lead to the destruction of world.

3.To understand the international policy economy.

4.To understand the emerging area in international relations.

5.To appreciate the foreign policy their determinants features and its revelance.

6.To identify various issues and challenges towards international relations.

7.To learn about issues of diversity and internationalism

DEPARTMENT OF SOCIOLOGY

<u>**Courses Offered**</u> - 3 year degree program of Bachelor of Art's (B.A.) with annual examination pattern.

Program Outcome- Bachelor of Arts (B.A.)

- To develop Scientific temperament.
- To develop critical thinking.
- To build confidence, better communication skills and creativity
- To enrich the problem solving capability and understanding of concept herein.
- To develop writing, teaching and presentation skills.
- To promote group activities, team work, social values.
- To motivate the students for being an active learner.
- To familiar with ethical approaches within concerned subjects and make them a good citizen.

Class- B.A.-I

Subject-Sociology-I

Introduction to Sociology

Program specific outcome:-

• Acquaintance with social Transactions social Relations, Social formation, Social control, social value and culture.

• Knowing the signification of social institution caste system Religion, Nationalism integrity equality and justice.

- Getting the knowledge of the work of social reforms all over the nations.
- Ability to follow new stream of though and theories of social thinkers.
- Getting the deep knowledge about various social groups like tribal community woman bulk etc.
- Ability to deal with research in sociology.

Course Outcomes

By the end of the course students will be able to reflect on following concepts

1. The meaning of sociology- The sociological perspective sociology and social science the basic concept, society, community, institution association, group social structure, status and Role.

2. Institution family and kinship the religion, education, politics, the individual and society culture and socialization.

3. Social stratification and mobility meaning forms and theories.

4. Social change- meaning and type evolution and progress factor of social change.

5. The use of sociology introduction to applied sociology and social problem and social change the development of sociology and profession

Class- B.A.-I

Subject-Sociology-II

Contemporary Indian Society

Program specific outcome:-

• Introduction to the basic concept of sociology subject matter and importance of sociology and origin and development of sociology.

- Understanding in brief the knowledge of human society and sociology.
- Introduction to the various scientific methods in the students.
- Understanding various segment and unity of the Indian society.
- Understanding the social aspects of tribes in India.
- Introduction the Indian rural social structure.

• Understanding the nature of village studies conduct by different audiology given by various Indian sociologists.

• Understanding the economic and developmental of tribes in India.

Course Outcomes

By the end of the course students will be able to reflect on following concepts

1. View about Indian society – The classical view Varna, Ashram, Karma and Dharma, field view M.N.Shriniwas and S.C.Dubey.

2. The structure and composition of Indian society village, town, cities and Rural Urban tribes Dalits, woman and minorities.

3. Basic institution of Indian society caste system kinship, family marriage, changing dimension.

4. Family problem Dowry, domestic violence, divorce, conflict problems of elderly.

5. Social problems- surrogate motherhood, leave in relationship, castism, Regilionlism, Communalism, corruption, youth unrest.

Class- B.A.-II

Program specific outcome:-

• Introduction to the basic concept of sociology subject matter and importance of sociology and origin and development of sociology.

- Understanding in brief the knowledge of human society and sociology.
- Introduction to the various scientific methods in the students.
- Understanding various segment and unity of the Indian society.
- Understanding the social aspects of tribes in India.
- Introduction the Indian ruler social structure.

• Understanding the nature of village studies conduct by different audiology given by various Indian sociologists.

• Understanding the economic and developmental of tribes in India.

Course Outcomes

Paper 1 – Sociology of Tribal Society

Students will show knowledge on-

- 1. Tribes and Caste
- 2. Classification of tribal people
- 3. sociocultural profile of tribal society
- 4. Tribal sensitization
- 5. Problems of tribal people.

Paper – 2 Crime and Society

1. Conception and type of crime yearly explanation classical, positive, physiological.

2. Social structure and anomic, suicide organized crime, white color, cases terrorism.

3. Indian social problem- nature of social change and crime in India, social disorient an Alcoholism, Drug Addiction, beggary.

4. Correctional process- Role of police and judiciary in India, Development of jail reform in India sociology of prison.

5. Punishment- Objectives and forms major theories of punishment, modern correctional concept, probation, parole, open prison.

Class- B.A.-III

Program specify outcome

- To familiarize the students with the social political economic and intellectual context's in which sociology emerged as a distinctive discipline.
- To understand the development of sociological thought.
- Understand their Continuing relevance to contemporary concerns.
- To introduce students to the nature of scientific method in social science research.
- To give students the understanding about the quantitative and qualitative approach to research.
- To enhance the research interests and inculcate the spirit of enquiry among students who maybe motivated to countnue higher studies in research.

Course Outcomes

Paper 1 – Foundation of Sociological Thought

Students will show knowledge on-

- 1. August Comte: The Law of Three Stages, Positivism, Hierarchy of Science.
- 2. Karl Marx : Dialectic Materialism, Class Struggle and Surplus Value Max Weber : Bureau, Authority and the Protestant Ethic and the Spirit of Capitalism.
- 3. Pareto- Circuation of Elits and Logical and Non-logical Action. Spencer- Social Darwinism, Superorganic Group.
- 4. Thorstein Veblen- The Theory of Leisure Class, Theory of Social Change. R.K. Morton- Functionalism and Reference Group.
- Development of Sociological Though in India : Mahatma Gandhi -Ahimsa, Satya Graha and Trusteeship. Radha Kamal Mukherjee : The Concept of Value.

Paper 2 Social Research Methods

Students will be able to know research in sociology-

- 1. Meaning and significance of research.
- 2. Hypothesis formation.
- 3. Scientific methods.
- 4. Types of research.
- 5. Technique and Data Collection.
- 6. Representation and analysis of data .

PROGRAMME HISTORY

B.A. 1st Year

Programme Outcomes:

PO1. Student will learn basic narrative of historical events, chronology, personalities and turning points of the history of the India, World and Punjab.

PO2. Build critical ability through competing interpretations and multiple narratives of the past, offer multi-causal explanations of major historical developments based on contextualized analysis of interrelated political, social, economic, cultural and intellectual processes.

PO3. Evaluation of historical ideas, arguments and points of view, presentation of summary of topic are organized in orally.

PO4. Students will acquire basic historical research skills, including, effective use of libraries, archives, and databases.

PO5. Understand background of the religions, customs, institutions and administration and so on.

PO6. By analyzing relationship between the past and the present students will understand the social, political, religious and economic conditions of the people. She/he will be capable of leading and participate in discussion.

Specific Programme Outcomes (SPO)

- Study of history helps to impart moral and environmental education. History develops a feeling of patriotism in the hearts of the pupils.
- Students will be able to do higher education in the field of history.
- Students will be able to develop their knowledge about history of India
- Students will be able to understand Indus valley civilization, Vedic civilization and Vedic literature.
- Knowledge gained about condition of north India during 6th century B. C. and rise of new religions.
- Students will be able to understand the Mauryan Empire, Gupta dynasty and Vardhana Empire.
- To enable the students to know the basic of world history.
- To understand the concept of techniques of the different type of world events.
- To provide knowledge about leadership and relationship between different aspect of world history.

B.A 2nd Year

- Through compeletion of a combination of courses, students become familiar with the political process and structures, society and culture, political ideas, economy and society in india, Sultanat and mugal Empire.
- Students will be able to understand Khilji imperialism and Rise of Thuglaq.
- Students will be able to understand the world history.
- Knowledge gained about china, Russia, japan and their reforme of strength and power.
- Students will be able to understand the 18th century world.
- Studenty will be able to understand the 20th century world
- Knowledge gained about tge 1st world war, 1st world war and their relation ship between their issues of different aspect.
- Enable the students to know about the important of world history and their basics.

B.A 3rd Year

- Knowledge gained about the colonial history and administrative part of Indian history.
- Student will be able to understand the foundation of British Empire, Impact of their rule on India.
- Students will be able to understand the advent of a Chhattisgarh concept and develop their knowledge of competitive example
- Student will realize the sacrifices of our leaders.
- Knowledge gained about the history of Indian Independences movement.
- Acquisition of knowledge about imperialistic policies of the British rule.
- Students will be able to understand the various social reforms initiated in india.
- Enable the students to estimate the role of Indian leaders in liberating mother india from alien rule.
- Acquired Knowledge in the depth about Democracy and popular rights.
- Students will be able to estimate the political thoughts of mahatma Gandhi in Indian politics
- Enable the learner aware the Indian politics of india citizen.

Department of Geography Programme Outcome of M.A./B.A. Geography

Geography is an interdisciplinary Field involving the natural and physical Science and mathematics. A degree in Geography prepares studies for many different career parts. If you majored in geography. You can pursue careers in the areas of politics, business, education and more.

Geography is the scientific study of the earth's physical features and how human effect and are affected by these fealiours. A Geography degree teaches you about the natural and physical and mathematical skill. Geography Course also teach students how to study, interpret and Create maps. Students who receive degree in geography have the ability towork in many different fields of research, planning and consulting, using their knowledge of geography to collect andanalyze data

The Studies/ knowledge of geography enables the student tocater their services in different Sectors such as -

1. <u>Park Ranger –</u> Park Rangers patrol outdoor areas like parks, came grounds and wildlife reserves in order to protect the natural environment and the people who visit : they may be responsible for conducting tours keeping areas clean, enforcing rules and assisting with search and rescue mission.

2. <u>Teachers</u> – A Teacher who specialized in geography teaches students about the environment and the physical formations of the earth. They many also focus of topic likes climate change and environmental preservation. Teacher is responsible for planning lesson, conducting class and gradingassignments.

3. <u>Surveyor –</u> A surveyor measure properties to determine boundaries during the building planning process. They assist engineers, construction workers and map makers by provoding accurate measurement and data.

4. <u>Geosptical analyst</u> – Geospatial analysts analyze Geographical data and translate if in to digital format. They process this information to determine what the key features of a land area and what changes have occurred in an area over time.

5. <u>Computer programmer –</u> Computer Programmers design new Software and creates it by writing code. They also update and improve existing software and provide cyber security for programs or companies.

6. <u>Travel Writer</u> – Travel writer create content for blogs, journals, newspapers and other publication about topics related to travel. Travel writers many write about a specific region, or they may travel to different countries and continents in order to write about this location they maywrite guide, profiles, and reviews for hotal and attraction in different place.

7. <u>Market researcher –</u> Market researchers collect and analyze data to help companies for informed and profitable decisions for their employers and clients. They study factors like consumer opinions, competition and current market

trends to build an understanding of the market and what can benefit the company they are conducting research for.

8. <u>Librarian</u> – Librarians collect and categories library resources according to a structured system. They answer, question, locate information an issue books and other resources to people.

9. <u>Real estate Appraises –</u> A real estate appraises evaluates building and land using knowledge of the market and geogrphical factors to determine value they wok with cline to appraise building and land that are about to be sold leased developed or toyed.

10. <u>Transportation manager</u> <u>-</u>transportation manages plane and supervise shipments to ensure that are completed safely quickly and economically. They manage team of transportalien workers and track shipments to determine their travel time and arrival.

11.<u>Gls specialist</u> – Geographical informal insisted (GLS) specialist create and manila in GLS delegates in specific chilliest owner other areas the collect analyze geospaliy date collectively date and develop man.

12. <u>Geopolitical analysis</u> – A geological analyst – researches the political system – of different geographical regions they travel of deterrent areas and observe current events and political and economic trend. Geographical analysts report their filching to policymakers and provide guidance to international based on their research.

13.<u>Landscape architect –</u> Landscape architect use theirknowledge of design and the natural world to create outdoor space like park playground .campus guldens and other public place. They measure and equalize spaces and crealidesingdigital soft work.

14. <u>Urbans planner</u> – urban planners evaluate land and creel place for residential and public development they analyze a community or regions needs and current structure and layoutto determine what best use of this land is or to improve the are current layout .

15.<u>Emergency manager</u> – Emergency managers creat place tohelp regions prepare for and respond natural disaslers. They collaborate with community Leaders and public safely officials to – keep people safe during emergencies and assist people and to won after disasters have occurred.

16.<u>Enviromental scientist</u> – An environmental scientist conducts research to prevent or eliminate dangers to theenvironments or public health like air or wales pollution they develop plans and work with policymakers to pass legislation that can keep there community and environment sate

17. <u>Cartographer</u> –Cartographers are responsible for making map. They research – arising conducted for map. They also use mathematical skills and compiles programs to – ensure the accuracy of their map .

18. <u>Enuivonmental conultants</u> – Environmental - consultants work with comparing to provide advice about their contribution to environmental – issues. They help companies minimize their impact by developing proper waste disposal and sustainable energy indicative on how to handle environmental challenge.

19. <u>Economicsconsutant</u> – Economics consultants conduct research financial political and socioeconomic influences to determine how company can improve they use their research economic problems and creative plans to address economic problems that a company is facile.

20. <u>Geographer –</u> Geographers studs the features and structures of the earth to compile date that can be used for GLS and planning purpose .s

Course Outcomes (B.A.Part -1 Geography) –<u>Paper – I physical Geography -</u>

physical Geography include study of lithosphere Atmosphere Hydrosphere and Biosphere each elements isvery important for human being.

<u>paper - 2. Human geography -</u>

twman geography include study of man – environment relationship laud lids maw manrope – environment – to the environment world population and distribution pattern ling ration . the – importance of human geography is its abilitythe – earth in ways that allow us to better understand how human can create amount sustainable plant.

3. <u>B.A. Part. 2. paper – Economic and Renounce geography</u> – Economic geography occupation development level industrial align man occupation development level industrial develops and economics development of world and countries . minerals and their mining power resources – conservation and conservation police is done .

B.A. part 2 paper 2 .Geography of india -

through this subject are introduced to the current situation of India climbable soil as will as cultured, socio – demographic and industry agriculture seminally under this subject the physical structure and of India are studies .

B.A. part 3.Paper .1 .remote sensing . and (GIS) geographicinformation system.

In this subject study of remote sensing geographic information system .the advantage of remote sensing include the ability of - collect information over large special arecas . - A geographically information system is a computer system for cam luring storing. Checking and displaying data relations poisons on earth surtace .

B.A.part .3 paper II - geography of Chhattisgarh

the physical cluliral economical .and social – demographical in studies under the geography of Chhattisgarh. and this subject study of agriculture occupation and trade – transform are specially studies.

M. A. first semester - geography - geomorphology (paper -I)

Geography logy the study of land- forms and landforms evolution. The topic traditionally has been studied both qualitatively which is .process based and describes force acting on are face to produce land form and form change.

Paper . 2 an climatology –

climatology is the scientific as weather of earth is climate typically defend as weather condition averaged over a period of at last 30 years. This modern fiend of study is regards as a branch of the atmosphere sciences and a sub field of physical geography which is on of earth since .

Paper .3 . Evolution of geographyical thought -

in this subject slid of geographical thought – its ideas and knowledge from the earth Greek period to modern temporary geography . presenting an introduction to philosophy him story and methodology of geography . and in this subject also study. Contribution of the modern Geographers in geographical field .

IV – geography of India –

geography of India . on Indian geography including major section drainage system of India .

V. practical geography –

Instrumental survey – the main surveying in instrumental in use around the world are the plain table prismatic compass. Theodolite dumpy level .most instrument screw on to a tripod when in use land survey - in is the technique profession art and science of determine the terrestrial two – dimensional three climentional positions of point and the distance angles between then.

M.A. Geography second semester –

1. <u>papar 1 Applied geography</u> – Applied geography is the application of – geographic knowledge and skills indentify thenature and cause social economics environmental problems and inform polies which land to their resolution

2. <u>paper II Oceanography</u> –oceanography it is a important earth science which cover a wind range of topics including ecosystem dynamic ocean aired waves tides main biological environmental food and animal resources of sea and also read in the subject impact of human on the marine – environment and major ocean rout of the world.

3. <u>papar III</u>. <u>Geographical methodology</u> – in this subject it is read that quantitative revolution in geography analysis law theories and model use of model resent trade in geography.</u>

4. <u>paper IV geography of Chhattisgarh-</u> in this subject it is read that the aim of the student with micro region of the country to prepare the student for understanding Chhattisgarh region as a dynamic entity emerging arm the in traction of the physical and regional structure over time

Paper V. practical – cartography – to apprise the student with last trend s in the development

of cartography as a tool in mapping the malice and quantitative data to facilitate spatial - analysis to enhance the understand the basic.

M.A.3 semester geography -

<u>paper – 1. rural settlement Geography –</u> the course are to motivate the students – to understand the growth and evolution of rural. To recognize and analysis the distribution patterns morphology and function of rural settlement

analysis and suggest rural settlement plying of India and examine areas of India .

<u>Paper 2. Geography of resource</u> –resource geography many thus be defined as the study of the distribution as characteristic of resource . which distinguish one region from another which interest focused on utilization evaluation conservation and management of resources in relent to environment

<u>Paper – 3 Regional planning of development –</u> regional planning deals with the efficient placement of land use acolytes in constructur lire and settlement ground across a larger area of land the an individual city and town .to under stand and evaluate the concept of regional geographic and its role in .planning the identify the issues relation to the development of the region through the process of specialorganization the identify the cause of regional disparities in development . perspectives and policy improvements .

Paper IV.population geography (with specialreference of world).

In this subject it read that introduction to population geography and their development population structure of world population composition population dynamic measurement population and resource development

.population grow witch density

Paper V practical - special technique and field survey . -

in this subject it is read that : correction and probabilitytypo her and chicest and field survey micro region basis physical socioeconomic survey about project report –

M.A. fourth semester (geography)

population geography (paper I) witch special reference of India-

population geography real especial variation in the distribution composition migration and growth of population to the terrain population geography involves demography in a geography.

<u>Paper II urban geography</u> – urban geography is the sub disclaims of – geography the derives form as study of collies and urban processes .urban geography and urban process various aspect of to urban hi few and the built environment . scholars activists – and the public have participated in studied and critiqued flows of economic and natured resources .

<u>Paper III Agricultural geography</u>. –agriculture geography is a sub- discipline of human geography concerned with the special relationship found between agriculture and human.
That is the study of the phenomenon's. And effects that ledto the motion the earth is to surface in different region .

<u>Paper – IV resource conservation management . –</u>

students will develop an understanding and appreciation for miss our natural resource system and conservation management students will analyze and comprehend forest management practices stream and waler management grassland conservation humbles education and fisheries and wildlife management.

Practical geography – V paper –

Advanced Cartography – Taught under this course thematic camp geological map remote sensing GIS computercartography's A thematic map is a type of map that portrays that geographic palter of a particular subject matter in a geographic area geological map is special purpose map mod to geological teachers rock units or geologic strata are shown by colour symbol . remote sensing is the acquisition of information about an an object phenomena without making physical contact with the object in contrast to in situ on observation GIS is a computer system that an laze and displays geographically referenced information.

BACHLOR OF EDUCATION

PROGRAMME OUTCOMES:

1.Teaching competency: Know, select and use of learner-centered teaching methods, understanding of paradigm shift in conceptualizing disciplinary knowledge in school curriculum, necessary competencies for organizing learning experiences, select and use of appropriate assessment strategies for facilitating learning.

2. Pedagogical skills: Applying teaching skills and dealing with classroom problems.

3. Teaching through Non-conventional Modes: Evolving a system of education which enhances the potential of every learner to acquire, retain and transform knowledge leading to wisdom society through creative, experiential and joyful modes of learning.

4. Critical Thinking: Analysis of Curriculum, construction of blue print, selecting appropriate teaching strategies according to needs of students and conducting action research to solve classroom problems.

5. Effective Communication: Presenting seminar before peer students and teachers and practicing communication skills through various linguistic activities and applying it for better classroom communication.

6. Sensitivity towards Inclusion: Identifying the diversities and dealing it in inclusive classrooms environment, guidance and counseling programmes for disabled students.

7. Effective Citizen Ethics: Understand different values, morality, social service and accept responsibility for the society.

8. Self-directed Learning: Preparing scripts for seminars, lesson plans and online content.

9. Social Resilience: Understand about social entities and enable to cope up with adverse conditions of life.

10. Physical Development: Practice yoga, physical education and games and sports.

SPECIFIC OUTCOMES:-

The aim of Bachelor of Education and Master of arts in education course is to develop the skills of student teacher to enhance learning experiences in and outside the class.to understand the psychological need of the student in the class. To get better job/employment and last and not the least contribute towards the progress to society and nations development. Promote the student to research. Do action research in classroom problems. To help in the making of good teacher educators through this course.

Assessment of learning outcomes: Assessment is done to identify leaners with academic lag and advanced learners at the beginning of the year. Different departments have evolved way of assessing learning levels of the students and organize suitable programmes for diverse learners with diverse learning needs. Departments try to assess level of grasping of the subject and interest level among students Results and marks are another criterion for assessing the learning levels other criteria include Participation in Internship program Participation in events where they showcase

projects Placement in agencies of Internship Efforts for Advanced Learners Participation and enthusiasm level during class interaction helps while screening. Ability to participate, engage and desire to learn are being provided with dissertation, article reviews and movie reviews Extra reading and reference material is being provided to those who wish to appear for competitive exams Interested and having a strong academic orientation are being provided with Peer learning opportunity and also provide Model answers which are circulated among the students for their benefit Those who have flair for writing are given representation in college and departmental magazines, opportunity to take initiative in projects and departmental activities and be coordinators and lead activities Active students are encouraged to participate in external seminars and workshops, competitions for paper and poster presentations organized by state level and national level academic and research organizations Students are encouraged to take projects independently on cross-cutting issues like environment awareness and encourage them to participate in intercollegiate competitions Encouragement to UG students to conduct research and publish papers and enhance their research abilities, participate in conferences Advanced learners are encouraged to use high-end instruments for conceptual understanding and hands on experience

B.Ed. Ist Year : (Subject Wise Outcomes)

Paper I Childhood & Growing Up

- Develop the student to understand how varied socio-economic & culture realities lead to different construction of childhood and adolescence.
- Develop the understanding how different culture has different notions of childhood and adolescents and how urbanization, economic change impacts its contractions.
- To develop and understanding of children of different age group through close observation and interaction.
- Study significance theories of human development and analyses them critically for their relevance within the Indian context.
- Understanding the ways in which diverse needs of learner's can be presented and understood and thus create a positive attitude towards inclusive education.

Paper II Contemporary Indian Society And Education

- To understand the social diversity in the state and the class room and its implication for teaching.
- To understand and be able to use some key concepts relating to social stratification.
- To understand the nature of caste and change occurring in it; to focus attention on the scheduled castes and their education.
- To understand the problems faced by the tribal communities and the issues in education of tribal children.

• To understand how poverty affect schooling prospects of children with special reference to migrants children.

Paper III Perspective in Education

- Reflecting on the meaning and purpose of education for oneself and the society.
- Understanding the diversity in aims of education and the framework to negotiate this diversity.
- Developing a framework to understand the work of educational thinker and policy documents.
- Understanding the economic and political contacts of the emergence of modern education.
- Reflecting on the critic of model school education.

Paper IV भाषा शिक्षा और समाज

- समझ और भाषा के रिश्ते को समझना ।
- समझ के विकास में भाषा की भूमिका को समझना ।
- विषयगत अवधारणा के विकास में भाषा की भूमिका को समझना ।
- भारत तथा छत्तीसगढ़ के बहुभाषिक परिदृश्य को समझना ।
- बहुभाषिकता के शिक्षणशास्त्रीय पहलुओं को समझना |
- भाषा से जुड़े राजनैतिक सामाजिक तथा सांस्कृतिक पहलुओं को भाषा बोली तथा मानकता के सन्दर्भ में समझना ।
- भाषा के सामजिक तथा सांस्कृतिक पहलुओं को सामाजिक लिंग-भेद के सन्दर्भ में समझना।

Paper V Pedagogy of Language English

- Understand the nature and system of language, language learning, and develop a prospective on English as language in school curriculum in Indian contexts.
- Critically examin the beliefs and assumptions about language learning, methodology of language teaching and appreciates the aims of language teaching in the context of English language and other Indian language.

Paper V Pedagogy of Language Mathematics

• To help the student-teacher appreciate the nature of the subject along with the historical and social evaluation and location of the discipline in the lives of the children.

- To develop and appreciations and understanding of the objectives of school mathematics.
- To develop and understanding of the fundamental concepts and ideas of mathematics be able to feel empowered to do and enjoy mathematics.
- To develop and insight about how children learn mathematics in diverse contexts and the challenges they face during the learning process.
- To enable student-teacher to recognize that children know and can do mathematics and be able to identify their knowledge to build on their understanding of mathematics and to believe in every child's capacity to engage in mathematics meaningfully.
- To help the student teacher to create a classroom culture that is an engaging space for every child.
- To develop a culture of critically examining the mathematics curriculum and textbooks.
- To help the student teacher in becoming a more confident learner and teacher of mathematics.
- To enable a student teacher to use assessment both as a tool for reviewing children learning as well as a feedback for her instruction.
- To help student teacher explore different tool and techniques including teaching learning material mental models and ICT for the teaching and learning of mathematics.

Paper V Pedagogy of Language Science

- Understand science its nature its process and epistemic criteria.
- Develop won prospective on the relevance of science and science teaching.
- Understand the aims and objective of teaching science at various school stages.
- Understand the learning of science by children what it means to know scientific concepts.
- Develop the ability to design manage and assess appropriate teaching learning experience in the context of school science.

Paper V Pedagogy of Language Social Science

- Understand the nature of the social science.
- Understand how children acquire their understanding of society and in what ways the teaching of social science can help them to review this understanding.
- Explore effective ways of engaging with diverse kinds of student and help them to develop conceptual tools and knowledge necessary for a better understanding of society.
- Understand the approaches to the teaching and learning of history and geography.

Paper V Pedagogy of Language Hindi

छत्तीसगढ़ राज्य में कई भाषाए है हिंदी और चात्तिस्गढ़ी के अलावा गोंडी हल्बी भतरी कुडुख माडिया आदि लेकिन यहाँ के उच्च प्राथमिक व माध्यमिक विद्यालयों में मुख्य रूप से दो भाषाओ का शिक्षण होता है – हिंंदी और अंग्रेजी और ये भाषाए ही उच्च प्राथमिक व माध्यमिक स्तर पर शिक्षण का माध्यम भी है ।

ये विषय उच्च प्राथमिक व माध्यमिक स्तर के भावी हिंदी शिक्षको के लिय है छत्तीसगढ़ के बहुभाषी सन्दर्भ में यहाँ के अन्य भाषाओ छत्तीसगढ़ी हल्बी गोंडी माडिया कुडुख आदि के प्रति समझ और सवेदंशीलाता बरतना बहुत जरूरी है । ताकि छात्र अपनी भाषा का सम्मान करते हुए बेहतर हिंदी सीख पाए इसके लिए जरूरी है की शिक्षार्थी शिक्षक भाषा की उत्पत्ति विकास और भाषायो की संरंचना की तुलनात्मक समझ बनाए और इसी परिप्रेक्ष्य में हिंदी भाषा शिक्षण की क्षमता विकसित करे । भाषा की संरचना से परिचित होकर शिक्षक यह जान सके की प्रत्येक भाषा की अपनी एक नियमबद्ध व्यवस्था और कई मायनों में वे एक सी भी है भाषा अर्जन की प्रक्रिया और भाषा की विविध रूपों को समझ कर भाषा की मानकता आग्रह कुछ कमजोर होगा शिक्षक सभी भाषाओ के प्रति संवेदनशील और उदार बन सके इससे जो नजरिया बनेगा वो अंततः हिंदी अंग्रेजी और संस्कृत आदि भाषाओ की शिक्षण प्रक्रिया को बेहतर बनाने में भी मददगार हो सकेगा ।

Paper VI Language Proficiency English/Hindi

- To appreciate the significance of language in education in general and in a classroom in particular in interaction between learners and the teachers.
- To identify and understand the elements of dialogue(listening & Speaking) and reading comprehension.
- To enhance they ability of a student teachers to share idea in oral and written from using multiple ways.
- To enable student teachers to engage with reading verity of texts in divers ways fiction poetry biography ethnography field notes narrative expository text critical reviews critique summaries paraphrase etc.
- To read and respond to debates academic discourses discussion present explains dialogue identifying key ideas.
- To listen to children and infer from their oral response and conversation.

B.Ed. II^{nd Year}: (Subject Wise Outcomes)

Paper I Learning and Teaching

- Understand how children learn and analyses the factors influence their learning.
- Understand different theoretical approaches to learning and be able to critique them for their relevance and application in education.
- Study how children think and the role of language in thinking.

• Provide opportunities for learning for children and adolescents from diverse backgrounds levels of motivations.

Paper II gender school and society

- Understanding the role of culture (apart from biology) as determination of gender distinction in social living.
- Awareness of factors that shape gendered in our Indian society.
- Understand the problem of girl child education in our society.
- Developing a critical perspective on gender-based discrimination and its effects.
- To provide an introduction to and the development of an understanding of feminist approaches to the social and cultural construction of gender.
- To develop a critical understanding of intersectionability, including an awareness of gender and its complex intersection with other social and cultural categories, including but not limited to caste tribe class sexuality and ability.
- To equip the teacher with the ability to create more meaningful and gender just experience for her student

Paper III curriculum and knowledge

- To understand the nature of curriculum and its relation to syllabitext books and classroom practices.
- To understand the nature of knowledge, moral values and skills .
- To examine the place of work in education.
- To understand the implications of constructivism for education.
- To develop and apply a framework for studying curriculum documents.

Paper IV Assessment for Learning

The course design keeping in mind the critical role of assessment in enhancing learning. The purpose of assessment is not to rank or filter but to help the system support the learner. The traditional notion considers assessment as an end of teaching activity that does not allow the learner to talk to other. The purpose of assessment to the review the work and the worth of the learner and distance itself from understanding the context in which the child is learning. This course will be closely examining notion of disability and failure is seen as the other face of notion of ability and achievement as promoted by school. The course will be support student teacher's in understanding the psycho-social and political dimension of assessment.

This course seeks to provide the students-teacher's a framework to understand the functioning of school as an organization and explore possibilities for improving its functioning. Given the role of as an instrument of democratic education of the future citizen to what extent is it is functioning inclusive (gives dignified space for diverse kinds of children from diverse social background and diverse abilities) to what extent is it is on desion making democratic and responsible this can be done by studing documents releting to the school and also by observing different kind of school in the field and their functioning.

Paper VI Pedagogy of Language Hindi

बच्चो में अपने समाज से रूबरू होने ,सोंदर्यबोध और संवेदनशीलता के विकास के लिए उनमे साहित्य के प्रति रुचि उत्पन्न करने की जरूरत है कविताओ की व्याखा साहित्य को उचित रूप से पढने उसे ग्रहण करने एवं साथ ही भाषाई विकास को समझना आवश्यक है ।

Paper VI Pedagogy of Language English

- This pedagogy of language English course will be build the understanding of the studentsteacher's to pedagogical process based on the theoretical understanding this would be in conjunction will the school internship.
- Develop the ability to design appropriate learning experience for teaching English language.

Paper VI Pedagogy of Language Mathematics

The vision of this syllabus is to motivate student-teachers developing a democratic mathematics classroom where every debate and discussion around mathematical ideas is also looked at as a mathematical endeavor and a meaningful learning engagement.

Paper VI Pedagogy of Language Science

This syllabus develops her own ideas on classroom planning and ability to design manages and access appropriate teaching –learning experience in the context of school science.

Paper VI Pedagogy of Language Science

This course will take up the teaching of social and political life and economics examine the nature of curriculum and textbook in social sciences and look at good classroom process for social science and upper primary and secondary stages.

M.A. EDUCATION (Subject Wise Outcomes)

I SEMESTER

01. PHILOSOPHICAL FOUNDATION OF EDUCATION

- To enable the student to develop an understanding about the contribution of philosophy to the field of education.
- To enable the student to develop an understanding about the contribution of various Indian schools of philosophy to the field of education.
- Impact of western philosophies on Indian education.
- Contribution of great Indian thinkers.
- Dependency theory in education value and Indian contribution.
- Concepts related to social philosophy of education.
- Nature and sources of knowledge getting process.
- 02. Methodology of Educational Research
- To enable the student to develop an understanding about concept of research and Educational Research.
- The characteristics of philosophical, psychological and sociological research in education.
- The different stages of educational research.
- The techniques of developing a research proposal.
- To understand meaning and techniques of sampling.
- To prepare a research proposal, dissertation abstract and research article.
- To prepare a dissertation and understand how to evaluate a research report.
- 03. Education Technology
- To enable the student to develop an understanding about concept of education technology.
- To understand the communication & technology.
- To understand concepts of models of teaching and behavior.
- To understand about educational software application and use it.
- To understand about innovation in education technology and new technology related to education.
- 04. Environmental Education
- This paper introduces the student some of the important environmental issues that have become a matter of global policy making. International negotiations and trade dispute. It will also provide an understanding of the links between environments. Property regimes and trade and information economies.

II SEMESTER

- 01. Psychological Foundation of Education
- To understand concepts and principles of educational psychology as an applied science.
- To outline scope of educational psychology.
- To describe the process of growth and development.

- Develop understanding of process of children learning in the context various theories of learning.
- To understand the meaning and concepts of individual differences.
- To understand intelligence, motivation and various types of exceptional children.
- To develop the understanding of the theories of personality and measurement of personality.
- 02. Educational and Mental Measurement
- To understand the concept of measurement, testing and evaluation.
- To understand the concept of test.
- To develop different types of test and questionnaires in the field of education.
- To understand the concept of tools and various techniques.
- To understand the concept of reliability and calculate the reliability.
- To understand the concept of validity and calculate the validity.
- To understand the procedure of test construction.
- To understand the various types of test like personality, intelligence, motivation, aptitude and attitude etc.
- 03. Computer Application
- To understand the concept of computer. Its type, generation, basic components.
- To understand about internet, wwe, various drive different types of software.
- To understand the concept of computer languages.
- To understand about word processing application.
- To understand worksheet.
- To understand the power point presentation.
- To understand internet and World Wide Web.
- 04. History and Development of Education in India
- To understand about Indian education. in Vedic period, Islamic period in ancient India.
- To understand about different committee and commission in field of education.
- To understand the problem of education and its remedial.

III SEMESTER

- 01. Sociological Foundation of Education
- Understand the concept and nature of educational sociology.
- Comprehend the role of various social factors in education.
- Analyses the factors responsible for social change.
- Understand the role of education in cultural change.
- 02. Advanced Educational Statistics
- To prepare a dissertation and understand how to evaluate a research report.
- To understand the characteristics and use of different tools and techniques of data collections.
- To understand and use descriptive statistical techniques in educational research.
- To understand and apply inferential statistics (parametric and non-parametric) in educational research.
- To interpret result obtained through different techniques of analysis of data.

- To draw generalization on the basis of result of a research study.
- To give insight into research embedded instruction..
- To gather information on cyber security and cyber ethics and other researchable issues.
- 03. Curriculum Development
- Understand the meaning and nature of curriculum.
- Understand different approaches to curriculum development.
- Understand the role of teacher in the transaction and evaluation of curriculum.
- Understand the recent developments in the field of curriculum development.
- 04. Guidance and Counseling in Education
- To develop an understanding about the fundamentals of guidance and counseling.
- To understand the importance of making right choice in life. Education and vocation.
- To be able to describe the importance of work with a group. For a group and in a group.
- To be able to understand the need of the individual correctly.
- To be able to understand various guidance services.
- To understand the process of counseling.

IV SEMESTER

- 01. Education of The Children With Special Need
- To enable the learner to understand the concept of inclusive. Integrated and special education, need of special education and its practices.
- To understand the various suggestions of recent commissions of education for the differently abled for realizing the concept of universalization of education.
- To enable the learner with new trends in education for the differently abled with respect to the curriculum.
- To enable the learner to identify the specific needs characteristics and modalities of identification of various types of differently abled.
- To enable the learner with the educational programmes equipment's and aids for the differently abled.

02. Educational Administration, Management & Supervision

- To develop an understanding about the nature and functions of educational administration.
- To understand scope of educational administration.
- To know different patterns of educational administration.
- To develop an understanding about the process of human relationship approach on educational administration.
- To make the learner understand about the finance management of education.
- To enable them to recognize the importance of management of resources and effective use of ICT in education.
- To enable the learner to get some insight into supervision inspection and know trends of development.
- 03. Value Education and Human Rights

- Understand the need importance of value education.
- Acquaint the learner will the basic of values in the context of emotion, reason and action.
- Acquaint the learner with the application of various strategies of value development.

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Course Name - Bachlor of Library and Information Science

A) Programme Outcomes:-

- Capable of demonstration comprehensive knowledge and understanding of major concepts, principles, theories and laws of carious subject in library and information science.
- 2) Understanding of concepts of information technology and its application of libraries and capable of using digital. Technology for communication purpose for library housekeeping operations and for searching information from OPAC, Internet and Online database.
- 3) Ability to communicate effectively in oral and written forms the user, colleagues and authorities in an effective manner.
- 4) Capability to critically analyze subjects of documents to classify them properly and to derive subject heading for subject cataloguing, indexing process and ability to think critically for solving various problems pertaining to the management of library and information centre.
- 5) Ability to seek job opportunities as library professional capable of self paced sand self directed learning aimed at personal and professional development ; for improving knowledge and skills and re-skilling through continuing educational opportunities.

B) Programme Specific Outcomes:-

- 1) To familiarize with the basic concepts of information, its nature importance and role in the development of society as well as concepts of communication of information, economics and management of information and knowledge.
- 2) To make learn the concepts relating to information and communication technology such as communication tools and techniques, internet, communication, data security: procedure of digitization development of digital libraries, web and web designing.
- 3) To train and expose to research problems through project work.
- 4) To demonstrate understanding of manual and automated information processing i.e. information analysis and repackaging and to develop the capability in retrieving the needed information by applying different search techniques.
- 5) To facilitate a professional career ahead not only as librarians in different types of libraries and information centers but also due to the variance and uniqueness of the programme a graduate can seek a job in other fields.

C) Course Outcomes:-

- 1) To acquaint student with the basic concepts of information and information science.
- 2) To make students understand and appreciate the concept of information society and information policies formulated for social development.
- 3) To understand the concepts relating to information and communication technology.
- 4) To introduce modern management approaches and thoughts and their applicapability to libraries.
- 5) To familiarize with different functions of management to effectively manage the modern library.
- 6) To understand the role of libraries in higher education of India.
- 7) To provide an understanding of information storage and retrieval systems.