A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru

All Departments PO's, PSO's 2020-21

DEPARTMENT OF BOTANY

PROGRAMME OUTCOMES OF B.Sc. BZC, ABC

- PO 1: Effective citizenship: To get ready students for higher studies on a wide base of inter-related subjects towards the social awareness.
- PO 2: Practical Knowledge: Students with the necessary experience to correlate theory with practical aspects
- PO 3: Problem analysis: Identify the taxonomic position of plants, and analyze non reported plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.
- PO4: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern instruments and equipment's for Molecular Biology, Biotechnology, Plant Tissue culture experiments of plants with an understanding of the application and limitations.
- PO5: The Botanist and society: Apply reasoning informed by the knowledge to assess plant diversity, its importance for society, health, safety, legal and environmental issues and the consequent responsibilities relevant to the biodiversity conservation practice.
- PO6: Scientific Knowledge: Apply the knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.
- PO7: Ethics: Apply ethical principles and commit to environmental ethics and responsibilities and norms of the biodiversity conservation.

PROGRAM SPECIFIC OUTCOMES FOR B.Sc. BZC, ABC

- PSO1: Understand the diversity to know the systematic position, morphology, and structure and lifecycle pattern of Algae, useful and harmful activities of Algae. Know the Economic Importance of Fungi, and the morphological diversity of Bryophytes.
- PSO2: Understand the diversity of Gymnosperms, to know the evolutionary trends and affinities of living gymnosperms with respect to external and internal features and the conceptual development of taxonomy and systematic, and trends in classification. Know the floral variations in angiospermic families, their phylogeny and evolution. Understand various rules, principles and recommendations of plant nomenclature produces in plant identification.
- PSO3: Understand the Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity unity of life with the rich diversity of organisms and their ecological and evolutionary significance. Learn about conservation of biodiversity, vegetation types of Andhra Pradesh.
- PSO4: Able to understand importance and scope of plant physiology, plant cells in relation to water, process of photosynthesis in higher plants with particular reemphasis on light and dark reactions, C3 and C4 pathways and respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.
- PSO5: Able to understand the eukaryotic cell, structure and organization of cell membrane and Mendelian genetics, experimental evidences to prove DNA as a genetic material. Get the detail knowledge about modern strategies applied in Plant Breeding for crop improvement i.e. Mass selection, pure line Selection and Clonal selection
- PSO6: Acquire basic knowledge and experimental skills in Biotechnology and, tissue culture, necessary for scientific investigation.
- PSO7: Enable self-employment with knowledge and skills in certain applied branches like mushroom cultivation.
- PSO8: Apply the theoretical knowledge gained during the program to the actual practice of laboratory plant science.
- PSO9: Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.

DEPARTMENT OF CHEMISTRY (UG)

PROGRAM OUTCOMES OF B.Sc. MPC, MCCs, BZC AND ABC

- PO 1: Effective citizenship: Provide a broad foundation in chemistry that stresses scientific reasoning and Analytical problem solving with a molecular perspective.
- PO 2: Practical Knowledge: Provide students with the skills required to succeed in graduate school, the chemical industry or professional school.
- PO 3: Problem analysis: To expose the students to a breadth of experimental techniques using modern instrumentation.
- PO4: Modern tool usage: The student will understand the importance of the Periodic Table of the Elements, how it came to be, and its role in organizing chemical information.
- PO5: The Botanist and society: The student will learn the laboratory skills needed to design, safely conduct and interpret chemical research.
- PO6: Scientific Knowledge: The student will acquire a foundation of chemistry of sufficient breadth and depth to enable them to understand and critically interpret the primary chemical literature.
- PO: 7 Ethics: The student will learn professionalism, including the ability to work in teams and apply basic ethical principles.

PROGRAM SPECIFIC OUTCOMES OF B.Sc. MPC, MCCs, BZC, ABC

- PSO1: The student will understand the interdisciplinary nature of chemistry and to integrate knowledge of mathematics, physics and other disciplines to a wide variety of chemical problems.
- PSO2: The student will develop the ability to effectively communicate scientific information and research results in written and oral formats.
- PSO3: To encourage the students for higher education.

DEPARTMENT OF COMMERCE

PROGRAMME OUTCOMES of B.Com General & Computer Applications

- PO1.CriticalThinking: Knowledgeable in the core disciplines of Commerce, Economics and Business through a number of specializations and practical exposure enables them to face the challenges in the field of Commerce
- PO2.Effective Communication: Demonstrate proficiency in communicating competently in groups and organizations in English and in one Indian language
- PO3.EffectiveCitizenship: Ability to act with an informed awareness of issues and participate in civic life through volunteering.
- PO4.Value-based development: Recognize values such as justice, trust, equity, fairness, kindness and understand the moral Dimensions of your decisions, and accept responsibility for them.
- PO5.EnvironmentandSustainability: Understand the issues of environmental contexts and sustainable development.
- PO6. Self-directed and Life-long Learning: promoting continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment

PROGRAMME SPECIFIC OUTCOMES of B.Com (General & Computer Applications)

- PSO1.Getting the knowledge and the importance of accounting and auditing standards for the reliability of financial statements
- PSO2.Interpret the legal and environmental aspects of business and analyze quantitative data in order to take business decisions
- PSO3. Empowering the student to understand the accounting practices and procedures followed by different business entities.
- PSO4. Promising the practical skills for a bright career as accounting officers, computer professionals, audit assistants, businessmen, entrepreneurs, managers with required knowledge in computers.
- PSO5. Knowledge of major theories and models in key areas which motivate them to pursue higher studies/face competitive exams like SSC, P.C, BANK, R.R.B/professional courses like CA, CS, ICWA and other courses.

DEPARTMENT OF COMPUTER SCIENCE (UG)

PROGRAMME OUTCOMES OF B.Sc. MPCS, MCCS

- PO 1: Provide insight to problem solving to succeed in Technical Profession through precise education and to prepare students to excel in postgraduate programs
- PO 2: Prepare students to be aware of excellence, leadership, written ethical codes and guidelines and lifelong learning needed for successful professional career by providing them with an excellent academic environment.
- PO 3: Empower the students in academic, social, psychological and economic arenas by developing relevant competencies.
- PO 4: Acquire sufficient knowledge base in the Domain Specific area leading to the pursuit of advanced level of study in the chosen Domain Specific area.
- PO 5: Inculcate the human values through curricular, co-curricular and extracurricular activities.

PROGRAMME SPECIFIC OUTCOMES OF B.Sc. MPCS, MCCS

- PSO 1: Getting the knowledge and the importance of accounting and auditing standards for the reliability of financial statements
- PSO 2: Interpret the legal and environmental aspects of business and analyze quantitative data in order to take business decisions.
- PSO 3: Empowering the student to understand the accounting practices and procedures followed by different business entities
- PSO 4: Promising the practical skills for a bright career as accounting officers, computer professionals, audit assistants, businessman, entrepreneurs, and managers with required knowledge in computers.
- PSO 5: Knowledge of major theories and models in key areas which motivate them to pursue higher studies / face competitive exams like SSC, PC, Bank, RRB / professional courses like CA, CS, ICWA and other courses.

DEPARTMENT OF COMPUTER SCIENCE (UG)

PROGRAMME OUTCOMES OF B.COM (COMPUTER APPLICATIONS)

- PO1. Critical Thinking: Knowledgeable in the core disciplines of Commerce, Economics and Business through a number of specializations and practical exposure enables them to face the challenges in the field of Commerce.
- PO2. Effective Communication: Demonstrate proficiency in communicating competently in groups and organizations in English and in one Indian language.
- PO3. Effective Citizenship: Ability to act with an informed awareness of issues and participate in civic life through volunteering.
- PO4.Value- based development: Recognize values such as justice, trust, equity, fairness, kindness and, understand the moral Dimensions of your decisions, and accept responsibility for them.
- PO5. Environment and Sustainability: Understand the issues of environmental contexts and Sustainable development.

PROGRAMME SPECIFIC OUTCOMES OF B.COM (COMPUTER APPLICATIONS)

- PSO1: Getting the knowledge and the importance of accounting and auditing Standards for the reliability of financial statements.
- PSO2: Interpret the legal and environmental aspects of business and Analyze quantitative data in order to take business decisions
- PSO3: Empowering the student to understand the accounting practices and
- Procedures followed by different business entities.
- PSO4: Promising the Practical skills for a bright career as accounting officers, computer professionals, audit assistants, businessmen, entrepreneurs, managers with required knowledge in computers.
- PSO5: Knowledge of major theories and models in key areas which motivate them to pursue higher studies / face competitive exams like SSC, P.C, BANK, R.R.B / professional courses like CA,CS, ICWA and other courses.

DEPARTMENT OF ECONOMICS

PROGRAMME OUTCOMES OF B.A.

- PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
- PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and by connecting people, ideas, books, media and technology across the World.
- PO3. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- PO4.Effective Citizenship: Demonstrate empathetic social concern and equity-centered national development, and the ability to act with an informed awareness of issues and Participate in civic life through volunteering.
- PO5. Ethics: Recognize different value systems including that of own, understand the moral dimensions of our decisions, and accept responsibility for them.
- PO6.EnvironmentandSustainability: Understand the issues in the contexts of environmental and sustainable development.
- PO7.Self-directedandLife-longLearning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

PROGRAMME SPECIFIC OUTCOMES OF B.A.

- PSO1 - How the consumers and producers will take rational decisions in the context of unlimited needs and availability of scarce resources;
- PSO2 – How the economy at the aggregate level works, what are the determinants of National income, prices, demand for and supply of money, poverty, and unemployment in an economy.
- PS03 - He/she understands of the process of economic growth, economic development, and sustainable growth in the context of existence of trade-off between rapid economic growth and environmental sustainability in the long run
- PS04 - He/she will be able to apply the determinants of economic growth and development to the economies of India and Andhra Pradesh and appraise the fiscal, monetary and other socio-economic policies being pursued in India and Andhra Pradesh
- PSO5 – He/she will get a basic understanding of Statistical Methods with a view to applying them to economics and real life situations

DEPARTMENT OF HISTORY

PROGRAMME OUTCOMES OF B.A.

- PO-1 Student will be able to acquire historical knowledge, depth in terms of content and chronology of contents.
- PO-2 Student will be able to distinguish between Primary and Secondary Sources to study history and understand how to make use of them.
- PO-3 Student should possess effective communication skills to deliver presentations to a variety of audiences.
- PO-4 Student should understand the basic skills and tools of historical writings and analysis.
- PO-5 Students apply a biblical philosophy of history to their analysis of social, political, religious, cultural, economic issues.
- PO-6 Students should recognize values and ethical standards in every walk of life

PROGRAMME SPECIFIC OUTCOMES OF B.A.

- PSO-1: To understand the History of People and societies like religious, customs institution and Administration.
- PSO-2: To create awareness of different political, cultural, social and economic structures in the past and their interrelationship.
- PSO-3: Relationship between the past and the present is presented in the history.
- PSO-4: To prepare students for future study employability and responsible citizenship.
    - Further study-post graduate in history, B.Ed. M.Phil., Ph.D.
    - Employability – Archaeologists, Historians, UPSC- jobs, APPSC-Jobs, Teachers, NGO's, Travel and Tourism experts.
- PSO-5: To develop interest in the study of History and activities, skills relating to history.
    - Draw historical Maps, Charts
    - Collect ancient arts, coins
    - Visit Archaeological sites, Museums, archives and Historical important places.
    - To take active role in activities of historical organizations.
- PSO-6: Empowering students in the historical research and to write articles on historical topics.
- PSO-7: Inculcate moral and ethical values among students.
- PSO-8: To install the feeling of patriotism among the students.
- PSO-9: To orient student to become perfect social being

DEPARTMENT OF MATHEMATICS

PROGRAMME OUTCOMES OF B.Sc. (MPCs, MCCs, MSCs)

- PO1: Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
- PO2: Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- PO3: Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- PO4: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
- PO5: Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PROGRAMME SPECIFIC OUTCOMES OF B.Sc. (MPCs, MCCs, MSCs)

- PSO1: To increase the skills in different branches of Mathematics and increase Mathematical abilities in learning Mathematics.
- PSO2: To increase the capability in learning Mathematics and increase the ideas in understanding the proofs.
- PSO3: To facilitate students to appreciate the technique of formal proof (unique aspect of this discipline) in establishing facts through procedural, valid and logical reasoning.
- PSO: To familiarize students with the universal language of Mathematics precise in symbolic vocabulary, abstractions, generalizations and conventions.
- PSO5: To enhance the Mathematical maturity in them with in depth of knowledge in pure and applied branches of Mathematics.
- PSO6: To encourage students to become techno savvy with a perception widened by Mathematics.

DEPARTMENT OF POLITICAL SCIENCE

PROGRAMME OUTCOMES OF B.A.

- PO-1 Understand the world, their country, their society, as well as themselves and develop the ability of reflective thinking and reasoning
- PO-2 Get awareness of ethical problems, social rights, values and responsibility
- PO-3 Take individual and team responsibility as a member or a leader of a team and have the skills to work effectively.
- PO-4 Student will be able to understand the basic tools of analysis such as analysis of social, political, religious, cultural and economic issues.
- PO-5 Prepare Students to recognize values and ethical standards in every walk of life
- PO-6 Develop the ability to make logical inferences about social and political issues on the basis of comparative knowledge
- PO-7 Create the feeling of patriotism among the students and sense of belongingness of the society they live in PO-8 Exposed to the Knowledge of philosophical underpinnings of modern politics , government and the legal principles
- PO-9 Prepare students for a variety of careers and professions in fields such as law, government, education, politics, policy, and business.

PROGRAMME SPECIFIC OUTCOMES OF B.A.

- PSO-1: Be able to describe and explain political theory, political systems around the world, and politics in the international arena
- PSO-2: To create an awareness of different political, social and economic cultures in the past and their Interrelationship.
- PSO-3: Identify the principal arguments for and against alternative forms of government and evaluate alternative political ideas and ideologies
- PSO-4: Understand basic political and governmental structures, processes, and policies and operation of the system.
- PSO-5: Able to explain the role of political ideas, value conflicts, and ideology in human societies.
- PSO-6: Critically assess the actions of the political process and determine their motives
- PSO-7: Understand the foundations of Indian government, including the structure and relationships between the branches of government
- PSO-8: Know how laws are made, policies are developed, programs implemented, and what influences and constraints are placed upon the process
- PSO-9: Inculcate moral and ethical values among students to become a responsible citizen

DEPARTMENT OF PHYSICS

PROGRAMME OUTCOMES OF B.Sc. (MPC, MPCs)

- PO1: Critical Thinking: Physics deals with a wide variety of systems, certain theories are used by all physicists. PO2: Effective Communication: Each of these theories were experimentally tested numerous times and found to be an adequate approximation of nature.
- PO3: Effective Citizenship: Physics uses mathematics to organize and formulate experimental results.
- PO4: Value- based development: From those results, precise or estimated solutions, quantitative results from which new predictions can be made and experimentally confirmed or negated.
- PO5: Ethics: After successful completion of three year degree program in physics a student should be able to; Demonstrate, solve and develop an understanding of major concepts in all disciplines.
- PO6: Environment and Sustainability: Solve the problem and also think methodically, independently and draw a logical conclusion.
- PO7: Self-directed and Life-long Learning: Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Physics experiments. Create an awareness of the impact of Physics on the society, and development outside the scientific community.

PROGRAMME SPECIFIC OUTCOMES OF B.Sc. (MPC, MPCs)

- PSO1: The theory of mechanics a branch of Physics accurately describes the motion of objects, provided they are much larger than atoms and moving at much less than the speed of light
- PSO2: These theories continue to be areas of active research today.
- PSO3: The student will gain the knowledge of Physics through theory and practical's.
- PSO4: The student will understand good laboratory practices and safety.
- PSO5: The student will develop research oriented skill

DEPARTMENT OF ZOOLOGY

PROGRAMME OUTCOMES OF B.Sc. (BZC)

- PO1 Critical thinking: Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during biological study.
- PO2 Effective communication: Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
- PO3 Social interaction: Able to develop individual behavior and influence society and social structure.
- PO4 Effective citizenship: Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
- PO5 Ethics: Ability to demonstrate and discuss ethical conduct in scientific activities.
- PO6 Environment and Sustainability: Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development.
- PO7 Self-directed and life-long learning: Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES OF B.Sc. (BZC)

- PSO1: Understand the nature and basic concepts of chordates, non-chordates, Cell biology, Evolution, Genetics, Embryology, Physiology, Ecology and applications of Biotechnology and Immunology
- PSO2: Identify the major groups of organisms, be able to classify them within a phytogenic framework, compare and contrast the characteristics of animals that differentiate them from other forms of life.
- PSO3: Understand the unity of life with the rich diversity of organisms and their ecological and evolutionary significance
- PSO4: Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.
- PSO5: Able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
- PSO6: Acquire basic knowledge and experimental skills in Biotechnology and immunology, necessary for scientific investigation.
- PSO7: Provide knowledge and skills in aquaculture systems, how they work, and how to best manage them as there is a need for qualified and professional people to work in the aquaculture industry.
- PSO8: Apply the theoretical knowledge gained during the program to the actual practice of laboratory animal science.
- PSO9: Enable self-employment with knowledge and skills in certain applied branches like Aquaculture, Poultry and Biotechnology.

DEPARTMENT OF ZOOLOGY

PROGRAMME OUTCOMES OF B.Sc. (ABC)

- PO1: Critical thinking: Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during aqua cultural study.
- PO2: Effective communication: Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
- PO3: Social interaction: Able to develop individual behavior and influence society and social structure.
- PO4: Effective citizenship: Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
- PO5: Ethics: Ability to demonstrate and discuss ethical conduct in scientific activities.
- PO6: Environment and Sustainability: Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development.
- PO7: Self-directed and life-long learning: Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES OF B.Sc. (ABC)

- PSO1: Demonstrate a sound understanding of the biology of aquaculture organisms and of breeding, genetics, nutrition and water quality issues relevant to aquaculture
- PSO2: Design aquaculture systems and solve engineering issues in aquaculture
- PSO3: Employ knowledge of health and safety issues in aquaculture
- PSO4: Employ scientific techniques, practical skills, and critical analysis of data and business management strategies to improve aquatic resource management.
- PSO5: Understand and interpret critical scientific and ethical issues in aquaculture
- PSO6: Engage effectively with information and communication technologies
- PSO7: Demonstrate research skills appropriate for further study and employment. Appreciate the need for continuing professional development

A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru

All Departments COURSE OUTCOMES 2020-21

DEPARTMENT OF BOTANY

NAME OF THE PROGRAMME: B.Sc. (B.Z.C)

SEMESTER : I
Title of the Course : Fundamentals of Microbes and Non-Vascular Plants
Course Code : BOTT11A

COURSE OUTCOMES:

CO1	Explain origin of life on the earth.
CO2	Illustratediversityamongthevirusesandprokaryoticorganismsandcancategorizethem
CO3	Analyzeandascertaintheplantdiseasesymptomsduetoviruses,bacteriaandfungi
CO4	Classify fungi, lichens, algae and bryophytes based on their structure, reproduction a lifecycles.
CO5	Evaluate the ecological and economic value of microbes, thallophytes and bryophytes.

SEMESTER : II
Title of the Course : Basics of Vascular Plants and Phyto- Geography
Course Code : BOTT21A

COURSE OUTCOMES:

CO1	Gain knowledge in the classification and comparison of Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycle.
CO2	Justify evolutionary trends in Tracheophytes to adapt for land habitat. Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their good and services for human welfare
CO3	Explanation of the process of fossilization and compare the characteristics of extinct and extant plants.
CO4	Analyze the morphology of the most common Angiosperm plants of their localities and recognize their families
CO5	Locate different Phyto-geographical regions of the world and India and can analyze their floristic wealth

SEMESTER : III
Title of the Course : Plant taxonomy and Plant Physiology
Course Code : BOT-301C

COURSE OUTCOMES:

CO1	To recognize the major groups of vascular plants and their phylogenetic relationships.
CO2	To gain proficiency in the use of keys and identification manuals for identifying any unknown plants to species level. To understand the herbarium techniques.
CO3	To learn about the characters of biologically important families of Angiosperms. To learn the types of classifications – natural, artificial and phylogenetic.
CO4	To know the importance and scope of plant physiology.
CO5	To learn about the movement of sap and absorption of water and Transpiration in plant body

SEMESTER : IV
Title of the Course : Plant Embryology and Plant metabolism
Course Code : BOT 401C

COURSE OUTCOMES:

CO1	To understand the structure and development in microsporangium and mega sporangium
CO2	To know about the pollination, fertilization, endosperm and embryogeny, palynology.
CO3	To understand the plants and plant cells in relation to water. To understand the process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways.
CO4	To understand the respiration in the higher plants with particular emphasis on Aerobic and Anaerobic respiration
CO5	To learn about growth and development of plants and its regulations

SEMESTER : V
Title of the Course : Cell Biology, Genetics and Plant Breeding
Course Code : BOT-501C

COURSE OUTCOMES:

CO1	Distinguish prokaryotic and eukaryotic cells and design the model of a cell. Explain the organization of a eukaryotic chromosome and the structure of genetic material.
CO2	Demonstrate techniques to observe the cell and its components under a microscope.
CO3	Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.
CO4	Elucidatetheroleofextra-chromosomalgeneticmaterialforinheritanceofcharacters
CO5	Evaluate the structure, function and regulation of genetic material, application of principles and modern techniques in plant breeding programme

SEMESTER : V
Title of the Course : Plant Ecology & Phytogeography
Course Code : BOT-502C

COURSE OUTCOMES:

CO1	Distinguish the Ecology, Branches and significance
CO2	Explain the concept and components, productivity of ecosystem
CO3	Demonstrate plant communities, interaction between plants growing in a community
CO4	Discuss the principles of Phytogeography, distribution.
CO5	Evaluate the levels of biodiversity. Understand conservation of genetic resources and their importance

SEMESTER : V
Title of the Course : Plant Nursery Management (SDC)
Course Code : PNT-502

COURSE OUTCOMES:

CO1	Understand the importance of plant nursery, basic infrastructure to establish it.
CO2	Explain the basic material, tools and techniques required for nursery
CO3	Demonstrate expertise related to various practices in a nursery
CO4	Comprehend knowledge and skills to get an employment to become an entrepreneur in plant nursery sector.

SEMESTER : VI
Title of the Course : Plant Tissue Culture and its Biotechnological Applications
Course Code : BOT-601

COURSE OUTCOMES:

CO1	Acquire and know about micro propagation, synthetic seeds and soma clonal variations
CO2	Know the applications of tissue culture
CO3	Understand the Cryopreservation and germplasm conservation.
CO4	Understand the cloning vectors, gene cloning and methods of gene transfer.
CO5	Acquire and know the applications of biotechnology and genetically modified crops

SEMESTER : VI
Title of the Course : Plant Diversity and Human Welfare
Course Code : BOT-602

COURSE OUTCOMES:

CO1	Know about types, uses and values of biodiversity and agro biodiversity
CO2	Acquire and understand the loss of biodiversity and conservative organizations.
CO3	Know about the sustainable development of biodiversity
CO4	Analyze and acquire resource management and conservation methods of Biodiversity
CO5	To understand role of plants in relation to human welfare.

SEMESTER : VI
Title of the Course : Ethno -Botany and Medicinal Botany
Course Code : Bot-603

COURSE OUTCOMES:

CO1	Impart knowledge on various tribal groups of India and their ecological knowledge
CO2	Understand the ethno-botanical medicines of India.
CO3	Analyze and know the bio piracy and intellectual property rights
CO4	Acquire and know Ayurveda, Homeopathy medicinal therapies.
CO5	Analyze and know the conservation of endemic and endangered plant species.

SEMESTER : VI
Title of the Course : Pharma-cognosy and Phyto Chemistry
Course Code : BOT-604

COURSE OUTCOMES:

CO1	Analyze drug evaluation methods
CO2	Develop skills about organo -leptic and microscopic studies of plant parts
CO3	Develop skill to extract secondary metabolites from the plant parts.
CO4	Acquire and know the biosynthesis and uses of drugs.
CO5	To understand enzymes, proteins and amino acids as drugs

DEPARTMENT OF CHEMISTRY

NAME OF THE PROGRAMME: B.Sc. (M.P.C., M.C.Cs, B.Z.C, A.B.C.)

SEMESTER : I
Title of the Course : Inorganic and Physical Chemistry
Course Code : CHE-101C

COURSE OUTCOMES:

CO1	Learn periodic properties of p-block elements. Know the nature of compounds formed by p-block elements.
CO2	Impart knowledge about the chemistry of electron deficient compounds. Know the applications of Silicones and silanes
CO3	Understand the characteristic properties of transition and inner transition elements
CO4	Understand the concepts of different states of matter like solid, gases & liquid. Know the types of liquid mixtures and colligative properties.
CO5	To learn the concept of ionic equilibrium, common ion effect & solubility product

SEMESTER : II
Title of the Course : Organic and General Chemistry
Course Code : CHE-201C

COURSE OUTCOMES

CO1	Know reaction intermediates used in Organic chemistry. Gain knowledge about the basic concepts in organic chemistry
CO2	Understand how structure affects the reactivity of organic molecules. Know importance of aliphatic and aromatic hydrocarbons.
CO3	Know orbital structure, orientation and electrophilic substitution reactions of Benzene. Understand the difference between true solutions, collides and suspensions.
CO4	Have knowledge of reactivity of molecule based on structure and bonding.
CO5	Understand the importance of stereochemistry of carbon compounds

SEMESTER : III
Title of the Course : Inorganic and Organic Chemistry
Course Code : CHE-301C

COURSE OUTCOMES

CO1	Understand the characteristic properties of transition and inner transition elements
CO2	Know the formation and stability of complexes through EAN.
CO3	Understand the chemistry of important reactions of halogen, hydroxyl, carbonyl and carboxylic acids.
CO4	Learn the synthetic applications of active methylene compounds

SEMESTER : IV
Title of the Course : Spectroscopy and Physical Chemistry
Course Code : CHE-401C

COURSE OUTCOMES

CO1	Educate the students about the fundamentals of various spectroscopic techniques. Understand the concepts and principles of UV, IR, and NMR.
CO2	Understand the concepts and principles of UV, IR, and NMR. Employ the spectroscopic techniques for the structural identity of organic molecules
CO3	Acquire knowledge the laws of photochemistry. Learn about the principles and applications of electrochemistry
CO4	Understand types of electrodes. Understand basics of phase equilibrium
CO5	Enable the students to understand the effect of pressure and temperature on phase equilibrium and Impart knowledge with respect to the phase transformation of different systems

SEMESTER : V
Title of the Course : Inorganic, Organic & Physical Chemistry
Course Code : CHE-501C

COURSE OUTCOMES

CO1	Understand the stability and magnetic behavior of the complex compounds
CO2	Understand the importance and applications of complex compounds
CO3	Have knowledge of organic compounds containing Nitrogen as hetero atom.
CO4	Understand the laws of thermodynamics, spontaneous, non-spontaneous processes and entropy

SEMESTER : V
Title of the Course : Inorganic, Organic & Physical Chemistry
Course Code : CHE-502C

COURS EOUTCOMES

CO1	Understand the reactivity of coordination compounds. Understand the active roles of metal ions and coordination compounds in biological systems.
CO2	Understand the reactivity of coordination compounds. Understand the active roles of metal ions and coordination compounds in biological systems
CO3	Comprehend functions of proteins.
CO4	Learn the fragmentation of ions and structure elucidation of some molecules by Mass Spectrometry.
CO5	Understand the difference between order and molecularity of reaction. Understand the zero, first and second order reactions.

SEMESTER : VI
Title of the Course : Analytical methods in Chemistry-CHE-601GE
Course Code : CHE-601GE

COURSE OUTCOMES

CO1	Understand the selection of indicator in different types of titrations.
CO2	Understand the procedure of extraction of metal ions using solvent extraction process.
CO3	Develop the habit of accurate manipulation and attitude of critical thinking.
CO4	Understand the theoretical principles of chromatography techniques and its applications.
CO5	Learn principles and applications of GC and HPLC.

SEMESTER : VI
Title of the Course : Organic Spectroscopic techniques
Course Code : CHE-602CE

COURSE OUTCOMES

CO1	Understand the principle and instrumentation of NMR. Know the nature of the protons in organic molecules by chemical shifts.
CO2	Study the types of various coupling constants. Know the basic principles of Electronic Spin Resonance Spectroscopy
CO3	Know the basic principles of Electronic Spin Resonance Spectroscopy. Study the ESR Spectra of inorganic and organic ions.
CO4	Study the UV & Visible radiations absorption in organic molecules. Gain knowledge about the UV & Visible spectral analysis of conjugated compounds.
CO5	Acquire knowledge about Beer-Lamberts law and simultaneous determination of metal ion solutions by the electronic spectroscopy.

SEMESTER : VI
Title of the Course : Advanced Organic reactions
Course Code : CHE-603CE

COURSE OUTCOMES

CO1	Understand fundamentals of Organic photochemistry.
CO2	Describe and distinguish between radioactive and non- radioactive transitions with the help of Jablonski diagram.
CO3	To learn about Norrish cleavages for cycloidians, esters and dike tones. To know the utility of protecting group strategy in some organic synthesis.
CO4	Discuss orally and in writing organic reactions with regard to mechanisms and stereo selectivity
CO5	Suggest alternative reagents and reactions for performing desired organic transformations.

SEMESTER : VI
Title of the Course : Pharmaceuticals and medicinal Chemistry
Course Code : CHE-604CE

COURSE OUTCOMES

CO1	Helps in correlating between pharmacology of a disease and its mitigation or cure.
CO2	Understand the drug metabolic pathways, adverse effect and therapeutic value of drugs
CO3	Know the structural activity relationship of different class of drugs. Well acquainted with the synthesis of some important class of drugs.
CO4	Knowledge about the mechanism pathways of different class of medicinal compounds
CO5	Understand the chemistry of drugs with respect to their pharmacological activity.

DEPARTMENT OF COMMERCE

NAME OF THE PROGRAMME: B.Com (Computer Applications)

SEMESTER : I
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING– I
Course Code : CACC-101G/CC

COURSE OUTCOMES

CO1	Students acquire conceptual knowledge in financial accounting and to impart skills to develop a working vocabulary of accounting terminology.
CO2	Students will develop the ability to prepare subsidiary books and different types of cash book including petty cash book
CO3	Students will acquire the reason for differences and their emergence in bank statements of any organization.
CO4	Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
CO5	Students will develop the ability to organize the complex data of accounts to solve the problem in preparation of final books of accounts.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ORGANISATION AND MANAGEMENT
COURSE CODE : CBOM-102CC

COURSE OUTCOMES

CO1	To understand the basic concepts in Commerce, trade and industry and enable to expose to the modern business world.
CO2	To understand the nature, purpose and importance of different types of organizations.
CO3	To familiarize the students with the fundamentals of Joint Stock Company as per Companies Act, 2013
CO4	To understand the basic concepts of management and Management role in the organization
CO5	Understand the concept of product and identify the need of product mix and product line decisions.

SEMESTER : II
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING –II
COURSE CODE : CACC-201G/CC

COURSE OUTCOMES

CO1	Able to discus and describe various methods of depreciation and valuation of depreciation to depreciable assets.
CO2	Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts
CO3	Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
CO4	Gain an understanding with regard to special transactions related to accounting for consignment
CO5	Gain the knowledge with regard to special transactions relating to joint venture business.

SEMESTER : II
TITLE OF THE PAPER : BUSINESS ECONOMICS
COURSE CODE : BE-202G/CC

COURSE OUTCOMES

CO1	Describe the nature of economics in dealing with the issues of scarcity of resources..
CO2	Analyze supply and demand analysis and its impact on consumer behavior
CO3	Evaluate the factors, such as production and costs affecting firms behavior
CO4	Recognize market failure and the role of government in dealing with those failures
CO5	Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business

SEMESTER : III
ITLE OF THE PAPER : CORPORATE ACCOUNTING
COURSE CODE : CCA-301G/CC

COURSE OUTCOMES

CO1	The students will have a good command on issue of shares and also forfeiture and reissue of shares.
CO2	The students will be able to know how to allocate the expenses and incomes prior to incorporation and after incorporation
CO3	The students will be able to learn various methods for valuation of goodwill and shares.
CO4	The students will able to known how to prepare profit and loss and balance sheet as percompanies'act2013.
CO5	The students will acquire knowledge regarding rules and regulations of companies act 2013.

SEMESTER : III
TITLE OF THE PAPER : BUSINESS STATISTICS
COURSE CODE : CBS -302G/CC

COURSE OUTCOMES

CO1	Describe the structure and characteristics of statistical data. Able to present the data with diagrams
CO2	Calculate and interpret measures of central tendency and variability in statistical data
CO3	Calculate and interpret measures of dispersion and skew ness
CO4	Design, evaluate and apply correlation analysis
CO5	To study the past behavior of data and measure the effect of changes over the period of time.

SEMESTER : IV
TITLE OF THE PAPER : BANKING THEORY&PRACTICE
COURSECODE : CBTP-401CC

COURSE OUTCOMES

CO1	To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of organization working and importance of RBI
CO2	To train and equip with the skills in banking and financial services and innovations of the current banking systems like e-banking advancements
CO3	To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD
CO4	To know about the general and special relationship between Banker and Customer and KYC norms
CO5	To get knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of Paying Banker-Payment Gateways.

SEMESTER : IV
TITLE OF THE PAPER : BUSINESS LAWS
COURSECODE : CBL-402G/CC
COURSE OUTCOMES

CO1	Impacts the students in acquiring the basic knowledge regarding contracts in business. And impact of it to "QUID-PRO-QUO" for the enforceability of the contract
CO2	Students will have clarity on competency of persons, modes of discharge of contract, analyzing and approaching to remedies in times of breach of contract.
CO3	Students will get knowledge in law and procedure relating to sale of goods in Indian context.
CO4	Students are able to acquire knowledge in law and procedure relating to consumer rights
CO5	Students will get knowledge in new dimensions in business Organization relating to cyber laws

SEMESTER : V
TITLE OF THE PAPER : BUSINESS LEADERSHIP
COURSECODE : CBLP-501G/CC
COURSEOUTCOMES

CO1	Students able to learn leadership skills
CO2	Students impart knowledge about leadership in organizations.
CO3	Students can build an idea about familiar business persons
CO4	Familiarize the students about the production progress with the help of departmental manager.
CO5	Students will understand the profit-making decisions in complex situations of any business organization.

SEMESTER : V
TITLE OF THE PAPER : COST ACCOUNTING
COURSE CODE : CCOA-502G/CC
COURSE OUTCOMES

CO1	Impart knowledge on the fundamental concept of cost accounting.
CO2	Comprehend the knowledge in effective control of raw materials and work in progress.
CO3	Build an idea about incentive plans based on production and cost savings.
CO4	Familiarize the students about the production progress with the help of departmental manager.
CO5	Students will understand the profit making decisions in complex situations of any business

SEMESTER : V
TITLE OF THE PAPER : TAXATION
COURSE CODE : CTAX-503CC
COURSE OUTCOMES

CO1	Impact knowledge on the provisions of income tax law and practice and acquire knowledge about Exempted incomes and residential status of an individual
CO2	Acquire Knowledge about Service tax-VAT-Central Sales Tax and GST
CO3	Enlist the ability of provisions of income from salary and its taxability. The student can build an idea about income from house property and its taxability.
CO4	Impact knowledge on Taxation system in India and Modes of Tax Recovery and acquire knowledge on Filing of Returns
CO5	Recognize tax planning opportunities and recommend appropriate tax-saving strategies for decision making

SEMESTER : V
TITLE OF THE PAPER : COMMERCIAL GEOGRAPHY
COURSE CODE : CCG-504G/CC

COURSE OUTCOMES

CO1	Understand the importance of early commercial activities in the world reflecting Different occupations in various environments.
CO2	Explain different stages of agricultural development using additional OE resources Available in the internet using modern ICT tools.
CO3	Respond to the changes involved in the Indian forests and need for protection of Forests and Forests Conservation Act.
CO4	Know different types of minerals India and mining and their uses.
CO5	Examine Indian water resources, Interlinking of Rivers India and Experience of India and Andhra Pradesh.

SEMESTER : VI
TITLE OF THE PAPER : EVENT MANAGEMENT
COURSE CODE : CEM-601G/CC

COURSE OUTCOMES

CO1	Identify the needs of customers for organizing a corporate event and understand the types of Events.
CO2	Examine various types of Outdoor events and Managing the risk in the events. Relate Marketing management, Human Resource Management to Event Management
CO3	Students able to organize Shows, fashion shows, high profile charity events

SEMESTER : VI
TITLE OF THE PAPER : MARKETING
COURSE CODE : CM602GEG/CC

COURSE OUTCOMES

CO1	To introduce the concepts of marketing and understand the factors influence the market environment
CO2	Analyze the consumer market models and enlightens consumer buyer behavior models.
CO3	Understand the concept of product and identify the need of product mix and product line decisions.
CO4	Develop an idea about pricing strategies and pricing decisions
CO5	Enhance the students about decisions regarding promotion and distribution channels

SEMESTER : VI
TITLE OF THE PAPER : AUDITING
COURSE CODE : CAU-603GEG/CC

COURSE OUTCOMES

CO1	Students will develop the knowledge & importance of auditing and accounting Of any organization and Role of Auditor in checking corporate frauds
CO2	Students will have the ability of understanding the applicability of auditing types for different organizations
CO3	Students will have knowledge in planning the effectiveness of auditing and also internal check, internal audit and internal control.
CO4	Students will have proper understanding of the requirements of documentary evidence for the completion of Vouching and Investigation.
CO5	Students will have the knowledge in Company Audit and Auditors Report

SEMESTER : VI
TITLE OF THE PAPER : MANAGEMENT ACCOUNTING
COURSE CODE : CMA-604GE G/CC

COURSE OUTCOMES

CO1	Students will critically understanding the financial and management accounting importance in understanding the business operations using different tools
CO2	Students will understand the importance of changes of working capital for any organization and analyzing the flow of fund
CO3	Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations
CO4	Students will have the ability of assessing the solvency and profitability of any organization
CO5	Students will understand the profit making decisions in complex situations of any business organization

NAME OF THE PROGRAMME: B.Com (General)

SEMESTER : I
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING – I
COURSE CODE : CACC-101G/CC

COURSE OUTCOMES

CO1	Students acquire conceptual knowledge in financial accounting and to impart skills to develop a working vocabulary of accounting terminology.
CO2	Students will develop the ability to prepare subsidiary books and different types of cash book including petty cash book
CO3	Students will acquire the reason for differences and their emergence in bank statements of any organization.
CO4	Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
CO5	Students will develop the ability to organize the complex data of accounts to solve the problem in preparation of final books of accounts.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ORGANIZATION
COURSE CODE : CBO-102G/C

COURSE OUTCOMES

CO1	To understand the basic concepts in Commerce, trade and industry and enable to expose to the modern business world
CO2	Enable to identify the role of an entrepreneur in developing a new venture.
CO3	To understand the nature, purpose and importance of different types of organizations.
CO4	To familiarize the students with the fundamentals of Joint Stock Company as per Companies Act, 2013
CO5	To acquaint with incorporation stages and to create awareness on documentation.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ENVIRONMENT
COURSE CODE : CBEN-103G C

COURSE OUTCOMES

CO1	Understand how an entity systematically explores the external environment in which business operates.
CO2	To enlighten/familiarize the impact of economic growth and economic Development on businesses.
CO3	To acquire specialized knowledge relating to economic development and Economic planning in India
CO4	To familiarize with various economic policies, structure and importance of Union budgets.
CO5	To enlighten about legal, social, political and ethical environment of business.

SEMESTER : II
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING –II
COURSE CODE : CACC-201G/CC

COURSE OUTCOMES

CO1	Able to discus and describe various methods of depreciation and valuation of depreciation to depreciable assets.
CO2	Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts
CO3	Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
CO4	Gain an understanding with regard to special transactions related to accounting for consignment
CO5	Gain the knowledge with regard to special transactions relating to joint venture business.

SEMESTER : II
TITLE OF THE PAPER : BUSINESS ECONOMICS
COURSE CODE : BE-202G/CC

COURSE OUTCOMES

CO1	Describe the nature of economics in dealing with the issues of scarcity of resources.
CO2	Analyze supply and demand analysis and its impact on consumer behavior
CO3	Evaluate the factors, such as production and costs affecting firms behavior
CO4	Recognize market failure and the role of government in dealing with those failures
CO5	Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business

SEMESTER : II
TITLE OF THE PAPER : BANKING THEORY & PRACTICE
COURSE CODE : CBTP-203G/C

COURSE OUTCOMES

CO1	To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
CO2	To train and equip with the skills in banking and financial services and Innovations of the current banking systems like e-banking advancements
CO3	To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD
CO4	To know about the general and special relationship between Banker and Customer and KYC norms.
CO5	To get knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of Paying Banker - Payment Gateways.

SEMESTER : III
TITLE OF THE PAPER : CORPORATE ACCOUNTING
COURSE CODE : CCA-301G/CC

COURSE OUTCOMES

CO1	The students will have a good command on issue of shares and also forfeiture and reissue of shares.
CO2	The students will be able to know how to allocate the expenses and incomes prior to incorporation and after incorporation
CO3	The students will be able to learn various methods for valuation of goodwill and shares.
CO4	The students will able to known how to prepare profit and loss and balance sheet as percompanies'act2013.
CO5	The students will acquire knowledge regarding rules and regulations of companies act 2013.

SEMESTER : III
TITLE OF THE PAPER : BUSINESSSTATISTICS
COURSE CODE : CBS -302G/CC

COURSE OUTCOMES

CO1	Describe the structure and characteristics of statistical data. Able to present the data with diagrams
CO2	Calculate and interpret measures of central tendency and variability in statistical data
CO3	Calculate and interpret measures of dispersion and skew ness
CO4	Design, evaluate and apply correlation analysis
CO5	To study the past behavior of data and measure the effect of changes over the period of time.

SEMESTER : III
TITLE OF THE PAPER : BANKING THEORY&PRACTICE
COURSE CODE : CBS -CBTP-303GC

COURSE OUTCOMES

CO1	To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of organization working and importance of RBI
CO2	To train and equip with the skills in banking and financial services and innovations of the current banking systems like e-banking advancements
CO3	To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD
CO4	To know about the general and special relationship between Banker and Customer and KYC norms
CO5	To get knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of Paying Banker-Payment Gateways.

SEMESTER : IV
TITLE OF THE PAPER : ACCOUNTING FOR SERVICE ORGANISATION
COURSE CODE : CASO-401GC

COURSE OUTCOMES

CO1	The students will acquire knowledge about non-profit organizations and how to prepare financial statements of non-profit organizations.
CO2	Thestudentswillbeabletopreparefinancialstatementselectricitycompanies.
CO3	Thestudentswillbeabletopreparefinancialstatementsbankingcompanies.
CO4	The students will be able to know how to ascertain the profit of Life insurance companies and to prepare valuation balance sheet.
CO5	The students will be able to know how to ascertain the profit of General insurance companies and to calculate reserve for unexpired risks.

SEMESTER : IV
TITLE OF THE PAPER : INCOME TAX
COURSE CODE : CTAX -403G/ C

COURSE OUTCOMES

CO1	Impart knowledge on the provisions of income tax law and practice Acquire Knowledge about Income exempt from tax and residential status of an individual
CO2	Enlist the ability of provisions of Income from salary and its deductions u/s 80c
CO3	The student can build an idea about Income from house property and its taxability
CO4	The student can acquire knowledge in calculation of capital gain and income from Other sources
CO5	The student can acquire knowledge in calculation of Computation of total income of an individual

SEMESTER : IV
TITLE OF THE PAPER : BUSINESS LAWS
COURSE CODE : CBL -402G/CC

COURSE OUTCOMES

CO1	Impacts the students in acquiring the basic knowledge regarding contracts in business. And impact of it to “QUID-PRO-QUO” for the enforceability of the contract
CO2	Students will have clarity on competency of persons, modes of discharge of contract, analyzing and approaching to remedies in times of breach of contract.
CO3	Students will get knowledge in law and procedure relating to sale of goods in Indian context.
CO4	Students are able to acquire knowledge in law and procedure relating to consumer rights
CO5	Students will get knowledge in new dimensions in business Organization relating to cyber laws

SEMESTER : V
TITLE OF THE PAPER : BUSINESS LEADERSHIP
COURSE CODE : CBLP-501G/CC

COURSE OUTCOMES

CO1	Students able to learn leadership skills
CO2	Students impart knowledge about leadership in organizations.
CO3	Students can build an idea about familiar business persons
CO4	Familiarize the students about the production progress with the help of departmental manager.
CO5	Students will understand the profit-making decisions in complex situations of any business organization.

SEMESTER : V
TITLE OF THE PAPER : COST ACCOUNTING
COURSE CODE : CCOA-502G/CC

COURSE OUTCOMES

CO1	Impart knowledge on the fundamental concept of cost accounting.
CO2	Comprehend the knowledge in effective control of raw materials and work in progress.
CO3	Build an idea about incentive plans based on production and cost savings.
CO4	Familiarize the students about the production progress with the help of departmental manager.
CO5	Students will understand the profit making decisions in complex situations of any business organization

SEMESTER : V
TITLE OF THE PAPER : GOODS & SERVICE TAX FUNDAMENTALS
COURSE CODE : CGST-503G/C

COURSE OUTCOMES

CO1	Impact knowledge on the Overview of GST and Justification for Introduction of GST and acquire knowledge about Constitutional Amendments in GST
CO2	Students get knowledge about GST Principles and Models of GST Australian, Canadian; the student can build an idea about Comprehensive Structure of GST model in India
CO3	The student will be able to understand Taxes and Duties under GST and also Taxation of services and Tax on Petroleum products
CO4	The student can build an idea about IGST Model and also Transactions within a State under GST
CO5	Students get knowledge about Value of Supply - Input Tax Credit and Distribution of Credit, Matching of Input Tax Credit

SEMESTER : V
TITLE OF THE PAPER : COMMERCIAL GEOGRAPHY
COURSE CODE : CCG-504G/CC

COURSE OUTCOMES

CO1	Understand the importance of early commercial activities in the world reflecting Different occupations in various environments
CO2	Explain different stages of agricultural development using additional OE resources Available in the internet using modern ICT tools.
CO3	Respond to the changes involved in the Indian forests and need for protection of Forests and Forests Conservation Act.
CO4	Know different types of minerals India and mining and their uses.
CO5	Examine Indian water resources, Interlinking of Rivers India and Experience of India and Andhra Pradesh.

SEMESTER : V
TITLE OF THE PAPER : CENTRAL BANKING
COURSE CODE : CCB-505CE G/C

COURSE OUTCOMES

CO1	Students are able to impart concepts of central banking
CO2	Understand the role of RBI in India
CO3	Students can learn about policies issued by RBI
CO4	Students will acquire the knowledge about RBI mechanism to control inflation
CO5	Students are able to learn norms issued by RBI

SEMESTER : V
TITLE OF THE PAPER : RURAL AND FARM CREDIT
COURSE CODE : CRC-506 CEG/C

COURSE OUTCOMES

CO1	Students are able to impart knowledge about concepts of rural credit
CO2	Students are able to impart knowledge about rural credit agencies
CO3	Students can acquire knowledge problems and remedies of Farm Credit
CO4	Students are able to impart knowledge about sources of farm
CO5	Students are able to learn norms issued by RBI

SEMESTER : VI
TITLE OF THE PAPER : EVENT MANAGEMENT
COURSE CODE : CEM-601G/CC

COURSE OUTCOMES

CO1	Identify the needs of customers for organizing a corporate event and understand the types of Events.
CO2	Examine various types of outdoor events and Managing the risk in the events, related to Marketing management, Human Resource Management
CO3	Students able to organize Shows, fashion shows, high profile charity events.

SEMESTER : VI
TITLE OF THE PAPER : MARKETING
COURSE CODE : CM-602G/CC

COURSE OUTCOMES

CO1	To introduce the concepts of marketing and understand the factors influence the market environment.
CO2	Analyze the consumer market models and enlightens consumer buyer behavior models
CO3	Understand the concept of product & identify the need of product mix, product line decisions
CO4	Develop an idea about pricing strategies and pricing decisions.
CO5	Enhance the students about decisions regarding promotion and distribution channels.

SEMESTER : VI
TITLE OF THE PAPER : AUDITING
COURSE CODE : CAU-603GEG/CC

COURSE OUTCOMES

CO1	Students will develop the knowledge & importance of auditing and accounting of any organization and Role of Auditor in checking corporate frauds.
CO2	Students will have ability of understanding the applicability of auditing types for different organizations
CO3	Students will have knowledge in planning the effectiveness of auditing and also internal check internal audit and internal control.
CO4	Students will have proper understanding of the requirements of documentary evidence for the completion of Vouching and Investigation.
CO5	Students will have the knowledge in Company Audit and Auditors Report

SEMESTER : VI
TITLE OF THE PAPER : MANAGEMENT ACCOUNTING
COURSE CODE : CAU- CMA-604GEG/CC

COURSE OUTCOMES

CO1	Students will critically understand the financial and management accounting importance in understanding the business operations using different tools
CO2	Students will understand the importance of changes of working capital for any Organization and analyzing the flow of fund
CO3	Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations
CO4	Students will have the ability of assessing the solvency and profitability of any organization
CO5	Students will understand the profit making decisions in complex situations of any business organization

SEMESTER : VI
TITLE OF THE PAPER : FINANCIAL SERVICES
COURSE CODE : CFS-605 CE G/C

COURSE OUTCOMES

CO1	Students can impart knowledge about various financial services offered by banking and non-banking companies
CO2	Students can understand various merchant banking services
CO3	To know emergence and development of financial services in leasing and hire-purchase
CO4	Students will acquire the knowledge of various credit rating agencies and concept of mutual funds
CO5	To understand the various financial services and their future

SEMESTER : VI
TITLE OF THE PAPER : MARKETING OF FINANCIAL SERVICES
COURSE CODE : CMFS-606CE G/C

COURSE OUTCOMES

CO1	Students are able to learn basic concepts in marketing of financial services
CO2	Students are able to learn the concepts of service environment
CO3	Students are able to impart knowledge about pricing strategies and promotion strategies
CO4	Students can impart knowledge regarding promotion and distribution
CO5	Students can impart knowledge about various retail financial services

DEPARTMENT OF COMPUTER SCIENCE

NAME OF THE PROGRAMME: B.Sc. (M.P.Cs, M.C.Cs)

SEMESTER : I
TITLE OF THE PAPER : Problem Solving in 'C'
COURSE CODE : CSC-101C

COURSE OUTCOMES

CO1	Learn to understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
CO2	Understand tokens and control structures in C.
CO3	Understand arrays and strings and implement them.
CO4	Understand the right way of using functions, pointers, structures and unions in C
CO5	Develop and test programs written in C files.

SEMESTER : II
TITLE OF THE PAPER : DATA STRUCTURES USING C
COURSE CODE : CSC-201C

COURSE OUTCOMES

CO1	Understand available Data Structures for data storage and processing
CO2	Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees & Graph
CO3	Choose a suitable Data Structures for an application, Develop ability to implement different Sorting and Search methods
CO4	Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
CO5	Design and develop programs using various data structures. Implement the applications of algorithms for sorting, pattern matching etc.

SEMESTER : II
TITLE OF THE PAPER : INFORMATION & COMMUNICATION TECHNOLOGY
COURSE CODE : ICT-I-201

COURSE OUTCOMES

CO1	Understand the literature of social networks and their properties
CO2	Explain which network is suitable for whom. Develop skills to use various social networking sites like twitter, flicker, etc.
CO3	Learn few GOI digital initiatives in higher education
CO4	Apply skills to use online forums, docs, spreadsheets, etc. for communication, collaboration and research.
CO5	Get acquainted with internet threats and security mechanisms

SEMESTER : III
TITLE OF THE PAPER : OBJECT ORIENTED PROGRAMMING USING JAVA
COURSE CODE : CSC-301C

COURSE OUTCOMES

CO1	Understand the benefits of a well-structured program
CO2	Understand different computer programming paradigms
CO3	Understand underlying principles of Object-Oriented Programming in Java
CO4	Develop problem-solving and programming skills using OOP concepts
CO5	Develop the ability to solve real-world problems through software development in high-level programming language like Java

SEMESTER : III
TITLE OF THE PAPER : INTERNET FUNDAMENTALS AND WEB
COURSE CODE : ICT-II-301C

COURSE OUTCOMES

CO1	Understand the fundamentals of Internet
CO2	Learn about Web browsers
CO3	Explore HTML and CSS
CO4	Explore HTML and CSS
CO5	Gain practical knowledge about web development tools

SEMESTER : IV
TITLEOFTHECOURSE : DATA STRUCTURES
COURSECODE : CSC-401C

COURSE OUTCOMES

CO1	To Understand the Basic concepts of data structures and storage structures and file structures.
CO2	Implement operations on linear lists, Stacks, Queues and their applications.
CO3	Implement various sorting and searching techniques and to understand advantages.
CO4	To understand Trees concepts and implementations
CO5	To understand Graphs concepts and implementations.

SEMESTER : V
TITLE OF THE COURSE : DATA BASE MANAGEMENT SYSTEMS
COURS ECODE : CSC-501C

COURSE OUTCOMES

CO1	Able to have knowledge about database, Traditional File System.
CO2	Be able to Design a database using Relation models and Data Modeling
CO3	Store, retrieve data in database using Integrity constraints and Normal Forms.
CO4	Be able to implement various SQL queries
CO5	Be able to implement various Procedural SQL queries

SEMESTER : V
TITLE OF THE COURSE : SOFTWARE ENGINEERING
COURSECODE : CSC-502C

COURSE OUTCOMES

CO1	Understand the concepts of Software Engineering and Process
CO2	Ability to use perfect models according to the requirements of the software projects.
CO3	Ability to analyze software requirements with existing tools.
CO4	Able to use different class diagrams, user interface designs, chart diagrams.
CO5	Able to differentiate different testing methodologies and Design Engineering

SEMESTER : VI
TITLEOFTHECOURSE : WEB TECHNOLOGIES
COURSECODE : CSC-601(GE)

COURSE OUTCOMES

CO1	Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO2	Understand to style a webpage using CSS and Basic Concepts of Java Scripts.
CO3	Understand to style a webpage Using Objects in Java Script and DHTML.
CO4	Understand the Basic Concepts of XML and Defining Data for Web Applications.
CO5	Understand the Concepts of JS.

SEMESTER : VI
TITLEOFTHECOURSE : PHP, MySQL & Word Press
COURSE CODE : CSC-602CE

COURSE OUTCOMES

CO1	Understand the concepts Of PHP and MY SQL Installations.
CO2	Able to know the basic concepts Function and Working with Functions.
CO3	Understand the concepts of FORMS and working with FORMS.
CO4	Understand the concepts of MY SQL and MY SQL Components.
CO5	Able to know the concepts of WORD PRESS.

SEMESTER : VI
TITLE OF THE COURSE : Advanced java Script: JQuery / AJAX / JSON / ANGULAR JS
COURSE CODE : CSC-603CE

COURSE OUTCOMES

CO1	Understand the concepts Of HTML and JQUERY
CO2	Write program for JQUERY and CSS Methods using DOM Attributes
CO3	Understand the concepts of JQUERY USER INTERFACE Programs
CO4	Understand the concepts of AJAX and JSON Objects
CO5	Basic concepts of ANGULAR JS and ANIMATIONS

NAME OF THE PROGRAMME: B.Com (Computer Applications)

SEMESTER : I
TITLEOFTHECOURSE : INTRODUCTION TO INFORMATION TECHNOLOGY
COURSE CODE : CCSC-103C

COURSE OUTCOMES

CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyze type of softwares and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

SEMESTER : II
TITLE OF THE COURSE : E-COMMERCE & WEB DESIGNING
COURSE CODE : CCSC-203C

COURSE OUTCOMES

CO1	Students would be able to analyze the concept of business models and standards.
CO2	Students would be able to understand the electronic market and market place.
CO3	Students would be able to understand the Hardware and Software of Server.
CO4	Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO5	Understand to style a webpage using CSS.

SEMESTER : II
TITLEOFTHECOURSE : INFORMATION & COMMUNICATION TECHNOLOGY
COURSECODE : ICT-I-201

COURSE OUTCOMES

CO1	Understand the literature of social networks and their properties.
CO2	Explain which network is suitable for whom.
CO3	Develop skills to use various social networking sites like twitter, flicker, etc.
CO4	Learn few GOI digital initiatives in higher education.
CO5	Apply skills to use online forums, docs, spreadsheets, etc. for communication, collaboration and research.
CO6	Get acquainted with internet threats and security mechanisms

SEMESTER : III
TITLE OF THECOURSE : OFFICE AUTOMATION TOOLS
COURSE CODE : CCSC-303C

COURSE OUTCOMES

CO1	Analyze a given problem and develop an algorithm to solve the problem
CO2	Understand the C tokens and control structures.
CO3	Understand to handle arrays and strings
CO4	Use the 'C' language constructs in the right way using pointers, structures and unions
CO5	Design, develop and test programs written in 'C' files.

SEMESTER : III
TITLE OF THE COURSE : INTERNET FUNDAMENTALS AND WEB TOOLS
COURSE CODE : ICT-II-301C

COURSE OUTCOMES

CO1	Understand the fundamentals of Internet
CO2	Learn about Web browsers
CO3	Explore HTML and CSS
CO4	Learn about web standards
CO5	Gain practical knowledge about web development tools.

SEMESTER : IV
TITLEOFTHECOURSE : PROGMAMMING IN C
COURSE CODE : CCSC 403C

COURSE OUTCOMES

CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
CO2	Understand tokens and control structures in C.
CO3	Understand arrays and strings and implement them.
CO4	Understand the right way of using functions, pointers, structures and unions in C
CO5	Develop and test programs written in C files

SEMESTER : V
TITLE OF THE COURSE : WEB TECHNOLOGIES
COURSE CODE : CCSC-507C

COURSE OUTCOMES

CO1	Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO2	Understand to style a webpage using CSS and Basic Concepts of Java Scripts.
CO3	Understand to style a webpage Using Objects in Java Script and DHTML.
CO4	Understand the Basic Concepts of XML and Defining Data for Web Applications.
CO5	Understand the Concepts of JS.

SEMESTER : V
TITLE OF THE COURSE : DATA BASE MANAGEMENT SYSTEMS
COURSECODE : CCSC-506C

COURSE OUTCOMES

CO1	Able to have knowledge about database, Traditional File System.
CO2	Be able to Design a database using Relation models and Data Modeling
CO3	Store, retrieve data in database using Integrity constraints and Normal Forms.
CO4	Be able to implement various SQL queries
CO5	Be able to implement various Procedural SQL queries

SEMESTER : VI
TITLE OF THE COURSE : PHP& MY SQL
COURSE CODE : CCSC-607CE

COURSE OUTCOMES

CO1	Understand the concepts Of PHP and PHP Basic Building Blocks.
CO2	Able to know the basic concepts Arrays and its Working.
CO3	Understand the concepts of FORMS and working with FORMS.
CO4	Understand the concepts of FILES and DIRECTORIES.
CO5	Able to know how the interaction between MY SQL using PHP.

SEMESTER : VI
TITLE OF THE COURSE : E-COMMERCE
COURSE CODE : CSC606GE

COURSE OUTCOMES

CO1	Students would be able to analyze the concept of business models and standards.
CO2	Students would be able to understand the electronic market and market place.
CO3	Students would be able to understand the Hardware and Software of Server.
CO4	Students would be able to understand the legal and security issues.
CO5	Able to differentiate different online payment methodologies.

SEMESTER : VI
TITLEOF THECOURSE : TALLY
COURSE CODE : CCSC-605CE

COURSE OUTCOMES

CO1	Able to understand the basic concepts of TALLY
CO2	Able to understand the installation of TALLY Software.
CO3	Able to implement the concepts of ledgers
CO4	Able to implement the concepts of vouchers
CO5	Able to implement the basic concepts of final accounts.

DEPARTMENT OF ECONOMICS

NAME OF THE PROGRAMME: B.A

SEMESTER : I
TITLE OF THE PAPER : MICRO ECONOMIC ANALYSIS
COURSE CODE : ECOT11B

COURSE OUTCOMES

CO1	Students are able to understand fundamentals of microeconomics
CO2	Students are able to understand the behavior of consumer
CO3	Students are able to understand the behavior of producer
CO4	Student can evaluate the different market structures.
CO5	Students can analyze the different theories of distribution.

SEMESTER : II
TITLE OF THE PAPER : MACRO ECONOMIC ANALYSIS
COURSE CODE : ECOT21B

COURSE OUTCOMES

CO1	Explain the concepts of Macroeconomics and its interrelations with Microeconomics
CO2	Associate the current economic phenomenon with existing theory and put their views on contemporary economic issues
CO3	Apply the principle of Macroeconomics in explaining the behavior of macroeconomic variables at national as well as global level
CO4	Extend the concepts of macroeconomics in unfolding the dynamics of energy sectors

SEMESTER : III
TITLE OF HEPAPER : MACRO ECONOMICS- NATIONAL INCOME, EMPLOMENT AND MONEY
COURSE CODE : ECO-301C

COURSE OUTCOMES

CO1	Able to understand the nature and scope of macroeconomics
CO2	Able to understand different concepts of national income and methods to measure national income
CO3	Able to acquire the knowledge about the classical and Keynes theories of employment.
CO4	Able to understand Keynes theory of consumption function and working of multiplier and accelerate principle
CO5	To understand the functions of money different theories of money.

SEMESTER : IV
TITLE OF THE PAPER : MACRO ECONOMICS-BANKING AND INTERNATIONAL TRADE
COURSE CODE : ECO-401C

COURSE OUTCOMES

CO1	Able to understand various of trade cycle the economic instability and course and about the inflation
CO2	Able to know functions of commercial and central banks , methods of credit control
CO3	Able to know about the role of non –banking financial institutions and money markets
CO4	Able to know the function of SEBI and insurance
CO5	Able to understand operation of fiscal and monetary policies.

SEMESTER : V
TITLE OF THE PAPER : ECONOMIC DEVELOPMENT AND INDIAN ECONOMY
COURSE CODE : ECO-501C

COURSE OUTCOMES

CO1	To able to understand economic growth and development and different growth models .Horrod Domor, Adamsmith restov theory etc Karal Marks able to understand some growth models
CO2	Understand the theories of persistence of under development – strategies for development balanced and unbalanced growth strategy, development with unlimited supply of labor
CO3	Understand the Economics of natural resources and sustainable development: - this course will help in understanding that types of natural recourses and their exploitation
CO4	Understand the population and economic growth understand basic futures of Indian economy. Trade and composition of national income and for capital income, occupational distribution, basic demography futures
CO5	To analyze new economic policies privatization liberalization and globalization in India.

SEMESTER– V
TITLE OF THE PAPER: INDIAN AND ANDHRA PRADESH ECONOMY
COURSE CODE: ECO-502C

COURSE OUTCOMES

CO1	To acquire knowledge regarding agriculture sector in India, its trends and productivity
CO2	To make the students to understand about Indian industry.
CO3	To understand foregoing direct investment and service sector in India
CO4	Students will be identifying the various objectives of pharming in India and its achievements.
CO5	To make students to understand about Andhra Pradesh economy and its progress

SEMESTER : VI
TITLE OF THE PAPER : AGRICUTURAL ECONOMICS
COURSE CODE : ECO-601GE

COURSE OUTCOMES

CO1	Able to understand the nature of agricultural economics and also factory determining the agriculture
CO2	To understand how the production principles are applicable in agriculture
CO3	To know about the productivity trends in Indian agriculture with special reference to Andhra Pradesh and also the agrarian reforms
CO4	To know that the systems of farming and new agricultural strategies.
CO5	To know about the emerging trends in production, processing and marketing of agricultural products

DEPARTMENT OF ENGLISH

NAME OF THE PROGRAMME: B.A. / B.COM / B.SC.

SEMESTER : I
TITLE OF THE PAPER : English Praxis Course-I: A Course in Communication and Soft Skills
COURSE CODE : ENG 101C

COURSE OUTCOMES

CO1	Students will become accomplished, active readers who appreciate ambiguity and complexity.
CO2	Students will be able to write effectively for a variety of professional and social settings. They will practice writing as a process of motivated inquiry, engaging other writers' ideas as they explore and develop their own.
CO3	Students will develop an appreciation of how the formal elements of language and generate meaning.
CO4	They will develop an ability to read texts in relation to their historical and cultural contexts, in order to gain a richer understanding of both text and context.
CO5	To become more aware of themselves as situated historically and culturally.

SEMESTER : II
TITLE OF THE PAPER : English Praxis Course-II: A Course in Reading and Writing Skills
COURSE CODE : ENG 201C

COURSE OUTCOMES

CO1	Acquaint the learner with some widely used words which appeal to be similar but are semantically different and also help them to realize the importance of meanings, and understand the grammatical structures in writing.
CO2	Speak clearly, effectively and appropriately with correct pronunciation, pause and articulation of voice for a variety of audiences and purposes
CO3	Analyze, interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose, and form
CO4	Think critically; convey their own interpretations, perspectives, producing new creative and artistic works following grammatical structures in oral and written assignment.
CO5	Write effectively for a variety of professional and social settings adapting other writer's ideas as they explore and develop their own.

SEMESTER : II
TITLE OF THE PAPER : Journalistic Reporting
COURSE CODE : Jr 201(SDC)

COURSE OUTCOMES

CO1	Understand the evolution of journalism with a focus on its development in India
CO2	Comprehend the role of press in Indian Democracy and various reporting methods
CO3	Realize the ethical aspects of Journalism in India
CO4	Develop basic writing skills for newspapers, Radio and Television

SEMESTER : II
TITLE OF THE PAPER : Business communication
COURSE CODE : BC 201(SDC)

COURSE OUTCOMES

CO1	Understand the types of Business Communication and Correspondence
CO2	Comprehend the Processes like receiving, filing and replying
CO3	Acquire knowledge in preparing good business communication
CO4	Acquaint with organizational communication requirements and presentations

SEMESTER : III
TITLE OF THE PAPER : General English
COURSE CODE : ENG 301C

COURSE OUTCOMES

CO1	Students can read and understand any text in English listening to the inputs given by the teacher in the classroom.
CO2	Students imbibe the rules of language unconsciously and tune to deduce language structure and usage.
CO3	Students write paragraphs, essays, and letters.
CO4	Students decipher the mechanism of language and use it for success in competitive examinations and job related speaking

SEMESTER : IV
TITLE OF THE PAPER : Communication and Soft Skills III
COURSE CODE : CSS 401C FC

COURSE OUTCOMES

CO1	To earn Socio-linguistic competence and discourse competence with the help of specially designed lessons
CO2	The students can hone their interpersonal and employability skills draw upon real life situations and examples
CO3	Enable the students to speak English confidently and effectively in a wide variety of situations

SEMESTER : IV
TITLE OF THE PAPER : ENGLISH PRAXIS COURSE-III
COURSE CODE : CSS 401C FC

COURSE OUTCOMES

CO1	Analyze interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose and form.
CO2	Comprehend effectively for a variety of professional and social settings, adapting other writer's ideas as they explore and develop their own.
CO3	Engage in simple, common and basic social and academic conversations, demonstrating the ability to open and close a conversation and to ask for clarification, information or assistance, as well as agreeing/disagreeing and giving examples.
CO4	Convey their own interpretations by building dialogues and developing the learner's performance level in spoken English through the activities.
CO5	Acquaint the learner with the skills to debate, describe and role play

SEMESTER : I
TITLE OF THE PAPER : COMMUNICATION AND SOFT SKILLS -1 (CSS-1) FOUNDATION COURSE SYLLABUS
COURSE CODE : CSS 101C FC

COURSE OUTCOMES

CO1	Introduced the students to the speech sounds of English in order to enable them to listen to English and speak with global intelligibility
CO2	Enabled the students to speak English confidently and effectively in a wide variety of situations.
CO3	Helped the students to improve their reading efficiency by refining their reading strategies.

SEMESTER : II
TITLE OF THE PAPER : COMMUNICATION AND SOFT SKILLS -11 (CSS-11) FOUNDATION COURSE SYLLABUS
COURSE CODE : CSS 201C FC

COURSE OUTCOMES

CO1	Introduced the students to the speech sounds of English in order to enable them to listen to English and speak with global intelligibility
CO2	Enabled the students to speak English confidently and effectively in a wide variety of situations.
CO3	Helped the students to improve their reading efficiency by refining their reading strategies.

DEPARTMENT OF ENVIRONMENTAL STUDIES

NAME OF THE PROGRAMME: B.A. / B.COM / B.SC.

Semester : I
TITLE OF THE PAPER : ENVIRONMENTAL STUDIES
COURSE CODE : ENS101

COURSE OUTCOMES

CO1	Realize the importance of environment, the goods and services of a healthy biodiversity, Dependence of humans on environment.
CO2	Evaluate the ways and ill effects of destruction of environment, population explosion on Ecosystems and global problems consequent to anthropogenic activities.
CO3	Discuss the laws/ acts made by government for environmental conservation and acquaintwithinternationalagreementsandnationalmovementsandrealizecitizen'sroleinprotecting environmentandnature.

Semester : IV
TITLE OF THE PAPER : ENTREPRENEURSHIP
COURSE CODE : ENP201

COURSE OUTCOMES

CO1	This course prepares participants for a future career as entrepreneurs.
CO2	It is designed to give participants practical insights into those business aspects of finance that are particularly important during a firm's early development phases, and to make them more effective in managing and growing the start-up firm.
CO3	Participants will be able to approach various funding agencies and procure a venture capital funding for the business that they may launch.

DEPARTMENT OF HISTORY

NAME OF THE PROGRAMME: B.A.

SEMESTER : I
TITLE OF THE PAPER : ANCIENT INDIAN HISTORY & CULTURE (FROM EARLIEST TIMES TO 600 AD)
COURSE CODE : HIS-101C

COURSE OUTCOMES

CO1	To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India.
CO2	Describe Prehistory – Pro to history – analyze early human settlements- Indus valley civilization.
CO3	Understand the Mouryan Administration art and architecture.
CO4	To Describe the Socio Economic conditions of Kushanas, satavahanas, and Sangam Age.
CO5	Identify the Guptas period as golden Age all round development–Nalanda University.

SEMESTER : II
TITLE OF THE PAPER : EARLY MEDIEVAL INDIAN HISTORY & CULTURE (FROM 600 TO 1526 AD)
COURSE CODE : HIS-201C

COURSE OUTCOMES

CO1	Evaluate the contribution of pushya buthi dynasty.
CO2	Understand the Socio-Economic conditions of Badami and Vengi Chalukyans - their contribution to Art and Literature.
CO3	Identify the contribution of pallavas to Art and Architecture- Understand the local administration of Cholas.
CO4	Examine the Arab conquests of Sindh and battle of Tarain understands the foundation of the Delhi sultanate and administration.
CO5	To discuss the Bhakti movement - Identify cultural synthesis.

SEMESTER : III
TITLE OF THE PAPER : LATE MEDIEVAL & COLONIAL HISTORY OF INDIA (FROM 1526 -1857A.D)
COURSE CODE : HIS-301C

COURSE OUTCOMES

CO1	Identify the conditions of India under the Mughal Empire.
CO2	Explain the administration and Art and Architecture of Mughals.
CO3	Analyze the rise of the Marathas and the contribution of Shivaji.
CO4	Discuss the advent of Europeans Evaluate the Angle-French wars and Expansion of British power.
CO5	Analyze the land revenue systems of English.
CO6	Analyze the land revenue systems of English. Recognize the nature and consequences of 1857 Revolt. Identify the major sites of mutiny of 1857.

SEMESTER : IV
TITLE OF THE PAPER : SOCIAL REFORMS AND FREEDOM STRUGGLE IN INDIA (FROM 1820-1947)
COURSE CODE : HIS-401C

COURSE OUTCOMES

CO1	To understand about the Socio-religious reform movement in 19th C. And self-respect movements.
CO2	Realize the Lord Rippons local self-government and Lord Curzonpolicy.
CO3	Establishment of Indian National congress and state the role of moderate and extremists.
CO4	Understand the Gandhi role in Indian National movement comparison of Nationalist movement pre Gandhi–past Gandhi era.
CO5	Asses the partition of India and Integration of Native states into Indian union.

SEMESTER : V
TITLE OF THE PAPER : AGE OF RATIONALISM AND HUMANISM – THE WORLD BETWEEN 15TH& 18THCENTURIES.
COURSE CODE : HIS-501C

COURSE OUTCOMES

CO1	Describe the geographical discoveries - feudalism.
CO2	Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
CO3	Narrate the emergence of National states and Glorious Revolution.
CO4	Assess the causes and effects of American Revolution.
CO5	Realize the causes and results of French revolution and the revolution gave Liberty, Fraternity, and Equality.

SEMESTER : V
TITLE OF THE PAPER : HISTORY & CULTURE OF ANDHRA DESA (FROM 12TH TO 19TH AD)
COURSE CODE : HIS-502C

COURSE OUTCOMES

CO1	To understand the Socio-Economic and cultural condition of Andhra during Kakatiyas rule
CO2	Identity the contribution of Vijayanagara rulers to Art and Architecture, literature and greatness of Srikrishna Devaraya
CO3	To narrate the Socio–Economic condition Andhras during the Qutubshahi rule and their Administration.
CO4	Describe the advent of Europeans in Andhra
CO5	Evaluate the establishment of British rule in Andhra and 1857 revolt.

SEMESTER : VI
TITLE OF THE PAPER : HISTORY OF MODERN EUROPE (FROM 19TH CENTURY TO 1945 A.D)
COURSE CODE : HIS-601C

COURSE OUTCOMES

CO1	Realize the causes and results of Industrial revolution
CO2	To understand the efforts of Bismark for the Unification of Germany and Mazini, Count cover Garibaldi. For the unification of Italy.
CO3	To understand the causes and results for the Ist world war and formation of league of Nations.
CO4	Examine the Nazism and Fascism in Germany and Italy.
CO5	Understand the causes and results of Second World War and establishment of UNO.

SEMESTER : VI
TITLE OF THE PAPER : Cultural Tourism in Andhra Pradesh
COURSE CODE : HIS-602C

COURSE OUTCOMES

CO1	To expose the Students to the scope and potential available in the Tourism Industry
CO2	To impart specific skills such as Travel & Tourist guide
CO3	To know the importance of various Heritage places
CO4	To understand the types of tourism
CO5	Tourism provides Cultural Social and Economic knowledge about other countries

SEMESTER : VI
TITLE OF THE PAPER : POPULAR MOVEMENTS IN ANDHRA DESA (1848-1956 AD)
COURSE CODE : HIS-603C

COURSE OUTCOMES

CO1	To understand the Social Reform Movement and Self Respect movements in Andhra Desa
CO2	To describe the Freedom Movement in Andhra Desa
CO3	To identify the role of Andhra in Freedom Movement
CO4	Examine the movement for separate Andhra State.
CO5	Narrate the Formation of Andhra Pradesh in 1956.

SEMESTER : VI
TITLE OF THE PAPER : CONTEMPORARY HISTORY OF ANDHRA PRADESH (1956-2014AD)
COURSE CODE : HIS-604C

COURSE OUTCOMES

CO1	To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
CO2	To Evaluate the Leftist activities and present status of Communists in Andhra Pradesh
CO3	Examine the Dalit Movements in Andhra Pradesh
CO4	Realize the Jai Telangana, Jai Andhra movements in Andhra State
CO5	Assess the causes for the Formation of Telangana Rastra Samithi and Bifurcation of Andhra Pradesh in 2014.

DEPARTMENT OF HINDI

NAME OF THE PROGRAMME: B.A. / B.COM. / B.SC.

SEMESTER : I
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HIN101C

COURSE OUTCOMES

CO1	मनव मूल्यों को पहचान कर समाज कल्याण हेतु देने के लिए तैयार रहना।
CO2	आधुनिक युग की भावनाओं को पहचानकर सामाजिक समस्याओं का सामना करते हुए, निरंतर आगे बढ़ना।
CO3	विद्यार्थियों को शब्दावली से एक भाषा से दुसरेभाषा का अनुवाद कर सकताहै।
CO4	छात्रों को इस व्यकरण केद्वारा भाषामें निपुणता आतीहैं।
CO5	छात्रों के इसपत्र-लेखन द्वारा लिखित कार्य बढता है और संप्रेषण का विकास होताहै।

SEMESTER : II
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HIN201C

COURSE OUTCOMES

CO1	मानव मूल्यों से विद्यार्थी अवगत होंगे तथा इस दिशा में आगे बढ़ेंगे।
CO2	आधुनिक युग की भावनाओं को पहचानकर, निरंतर सामाजिक समस्याओं का सामना करते हुए,आगे बढ़ेंगे।
CO3	विषय के विश्लेषण से सामाजिक दायित्व को निभाने में अग्रसर होंगे।
CO4	ग्रहण किये गये पाठ्यांशों के द्वारा विद्यार्थियों का ज्ञान मापन बढ़ेगा तथा अपने क्षेत्र में भी आगे होंगे
CO5	भाषा की प्रवीणता और प्रयोग से विद्यार्थी उज्वल भविष्य की ओर बढ़ेंगे।

SEMESTER : III
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HIN301C

COURSE OUTCOMES

CO1	दोहों के द्वारा विद्यर्थियों में समाजसुधारक, मानवमूल्य बढ़ते हैं।
CO2	हिन्दी साहित्य का इतिहास केद्वारा हिन्दी भाषा की प्रामुख्यता और कविताओं की प्रामुख्यता मिल जातीहै।
CO3	समाज कल्याण विषयों को समझकर अपना ज्ञान बढ़तेहैं।
CO4	समाज में भाषा पर प्रामुख्यता, भाषा में ज्ञान प्राप्त करके, दूसरों से आसानी से संप्रोषित करना सीखेंगे।
CO5	सरकारी व्यवस्थाओं को लेखलिखना, भाषा की विशेषता, समाज सरकारी भाषा सीखकर दूसरों को आदर्शवान बना सकेंगे।

DEPARTMENT OF MATHEMATICS

NAME OF THE PROGRAMME: B.SC. (M.P.C., M.P.Cs., M.C.Cs)

SEMESTER : I
TITLE OF THE COURSE : DIFFERENTIAL EQUATIONS
COURSE CODE : MAT101

COURSE OUTCOMES

CO1	Understand how to differentiate linear and non-linear differential equations.
CO2	Different methods for solving differential equations of first order but not of first degree.
CO3	Will be able to find the solution of higher-order linear differential equations with constant coefficients.
CO4	Use the method of "variation of parameters" to find the solution of higher-order linear differential equations with variable coefficients and solve the Cauchy-Euler equations

SEMESTER : II
TITLE OF THE COURSE : SOLID GEOMETRY
COURSE CODE : MAT 201

COURSE OUTCOMES

CO1	Understand the concept of two dimensional and three dimensional planes. How to solve the intersecting planes, lines and points.
CO2	Understand the concepts of lines, shortest distance between lines, planes co planer lines and co planer lines
CO3	Will be able to understand the concept of Sphere, passing through the points, passing through the planes, lines orthogonal spheres. Limiting points of coaxial system of spheres, point of contact.
CO4	Will be able to understand the concepts of Cones, Cylinders in three dimensional.

SEMESTER : III
TITLE OF THE COURSE : GROUP THEORY
COURSE CODE : MAT301

COURSE OUTCOMES

CO1	Will be able to assess properties implied by the definitions of groups
CO2	Will be able to use various canonical types of groups (including cyclic groups and groups of permutations)
CO3	Will be able to analyze and demonstrate examples of subgroups, normal sub groups and quotient groups
CO4	Will be able to use the concepts of isomorphism and homomorphism for groups

SEMESTER : IV
TITLE OF THE COURSE : REAL ANALYSIS
COURSE CODE : MAT 401

COURSE OUTCOMES

CO1	Will be able to understand the function with limits, bounded ness and convergent properties
CO2	Use the definitions of convergence, diverge and oscillates as they apply to sequences, series, limits and continuity
CO3	How to use differentiation for limit of the functions, differentiability, mean value theorems
CO4	Will be able to understand the concepts of Riemann Integrality, fundamental theorem on calculus

SEMESTER : V
TITLE OF THE COURSE : RING THEORYAND VECTOR CALCULUS
COURSE CODE : MAT 501

COURSE OUTCOMES

CO1	Attain knowledge in Rings, Sub rings, Ideals
CO2	Further learn homo morphisms and polynomial rings
CO3	Will be able to compute and analyze the vector-valued functions of a real variable and their curves and in turn the geometry of such curves including curvature, torsion and the Frenet-Serre frame and intrinsic geometry
CO4	Will be able to compute and analyze the integral ideas of the functions defined including line, surface and volume integrals - both derivation and calculation in rectangular, cylindrical and spherical coordinate systems and understand the proofs of each instance of the fundamental theorem of calculus

SEMESTER : V
TITLE OF THE COURSE : LINEAR ALGEBRA
COURSE CODE : MAT 502

COURSE OUTCOMES

CO1	Recognize the concepts of the terms span, linear independence, basis, and dimension and apply these concepts to various vector spaces and subspaces
CO2	Will be able to find the linear independent and dependent vectors to linear transformations
CO3	Use matrix algebra and the related matrices, Compute and use Eigen vectors and Eigen values
CO4	Will be able to find the unit vectors by inner product spaces and Determine and use orthogonally.

SEMESTER : VI
TITLE OF THE COURSE : NUMERICAL ANALYSIS
COURSE CODE : MAT601

COURSE OUTCOMES

CO1	Analyze and detect different form of errors and also will be able to solve Algebraic and Transcendental equations using different methods.
CO2	Interpolate the functions within the range using equally and unequally spaced points
CO3	Use Upon completion of this module the student should: Understand the Least Squares Method, Be able to curve fit data using several types of curves (straight line, second degree parabola, power curve, and exponential curve)
CO4	Will be able to solve linear system of equations with ill conditioned method and approximation methods

SEMESTER : VI
TITLE OF THE COURSE : LAPLACE TRANSFORMS AND FOURIER TRANSFORMATION
COURSECODE : MAT 601

COURSE OUTCOMES

CO1	Will be able to find the Laplace transform of a function by definition and by use of a table
CO2	Will be able to find the inverse Laplace transform of a function
CO3	Will be able to find the convolution of two functions and the transform of a convolution
CO4	Will be able to solve linear differential equations with constant coefficients and unit step input functions using the Fourier transform and Fourier Sine and cosine functions

SEMESTER : VI
TITLE OF THE COURSE : ADVANCED NUMERICAL ANALYSIS
COURSE CODE : MAT 603

COURSE OUTCOMES

CO1	Will be able to derive numerical methods for approximating the solution of problems of continuous mathematics
CO2	To obtain numerical approximations to the first and second derivatives of certain functions. Calculate a definite integral using an appropriate numerical method
CO3	Implement a variety of numerical algorithms using appropriate technology Compare the viability of different approaches to the numerical solution of problems arising in roots of solution of non-linear equations, interpolation and approximation, numerical differentiation and integration, solution of linear systems
CO4	To solve the solution of a linear system of equations using direct or iterative methods. To solve the selected class of differential equations using Taylor, Picards, Euler‘s, Runge Kutta methods

SEMESTER : VI
TITLE OF THE COURSE : APPLICATIONS OF ADVANCED NUMERICAL ANALYSIS WITH "C" PROGRAMME PROJECT.
COURSE CODE : MAT 604

COURSE OUTCOMES

CO1	Will be able to compute and analyze the integral ideas of the applications of Advanced Numerical Analysis. To execute the "C" programme by depending the applications of Advanced Numerical Analysis.

DEPARTMENT OF TELUGU

NAME OF THE PROGRAMME: B.A. / B.COM / B.SC

Semester : I
Title of the Course : TELUGU
Course Code : TELT11A

COURSE OUTCOMES

CO1	ప్రాచీన తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారు. తెలుగు సాహిత్యంలో ఆదికవి నన్నయ కాలంవారి భాషా సంస్కృతులను, ఇతిహాసకాలం నాటి రాజనీతి విషయాలపట్ల పరిజ్ఞానాన్ని పొందగలరు.
CO2	శివకవుల కాలంనాటి మత పరిస్థితులను, భాషా విశేషాలను గ్రహిస్తారు. తెలుగు నుడికారు, సామెతలు, లోకోక్తులు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందగలరు.
CO3	తిక్కన భారతంనాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితా శిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు.
CO4	పోతన అద్భుత కథాకథన శిల్పం, సజీవపాత్ర చిత్రణ, శబ్దాలంకారాల ప్రయోగం మొదలగు విభిన్న రీతుల పట్ల అభిరుచిని పొందగలరు. మొల్ల కవిత్వంలోని వీనుల విందైన పదాలు, పాత్రల మనోభావాల చిత్రణ గుర్తించగలరు.
CO5	తెలుగు పద్యం స్వరూప స్వభావాలను, సాహిత్యాభిరుచిని పెంపొందించుకుంటారు. ప్రాచీన కావ్యభాషలోని వ్యాకరణాంశాలను అధ్యయనం చేయడం ద్వారా భాషా సామర్థ్యాన్ని, రచనలో మెలకువలను గ్రహించగలరు.

Semester : II
Title of the Course : TELUGU
Course Code : TELT21A

COURSE OUTCOMES

CO1	ఆంగ్లభాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని, దాని విశిష్టతను గుర్తిస్తారు.
CO2	సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం, కథ, నవల, నాటకం, విమర్శల" పై అవగాహన పొందుతారు.
CO3	భావ కవిత, అభ్యుదయ కవిత్వాల లక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు. ఇంకా అస్తిత్వవాదం, ఉద్యమాల పుట్టుకను, ఆవశ్యకతను గుర్తిస్తారు.
CO4	కథా సాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు. సిద్ధాంతాల ద్వారా కాకుండా, వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించుకోగలరు.
CO5	ఆధునిక తెలుగు కల్పనా సాహిత్యం ద్వారా సామాజిక, సాంస్కృతిక, రాజకీయ చైతన్యాన్ని పొందుతారు.

Semester : III
Title of the Course : TELUGU
Course Code : TELT01A

COURSE OUTCOMES

CO1	తెలుగు సాహిత్య అభ్యసనం ద్వారా నేర్చుకున్న వైపుణ్యాలను, సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు.
CO2	విద్యార్థులు భాషాతత్త్వాన్ని, ఆవశ్యకతను, ప్రాధాన్యాన్ని గుర్తిస్తారు.
CO3	భాషా నైపుణ్యాలను అలవర్చుకోవడం, వినియోగించడం నేర్చుకుంటారు.
CO4	ప్రాచీన పద్య రచనతోపాటు ఆధునిక కవిత, కథ, వ్యాసం మొదలైన సాహిత్య ప్రక్రియల పట్ల అవగాహన పొందుతారు.
CO5	సృజన రంగం, ప్రసార మాధ్యమాలు, అనువాద రంగాల పట్ల విద్యార్థులకు అవగాహన కల్గుతుంది.

DEPARTMENT OF PHYSICS

NAME OF THE PROGRAMME: B.SC (MPC, MPCS)

SEMESTER : I
COURSE NAME : MECHANICS, WAVES&OSCILLATIONS
COURSE CODE : PHYT11B

COURSE OUTCOMES:

CO1	Understand Newton's laws of motion and motion of variable mass system and its Application to rocket motion and the concepts of impact parameter, scattering cross Section.
CO2	Apply the rotational kinematic relations, the principle and working of gyroscope and Its applications and the processional motion of a freely rotating symmetric top. Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.
CO3	Understand postulates of Special theory of relativity and its consequences such as Length contraction, time dilation, relativistic mass and mass-energy equivalence. Examine phenomena of simple harmonic motion and the distinction between Un damped, damped and forced oscillations and the concepts of resonance and quality Factor with reference to damped harmonic oscillator.
CO4	Appreciate the formulation of the problem of coupled oscillations and solve them to Obtain normal modes of oscillation and their frequencies in simple mechanical systems.
CO5	Figure out the formation of harmonics and overtones in a stretched string and acquire Knowledge on Ultrasonic waves, their production and detection and their applications In different fields.

SEMESTER : II
TITLE OF THE PAPER : WAVES OPTICS
COURSE CODE : PHY -201C

COURSE OUTCOMES:

CO1	Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude.
CO2	Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating
CO3	Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
CO4	Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
CO5	Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.

SEMESTER : III
TITLE OF THE PAPER : WAVES OPTICS
COURSE CODE : PHY -301C

COURSE OUTCOMES:

CO1	Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude.
CO2	Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating
CO3	Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
CO4	Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
CO5	Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.

Semester : IV
Title of the Course : THERMODYNAMICS AND RADIATION PHYSICS
Course Code : PHY401C

COURSE OUTCOMES:

CO1	Understand the microscopic behavior of molecules, interactions and the concepts of transport phenomena of heat transfer, mass transfer and momentum transfer.
CO2	State the First Law and define heat, work, thermal efficiency and the difference between various forms of energy and describe energy exchange processes, reversible and irreversible process.
CO3	Derive thermodynamic potentials from first principles and derive the Maxwell relations
CO4	Understand very low temperatures like the concept of Joule Thomson effect, Lique faction of gases and the properties at very low temperatures.
CO5	Understanding of Black-body radiation as the thermal electromagnetic radiation and the statistical principles to the mechanical behavior of large number of small particles.

Semester : V
Title of the Course : ELECTRICITY, MAGNETISM AND ELECTRONICS
Course Code : PHY501C

COURSE OUTCOMES:

CO1	Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances
CO2	Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
CO3	Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves
CO4	Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q factor, Power factor and the comparative study of series and parallel resonant circuits.
CO5	Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors

Semester : V
Title of the Course : MODERN PHYSICS
Course Code : PHY502

COURSE OUTCOMES:

CO1	Remember the different atomic models and basic knowledge of spectroscopy
CO2	Understand the theory and application of microwave, infrared and Raman spectroscopy
CO3	Apply non- relativistic Schrödinger wave mechanics to a variety of potentials in one and three dimensions.
CO4	Analyze the prerequisite in a molecule towards its Rotational and vibrational activity
CO5	Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features

Semester : VI
Title of the Course : ANALOG AND DIGITAL ELECTRONICS
Course Code : PHY601GE

COURSE OUTCOMES:

CO1	Understand the fundamental concepts (construction, working and drain & transfer characteristics) of semiconductor devices, FET & MOSFET. Apply the knowledge in the construction of electronic devices.
CO2	Understand the operation of basic differential amplifiers and their applications in Linear Integrated circuits. Learn the basic function of the Operational Amplifier (IC741), its Ideal and Practical characteristics and its parameters (Off set voltages, CMRR, Slew rate and Virtual Ground)
CO3	Understand the function of the Operational Amplifier and apply it to its applications such as inverting and non-inverting amplifiers. Apply the knowledge in designing the various digital devices

CO4	Understand, analyze, design and troubleshoot a broad range of combinational circuits (Multiplexer, De-multiplexer, Encoder and Decoder) using digital ICs.
CO5	Understand the construction and operation of flip flops (RS, Clocked SR, JK, D, T, and Master-Slave).

SEMESTER : VI
TITLE OF THE PAPER : INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER
COURSE CODE : PHY – 602 CE

COURSE OUTCOMES:

CO1	To design and build an appropriate architecture or program design to apply to a particular situation and to describe some of the characteristics of RISC and CISC architectures
CO2	To understand what is a microcontroller, microcomputer, embedded system and to become familiar with the programming environment used to develop embedded systems
CO3	To know the major classes of programming languages with their characteristics, perform conversions between binary, octal / hexadecimal, and decimal number systems and perform the basic arithmetic operations in these number systems
CO4	To understand key concepts of embedded systems like IO, timers, interrupts interaction with peripheral devices
CO5	To design a system, component, or process to meet desired needs within realistic constraints and also learn debugging techniques for an embedded system.

SEMESTER : VI
TITLE OF THE PAPER : COMPUTATIONAL METHODS AND PROGRAMMING
COURSE CODE : PHY – 603 CE

COURSE OUTCOMES:

CO1	Understand the basic structure of the C-Programming, declaration and Usage of Variables, Constants and Operators.
CO2	Understand a Programme that solves this problem and generate a set of input test values to perform a design walk through to verify your design sequence
CO3	Understand a multifunction programme like elements of user-defined functions, return values and their types, function declaration and category of functions
CO4	Solve equations containing exponential, logarithmic, quadratic, linear and non-linear equations
CO5	Understand the common numerical methods and how they are used to obtain approximate solutions.

Semester : VI
Title of the Course : ELECTRONIC INSTRUMENTATION
Course Code : PHY604CE

COURSE OUTCOMES:

CO1	Understand the basic measurements of Instruments (accuracy, precision, range, Resolution, sensitivity and errors). Understand the theory, working principle, specifications and significance of Multi meter.
CO2	Describe the function of basic building blocks of Cathode Ray Oscilloscope. Measure the appropriate parameters (Voltage, Time Period, Frequency and Phase angle)
CO3	Understand the A/D & D/A converters and display instruments
CO4	Gain knowledge about amplifiers, oscillators and biomedical instruments
CO5	Understand the fundamental theory of Transducers and bridges

DEPARTMENT OF POLITICAL SCIENCE

NAME OF THE PROGRAMME: B.A

SEMESTER : I
PAPER TITLE : BASIC CONCEPTS OF POLITICAL SCIENCE
COURSE CODE : POL – 101C

COURSE OUTCOMES

CO1	Understand the Nature, Definition, Significance and Scope of Political Science
CO2	To learn Theories of Origin of the State and Essential Elements of State
CO3	Get exposed Sovereignty- Characteristics and Kinds of sovereignty
CO4	Describe the law, liberty, equality and their Sources, features and kinds
CO5	Create awareness about Women's Rights, Safe guards of Rights and Duties of citizen.

SEMESTER : II
PAPER TITLE : CONCEPTS THEORIES AND INSTITUTIONS
COURSE CODE : POL–201C

COURSEOUTCOMES

CO1	To know about Democracy-forms, Conditions necessary for the success, Merits and demerits of democracy
CO2	Understand the Ideologies-Individualism, Anarchism Fascism, Marxism and Gandhi's mind Theory of Separation of Powers.
CO3	Know about Legislature-Powers and Functions, Stages of making the Law.
CO4	Examine the Importance & functions of Executive i.e. Parliamentary-Executive, presidential executive
CO5	Develop interest in Human Rights, popular control, welfare state reasons for the growing importance and United Nations Declaration of Human Rights.

SEMESTER : III
TITLE OF THE PAPER : INDIAN CONSTITUTION
COURSE CODE : POL 301C

COURSE OUTCOMES

CO1	Learn about Constituent Assembly and Salient Features of the Constitution of India
CO2	Get awareness about-Preamble, Fundamental Rights, Directive Principles of State Policy and Fundamental Duties
CO3	Able to analyze Union Executive, Indian Parliament: Rajya Sabha, Vice- President; Lok Sabha, Speaker and their Powers and Functions
CO4	Come to know about Constitutional provisions on Centre state relations i.e. Legislative Relation, Administrative and Financial Relations
CO5	Acquire knowledge of Supreme Court of India: Composition, Powers and Functions and Public Interest litigation, Judicial Review.

SEMESTER : IV
TITLE OF THE PAPER : INDIAN POLITICAL PROCESS
COURSE CODE : POL 401C

COURSE OUTCOMES

CO1	Learn about Constituent Assembly and Salient Features of the Constitution of India
CO2	Know about Election Commission-Structure, Powers and Functions Electoral Reforms
CO3	Able to analyze Political Parties in India National Parties-Indian National Congress, BJP and Communist Parties - CPI and CPI (M) - Policies &Programmes - causes for the 1964 Regional Parties-Akali Dal, DMK and AIADMK, Telugu Desam Party, T.R.S
CO4	Understand Voting Behavior and its determinants.-Caste, Gender and Religion in politics
CO5	Trends in political System-Coalition Politics, National Integration and Social movements.

SEMESTER : V
PAPER TITLE : INDIAN POLITICAL THOUGHT
COURSE CODE : POL –501C

COURSE OUTCOMES

CO1	Understand Manu: Social laws and Kautilya's kingship, Mandala Theory, Saptanga Theory
CO2	Learn about Gandhi's Non-violence, Satyagraha, and Theory of Trustee ship. And also Jyothi Rao Pule's Social reform movement
CO3	Be exposed to modern though to Nehru's Democratic Socialism, Non-Alignment and also Ambedkar Views on Indian Society.
CO4	Know about M.N.Roy's - Radical Humanism and Jaya Prakash Narayan'-Total Revolution.

SEMESTER : V
PAPER TITLE : WESTERN POLITICAL THOUGHT
COURSE CODE : POL–502C

COURSE OUTCOMES

CO1	Understand the Plato's Theory of Justice, Education System, Philosopher–King, Theory of Communism
CO2	Come to know about Aristotle's Ideal state, Theory of Revolutions and Classification of governments
CO3	Discuss theories of state by Machiavelli, Thomas Hobbes, John Locke and Rousseau
CO4	Learn about theories like Hegel,s Civil Society, State and Karl Marx,s Surplus Value, Materialist Conception of History, State

SEMESTER : VI
PAPER TITLE : Local Self Government in Andhra Pradesh
COURSE CODE : POL 601GE

COURSE OUTCOMES

CO1	Evolution of Local Self-Government in India and Constitutional Provisions on local Self-Government
CO2	Understand the Importance of Constitutional Amendments -73rd and 74th Amendment on Local bodies
CO3	Know about Structure and functions of Panchayat raj in Andhra Pradesh that is Gram Panchayat, Mandal Parishad and Zilla Parishad.
CO4	Know about Structure and functions of urban local bodies in Andhra Pradesh that is Nagar Panchayats, Municipalities and Municipal Corporations
CO5	Understand the Role of leadership and Emerging Challenges

SEMESTER : VI
PAPER TITLE : INTERNATIONAL RELATIONS
COURSE CODE : POL 602CE

COURSE OUTCOMES

CO1	To expose the Students to the scope and Basic Concepts of International Relations
CO2	Able to learn the Approaches to the study of International Relations – Idealism, Classical Realism, realism
CO3	Get acquaintance with the Phases of International Relations (1914-1945) - Causes for the First World War, Causes for the Second World War
CO4	Get acquaintance with the types and Phases of International Relations (1945 onwards) – Origins of First Cold War, Rise and Fall of Detente, Origins and the End of Second Cold War
CO5	Awareness of International Organization- the UNO in the protection of International Peace, Problems of the Third World

SEMESTER : VI
PAPER TITLE : INDIAN FOREIGN POLICY
COURSE CODE : POL603CE

COURSE OUTCOMES

CO1	Understand the Evolution of Indian Foreign of Policy-Determinants of Indian Foreign of Policy
CO2	Describe the Non-Alignment and UNO-Role and Relevance
CO3	Be able to Understand India's Relation with USA and China: Pre- Cold War Era, Post- Cold War Era
CO4	Knows about India and her Neighbors in relation to South Asian Association of Regions Cooperation (SAARC)

DEPARTMENT OF ZOOLOGY

NAME OF THE PROGRAMME: B.SC (BZC)

Semester : I
Title of the Course : Animal Diversity – I Biology of Non-Chordates
Course Code : ZOO T11A

COURSE OUTCOMES

CO1	Gain knowledge in the fundamental concepts underlying the structural complexity in the organization of invertebrates
CO2	Understand biology and pathogenicity of parasites and their adaptations analyze remedial and preventive measures and promote the same in public domain
CO3	Appreciate and evaluate the economic, commercial, medicinal and culture importance of invertebrates and their larval stages in relation to phylogeny
CO4	Describe the significance of connecting links in understanding the concept of evolution
CO5	Explain the significance of specific phenomena in different groups of invertebrates in relation to their adaptability for survival

Semester : II
Title of the Course : Animal Diversity- Biology of Chordates.
Course Code : ZOO201

COURSE OUTCOMES

CO1	Gain knowledge in the major Chordate groups, describe their salient features, appreciate the diversity and analyze the uniqueness of different groups.
CO2	Understand the fundamental organization of chordates and evaluate the similarities and differences among the different groups of chordates in the light o evolutionary significance.
CO3	Comprehend and compare the morphology and anatomy of different classes of chordates and apply the same to their fitness in the ecological habitats
CO4	Develop the skill of identifying the vertebrate fauna in general and South Indian fauna in specific.
CO5	Acquaint with the significance of unique mechanisms and behavioral patterns exhibited by different groups of chordates.

SEMESTER : III
TITLE OF THE PAPER : CYTOLOGY, GENETICS, & EVOLUTION
COURSE CODE : ZOO301

COURSE OUTCOMES:

CO1	To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.
CO2	Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.
CO3	To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals
CO4	Acquiring in- depth knowledge on various aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders
CO5	Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins.

Semester : IV
Title of the Course : Embryology, Physiology and Ecology
Course Code : ZOO401

COURSE OUTCOMES:

CO1	Comprehend and describe the process of formation and fusion of gametes and appraise the significance of foetal membranes and placenta in the formation of an embryo.
CO2	Understand the mechanism of functioning of the different organ systems of a vertebrate and analyze their coordination in adapting the animal to the changing environment.
CO3	Identify and describe the histology of various organs of a mammal and developmental stages of chick embryo at different hours of incubation.
CO4	Develop skill in conducting tests for identification of the presence of biomolecules and excretory products and estimating various water parameters.
CO5	Acquaint with the structural and functional aspects of an ecosystem, concept of community and population - their characteristics and interactions.

SEMESTER : V
TITLE OF THE PAPER : ANIMAL BIO-TECHNOLOGY
COURSE CODE : ZOO501

COURSE OUTCOMES:

CO1	Students are made to become aware of the use of technology that is involved in cloning.
CO2	Improved quality of species with gene manipulations
CO3	Recent development in biotechnology that helps for better environment and Production of various monoclonal antibodies and vaccines.
CO4	Formation of different species - transgenic animals
CO5	Resistant variety and better yield

SEMESTER : V
TITLE OF THE PAPER : ANIMAL HUSBANDRY
COURSE CODE : ZOO502

COURSE OUTCOMES:

CO1	Students are given awareness about different varieties of chicks.
CO2	Students are familiarized with recent technologies those are applied to produce different species with variations which are more beneficial and income fetching.
CO3	Students with the help of self-help schemes, can set up their own firms, and provide
CO4	Employability to others and to tap the resources of Government and Non- governmental sectors.
CO5	They are given managerial and marketing skills as well.

SEMESTER : VI
TITLE OF THE PAPER : IMMUNOLOGY
COURSE CODE : ZOO-601(GE)

COURSE OUTCOMES:

CO1	Students grow in understanding of immune system, to improve their immunity and to protect them from pathogens.
CO2	They identify their blood groups, their compatibility and the need to donate blood to save life.
CO3	Students identify the classes, structures and functions of antibodies, antigen –antibody reactions.
CO4	This study enables students to take care of themselves and take timely precautions against various diseases.
CO5	They identify the cure of different diseases through various vaccines, the instruments involved in identification of immune reactions etc.

SEMESTER : VI
TITLE OF THE PAPER : PRINCIPLES OF AQUACULTURE
COURSE CODE : ZOO602

COURSE OUTCOMES:

CO1	Define, comprehend, scope and significance of aquaculture
CO2	Examine the types and practices of Aquaculture
CO3	To learn about design and construction of Aqua farms
CO4	To know about the nutritional requirements of cultivable fish and prawn
CO5	To get knowledge on Pre-stocking, stocking, post-stocking management practices in Aqua farms

SEMESTER : VI
TITLE OF THE PAPER : Aquaculture Management
COURSE CODE : ZOO603

COURSE OUTCOMES

CO1	Students get knowledge about breeding technology of fishes, and hatching methodology
CO2	Students learn to analyze the quality of water and soil.
CO3	They are trained on feed storage, feeding strategies: Feeding devices, feeding schedules and ration size
CO4	They gain knowledge on diseases of fish and shrimp and the strategies involved in marketing.
CO5	They study the economics, marketing and role of Fisheries Extension in community development.

SEMESTER : VI
TITLE OF THE PAPER : POST HARVEST TECHNOLOGY
COURSE CODE : ZOO-604

COURSE OUTCOMES:

CO1	Students get knowledge on techniques to handle fresh fish, storage, preservation and transport
CO2	Learn to extract maximum benefits from fish products and by products
CO3	Gain knowledge on rules and regulations pertaining to quality control.
CO4	Understand the Quality Assurance, Management and Certification processes

DEPARTMENT OF ZOOLOGY

NAME OF THE PROGRAMME: B.SC (ABC)

Semester : I
Title of the Paper : Basic principles of aquaculture
Course Code : AQU101

Course Outcomes

CO1	Learn about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at global, India and Andhra level.
CO2	Understand the concepts of Ecology, and Nutrient cycles in culture ponds.
CO3	Acquire knowledge of different types of ponds and their functional classification
CO4	Understand the important factors involved in construction of ideal fish pond.
CO5	Acquire knowledge of pond management factors, eradication of predators and weed control, physico-chemical conditions to be maintained

Semester : II
Title of the Paper : BIOLOGY OF FIN FISH & SHELL FISH
Course Code : AQU201

Course Outcomes

CO1	Understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish
CO2	Gain Knowledge of feeding habits, gut content analysis and growth factors in fishes
CO3	Understand and learn breeding in fishes, breeding habits, method of induced breeding in fishes.
CO4	To create awareness on parental care of Fishes and embryonic and larval development and environmental factors affecting development of major aquaculture organisms
CO5	Acquire knowledge about Endocrine system in fishes.

Semester : III
Title of the Paper : Fish nutrition & Feed technology
Course Code : AQU301

Course Outcomes

CO1	Understand Nutritional requirements of cultivable fishes and factors affecting energy partitioning and feeding.
CO2	Know different types of feed and FCR and different types of feeders
CO3	Gain Knowledge of Feed manufacture and storage methods of feeds
CO4	Understand the value of Feed additives and Non-Nutrient ingredients.
CO5	To create awareness of different nutritional deficiency and importance of natural and supplementary feeds and balanced diet.

Semester : IV
Title of the Paper : Fresh water & Brackish water Aquaculture
Course Code : AQU401

Course Outcomes

CO1	Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India and AP.
CO2	Learn about Major Cultivable Indian Carps and Exotic fish Species introduced in India
CO3	Know about recent developments in the culture of clarius, anabas and murrels and special systems of aquaculture
CO4	Gain knowledge of commercially valuable Fresh water prawns of India and their culturing methods
CO5	Learn about culturing of brackish water Prawn Species P. Mondon and L. Vannamei and hatchery technology's involved.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF BOTANY

2021-22

PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (B.Z.C)

- **PO 1: Effective citizenship:** Ready students for higher studies on a wide base of inter-related subjects towards the social awareness.
- **PO 2: Practical Knowledge:** students with the necessary experience to correlate theory with practical aspects
- **PO 3: Problem analysis**: Identify the taxonomic position of plants, and analyze non reported plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.
- **PO4: Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern instruments and equipment's for Molecular Biology, Biotechnology, Plant Tissue culture experiments of plants with an understanding of the application and limitations.
- **PO5: The Botanist and society**: Apply reasoning informed by the knowledge to assess plant diversity, its importance for society, health, safety, legal and environmental issues and the consequent responsibilities relevant to the biodiversity conservation practice.
- **PO6: Scientific Knowledge:** Apply the knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.
- **PO: 7 Ethics**: Apply ethical principles and commit to environmental ethics and responsibilities and norms of the biodiversity conservation.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1:** Understand the diversity to know the systematic position, morphology, structure and life cycle pattern of Algae, useful and harmful activities of Algae. Know the Economic Importance of Fungi, and the morphological diversity of Bryophytes.
- **PSO2:** Understand the diversity of Gymnosperms, to know the evolutionary trends and affinities of living gymnosperms with respect to external and internal features and the conceptual development of taxonomy and systematic, and trends in classification. Know the floral variations in angiospermic families, their phylogeny and evolution. Understand various rules, principles and recommendations of plant nomenclature produces in plant identification.
- **PSO3:** Understand the Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity unity of life with the rich diversity of organisms and their ecological and evolutionary significance. Learn about conservation of biodiversity, vegetation types of Andhra Pradesh.
- **PSO4:** Able to understand importance and scope of plant physiology, plant cells in relation to water, process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways and respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.
- **PSO5:** Able to understand the eukaryotic cell, Structure and organization of cell membrane and Mendelian genetics, experimental evidences to prove DNA as a genetic material. Get the detail knowledge about modern strategies applied in Plant Breeding for crop improvement i.e. Mass selection, pure line Selection and Clonal selection.
- **PSO6:** Acquire basic knowledge and experimental skills in Biotechnology and, tissue culture, necessary for scientific investigation.
- **PSO7** Enable self-employment with knowledge and skills in certain applied branches like mushroom cultivation.
- **PSO8:** Apply the theoretical knowledge gained during the program to the actual practice of laboratory plant science.
- **PSO9:** Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.

DEPARTMENT OF CHEMISTRY (UG)

PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (B.Z.C), B.Sc. (M.P.C.), B.Sc. (M.C.Cs), B.Sc. (A.B.C)

- **PO1: Critical Thinking:** Provide a broad foundation in chemistry that stresses scientific reasoning and Analytical problem solving with a molecular perspective.
- **PO2: Effective Communication:** Provide students with the skills required to succeed in graduate school, the chemical industry or professional school.
- **PO3: Social interaction:** To expose the students to a breadth of experimental techniques using modern instrumentation.
- **PO4: Effective Citizenship:** The student will understand the importance of the Periodic Table of the Elements, how it came to be, and its role in organizing chemical information.
- **PO5: Ethics:** The student will learn the laboratory skills needed to design, safely conduct and interpret chemical research.
- **PO6: Environment and Sustainability:** The student will acquire a foundation of chemistry of sufficient breadth and depth to enable them to understand and critically interpret the primary chemical literature.
- **PO7: Self-directed and lifelong learning:** The student will learn professionalism, including the ability to work in teams and apply basic ethical principles.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1:** The student will understand the interdisciplinary nature of chemistry and to integrate knowledge of mathematics, physics and other disciplines to a wide variety of chemical problems.
- **PSO2:** The student will develop the ability to effectively communicate scientific information and research results in written and oral formats.
- **PSO3:** To encourage the students for higher education.

DEPARTMENT OF CHEMISTRY (PG)
PROGRAMME OUTCOMES (PO'S)

Programme: M.Sc. (Organic Chemistry)

- **PO1: Critical Thinking:** Think critically and analyze chemical problems related to Inorganic, Organic, Physical and Analytical.
- **PO2: Effective Communication:** Understand the need for scientific communication in both written & oral forms and as well as the role of computers and software in solving problems related to chemistry and can use modern library tools to locate and retrieve scientific information about a topic, chemical or technique relating to chemistry.
- **PO3: Social Interaction:** Function individually and as a member or leader in team with the fundamental and advanced knowledge gained in the field of chemistry and other allied fields.
- **PO4: Effective Citizenship:** Apply conceptual knowledge gained in the field of chemistry to assess social, health, safety, legal and cultural issues and the relevant consequences of it.
- **PO5: Ethics:** Record and analyze the experimental results by maintaining professional ethics, responsibilities and norms of the scientific practices.
- **PO6: Environment and sustainability:** Understand the issues of environmental pollution and sustainable development.
- **PO7: Self-directed & lifelong learning:** Engage in independent and lifelong learning of the concepts related to chemistry in broadest context of socio-technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1**: Self-motivation towards global level research opportunities to pursue Ph.D. Programme Agreed approach of CSIR – NET examination.
- **PSO2**: Required skill to have specific placement in R&D, pharmaceutical Industry and allied Divisions.
- **PSO3**: Required knowledge to clear discipline specific competitive exams conducted by service Commission and other organizations.

DEPARTMENT OF COMMERCE
PROGRAMME OUTCOMES (PO'S)

Programme: B.Com (Computer Applications), B.Com (General) & B.Com (E-Commerce & Computers)

- **PO1. Critical Thinking**: Knowledgeable in the core disciplines of Commerce, Economics and Business through a number of specializations and practical exposure enables them to face the challenges in the field of Commerce
- **PO2. Effective Communication:** Demonstrate proficiency in communicating competently in groups and organizations in English and in one Indian language,
- **PO3. Effective Citizenship**: Ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **PO4.Value- based development**: Recognize values such as justice, trust, equity, fairness, kindness and, understand the moral Dimensions of your decisions, and accept responsibility for them.
- **PO5. Environment and Sustainability**: Understand the issues of environmental contexts and Sustainable development.
- **PO6. Self-directed and Life-long Learning:** promoting continuous development and improvement of the knowledge and skills needed for employment and personal fulfilment

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1.** Getting the knowledge and the importance of accounting and auditing Standards for the reliability of financial statements.
- **PSO2.**Interpret the legal and environmental aspects of business and Analyze quantitative data in order to take business decisions
- **PSO3.** Empowering the student to understand the accounting practices and Procedures followed by different business entities.
- **PSO4.** Promising the Practical skills for a bright career as accounting officers, computer professionals, audit assistants, businessmen, entrepreneurs, managers with required knowledge in computers.
- **PSO5.** Knowledge of major theories and models in key areas which motivate them to pursue higher studies / face competitive exams like SSC,P.C,BANK,R.R.B/ professional courses like CA,CS, ICWA and other courses.

DEPARTMENT OF COMPUTER SCIENCE (UG)

PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (M.P.Cs), B.Sc. (M.C.Cs), B.Sc. (M.S.Cs), B.Com (Computer Applications) & B.Com (E-Commerce & Computers)

- **PO1:** Provide students with fundamental knowledge and ability to expertise in Computer Science.
- **PO2**: Provide insight to problem solving to succeed in Technical Profession through precise education and to prepare students to excel in postgraduate programs.
- **PO3**: To inculcate in students professional, effective communication skills, team work, multidisciplinary approach and an ability to relate issues to broader social context.
- **PO4**: Prepare students to be aware of excellence, leadership, written ethical codes and guidelines and lifelong learning needed for successful professional career by providing them with an excellent academic environment.
- **PO5**: Empower the students in academic, social, psychological and economic arenas by developing relevant competencies.
- **PO6**: Interpret and apply the implications of environment awareness initiatives incorporated in curriculum.
- **PO7**: Participation and contribution to community development activities through NCC, NSS etc.
- **PO8**: Acquire sufficient knowledge base in the Domain Specific area leading to the pursuit of advanced level of study in the chosen Domain Specific area.
- **PO9**: Adaptability and capacity building to the ever changing needs of the industry and employment opportunities.
- **PO10**: Inculcate the human values through curricular, co-curricular and extracurricular activities.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO 1** Ability to apply foundations of Mathematics, Principles of Physics/Statistics and Theory of Computer Science in solving the real-world problems.
- **PSO 2** Identify, formulate, review research literature, and analyzes complex problems reaching substantiated conclusions using first principles of mathematics and Computer science.
- **PSO 3** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PSO 4** Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction and modelling to complex activities with an understanding of the limitations.
- **PSO 5** Understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **PSO 6** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PSO 7** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

DEPARTMENT OF COMPUTER SCIENCE (PG)

PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

Programme: M.Sc. (Computer Science)

- **PEO1.** Technical Expertise and Knowledge in Multiple Domains: Ability to develop an understanding of modern computing concepts and architectures from a design and performance perspective of various domains.
- **PE02**. Assessment from System Level Perspective: Able to analyze and appreciate the structure of computer systems and the processes involved in their construction at various levels of detail and abstraction.
- **PEO3.**CriticalThinking,Business Analytics &Problem Solving and Innovation: An ability to apply knowledge of mathematics and computer science practices to build Innovative Public & Private Sector Applications involving complex computing problem solving and in research.
- **PEO4**.ProfessionalEthics&SocialResponsibility: Ability to apply and commit to professional ethics following cyber regulations in a global economic environment. Create and design innovative applications to solve complex problems using established practices for the betterment of the society.
- **PEO5.**AppositetoIndustry: Gain exposure to multiple programming languages, tools, paradigms, and technologies as well as the fundamental underlying principles throughout their education there by making them the right choice for industry positions.
- **PEO6**. Effective Communication & Leadership: Ability to communicate effectively and present technical &project management information using audiovisual tools as well as in oral and written reports. Rise up to the need and be able to lead teams of individuals.
- **PEO7.** Life-long Learning and Research: Understand the importance of, and possess pre-requisite skill set to undertake lifelong independent learning and research in the content of contemporary technological advancements.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1.** To make the students industry ready as far as possible to enhance their employability in the industries.
- **PSO2**. Create an ambience of education through faculty training, self-learning, sound academic practices and research endeavors.

DEPARTMENT OF ECONOMICS
PROGRAMME OUTCOMES (PO'S)

Programme: B.A. (H.E.P.)

- **PO1. Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
- **PO2. Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and by connecting people, ideas, books, media and technology across the World.
- **PO3. Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings
- **PO4. Effective Citizenship:** Demonstrate empathetic social concern and equity-centered national development, and the ability to act with an informed awareness of issues and Participate in civic life through volunteering
- **PO5. Ethics**: Recognize different value systems including that of own, understand the moral dimensions of our decisions, and accept responsibility for them.
- **PO6. Environment and Sustainability:** Understand the issues in the contexts of environmental and sustainable development.
- **PO7. Self-directed and Life-long Learning**: Acquire the ability to engage in independent and life-long learning in the broadest context socio- technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1 -** How the consumers and producers will take rational decisions in the context of unlimited needs and availability of scarce resources
- **PSO2 –** How the economy at the aggregate level works, what are the determinants of national income, prices, demand for and supply of money, poverty, and unemployment in an economy
- **PS03 -** He/she Gets understanding of the process of economic growth, economic development, sustainable growth in the context of existence of trade-off between rapid economic growth and environmental sustainability in the long run
- **PS04 -** He/she will be able to apply the determinants of economic growth and Development to the economies of India and Andhra Pradesh and appraise the fiscal, monetary and other socio-economic policies being pursued in India and Andhra Pradesh
- **PSO5 –** He/she will get a basic understanding of Statistical Methods with a view to applying them to economics and real life situations

DEPARTMENT OF HISTORY
PROGRAMME OUTCOMES (PO'S)

Programme: B.A. (H.E.P.)

- **PO-1** Student will be able to acquire historical knowledge, depth in terms of content and chronology of contents.
- **PO-2** Student will be able to distinguish between Primary and Secondary Sources to study of history and understand how to make use of them.
- **PO-3** Student should possess effective communication skills to deliver presentations to a variety of audiences.
- **PO-4** Student should understand the basic skills and tools of historical writings and analysis.
- **PO-5** Students apply a biblical philosophy of history to their analysis of social, political, religious, cultural, economic issues.
- **PO-6** Student should recognize values and ethical standards in every walk of life

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO-1** To understand the History of People and societies like religious, customs institution Administration.
- **PSO-2** To create an awareness of different political cultural social and economic structures in the past and their Interrelationship.
- **PSO-3** Analyze relationship between the past and the present is lively presented in the history.
- **PSO-4** To prepare students for future study employability and responsible citizenship.
  - Further study-post graduate in history, B.Ed., M.Phil., Ph.D.
  - Employability – Archaeologists, Historians, UPSC- jobs APPSC-Jobs, Teachers, NGO's Travel and Tourism experts.
- **PSO-5** To develop interest in the study of History and activities, skills relating to history.
  - Draw historical Maps, Charts
  - Collect ancient arts, coins
  - Visit Archaeological sites, Museums, archives and Historical important places.
  - To take active role in activities of historical organizations.
- **PSO-6** Empowering students in the historical research and to write articles on historical topics.
- **PSO-7** Inculcate moral and ethical values among students.
- **PSO-8** To install the feeling of patriotism among the students.
- **PSO-9** To orient student to become perfect social being.

DEPARTMENT OF MATHEMATICS
PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (M.P.C., M.P.Cs., M.C.Cs., M.S.Cs)

- **PO1 Effective Communication**: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
- **PO2 Effective Citizenship**: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **PO3 Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO4 Environment and Sustainability**: Understand the issues of environmental contexts and sustainable development
- **PO5 Critical Thinking**: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- PSO1: To increase the skills in different branches of Mathematics and increase Mathematical abilities in learning Mathematics.
- PSO2: To increase the capability in learning Mathematics and increase the ideas in understanding the proofs.
- PSO3: To facilitate students to appreciate the technique of formal proof (unique aspect of this discipline) in establishing facts through procedural, valid and logical reasoning.
- PSO4: To familiarize students with the universal language of Mathematics precise in symbolic vocabulary, abstractions, generalizations and conventions.
- PSO5: To enhance the Mathematical maturity in them with in depth of knowledge in pure and applied branches of Mathematics.
- PSO6: To encourage students to become techno savvy with a perception widened by Mathematics.

DEPARTMENT OF STATISTICS
PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (M.S.Cs)

- PO1 Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology
- PO2 Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering
- PO3 Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- PO4 Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
- PO5 Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- PO6 Specialized Skills / Transferable Skills: Acquisition of communication and soft, analytical and technological skills that aid in enhancing
- PO7 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- PSO1 Apply the concepts, principles and methods of statistics to various fields of study
- PSO2 Understand the importance and value of statistical principles and convert a problem description into testable research hypotheses
- PSO3 Select appropriate statistical tools to investigate a research hypothesis.
- PSO4 Perform data analysis by apply appropriate statistical methodology and interpret result in a variety of settings
- PSO5 Compute statistical measures using software and programs.

DEPARTMENT OF POLITICAL SCIENCE
PROGRAMME OUTCOMES (PO'S)

Programme: B.A. (H.E.P)

- **PO-1:** Understand the world, their country, their society, as well as themselves and develop the ability of reflective thinking and reasoning
- **PO-2:** Get awareness of ethical problems, social rights, values and responsibility
- **PO-3:** Take individual and team responsibility as a member or a leader of a team and have the skills to work effectively.
- **PO-4:** Student will be able to understand the basic tools of analysis such as analysis of social, political, religious, cultural and economic issues.
- **PO-5:** Prepare Students to recognize values and ethical standards in every walk of life
- **PO-6:** Develop the ability to make logical inferences about social and political issues on the basis of comparative knowledge
- **PO-7:** Create the feeling of patriotism among the students and sense of belongingness of the society they live in
- **PO-8:** Exposed to the Knowledge of philosophical underpinnings of modern politics , government and the legal principles
- **PO-9:** Prepare students for a variety of careers and professions in fields such as law, government, education, politics, policy, and business.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO-1** Be able to describe and explain political theory, political systems around the world, and politics in the international arena
- **PSO-2** To create an awareness of different political, social and economic cultures in the past and their Interrelationship.
- **PSO-3** Identify the principal arguments for and against alternative forms of government and evaluate alternative political ideas and ideologies
- **PSO-4** Understand basic political and governmental structures, processes, and policies and operation of the system.
- **PSO-5** Able to explain the role of political ideas, value conflicts, and ideology in human societies.
- **PSO-6** Critically assess the actions of the political process and determine their motives
- **PSO-7** Understand the foundations of Indian government, including the structure and relationships between the branches of government
- **PSO-8** Know how laws are made, policies are developed, programs implemented, and what influences and constraints are placed upon the process
- **PSO-9** Inculcate moral and ethical values among students to become a responsible citizens

DEPARTMENT OF PHYSICS
PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (M.P.C., M.P.Cs.)

- **PO1**: **Critical Thinking**: Physics deals with a wide variety of systems, certain theories are used by all physicists.
- **PO2**: **Effective Communication:** Each of these theories were experimentally tested numerous times and found to be an adequate approximation of nature.
- **PO3**: **Effective Citizenship**: Physics uses mathematics to organize and formulate experimental results.
- **PO4**: **Value- based development**: From those results, precise or estimated solutions, quantitative results from which new predictions can be made and experimentally confirmed or negated.
- **PO5**: **Ethics:** After successful completion of three year degree program in physics a student should be able to; Demonstrate, solve and develop an understanding of major concepts in all disciplines.
- **PO6**: **Environment and Sustainability**: Solve the problem and also think methodically, independently and draw a logical conclusion.
- **PO7**: **Self-directed and Life-long Learning:** Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Physics experiments. Create an awareness of the impact of Physics on the society, and development outside the scientific community.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1**:The theory of mechanics (it is a branch of physics) accurately describes the motion of objects, provided they are much larger than atoms and moving at much less than the speed of light.
- **PSO2:** These theories continue to be areas of active research today.
- **PSO3**: The student will gain the knowledge of Physics through theory and practical's.
- **PSO4**: The student will understand good laboratory practices and safety.
- **PSO5**: The student will develop research oriented skills

DEPARTMENT OF ZOOLOGY
PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (B.Z.C.)

- **PO1 Critical thinking:** Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during biological study.
- **PO2 Effective communication:** Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
- **PO3 Social interaction:** Able to develop individual behavior and influence society and social structure.
- **PO4 Effective citizenship:** Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
- **PO5 Ethics:** Ability to demonstrate and discuss ethical conduct in scientific activities.
- **PO6 Environment and Sustainability:** Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development.
- **PO7 Self-directed and life-long learning:** Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1:** Understand the nature and basic concepts of chordates, non-chordates, Cell biology, Evolution, Genetics, Embryology, Physiology, Ecology and applications of Biotechnology and Immunology
- **PSO2:** Identify the major groups of organisms, be able to classify them within a phytogenic framework, compare and contrast the characteristics of animals that differentiate them from other forms of life.
- **PSO3:** Understand the unity of life with the rich diversity of organisms and their ecological and evolutionary significance
- **PSO4:** Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.
- **PSO5**: Explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
- **PSO6:** Acquire basic knowledge and experimental skills in Biotechnology and immunology, necessary for scientific investigation.
- **PSO7:** Provide knowledge and skills in aquaculture systems, how they work, and how to best manage them as there is a need for qualified and professional people to work in the aquaculture industry.
- **PSO8:** Apply the theoretical knowledge gained during the program to the actual practice of laboratory animal science.
- **PSO9:** Enable self-employment with knowledge and skills in certain applied branches like Aquaculture, Poultry and Biotechnology.

DEPARTMENT OF ZOOLOGY
PROGRAMME OUTCOMES (PO'S)

Programme: B.Sc. (A.B.C.)

- **PO1 Critical thinking:** Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during aqua cultural study.
- **PO2 Effective communication:** Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
- **PO3 Social interaction:** Able to develop individual behavior and influence society and social structure.
- **PO4 Effective citizenship:** Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
- **PO5Ethics:** Ability to demonstrate and discuss ethical conduct in scientific activities.
- **PO6 Environment and Sustainability:** Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development.
- **PO7 Self-directed and life-long learning:** Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

- **PSO1** Demonstrate a sound understanding of the biology of aquaculture organisms and of breeding, genetics, nutrition and water quality issues relevant to aquaculture
- **PSO2** Design aquaculture systems and solve engineering issues in aquaculture
- **PSO3** Employ knowledge of health and safety issues in aquaculture
- **PSO4** Employ scientific techniques, practical skills, critical analysis of data and business management strategies to improve aquatic resource management.
- **PSO5** Understand and interpret critical scientific and ethical issues in aquaculture
- **PSO6** Engage effectively with information and communication technologies
- **PSO7** Demonstrate research skills appropriate for further study and employment. Appreciate the need for continuing professional development.

DEPARTMENT OF BOTANY
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (B.Z.C., A.B.C.)

SEMESTER : I
TITLE OF THE COURSE : FUNDAMENTALS OF MICROBES AND NON VASCULAR PLANTS
COURSE CODE : BOTT11A

COURSE OUTCOMES

- **CO1:** Explain origin of life on the earth.
- **CO2:** Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
- **CO3:** Analyze and ascertain the plant disease symptoms due to viruses, bacteria and fungi.
- **CO4:** Classify fungi, lichens, algae and bryophytes based on their structure, reproduction an life cycles.
- **CO5:** Evaluate the ecological and economic value of microbes, thallophytes and bryophytes.

SEMESTER : III
TITLE OF THE COURSE : ANATOMY OF ANGIOSPERMS, PLANT ECOLOGY & BIODIVERSITY
COURSE CODE : BOT-301

COURSE OUTCOMES

- **CO1**: Understand on the organization of tissues and tissue systems in plants.
- **CO2:** Illustrate and interpret various aspects of embryology.
- **CO3:** Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and Biotic factors on plant communities.
- **CO4:** Appraise various qualitative and quantitative parameters to study the population and community Ecology.
- **CO5:** Correlate the importance of biodiversity and consequences due to its loss and enlist the Endemic / endangered flora and fauna from two biodiversity hot spots in India and assess strategies for their conservation.

SEMESTER : V
TITLE OF THE COURSE : CELL BIOLOGY, GENETICS AND PLANT BREEDING COURSE CODE : BOT-501

COURSE OUTCOMES

- **CO1:** Distinguish prokaryotic and eukaryotic cells and design the model of a cell. Explain the Organization of a eukaryotic chromosome and the structure of genetic material.
- **CO2:** Demonstrate techniques to observe the cell and its components under a microscope.
- **CO3:** Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living Beings.
- **CO4:** Elucidate the role of extra-chromosomal genetic material for inheritance of characters.
- **CO5:** Evaluate the structure, function and regulation of genetic material.
- **CO6:** Understand the application of principles and modern techniques in plant breeding

SEMESTER : V
TITLE OF THE COURSE : PLANT ECOLOGY & PHYTOGEOGRAPHY
COURSE CODE: BOT-502

COURSE OUTCOMES

- **CO1:** Distinguish the Ecology, Branches and significance.
- **CO2:** Explain the concept and components, productivity of ecosystem.
- **CO3:** Demonstrate plant communities, interaction between plants growing in a community.
- **CO4:** Discuss the Principles of Phytogeography, Distribution.
- **CO5:** Elucidate Phyto geographic regions of India.
- **CO6:** Evaluate the levels of biodiversity. Understand conservation of genetic resources and their Importance.

SEMESTER : II
TITLE OF THE COURSE : BASICS OF VASCULAR PLANTS AND PHYTO GEOGRAPHY
COURSE CODE : BOT21A

COURSE OUTCOMES

- **CO1**: Gain knowledge in the classification and comparison of Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycle.
- **CO2:** Justify evolutionary trends in Tracheophytes to adapt for land habitat. Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their good and services for human welfare
- **CO3:** Explanation of the process of fossilization and compare the characteristics of extinct and extant plants.
- **CO4:** Analyze the morphology of the most common Angiosperm plants of their localities and recognize their families.
- **CO5:** Locate different Phyto geographical regions of the world and India and can analyze their floristic wealth.

SEMESTER : IV
TITLE OF THE COURSE : PLANT PHYSIOLOGY AND METABOLISM
COURSE CODE : BOT-401

COURSE OUTCOMES

- **CO1:** Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.
- **CO2:** Evaluate the role of minerals in plant nutrition and their deficiency symptoms, Interpret the role of enzymes in plant metabolism.
- **CO3:** Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants.
- **CO4:** Analyze the biochemical reactions in relation to Nitrogen and lipid metabolisms.
- **CO5:** Evaluate the Phyto hormones that regulate growth and development in plants, examine the role of light on flowering and explain physiology of plants under stress conditions.

SEMESTER : IV
TITLE OF THE COURSE : CELL BIOLOGY, GENETICS AND PLANT BREEDING COURSE
CODE : BOT-402

COURSE OUTCOMES

- **CO1**: Distinguish prokaryotic and eukaryotic cells and design the model of a cell.
- **CO2**: Explain the organization of a eukaryotic chromosome and the structure of genetic material.
- **CO3:** Demonstrate techniques to observe the cell and its components under a microscope.
- **CO4:** Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living Beings.
- **CO5:** Elucidate the role of extra-chromosomal genetic material for inheritance of characters.
- **CO6**: Evaluate the structure, function and regulation of genetic material. Understand the application of principles and modern techniques in plant breeding. Explain the procedures of selection and hybridization for improvement of crops.

SEMESTER : VI
TITLE OF THE COURSE : Plant tissue culture and its Biotechnological Applications
COURSE CODE : BOT- 601

COURSE OUTCOMES

- **CO1:** Analyze the basic principles of plant tissue culture
- **CO2**: Explain the, various culturing techniques.
- **CO3:** Demonstrate recombinant DNA technology.
- **CO4:** Discuss the methods of gene transfer.
- **CO5:** Understand the applications of plant genetic engineering, elucidate the selection of transgenic.

SEMESTER : VI
TITLE OF THE COURSE : PLANT DIVERSITY AND HUMAN WELFARE
COURSE CODE : BOT -602

COURSE OUTCOMES

- **CO1:** Distinguish the levels of biodiversity.
- **CO2:** Explain the loss of biodiversity at different levels.
- **CO3:** Demonstrate contemporary practices in resource management.
- **CO4:** Discuss the conservation of biodiversity.
- **CO5:** Elucidate the role of plants in relation to human welfare.

SEMESTER : VI
TITLE OF THE COURSE : ETHNO BOTANY AND MEDICINAL BOTANY COURSE
CODE : BOT- 603

COURSE OUTCOMES

- **CO1:** Analyze the concept, scope and objectives.
- **CO2:** Explain the role of ethno botany in modern medicine.
- **CO3:** Demonstrate ethno botany as a tool to protect interests of ethnic groups.
- **CO4:** Discuss the history scope and importance of medicinal plants in indigenous medicinal sciences.
- **CO5:** Elucidate the conservation of endangered and endemic medicinal plants.

SEMESTER : VI
TITLE OF THE COURSE : PHARMACOGNOSY AND PHYTO CHEMISTRY
COURSE CODE : BOT- 604

COURSE OUTCOMES

- **CO1:** Remember the importance of Pharma-cognosy.
- **CO2:** Understand organoleptic and microscopic studies with reference to nature of active principles and common adulterants of certain species.
- **CO3:** Apply detailed account of acetate pathway, mevalonate pathway and shikimate pathway.
- **CO4:** Analyze the importance of phytochemicals.
- **CO5:** Evaluate the biological importance of secondary metabolites.
- **CO6:** Create enzymes proteins and amino acids as drugs.

SEMESTER : V
TITLE OF THE COURSE : PLANT NURSERY MANAGEMENT
COURSE CODE : PNT-502

COURSE OUTCOMES

- **CO1:** Understand the importance of plant nursery, basic infrastructure to establish it.
- **CO2:** Explain the basic material, tools and techniques required for nursery.
- **CO3:** Demonstrate expertise related to various practices in a nursery
- **CO4**: Comprehend knowledge and skills to get an employment or to become an entrepreneur in plant nursery sector.

DEPARTMENT OF COMMERCE
COURSE OUTCOMES (CO'S)

Programme: B.Com (Computer Applications)

SEMESTER : I
TITLE OF THE COURSE : FUNDAMENTALS OF ACCOUNTING – 1
COURSE CODE : CACC-101G/CC

COURSE OUTCOMES

- **CO1**: Student acquire conceptual knowledge in financial accounting and to impart skills to develop a working vocabulary of accounting terminology.
- **CO2**: Students will develop the ability to prepare subsidiary books and different types of cash book including petty cash book
- **CO3**: Students will acquire the reason for differences and their emergence in bank statements of any Organization.
- **CO4:** Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
- **CO5**: Students will develop the ability to organize the complex data of accounts to solve the problem in preparation of final books of accounts.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ORGANISATION AND MANAGEMENT
COURSE CODE : CBOM -102CC

COURSE OUTCOMES

- **CO1:** To understand the basic concepts in Commerce, trade and industry and enable to expose to the modern business world.
- **CO2:** To understand the nature, purpose and importance of different types of organizations.
- **CO3:** To familiarize the students with the fundamentals of Joint Stock Company as per Companies Act, 2013
- **CO4:** To understand the basic concepts of management and Management role in the organization
- **CO5**: Understand the concept of product and identify the need of product mix and product line decisions.

SEMESTER : II
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING –II
COURSE CODE : CACC -201G/CC

COURSE OUTCOMES

- **CO1:** Able to discuss and describe various methods of depreciation and valuation of depreciation to depreciable assets.
- **CO2:** Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts
- **CO3:** Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
- **CO4:** Gain an understanding with regard to special transactions related to accounting for consignment.
- **CO5:** Gain the knowledge with regard to special transactions relating to joint Venture business.

SEMESTER : II
TITLE OF THE PAPER : BUSINESS ECONOMICS
COURSE CODE : BE-202G/CC

COURSE OUTCOMES

- **CO1**: Describe the nature of economics in dealing with the issues of scarcity of resources.
- **CO 2:** Analyze supply and demand analysis and its impact on consumer behavior
- **CO 3:** Evaluate the factors, such as production and costs affecting firms behavior
- **CO4:** Recognize market failure and the role of government in dealing with those failures
- **CO5**: Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.

SEMESTER : III
TITLE OF THE PAPER : CORPORATE ACCOUNTING
COURSE CODE : CCA-301G/CC

COURSE OUTCOMES

- **CO1:** The students will have a good command on issue of shares and also forfeiture and reissue of shares.
- **CO2:** The students will be able to know how to allocate the expenses and incomes prior to incorporation and after incorporation.
- **CO3:** The students will be able to learn various methods for valuation of goodwill and shares.
- **CO4:** The students will able to known how to prepare profit and loss and balance sheet as per companies' act 2013.
- **CO5:** The students will acquire knowledge regarding rules and regulations of companies' act 2013.

SEMESTER : III
TITLE OF THE PAPER : BUSINESS STATISTICS
COURSE CODE : CBS -302G/CC

COURSE OUTCOMES

- **CO1:** Describe the structure and characteristics of statistical data. able to present the data with diagrams
- **CO2**: Calculate and interpret measures of central tendency and variability in statistical data.
- **CO3**: Calculate and interpret measures of dispersion and skewness
- **CO4:** Design, evaluate and apply correlation analysis.
- **CO5:** To study the past behavior of data and measure the effect of changes over the period of time.

SEMESTER : IV
Title of the paper : ACCOUNTING FORSERVICE ORGANISATION
COURSE CODE : CASO -401G C

COURSE OUTCOMES

- **CO1:** The students will acquire knowledge about non-profit organizations and how to prepare financial statements of non- profit organizations.
- **CO2:** The students will be able to prepare financial statements electricity companies.
- **CO3:** The students will be able to prepare financial statements banking companies.
- **CO4:** The students will able to know how to ascertain the profit of Life insurance companies and to prepare valuation balance sheet.
- **CO5:** The students will able to know how to ascertain the profit of General insurance companies and to calculate reserve for unexpired risks.

SEMESTER : IV
TITLE OF THE PAPER : BUSINESS LAWS
COURSE CODE : CBL -403G/CC

COURSE OUTCOMES

- **CO1**: Impacts the students in acquiring the basic knowledge regarding contracts in business. And impact of it to "QUID-PRO-QUO" for the enforceability of the contract
- **CO2**: Students will have clarity on competency of persons, modes of discharge of contract, analyzing and approaching to remedies in times of breach of contract.
- **CO3**: Students will get knowledge in law and procedure relating to sale of goods in Indian context.
- **CO4:** Students are able to acquire knowledge in law and procedure relating to consumer rights
- **CO5:** Students will get knowledge in new dimensions in business Organization relating to cyber laws

SEMESTER : V
TITLE OF THE PAPER : BUSINESS LEADERSHIP
COURSE CODE : CBLP -501G/CC

COURSE OUTCOMES

- **CO1**: Students able to learn leadership skills
- **CO2:** students impart knowledge about leadership in organizations.
- **CO3:** students can build an idea about familiar business persons

SEMESTER : V
TITLE OF THE PAPER : COST ACCOUNTING
COURSE CODE : CCOA -502G/C C

COURSE OUTCOMES

- **CO1:** Impart knowledge on the fundamental concept of cost accounting.
- **CO2:** Comprehend the knowledge in effective control of raw materials and work in progress.
- **CO3**: Build an idea about incentive plans based on production and cost savings.
- **CO4- C04**: Familiarize the students about the production progress with the help of departmental manager.
- **CO5-** Students will understand the profit making decisions in complex situations of any business Organization.

SEMESTER : V
TITLE OF THE PAPER : GOODS &SERVICE TAX FUNDAMENTALS
COURSE CODE : CGST -503G C

COURSE OUTCOMES

- CO1: Impact knowledge on the Overview of GST and Justification for Introduction of GST and acquire knowledge about Constitutional Amendments in GST
- CO2: Students get knowledge about GST Principles and Models of GST Austrian, Canadian; the student can build an idea about Comprehensive Structure of GST model in India
- CO3: The student will be able to understand Taxes and Duties under GST and also Taxation of services and Tax on Petroleum products
- CO4: The student can build an idea about IGST Model and also Transactions within a State under GST
- CO5: Students get knowledge about Value of Supply - Input Tax Credit and Distribution of Credit, Matching of Input Tax Credit

SEMESTER : V
TITLE OF THE PAPER : TAXATION
COURSE CODE : CTAX-5013 CC

COURSE OUTCOMES

- CO1: Impact knowledge on the provisions of income tax law and practice and acquire knowledge about Exempted incomes and residential status of an individual
- CO2: Acquire Knowledge about Service tax -VAT -Central Sales Tax and GST
- CO3: Enlist the ability of provisions of income from salary and its taxability. The student can build an idea about income from house property and its taxability. The student can acquire knowledge in calculation of Capital gains and Income from other sources
- CO4: Impact knowledge on Taxation system in India and Modes of Tax Recovery and acquire knowledge on Filing of Returns
- CO5: Recognize tax planning opportunities and recommend appropriate tax-saving strategies for decision making

SEMESTER : V
TITLE OF THE PAPER : COMMERCIAL GEOGRAPHY
COURSE CODE : CCG-505G/CC

COURSE OUTCOMES

- **CO1:** Understand the importance of early commercial activities in the world reflecting Different occupations in various environments.
- **CO2:** Explain different stages of agricultural development using additional OE resources Available in the internet using modern ICT tools.
- **CO3**: Respond to the changes involved in the Indian forests and need for protection of Forests and Forests Conservation Act.
- **CO4:** Know different types of minerals India and mining and their uses.
- **CO5**: Examine Indian water resources, Interlinking of Rivers India and Experience of India and Andhra Pradesh.

SEMESTER : VI
TITLE OF THE PAPER : EVENT MANAGEMENT
COURSE CODE : CEM-601 G/CC

COURSE OUTCOMES

- **CO1**: Identify the needs of customers for organizing a corporate event and understand the types of Events.
- **CO2:** Examine various types of Outdoor events and Managing the risk in the events. Relate Marketing management, Human Resource Management to Event Management
- **CO3:** Students able to organize Shows, fashion shows, high profile charity events.

SEMESTER : VI
TITLE OF THE PAPER : MARKETING
COURSE CODE : CM-602G/CC

COURSE OUTCOMES

- **CO1:** To introduce the concepts of marketing and understand the factors influence the market environment.
- **CO2:** Analyze the consumer market models and enlightens consumer buyer behavior models.
- **CO3:** Understand the concept of product and identify the need of product mix and product line decisions.
- **CO4:** Develop an idea about pricing strategies and pricing decisions.
- **CO5:** Enhance the students about decisions regarding promotion and distribution channels.

SEMESTER : VI
TITLE OF THE PAPER : AUDITING
COURSE CODE : CAU-603 G/CC

COURSE OUTCOMES

- **CO1:** Students will develop the knowledge & importance of auditing and accounting of any Organization and Role of Auditor in checking corporate frauds.
- **CO2**: Students will have the ability of understanding the applicability of auditing types for different organizations
- **CO3**: Students will have knowledge in planning the effectiveness of auditing and also internal check, internal audit and internal control.
- **CO4**; Students will have proper understanding of the requirements of documentary evidence for the completion of Vouching and Investigation.
- **CO5**: Students will have the knowledge in Company Audit and Auditors Report

SEMESTER : VI
TITLE OF THE PAPER : MANAGEMENT ACCOUNTING
COURSE CODE : CMA-604 G/C C

COURSE OUTCOMES

- **CO1:** Students will critically understanding the financial and management accounting importance in understanding the business operations using different tools
- **CO2**: Students will understand the importance of changes of working capital for any Organization and analyzing the flow of fund
- **CO3:** Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations
- **CO4:** Students will have the ability of assessing the solvency and profitability of any Organization
- **CO5:** Students will understand the profit making decisions in complex situations of any business Organization

DEPARTMENT OF COMMERCE
COURSE OUTCOMES (CO'S)

Programme: B.Com (GENERAL)

SEMESTER : I
TITLE OF THE COURSE : FUNDAMENTALS OF ACCOUNTING – 1
COURSE CODE : CACC-101G/CC

COURSE OUTCOMES

- **CO1**: Student acquire conceptual knowledge in financial accounting and to impart skills to develop a working vocabulary of accounting terminology.
- **CO2**: Students will develop the ability to prepare subsidiary books and different types of cash book including petty cash book
- **CO3**: Students will acquire the reason for differences and their emergence in bank statements of any Organization.
- **CO4:** Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
- **CO5**: Students will develop the ability to organize the complex data of accounts to solve the problem in preparation of final books of accounts.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ORGANIZATION
COURSE CODE : CBO-102G/C

COURSE OUTCOMES

- **CO1:** To understand the basic concepts in Commerce, trade and industry and enable to expose to the modern business world
- **CO2:** Enable to identify the role of an entrepreneur in developing a new venture.
- **CO3:** To understand the nature, purpose and importance of different types of organizations.
- **CO4:** To familiarize the students with the fundamentals of Joint Stock Company as per Companies Act, 2013.
- **CO5**: To acquaint with incorporation stages and to create awareness on documentation.

SEMESTER : I
TITLE OF THE PAPER : BUSINESS ENVIRONMENT
COURSE CODE : CBEN -201G C

COURSE OUTCOMES

- **CO1:** Understand how an entity systematically explores the external environment in which business operates.
- **CO2:** To enlighten/familiarize the impact of economic growth and economic Development on businesses.
- **CO3:** To acquire specialized knowledge relating to economic development and Economic planning in India.
- **CO4:** To familiarize with various economic policies, structure and importance of Union budgets.
- **CO5:** To enlighten about legal, social, political and ethical environment of business.

SEMESTER : II
TITLE OF THE PAPER : FUNDAMENTALS OF ACCOUNTING –II
COURSE CODE : CACC -201G/CC

COURSE OUTCOMES

- **CO1:** Able to discuss and describe various methods of depreciation and valuation of depreciation to depreciable assets.
- **CO2:** Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts
- **CO3:** Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
- **CO4:** Gain an understanding with regard to special transactions related to accounting for consignment.
- **CO5:** Gain the knowledge with regard to special transactions relating to joint Venture business.

SEMESTER : II
TITLE OF THE PAPER : BUSINESS ECONOMICS
COURSE CODE : BE-202G/CC

COURSE OUTCOMES

- **CO1**: Describe the nature of economics in dealing with the issues of scarcity of resources.
- **CO 2:** Analyze supply and demand analysis and its impact on consumer behavior
- **CO 3:** Evaluate the factors, such as production and costs affecting firms behavior
- **CO4:** Recognize market failure and the role of government in dealing with those failures
- **CO5**: Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.

SEMESTER : II
TITLE OF THE PAPER : BANKING THEORY & PRACTICE
COURSE CODE : CBTP-203G/C

COURSE OUTCOMES

- **CO1:** To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
- **CO2:** To train and equip with the skills in banking and financial services and Innovations of the current banking systems like e-banking advancements
- **CO3:** To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD
- **CO4:** To know about the general and special relationship between Banker and Customer and KYC norms.
- **CO5:** To get knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of Paying Banker - Payment Gateways.

SEMESTER : III
TITLE OF THE PAPER : CORPORATE ACCOUNTING
COURSE CODE : CCA-301G/CC

COURSE OUTCOMES

- **CO1:** The students will have a good command on issue of shares and also forfeiture and reissue of shares.
- **CO2:** The students will be able to know how to allocate the expenses and incomes prior to incorporation and after incorporation.
- **CO3:** The students will be able to learn various methods for valuation of goodwill and shares.
- **CO4:** The students will able to known how to prepare profit and loss and balance sheet as per companies' act 2013.
- **CO5:** The students will acquire knowledge regarding rules and regulations of companies' act 2013.

SEMESTER : III
TITLE OF THE PAPER : BUSINESS STATISTICS
COURSE CODE : CBS -302G/CC

COURSE OUTCOMES

- **CO1:** Describe the structure and characteristics of statistical data. able to present the data with diagrams
- **CO2**: Calculate and interpret measures of central tendency and variability in statistical data.
- **CO3**: Calculate and interpret measures of dispersion and skewness
- **CO4:** Design, evaluate and apply correlation analysis.
- **CO5:** To study the past behavior of data and measure the effect of changes over the period of time.

SEMESTER : III
TITLE OF THE PAPER : BANKING THEORY & PRACTICE
COURSE CODE : CBTP -303G C

COURSE OUTCOMES

- **CO1:** To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
- **CO2:** To train and equip with the skills in banking and financial services and Innovations of the current banking systems like e-banking advancements
- **CO3:** To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD
- **CO4:** To know about the general and special relationship between Banker and Customer and KYC norms.
- **CO5:** To get knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of Paying Banker - Payment Gateways.

SEMESTER – IV
TITLE OF THE PAPER: ACCOUNTING FORSERVICE ORGANISATION
COURSE CODE: CASO -401G C

COURSE OUTCOMES

- **CO1:** The students will acquire knowledge about non-profit organizations and how to prepare financial statements of non- profit organizations.
- **CO2:** The students will be able to prepare financial statements electricity companies.
- **CO3:** The students will be able to prepare financial statements banking companies.
- **CO4:** The students will able to know how to ascertain the profit of Life insurance companies and to prepare valuation balance sheet.
- **CO5:** The students will able to know how to ascertain the profit of General insurance companies and to calculate reserve for unexpired risks.

SEMESTER : IV
TITLE OF THE PAPER : INCOME TAX
COURSE CODE : CTAX -402G C

COURSE OUTCOMES

- **CO1: Impact** knowledge on the provisions of income tax law and practice Acquire Knowledge about Income exempt from tax and residential status of an individual
- **CO2:** Enlist the ability of provisions of Income from salary and its deductions u/s 80c
- **CO3:** The student can build an idea about Income from house property and its taxability
- **CO4:** The student can acquire knowledge in calculation of capital gain and income from Other sources
- **CO5:** The student can acquire knowledge in calculation of Computation of total income of an Individual

SEMESTER : IV
TITLE OF THE PAPER : BUSINESS LAWS
COURSE CODE : CBL -403G/CC

COURSE OUTCOMES

- **CO1**: Impacts the students in acquiring the basic knowledge regarding contracts in business. And impact of it to “QUID-PRO-QUO” for the enforceability of the contract
- **CO2**: Students will have clarity on competency of persons, modes of discharge of contract, analyzing and approaching to remedies in times of breach of contract.
- **CO3**: Students will get knowledge in law and procedure relating to sale of goods in Indian context.
- **CO4:** Students are able to acquire knowledge in law and procedure relating to consumer rights
- **CO5:** Students will get knowledge in new dimensions in business Organization relating to cyber laws

SEMESTER : V
TITLE OF THE PAPER : BUSINESS LEADERSHIP
COURSE CODE : CBLP -501G/CC

COURSE OUTCOMES

- **CO1**: Students able to learn leadership skills
- **CO2:** students impart knowledge about leadership in organizations.
- **CO3:** students can build an idea about familiar business persons

SEMESTER : V
TITLE OF THE PAPER : COST ACCOUNTING
COURSE CODE : CCOA -502G/CC

COURSE OUTCOMES

- **CO1:** Impart knowledge on the fundamental concept of cost accounting.
- **CO2:** Comprehend the knowledge in effective control of raw materials and work in progress.
- **CO3**: Build an idea about incentive plans based on production and cost savings.
- **CO4- C04**: Familiarize the students about the production progress with the help of departmental manager.
- **CO5-** Students will understand the profit making decisions in complex situations of any business Organization.

SEMESTER : V
TITLE OF THE PAPER : GOODS &SERVICE TAX FUNDAMENTALS
COURSE CODE : CGST -503G/C

COURSE OUTCOMES

- **CO1:** Impact knowledge on the Overview of GST and Justification for Introduction of GST **a**nd acquire knowledge about Constitutional Amendments in GST
- **CO2:** Students get knowledge about GST Principles and Models of GST Australian, Canadian; the student can build an idea about Comprehensive Structure of GST model in India
- **CO3:** The student will be able to understand Taxes and Duties under GST and also Taxation of services and Tax on Petroleum products
- **CO4:** The student can build an idea about IGST Model and also Transactions within a State under GST
- **CO5:** Students get knowledge about Value of Supply - Input Tax Credit and Distribution of Credit, Matching of Input Tax Credit

SEMESTER : V
TITLE OF THE PAPER : COMMERCIAL GEOGRAPHY
COURSE CODE : CCG-505G/CC

COURSE OUTCOMES

- **CO1:** Understand the importance of early commercial activities in the world reflecting Different occupations in various environments.
- **CO2:** Explain different stages of agricultural development using additional OE resources Available in the internet using modern ICT tools.
- **CO3**: Respond to the changes involved in the Indian forests and need for protection of Forests and Forests Conservation Act.
- **CO4:** Know different types of minerals India and mining and their uses.
- **CO5**: Examine Indian water resources, Interlinking of Rivers India and Experience of India and Andhra Pradesh.

SEMESTER : V
TITLE OF THE PAPER : CENTRAL BANKING
COURSE CODE : CCB-505CE G/C

COURSE OUTCOMES

- **CO1**: Students are able to impart concepts of central banking
- **CO2**: Understand the role of RBI in India
- **CO3**: Students can learn about policies issued by RBI.
- **CO4:** Students will acquire the knowledge about RBI mechanism to control inflation
- **CO5:** Students are able to learn norms issued by RBI

SEMESTER : V
TITLE OF THE PAPER : RURAL AND FARM CREDIT
COURSE CODE : CRC-506 CE G/C

COURSE OUTCOMES

- **CO1**: Students are able to impart knowledge about concepts of rural credit
- **CO2:** Students are able to impart knowledge about rural credit agencies
- **CO3:** Students can acquire knowledge problems and remedies of Farm Credit
- **CO4:** Students are able to impart knowledge about sources of farm credit
- **CO5**: Students able to learn norms issued by RBI

SEMESTER : VI
TITLE OF THE PAPER : EVENT MANAGEMENT
COURSE CODE : CEM-601 G/CC

COURSE OUTCOMES

- **CO1**: Identify the needs of customers for organizing a corporate event and understand the types of Events.
- **CO2:** Examine various types of Outdoor events and Managing the risk in the events. Relate Marketing management, Human Resource Management to Event Management
- **CO3:** Students able to organize Shows, fashion shows, high profile charity events.

SEMESTER : VI
TITLE OF THE PAPER : MARKETING
COURSE CODE : CM-602G/CC

COURSE OUTCOMES

- **CO1:** To introduce the concepts of marketing and understand the factors influence the market environment.
- **CO2:** Analyze the consumer market models and enlightens consumer buyer behavior models.
- **CO3:** Understand the concept of product and identify the need of product mix and product line decisions.
- **CO4:** Develop an idea about pricing strategies and pricing decisions.
- **CO5:** Enhance the students about decisions regarding promotion and distribution channels.

SEMESTER : VI
TITLE OF THE PAPER : AUDITING
COURSE CODE : CAU-603 G/CC

COURSE OUTCOMES

- **CO1:** Students will develop the knowledge & importance of auditing and accounting of any Organization and Role of Auditor in checking corporate frauds.
- **CO2**: Students will have the ability of understanding the applicability of auditing types for different organizations
- **CO3**: Students will have knowledge in planning the effectiveness of auditing and also internal check, internal audit and internal control.
- **CO4**; Students will have proper understanding of the requirements of documentary evidence for the completion of Vouching and Investigation.
- **CO5**: Students will have the knowledge in Company Audit and Auditors Report

SEMESTER : VI
TITLE OF THE PAPER : MANAGEMENT ACCOUNTING
COURSE CODE : CMA-604 G/C C

COURSE OUTCOMES

- **CO1:** Students will critically understanding the financial and management accounting importance in understanding the business operations using different tools
- **CO2**: Students will understand the importance of changes of working capital for any Organization and analyzing the flow of fund
- **CO3:** Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations
- **CO4:** Students will have the ability of assessing the solvency and profitability of any Organization
- **CO5:** Students will understand the profit making decisions in complex situations of any business Organization

SEMESTER : VI
TITLE OF THE PAPER : FINANCIAL SERVICES
COURSE CODE : CFS-605 CE G/C

COURSE OUTCOMES

- **CO1**: Students can impart knowledge about various financial services offered by banking and nom-banking companies
- **CO2:** Students can understand various merchant banking services
- **CO3:** To know emergence and development of financial services in leasing and hire-purchase
- **CO4** : Students will acquire the knowledge of various credit rating agencies and concept of mutual funds
- **CO5**: To understand the various financial services and their future

SEMESTER : VI
TITLE OF THE PAPER : MARKETING OF FINANCIAL SERVICES
COURSE CODE : CMFS-606 CE G/C

COURSE OUTCOMES

- **CO1**: Students are able to learn basic concepts in marketing of financial services
- **CO2**: Students are able to learn the concepts of service environment
- **CO3:** Students are able to impart knowledge about pricing strategies and promotion strategies
- **CO4**: Students can impart knowledge regarding promotion and distribution
- **CO5**: Students can impart knowledge about various retail financial services

DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (M.P.Cs., M.C.Cs., M.S.Cs)

SEMESTER : I
TITLE OF THE COURSE : PROBLEM SOLVING IN 'C'
COURSE CODE : CSCT11B

COURSE OUTCOMES

- **CO1**: Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
- **CO2**: Understand tokens and control structures in C.
- **CO3:** Understand arrays and strings and implement them.
- **CO4**: Understand the right way of using functions, pointers, structures and unions in C
- **CO5:** Develop and test programs written in C files

SEMESTER : II
TITLE OF THE COURSE : DATA STRUCTURES
COURSE CODE : CSCT21B

COURSE OUTCOMES

- **CO1**: Learn the concepts of ADT and understand analysis of algorithms
- **CO2**: Understand available Data Structures for data storage and processing.
- **CO3:** Understand available Data Structures for data storage and processing.
- **CO4**: Learn stacks, queues and their applications
- **CO5:** Understand trees, graphs and implement their operations Develop ability to implement different Sorting and Search methods

SEMESTER : III
TITLE OF THE COURSE : DATA BASE MANAGEMENT SYSTEM
COURSE CODE : CSC 301C

COURSE OUTCOMES

- **CO1**: Able to have knowledge about database, Traditional File System.
- **CO2**: Be able to Design a database using Relation models and Data Modeling
- **CO3:** Store, retrieve data in database using Integrity constraints and Normal Forms.
- **CO4**: Be able to implement various SQL queries
- **CO5:** Be able to implement various Procedural SQL queries

SEMESTER : IV
TITLE OF THE COURSE : OOP'S WITH JAVA
COURSE CODE : CSCT01

COURSE OUTCOMES

- **CO1:** Understand the benefits of a well-structured program
- **CO2:** Understand different computer programming paradigms
- **CO3:** Understand underlying principles of Object-Oriented Programming in Java
- **CO4:** Develop problem-solving and programming skills using OOP concepts
- **CO5:** Develop the ability to solve real-world problems through software development in high-level programming language like Java

SEMESTER : IV
TITLE OF THE COURSE : OPERATING SYSTEM
COURSE CODE : CSCT41C

COURSE OUTCOMES

- **CO1**: Know Computer system resources and the role of operating system in resource management with algorithms
- **CO2**: Understand Operating System Architectural design and its services
- **CO3:** Gain knowledge of various types of operating systems including UNIX and Android
- **CO4**: Understand various process management concepts including scheduling, synchronization, and deadlocks.
- **CO5:** Have a basic knowledge about multithreading and approaches for memory management

SEMESTER : V
TITLE OF THE COURSE : DATABASE MANAGEMENT SYSTEM
COURSE CODE : CSC501C

COURSE OUTCOMES

- **CO1**: Able to have knowledge about database, Traditional File System.
- **CO2**: Be able to Design a database using Relation models and Data Modeling
- **CO3:** Store, retrieve data in database using Integrity constraints and Normal Forms.
- **CO4**: Be able to implement various SQL queries
- **CO5:** Be able to implement various Procedural SQL queries

SEMESTER : V
TITLE OF THE COURSE : SOFTWARE ENGINEERING
COURSE CODE : CSC 502C

COURSE OUTCOMES

- **CO1**: Understand the concepts of Software Engineering and Process
- **CO2**: Ability to use perfect models according to the requirements of the software projects.
- **CO3:** Ability to analyze software requirements with existing tools.
- **CO4**: Able to use different class diagrams, user interface designs, chart diagrams.
- **CO5:** Able to differentiate different testing methodologies and Design Engineering

SEMESTER : VI
TITLE OF THE COURSE : WEB TECHNOLOGY
COURSE CODE : CSC601GE

COURSE OUTCOMES

- **CO1**: Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
- **CO2**: Understand to style a webpage using CSS and Basic Concepts of Java Scripts
- **CO3:** Understand to style a webpage Using Objects in Java Script and DHTML.
- **CO4**: Understand the Basic Concepts of XML and Defining Data for Web Applications
- **CO5:** Understand the Concepts of JS.

SEMESTER : VI
TITLE OF THE COURSE : PHP& MY SQL, WORDPRESS
COURSE CODE : CSC602CE

COURSE OUTCOMES

- **CO1**: Understand the concepts Of PHP and MY SQL Installations.
- **CO2**: Able to know the basic concepts Function and Working with Functions
- **CO3:** Understand the concepts of FORMS and working with FORMS.
- **CO4**: Understand the concepts of MY SQL and MY SQL Components.
- **CO5:** Able to know the concepts of WORDPRESS.

SEMESTER : VI
TITLE OF THE COURSE : JAVA SCRIPT / AJAX
COURSE CODE : CSC603CE

COURSE OUTCOMES

- **CO1**: Understand the concepts Of HTML and JQUERY
- **CO2**: Understand the concepts JQUERY and CSS Methods using DOM Attributes
- **CO3:** Understand the concepts of JQUERY USER INTERFACE Programs
- **CO4**: Understand the concepts of AJAX and JSON Objects
- **CO5:** Develop the ability to solve real-world problems through software development in high-level programming language like ANGULAR JS and ANIMATIONS

DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTCOMES (CO'S)

Programme: B.Com (Computer Applications)

SEMESTER : I
TITLE OF THE COURSE : INFORMATION TECHNOLOGY
COURSE CODE : CABT11A

COURSE OUTCOMES

- **CO1**: Understand fundamental concepts of a computer and its basic components
- **CO2**: Understand basic functioning of an operating system and customizing Windows Desktop
- **CO3:** Analyze type of softwares and programming languages
- **CO4**: Have knowledge in basic Network and Data Communication Concepts
- **CO5:** Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

SEMESTER : II
TITLE OF THE COURSE : E–COMMERCE & WEB DESIGNING
COURSE CODE : CABT21A

COURSE OUTCOMES

- **CO1**: Gain knowledge in E- commerce and its business models
- **CO2**: Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS
- **CO3:** Understand the structure of HTML its basic tags
- **CO4**: Implement various HTML tags for web page development
- **CO5**: Understand about web page designing

SEMESTER : III
TITLE OF THE COURSE : PROGRAMMING IN C
COURSE CODE : CCSC 301C

COURSE OUTCOMES

- **CO1**: Analyze a given problem and develop an algorithm to solve the problem
- **CO2**: Understand the C tokens and control structures.
- **CO3:** Understand to handle arrays and strings
- **CO4**: Use the 'C' language constructs in the right way using pointers, structures and unions
- **CO5:** Design, develop and test programs written in 'C' files.

SEMESTER : IV
TITLE OF THE COURSE : DATABASE MANAGEMENT SYSTEMS
COURSE CODE : CCSE401G

COURSE OUTCOMES

- **CO1**: Able to have knowledge about database, Traditional File System.
- **CO2**: Be able to Design a database using Relation models and Data Modeling
- **CO3:** Store, retrieve data in database using Integrity constraints and Normal Forms.
- **CO4**: Be able to implement various SQL queries
- **CO5**: Be able to implement various Procedural SQL queries

SEMESTER : IV
TITLE OF THE COURSE : OOP'S WITH JAVA
COURSE CODE : CCSC402G

COURSE OUTCOMES

- **CO1**: Able to understand the concept and underlying principles of Object-Oriented Programming.
- **CO2**: Able to Understand the Basic concepts of Data types & Operators
- **CO3:** Able to Implement Decision & Looping Statements
- **CO4**: Able to Implement Object Oriented Programming Concepts like class, constructor, overloading in java.
- **CO5**: Able to implement Inheritance, exception handling, threads concepts.

SEMESTER : V
TITLE OF THE COURSE : OBJECT ORIENTED PROGRAMMING USING JAVA
COURSE CODE : CCSC505C

COURSE OUTCOMES

- **CO1**: Able to understand the concept and underlying principles of Object-Oriented Programming.
- **CO2**: Able to Understand the Basic concepts of Data types & Operators
- **CO3:** Able to Implement Decision & Looping Statements
- **CO4**: Able to Implement class, constructor, overloading in java.
- **CO5**: Able to implement Inheritance, exception handling, threads concepts.

SEMESTER : V
TITLE OF THE COURSE : DATABASE MANAGEMENT SYSTEMS
COURSE CODE : CCSC506C

COURSE OUTCOMES

- **CO1**: Able to have knowledge about database, Traditional File System.
- **CO2**: Be able to Design a database using Relation models and Data Modeling
- **CO3:** Store, retrieve data in database using Integrity constraints and Normal Forms.
- **CO4**: Be able to implement various SQL queries
- **CO5**: Be able to implement various Procedural SQL queries

SEMESTER : V
TITLE OF THE COURSE : WEB TECHNOLOGY
COURSE CODE : CCSC507C

COURSE OUTCOMES

- **CO1**: Understand the basic structure of a HTML design and develop a website using different text formatting tags, images, links, lists and tables.
- **CO2**: Understand to style a webpage using CSS and Basic Concepts Of Java Scripts
- **CO3:** Understand to style a webpage Using Objects in Java Script and DHTML
- **CO4**: Understand the Basic Concepts of XML and Defining Data for Web Applications.
- **CO5:** Understand the Concepts of JSP

SEMESTER : VI
TITLE OF THE COURSE : TALLY
COURSE CODE : CSC605CE

COURSE OUTCOMES

- **CO1**: Able to understand the basic concepts of TALLY
- **CO2**: Able to understand the installation of TALLY Software.
- **CO3:** Able to implement the concepts of ledgers
- **CO4**: Able to implement the concepts of vouchers
- **CO5:** Able to implement the basic concepts of final accounts

SEMESTER : VI
TITLE OF THE COURSE : E-COMMERCE
COURSE CODE : CSC606CE

COURSE OUTCOMES

- **CO1**: Understand the structure of HTML its basic tags
- **CO2**: Implement various HTML tags for web page development
- **CO3:** Understand about implementing forms and frames in web page designing
- **CO4**: Gain knowledge in E- commerce and its business models
- **CO5:** Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS

SEMESTER : VI
TITLE OF THE COURSE : PHP & MY SQL
COURSE CODE : CCSC607CE

COURSE OUTCOMES

- **CO1**: Understand the concepts Of PHP and MY SQL Installations.
- **CO2**: Able to know the basic concepts Function and Working with Functions
- **CO3:** Understand the concepts of FORMS and working with FORMS.
- **CO4**: Understand the concepts of MY SQL and MY SQL Components.
- **CO5:** Able to know the concepts of WORDPRESS.

DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTCOMES (CO'S)

Programme: B.Com (E-Commerce & Computers)

SEMESTER : I
TITLE OF THE COURSE : E–COMMERCE & WEB DESIGNING
COURSE CODE : CSCT11B

COURSE OUTCOMES

- **CO1**: Gain knowledge in E- commerce and its business models
- **CO2**: Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS
- **CO3:** Understand the structure of HTML its basic tags
- **CO4**: Implement various HTML tags for web page development
- **CO5**: Understand about web page designing

SEMESTER : II
TITLE OF THE COURSE : INFORMATION TECHNOLOGY
COURSE CODE : CABT21A

COURSE OUTCOMES

- **CO1**: Understand fundamental concepts of a computer and its basic components
- **CO2**: Understand basic functioning of an operating system and customizing Windows Desktop
- **CO3:** Analyze type of soft ware's and programming languages
- **CO4**: Have knowledge in basic Network and Data Communication Concepts
- **CO5:** Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

SEMESTER : II
TITLE OF THE COURSE : COMPUTER APPLICATIONS
COURSE CODE : CABT22A

COURSE OUTCOMES

- **CO1**: Understand fundamental concepts of a computer and its basic components
- **CO2** Understand basic functioning of an MS-Office & MS-Word Window Components Windows Desktop
- **CO3:** Analyze type of soft ware's and programming languages
- **CO4**: Have knowledge in MS-Excel and MS Access
- **CO5:** Understand the need of Finding, Sorting and Displaying Data and get familiarize

DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (B.Z.C., A.B.C.) & B.A.

SEMESTER : I
TITLE OF THE COURSE : BASIC COMPUTER APPLICATIONS
COURSE CODE : LSC1

COURSE OUTCOMES

- **CO1**: Demonstrate basic understanding of computer hardware and software.
- **CO2**: Apply skills and concepts for basic use of a computer.
- **CO3:** Create personal, academic and business documents using MS office.
- **CO4**: Create spread sheets, charts and presentations.
- **CO5**: Able to understand the concept of Inheritance and Exceptions Object-Oriented Programming.

SEMESTER : II
TITLE OF THE PAPER : DIGITAL MARKETING
COURSE CODE : SDCCSC02

COURSE OUTCOMES

- **CO1**: Know the emerging trends in digital marketing and applicable knowledge of various digital marketing tools.
- **CO2**: Build a functional website with the help of WordPress and exposure to Search Engine Optimization tools
- **CO3**: Understand the different types of Social Media Marketing Techniques

DEPARTMENT OF PG CHEMISTRY
COURSE OUTCOMES (CO'S)

Programme: M.SC (ORGANIC CHEMISTRY)

SEMESTER : I
NAME OF THE COURSE : GENERAL CHEMISTRY
COURSE CODE : 20CH1T1

COURSE OUTCOMES

- **CO1**: Understand the significance of statistical rules and principles in quantitative analysis.
- **CO2**: Assimilate the knowledge of various kinds of reactions, titrations and their applications.
- **CO3:** Get equipped with the basic knowledge of Methods of purification, Drying techniques and Solvent extraction.
- **CO4**: Get equipped with the knowledge of Chromatography techniques like as Adsorption, Column, Paper and Thin Layer chromatography
- **CO5:** Test the conceptual knowledge gained in Gas Chromatography and High-Performance Liquid Chromatography

SEMESTER : I
NAME OF THE COURSE : INORGANIC CHEMISTRY-I
COURSE CODE : 20CH1T2

COURSE OUTCOMES

- **CO1**: Understand the postulates, basic theory and advanced theory of Quantum chemistry.
- **CO2**: Take up the knowledge of preparation, structure, bonding aspects and chemical properties of metal pi complexes, compounds of non – transitional elements and also spectral properties, magnetic properties and applications of Lanthanides and actinide complexes
- **CO3:** Assimilate the knowledge of non-valence cohesive forces, VSEPR theory, MO theory, MO diagrams and implications of MO theory.
- **CO4**: Comprehend the bonding, structural aspects, properties and applications of complexes basing on CFT & MO theory and evidences in support of M-L bond.
- **CO5:** Identify the significance of the thermodynamic stability of complexes, factors effecting, theories to explain stability and methods of determining the stability constant of complexes.

SEMESTER : I
NAME OF THE COURSE : ORGANIC CHEMISTRY-I
COURSE CODE : 20CH1T3

COURSE OUTCOMES

- **CO1**: Interpret the concept of aromaticity and the main properties of benzenoid and non-benzenoid aromatic compounds and distinguish between aromatic, non-aromatic and anti-aromatic compounds by their structures and chemical consequence of aromaticity.
- **CO2**: Understand the structure, stability, properties and generation of various reactive intermediates and reactive species and their role in organic reaction mechanisms.
- **CO3:** Have a clear conceptual understanding of the nature of carbon-carbon multiple bond, various types of additions, with various reagents, mechanism, orientation and stereochemistry and also acknowledge some important synthetic reactions of CO and CN and crams rule
- **CO4**: Understand the definition types of elimination reactions and differentiate between the various mechanisms, orientation rules and perceives factors favoring elimination over substitution.
- **CO5:** Have knowledge and understanding of various types of aliphatic and aromatic nucleophilic substitution reactions, their mechanisms, stereochemistry and various factors affecting nucleophilic substitution reactions

SEMESTER : I
NAME OF THE COURSE : PHYSICAL CHEMISTRY-I
COURSE CODE : 20CH1T4

COURSE OUTCOMES

- **CO1**: Understand the core areas of physical chemistry based around the theme of systems, states and process covered on thermodynamics.
- **CO2**: Understand the important aspects of surface phenomenon and the physical chemistry involved in it.
- **CO3:** Understand the basic concepts of electrochemical cells, concentration cells in producing electricity from chemicals.
- **CO4**: Understand the theories of reaction rates, mechanisms of Collision theory, primary and secondary salt effects.
- **CO5:** Understand the method of bond length, bond strength determination, identification of functional groups present in the molecule from the microwave and IR spectra of molecules.

SEMESTER : II
NAME OF THE COURSE : ORGANIC SPECTROSCOPY
COURSE CODE : 20CH2T1

COURSE OUTCOMES

- **CO1**: Memorize the basic principles and theory involved in molecular absorption spectroscopy.
- **CO2**: Comprehend the advanced concepts of molecular absorption spectroscopy.
- **CO3:** Apply the knowledge of spectroscopy in establishing the structure of organic molecules.
- **CO4**: Analyze the spectral data to ascertain the structure of unknown molecules.

SEMESTER : II
NAME OF THE COURSE : INORGANIC CHEMISTRY-II
COURSE CODE : 20CH2T2

COURSE OUTCOMES

- **CO1**: Memorize the fundamental concepts of Metallic & nonmetallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic spectra& magnetic properties of complexes and bioinorganic chemistry
- **CO2**: Comprehend the basic and advanced concepts of metallic & nonmetallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry.
- **CO3:** Apply the conceptual knowledge gained in the concepts of metallic & nonmetallic clusters, inorganic reaction mechanisms, organometallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in other fields of chemistry as well as in research.
- **CO4**: Analyze the role of metallic & nonmetallic clusters / cages, inorganic reaction mechanisms, organo metallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in understanding the similarities and differences among the concepts of chemistry.
- **CO5**: Assess that how far the concepts of metallic & nonmetallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry are useful in rendering theoretical explanations for the concepts in chemistry.

SEMESTER : II
NAME OF THE COURSE : ORGANIC CHEMISTRY-II
COURSE CODE : 20CH2T3

COURSE OUTCOMES

- **CO1**: Understand the basic and advanced concepts of stereochemistry, conformational analysis, green chemistry, nano chemistry and named reactions.
- **CO2**: Apply the concepts related to stereochemistry, conformational analysis, and green and nano chemistry in establishing the mechanism of the reaction.
- **CO3:** Assess that how far the knowledge gained in stereochemistry, green chemistry and nano chemistry is useful in understanding the nature of product.
- **CO4**: Evaluate the role of stereochemistry, green principles and nano chemistry in establishing the mechanism of a reaction as well as in other areas of chemistry.

SEMESTER : II
NAME OF THE COURSE : PHYSICAL CHEMISTRY-II
COURSE CODE : 20CH2T4

COURSE OUTCOMES

- **CO1**: Remember the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
- **CO2**: Understand the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
- **CO3:** Apply the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry in research and other allied fields.
- **CO4**: Analyze the role and significance of concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
- **CO5**: Evaluate the role of concepts of Symmetry and Group theory in chemistry and applications of group theory, construction of character tables.

SEMESTER : II
NAME OF THE COURSE : CHEMISTRY IN DAILY LIFE
COURSE CODE : 20OECH

COURSE OUTCOMES

- **CO1**: Memorize the basic concepts related to chemistry in daily life like – chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones.
- **CO2**: Understand the concepts like chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones.
- **CO3:** Apply the knowledge gained in the concepts like chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones in future job roles.
- **CO4**: Analyze the role and significance of concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
- **CO5**: Evaluate the role of concepts of Symmetry and Group theory in chemistry and applications of group theory, construction of character tables.

SEMESTER : III
NAME OF THE COURSE : ADVANCED ORGANIC SPECTROSCOPY
COURSE CODE : 20CH3T1

COURSE OUTCOMES

- **CO1**: Summarize the principle, theory and advanced aspects of ^{1}HNMR, ^{13}C NMR, 2D NMR, ORD & CD spectroscopic techniques.
- **CO2**: Display the knowledge gained in the areas of ^{1}HNMR, ^{13}C NMR, 2D NMR, ORD & CD spectroscopic techniques in chosen job role.
- **CO3:** Interpret the spectral data of ^{1}HNMR, ^{13}C NMR, 2D NMR, ORD & CD in elucidating the structure of the molecule.
- **CO4**: Assess that how far the spectral data of ^{1}HNMR, ^{13}C NMR, 2D NMR, ORD & CD are useful in establishing the structure of the molecule.

SEMESTER : III
NAME OF THE COURSE : ORGANIC REACTIONS & MECHANISMS & GREEN CHEMISTRY
COURSE CODE : 20CH3T2

COURSE OUTCOMES

- **CO1**: Acquire sound knowledge of oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry.
- **CO2**: Understand the concepts involved in oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry.
- **CO3:** Apply the conceptual knowledge gained in oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry in chosen fields.
- **CO4**: Analyze and categories the various types oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry in a given reactions.

SEMESTER : III
NAME OF THE COURSE : ORGANIC SYNTHESIS
COURSE CODE : 20CH3T3A

COURSE OUTCOMES

- **CO1**: Memorize the concepts, principles and theories related to formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis.
- **CO2**: Understand the role and significance of formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis.
- **CO3:** Apply the conceptual knowledge gained in formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis as and when required.
- **CO4**: Analyze the role of various reagents in carrying out the organic reactions like formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis.

SEMESTER : III
NAME OF THE COURSE : CHEMISTRY OF NATURAL PRODUCTS
COURSE CODE : 20CH3T4B

COURSE OUTCOMES

- **CO1**: Memorize the concepts related to Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
- **CO2**: Understand the chemical role of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
- **CO3:** Execute the conceptual knowledge gained in the areas of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
- **CO4**: Analyze the role of methods involved in structure elucidation of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.

SEMESTER : III
NAME OF THE COURSE : POLYMER CHEMISTRY
COURSE CODE : 20OECH

COURSE OUTCOMES

- **CO1**: Memorize the concepts related to polymer chemistry
- **CO2**: Understand the concepts of polymer chemistry
- **CO3:** Apply the knowledge gained in polymer chemistry in chosen job role.

SEMESTER : IV
NAME OF THE COURSE : MOOCS – ORGANIC CHEMISTRY – I
COURSE CODE : 20CH4T1

COURSE OUTCOMES

- **CO1**: Recollect the concepts of stereochemistry, conformational analysis, CD & ORD, nature of bonding, aromaticity, chemical kinetics and Reactive intermediates.
- **CO2**: Identify the role of stereochemistry, conformational analysis, CD & ORD, nature of bonding, aromaticity, chemical kinetics and reactive intermediates.
- **CO3:** Demonstrate the knowledge of stereochemistry, conformational analysis, CD & ORD, nature of bonding, aromaticity, chemical Kinetics and reactive intermediates in chosen fields.
- **CO4**: Analyze the conceptual knowledge in stereochemistry, conformational analysis, CD & ORD, nature of bonding, aromaticity, chemical kinetics and reactive intermediates in the reactions.

SEMESTER : IV
NAME OF THE COURSE : HETERO CYCLIC CHEMISTRY
COURSE CODE : 20CH4T2A

COURSE OUTCOMES

CO1: Memorize the synthetic routes and reactions related to three, four, five, six membered and fused heterocyclic compounds.
CO2: Understand the concepts of synthesis and reactions of three, four, five, six membered and fused heterocyclic compounds.
CO3: Apply the conceptual knowledge gained in the synthesis and reactions of organic synthesis three, four, five, six membered and fused heterocyclic compounds as and when required.
CO4: Analyze and categorize the various reactions involved in the synthesis of three, four, five, six membered and fused heterocyclic compounds

SEMESTER : IV
NAME OF THE COURSE : GREEN CHEMISTRY
COURSE CODE : 20CH4T2 B

COURSE OUTCOMES

- **CO1**: Memorize the principles of green chemistry and concepts related to green organic synthesis.
- **CO2**: Understand the role and significance of green organic synthesis.
- **CO3:** Exercise the basic and advanced knowledge gained on green organic synthesis in chosen job role.
- **CO4**: Analyze how far green methods are environmentally benign over conventional methods of synthesis.

SEMESTER : IV
NAME OF THE COURSE : TECHNIQUES FOR MODERN INDUSTRIAL APPLICATIONS
COURSE CODE : 20CH4T3 A

COURSE OUTCOMES

- **CO1**: Comprehend the concepts of purification methods and chromatographic methods.
- **CO2**: Exercise the knowledge gained in purification and chromatographic techniques in their chosen job role.
- **CO3:** Exercise that how far the purification and chromatographic techniques are useful in assessing the purity of the compound.
- **CO4**: Evaluate that how far a compound is purified / separated using purification and chromatographic techniques.

SEMESTER : IV
NAME OF THE COURSE : NANO CHEMISTRY
COURSE CODE : 20CH4T3 B

COURSE OUTCOMES

- **CO1**: Will be able to memorize the basic concepts of Nanochemistry and nano materials.
- **CO2**: Understand the basic and advanced concepts of Nanochemistry and nano materials
- **CO3:** Apply the knowledge gained in the field of Nanochemistry as and when required.
- **CO4**: Analyze the role of Nanochemistry in various interdisciplinary sciences.

SEMESTER : IV
NAME OF THE COURSE : ORGANO METALLIC REAGENTS
COURSE CODE : 20CH4T4

COURSE OUTCOMES

- **CO1**: Memorize the synthetic roots and applications of organo metallic reagents.
- **CO2**: Appreciate the methods of synthesis and reactivity of various organo metallic reagents
- **CO3:** Investigate the conceptual knowledge in various organo metallic reagents in organic synthesis
- **CO4**: Assess the role of specific organic reaction reagents in the synthesis

SEMESTER : IV
NAME OF THE COURSE : PROJECT WORK
COURSE CODE : 20CH4L2

COURSE OUTCOMES

- **CO1**: Acquire required skills to implement theoretical knowledge gained.
- **CO2**: Assimilate the required knowledge for future research through practical knowledge gained in the project work.
- **CO3:** Gain the required ability to start up own industry.
- **CO4**: Comprehend the ability to draft and communicate the practical work.

DEPARTMENT OF CHEMISTRY
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (M.P.C., M.C.Cs., B.Z.C., A.B.C.)

SEMESTER : I
TITLE OF THE PAPER : INORGANIC & PHYSICAL CHEMISTRY
COURSE CODE : CHET11A

COURSE OUTCOMES

- **CO1**. Understand the basic concepts of p-block elements.
- **CO2**. To compare the periodic properties of d and f block elements and explain the bonding and structures of metal carbonyls.
- **CO3**. To understand the properties and structure of Solid state.
- **CO4**. To understand the properties of gaseous and liquid states.
- **CO5**. To explain the properties of Solutions.

SEMESTER : II
TITLE OF THE PAPER : ORGANIC AND GENERAL CHEMISTRY
COURSE CODE : CHET21A

COURSE OUTCOMES

- **CO1.** Understand and explain the differential behavior of organic compounds based on fundamental concepts learnt.
- **CO2.** Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.
- **CO3.** Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.
- **CO4.** Understand the concepts of absorption and adsorption, colloidal chemistry and nature of Chemical Bonding.
- **CO5.** Correlate and describe the stereo chemical properties of organic compounds and reactions.

SEMESTER : III
TITLE OF THE PAPER : ORGANIC CHEMISTRY & SPECTROSCOPY
COURSE CODE : CHE-301C

COURSE OUTCOMES

- **CO1:** Remember the preparations, properties and reactions of halo alkanes, halo arenas and oxygen containing functional groups.
- **CO2:** Understand preparation, properties and reactions of carbonyl compounds
- **CO3:** Apply preparation methods for carboxylic acids and their derivatives
- **CO4:** Analyze various molecules and polyatomic molecules using different spectroscopy methods
- **CO5:** Evaluate the functional groups of different organic compounds
- **CO6:** Create applications of spectroscopy for various organic molecules

SEMESTER : IV
TITLE OF THE PAPER : INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY
COURSE CODE : CHE-401C

COURSE OUTCOMES

- **CO1:** To learn about the laws of absorption of light energy by molecules and the subsequent photo chemical reactions.
- **CO2:** To understand the concept of quantum efficiency and mechanisms of photochemical reactions

SEMESTER : IV
TITLE OF THE PAPER : INORGANIC & PHYSICAL CHEMISTRY
COURSE CODE : CHE-402C

COURSE OUTCOMES

- **CO1**: Understand concepts of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation value
- **CO2**: Application of quantization to spectroscopy.
- **CO3**: Various types of spectra and their use in structure determination.

SEMESTER : V
TITLE OF THE PAPER : INORGANIC, ORGANIC & PHYSICAL CHEMISTRY
COURSE CODE : CHE-501C

COURSE OUTCOMES

- CO1 Understand the stability and magnetic behaviour of the complex compounds
- CO2 Understand the importance and applications of complex compounds
- CO3 Have knowledge of organic compounds containing Nitrogen as hetero atom.
- CO4 Understand the laws of thermodynamics, spontaneous, non-spontaneous processes and entropy

SEMESTER : V
TITLE OF THE PAPER : INORGANIC, ORGANIC & PHYSICAL CHEMISTRY
COURSE CODE : CHE-502C

COURSE OUTCOMES

- CO1 Understand the reactivity of coordination compounds. Understand the active roles of metal ions and coordination compounds in biological systems.
- CO2 Understand the reactivity of coordination compounds. Understand the active roles of metal ions and coordination compounds in biological systems
- CO3 Comprehend functions of proteins.
- CO4 Learn the fragmentation of ions and structure elucidation of some molecules by Mass Spectrometry.
- CO5 Understand the difference between order and molecularity of reaction. Understand the zero, first and second order reactions.

SEMESTER : VI
TITLE OF THE PAPER : ANALYTICAL METHODS IN CHEMISTRY
COURSE CODE : CHE-601GE

COURSE OUTCOMES

- CO1 Understand the selection of indicator in different types of titrations.
- CO2 Understand the procedure of extraction of metal ions using solvent extraction process.
- CO3 Develop the habit of accurate manipulation and attitude of critical thinking.
- CO4 Understand the theoretical principles of chromatography techniques and its applications.
- CO5 Learn principles and applications of GC and HPLC.

SEMESTER : VI
TITLE OF THE PAPER : ORGANIC SPECTROSCOPIC TECHNIQUES
COURSE CODE : CHE-602CE

COURSE OUTCOMES

- CO1 Understand the principle and instrumentation of NMR. Know the nature of the protons in organic molecules by chemical shifts.
- CO2 Study the types of various coupling constants. Know the basic principles of Electronic Spin Resonance Spectroscopy
- CO3 Know the basic principles of Electronic Spin Resonance Spectroscopy. Study the ESR Spectra of inorganic and organic ions.
- CO4 Study the UV & Visible radiations absorption in organic molecules. Gain knowledge about the UV & Visible spectral analysis of conjugated compounds.
- CO5 Acquire knowledge about Beer-Lamberts law and simultaneous determination of metal ion solutions by the electronic spectroscopy.

SEMESTER : VI
TITLE OF THE PAPER : ORGANIC SPECTROSCOPIC TECHNIQUES
COURSE CODE : CHE-603CE

COURSE OUTCOMES

- CO1 Understand the principle and instrumentation of NMR. Know the nature of the protons in organic molecules by chemical shifts.
- CO2 Study the types of various coupling constants. Know the basic principles of Electronic Spin Resonance Spectroscopy
- CO3 Know the basic principles of Electronic Spin Resonance Spectroscopy. Study the ESR Spectra of inorganic and organic ions.
- CO4 Study the UV & Visible radiations absorption in organic molecules. Gain knowledge about the UV & Visible spectral analysis of conjugated compounds.
- CO5 Acquire knowledge about Beer-Lamberts law and simultaneous determination of metal ion solutions by the electronic spectroscopy.

SEMESTER : VI
Title of the Course : Pharmaceuticals and medicinal Chemistry
Course Code : CHE-604CE

COURSE OUTCOMES

- CO1 Helps in correlating between pharmacology of a disease and its mitigation or cure.
- CO2 Understand the drug metabolic pathways, adverse effect and therapeutic value of drugs
- CO3 Know the structural activity relationship of different class of drugs. Well acquainted with the synthesis of some important class of drugs.
- CO4 Knowledge about the mechanism pathways of different class of medicinal compounds
- CO5 Understand the chemistry of drugs with respect to their pharmacological activity.

DEPARTMENT OF ECONOMICS
COURSE OUTCOMES (CO'S)

Programme: B.A. (H.E.P)

Semester : I
Title of the Course : Micro Economic Analysis
Course Code : ECO-T11B

COURSE OUTCOMES

- CO1 Students are able to understand fundamentals of microeconomics
- CO2 Students are able to understand the behaviour of consumer.
- CO3 Students are able to understand the behaviour of producer.
- CO4 Student can evaluate the different market structures.
- CO5 Students can analyse the different theories of distribution.

Semester : II
Title of the Course : Macro Economic Analysis
Course Code : ECO-T21B

COURSE OUTCOMES

- CO1 Able to understand the nature and scope of macro economics
- CO2 Able to understand different concepts of national income and methods to measure national income
- CO3 Able to acquire the knowledge about the classical and Keynes theories of employment.
- CO4 Able to understand Keynes theory of consumption function and working of multiplier and accelerate principle
- CO5 To understand the functions of money different theories of money

Semester : III
Title of the Course : Development Economics
Course Code : ECO-T31B

COURSE OUTCOMES

- CO1 To acquire the knowledge about the scope, importance of economic growth and economic development
- CO2 To acquire the knowledge about the modern theories of economic growth
- CO3 To acquire the knowledge about the theories of Development and under Development
- CO4 To acquire knowledge about the strategies of economic development
- CO5 To acquire knowledge about the role of institutions in economic development

Semester : III
Title of the Course : Financial Markets
Course Code : SDC-ECOT01

COURSE OUTCOMES

- CO1 Acquire knowledge of financial terms
- CO2 Know the concepts relating to markets and different avenues of investment
- CO3 Understand the career skills related to stock exchanges
- CO4 Comprehend the personal financial planning and money market skills

Semester : IV
Title of the Course : Economic Development in India and Andhra Pradesh
Course Code : ECO-T41

COURSE OUTCOMES

CO1	Remembers and states in a systematic way (Knowledge) • leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses • Objectives, outlays and achievements of economic plans and growth strategies
CO2	Explains (understanding) • Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies • Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy

	• Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds • Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance
❖ CO3	Critically examines using data and figures (analysis and evaluation) • Leading issues of current importance relating to India and AP economy, major policies and programmes • COVID– 19 and its impact on Indian economy
❖ CO4	Uses official statistical data and reports including tables and graphs • To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation

Semester : IV
Title of the Course : Statistical Methods for Economics
Course Code : ECO-T42

COURSE OUTCOMES

CO1	Remembers and states in a systematic way (Knowledge) • The definitions, terms and their meaning relating to statistical methods • Various formulae used to measure central tendency, correlation regression and Indices
CO2	Explains (understanding) • Importance of statistics and its applications • The method of classification of primary data • Uses of Correlation and Regression analysis, time series and index numbers in economic analysis
CO3	Analyses and solves using given data and information (analysis and evaluation) a. different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices b. to interpret data and suggest solutions to economic problems
CO4	Draws critical diagrams and graphs. • Histogram, Frequency Polygon and Frequency Curve • More than cumulative and less than cumulative frequency curves • Different types of Bar diagrams • Pie Diagram and its uses in economic analysis

SEMESTER : V
TITLE OF THE PAPER : ECONOMIC DEVELOPMENT AND INDIAN ECONOMY
COURSE CODE : ECO-501C

COURSE OUTCOMES

- ❖ **CO1:** To able to understand economic growth and development and different growth models. Horrid Domor, Adam smith restov theory etc. Karal Marks able to understand some growth models
- ❖ **CO2:** Development theories: theories of persistence of under development – strategies for development balanced and unbalanced growth strategy, development with unlimited supply of labor (lewis).
- ❖ **CO3:** Economics of natural resources and sustainable development :- this course will help in understanding that types of natural recourses and their exploitation
- ❖ **CO4:** Understand the population and economic growth understand basic futures of Indian economy. Trend and composition of national income and for capital income, occupational distribution, basic demography futures. Study poverty, inequality and unemployment; conception and measurement issues – the Indian situation.
- ❖ **CO5:** to analyze new economic policies (privatization liberalization and globalization) in India.

SEMESTER : V
TITLE OF THE PAPER : INDIAN AND ANDHRA PRADESH ECONOMY
COURSE CODE : ECO-502C

COURSE OUTCOMES

- ❖ **CO1:** to acquire knowledge regarding agriculture sector in India, its trends and productivity
- ❖ **CO2:** to make the students to understand about Indian industry.
- ❖ **CO3:** to understand foregoing direct investment and service sector in India
- ❖ **CO4:** they will be identifying the various objectives of pharming in India and its achievements.
- ❖ **CO5:** To make students to understand about Andhra Pradesh economy and its progress

SEMESTER : VI
TITLE OF THE PAPER : AGRICUTURAL ECONOMICS
COURSE CODE : ECO-601 CE

COURSE OUTCOMES

- **CO1:** Able to understand the nature of agricultural economics and also factory determining the agriculture.
- **CO2:** To understand how the production principles are applicable in agriculture.
- **CO3:** To know about the productivity trends in Indian agriculture with special reference to Andhra Pradesh and also the agrarian reforms.
- **CO4:** To know that the systems of farming and new agricultural strategies.
- **CO5:** To know about the emerging trends in production, processing and marketing of agricultural products

DEPARTMENT OF ENGLISH
COURSE OUTCOMES (CO'S)

Programme: B.A. / B.COM / B.SC.

SEMESTER : I
TITLE OF THE PAPER : ENGLISH PRAXIS COURSE – I
COURSE CODE : ENGT11B

COURSE OUTCOMES

- CO 1. Gain more confidence in learning various kinds of listening techniques as well as create more effective strategies to improve one's ability to listen and to understand people.
- CO 2. Improve their speaking ability in English both in terms of fluency and comprehensibility and practice in using English to perform preliminary communicative functions required for their everyday social and professional interactions with others.
- CO 3. Explore basic elements of grammar and test their abilities in concord, modals, tenses, articles, prepositions, question tags and transformation of sentences.
- CO 4. Develop their written expression of thought and discover opportunities to build connections within the areas of punctuations, spelling and paragraph writing
- CO 5. Formulate problem solving skills, making appropriate and responsible decisions, improve their attitude, emotional intelligence, telephone etiquette and interpersonal skills.

SEMESTER : II
TITLE OF THE PAPER : ENGLISH PRAXIS COURSE – II
COURSE CODE : ENGT21B

COURSE OUTCOMES

- CO1: Acquaint the learner with some widely used words which appeal to be similar but are semantically different and also help them to realize the importance of meanings, and understand the grammatical structures in writing
- CO 2: Speak clearly, effectively and appropriately with correct pronunciation, pause and articulation of voice for a variety of audiences and purposes.
- CO 3: Analyze, interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose, and form.
- CO 4: Think critically; convey their own interpretations, perspectives, producing new creative and artistic works following grammatical structures in oral and written assignment.
- CO 5: Write effectively for a variety of professional and social settings adapting other writer's ideas as they explore and develop their own.

SEMESTER : III
TITLE OF THE PAPER : GENERAL ENGLISH
COURSE CODE : ENG301C

COURSE OUTCOMES

- CO1. Analyze interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose and form.
- CO2. Comprehend effectively for a variety of professional and social settings, adapting other writer's ideas as they explore and develop their own.
- CO3. Engage in simple, common and basic social and academic conversations, demonstrating the ability to open and close a conversation and to ask for clarification, information or assistance, as well as agreeing/disagreeing and giving examples.
- CO4. Convey their own interpretations by building dialogues and developing the learner's performance level in spoken English through the activities.
- CO5. Acquaint the learner with the skills to debate, describe and role play.

DEPARTMENT OF ENVIRONMENAL STUDIES
COURSE OUTCOMES (CO'S)

Programme: B.A. / B.COM / B.SC.

Semester : I
Title of the Course : Environmental Studies
Course Code : LST06

COURSE OUTCOMES

- CO1 Realize the importance of environment, the goods and services of a healthy biodiversity, dependence of humans on environment.
- CO2 Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities
- CO3 Discuss the laws/ acts made by government for environmental conservation and acquaint with international agreements and national movements and realize citizen's role in protecting environment and nature

Semester : II
Title of the Course : Human Values & Professional Ethics
Course Code : LST01

COURSE OUTCOMES

- CO1 Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity.
- CO2 Understanding harmony in the family and society
- CO3 Gaining competence in Professional Ethics

DEPARTMENT OF HISTORY
COURSE OUTCOMES (CO'S)

Programme: B.A.

SEMESTER : I
TITLE OF THE PAPER : ANCIENT INDIAN HISTORY & CULTURE (FROM EARLIEST TIMES TO 600 AD)
COURSE CODE : HIS-101C

COURSE OUTCOMES

- **CO1**: To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India.
- **CO2**: Describe Prehistory – Pro to history – analyze early human settlements- Indus valley civilization.
- **CO3**: Understand the Mouryan Administration art and architecture.
- **CO4**: To Describe the Socio-Economic conditions of Kushanas, satavahanas, and Sangam Age.
- **CO5:** Identify the Guptas period as golden Age all round development – Nalanda University.

SEMESTER : II
TITLE OF THE PAPER : EARLY MEDIEVAL INDIAN HISTORY & CULTURE (FROM 600TO 1526 A.D)
COURSE CODE : HIS-201C

COURSE OUTCOMES

- **CO1**: Evaluate the contribution of pushyabuthi dynasty.
- **CO2**: Understand the Socio-Economic conditions of Badami and Vengi Chalukyans- their contribution to Art and Literature.
- **CO3**: Identify the contribution of pallavas to Art and Architecture- Understand the local administration of Cholas.
- **CO4**: Examine the Arab conquests of Sindh and battle of Tarain understands the foundation of the Delhi sultanate and administration.
- **CO5:** To discuss the Bhakti movement- Identify cultural synthesis.

SEMESTER : III
TITLE OF THE PAPER : LATE MEDIEVAL & COLONIAL HISTORY OF INDIA (FROM 1526 -1857A.D)
COURSE CODE: HIS-301C

COURSE OUTCOMES

- **CO1**: Identify the conditions of India under the Mughal Empire.
- **CO2**: Explain the administration and Art and Architecture of Mughals.
- **CO3**: Analyze the rise of the Marathas and the contribution of shivaji.
- **CO4**: Discuss the advent of Europens-Evaluate the Angle-French wars and Expansion of British power.
- **CO5:** Analyze the land revenue systems of English.
- **CO6:** Analyze the land revenue systems of English. Recognize the nature and consequences of 1857 Revolt. Identify the major sites of mutiny of 1857.

SEMESTER : IV
TITLE OF THE PAPER : SOCIAL REFORMS AND FREEDOM STRUGGLE IN INDIA (FROM 1820-1947)
COURSE CODE : HIS-401C

COURSE OUTCOMES

- **CO1**: To understand about the Socio-religious reform movement in 19th C. and self-respect movements.
- **CO2**: Realize the Lord Rippons local self-government and Lord Curzon policy.
- **CO3**: Establishment of Indian National congress and state the role of moderate and extremists.
- **CO4**: Understand the Gandhi role in Indian National movement comparison of Nationalist movement pre Gandhi – past Gandhi era.
- **CO5:** Asses the partition of India and Integration of Native states into Indian union.

SEMESTER : V
TITLE OF THE PAPER : AGE OF RATIONALISM AND HUMANISM - THE WORLD BETWEEN 15TH& 18TH CENTURIES.
COURSE CODE : HIS-501C

COURSE OUTCOMES

- **CO1**: Describe the geographical discoveries-feudalism.
- **CO2**: Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
- **CO3**: Narrate the emergence of National states and Glorious Revolution.
- **CO4**: Assess the causes and effects of American Revolution.
- **CO5:** Realize the causes and results of French revolution and the revolution gave Liberty, Fraternity, and Equality.

SEMESTER : V
TITLE OF THE PAPER : HISTORY & CULTURE OF ANDHRA DESA (FROM 12TH TO 19TH C. AD)
COURSE CODE : HIS-502C

COURSE OUTCOMES

- **CO1**: To understand the Socio-Economic and cultural condition of Andhra during Kakatiyas rule
- **CO2**: Identity the contribution of Vijayanagara rulers to Art and Architecture, literature and greatness of Srikrishna Devaraya
- **CO3**: To narrate the Socio –Economic condition Andhra's during the Qutubshahi rule and their Administration.
- **CO4**: Describe the advent of Europeans in Andhra
- **CO5:** Evaluate the establishment of British rule in Andhra and 1857 revolt.

SEMESTER : VI
TITLE OF THE PAPER : HISTORY OF MODERN EUROPE (FROM 19TH CENTURY TO 1945 A.D)
COURSE CODE : HIS-601C

COURSE OUTCOMES

- **CO1**: Realize the causes and results of Industrial revolution
- **CO2**: To understand the efforts of Bismarck for the Unification of Germany and Mazini, Count cover Garibaldi. For the unification of Italy.
- **CO3**: To understand the causes and results for the 1st world war and formation of League of Nations.
- **CO4**: Examine the Nazism and Fascism in Germany and Italy.
- **CO5:** Understand the causes and results of Second World War and establishment of UNO.

SEMESTER : VI
TITLE OF THE PAPER : CULTURAL TOURISM IN ANDHRA PRADESH (PROJECT WORK)
COURSE CODE : HIS-602C

COURSE OUTCOMES

- **CO1**: To expose the Students to the scope and potential available in the Tourism Industry
- **CO2**: To impart specific skills such as Travel & Tourist guide
- **CO3**: To Know the importance of various Heritage places
- **CO4**: To understand the types of tourism
- **CO5:** Tourism provides Cultural Social and Economic knowledge about other countries

SEMESTER : VI
TITLE OF THE PAPER : POPULAR MOVEMENTS IN ANDHRA DESA (1848-1956 AD)
COURSE CODE : HIS-603 C

COURSE OUTCOMES

- **CO1**: To understand the Social Reform Movement and Self Respect movements in Andhra Desa.
- **CO2**: To describe the Freedom Movement in Andhra Desa
- **CO3**: To Identify the role of Andhra in Freedom Movement
- **CO4**: Examine the movement for separate Andhra State.
- **CO5:** Narrate the Formation of Andhra Pradesh in 1956.

SEMESTER : VI
TITLE OF THE PAPER : CONTEMPORARY HISTORY OF ANDHRA PRADESH (1956-2014 AD)
COURSE CODE : HIS-604 C

COURSE OUTCOMES

- **CO1** To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
- **CO2**: To Evaluate the Leftist activities and present status of Communists in Andhra Pradesh **CO3**: Examine the Dalit Movements in Andhra Pradesh
- **CO4**: Realize the Jai Telangana, Jai Andhra movements in Andhra State
- **CO5:** Assess the causes for the Formation of Telangana Rastra Samithi and Bifurcation of Andhra Pradesh in 2014.

DEPARTMENT OF HINDI
COURSE OUTCOMES (CO'S)

Programme: B.A. / B.COM / B.SC

SEMESTER : I
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HINT11A

COURSE OUTCOMES

- CO1 मनव मूल्यों को पहचान कर समाज कल्याण हेतु देने के लिए तैयार रहना।
- CO2 आधुनिक युग की भावनाओं को पहचानकर सामाजिक समस्याओं का सामना करते हुए, निरंतर आगे बढ़ना।
- CO3 विद्यार्थियों को शब्दावली से एक भाषा से दुसरेभाषा का अनुवाद कर सकताहै।
- CO4 छात्रों को इस व्यकरण केद्वारा भाषामें निपुणता आतीहैं।
- CO5 छात्रों के इसपत्र-लेखन द्वारा लिखित कार्य बढता है और संप्रेषण का विकास होताहै।

SEMESTER : II
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HINT21A

COURSE OUTCOMES

- CO1 मानव मूल्यों से विद्यार्थी अवगत होंगे तथा इस दिशा में आगे बढ़ेंगे।
- CO2 आधुनिक युग की भावनाओं को पहचानकर, निरंतर सामाजिक समस्याओं का सामना करते हुए,आगे बढ़ेंगे।
- CO3 विषय के विश्लेषण से सामाजिक दायित्व को निभाने में अग्रसर होंगे।
- CO4 ग्रहण किये गये पाठ्यांशों के द्वारा विद्यार्थियों का ज्ञान मापन बढ़ेगा तथा अपने क्षेत्र में भी आगे होंगे
- CO5 भाषा की प्रवीणता और प्रयोग से विद्यार्थी उज्वल भविष्य की ओर बढ़ेंगे।

SEMESTER : III
TITLE OF THE PAPER : GENERAL HINDI
COURSE CODE : HINT01A

COURSE OUTCOMES

- CO1 दोहों के द्वारा विद्यर्थियों में समाजसुधारक, मानवमूल्य बढ़ते हैं।
- CO2 हिन्दी साहित्य का इतिहास केद्वारा हिन्दी भाषा की प्रामुख्यता और कविताओं की प्रामुख्यता मिल जातीहै।
- CO3 समाज कल्याण विषयों को समझकर अपना ज्ञान बढ़तेहैं।
- CO4 समाज में भाषा पर प्रामुख्यता, भाषा में ज्ञान प्राप्त करके, दूसरों से आसानी से संप्रोषित करना सीखेंगे।
- CO5 सरकारी व्यवस्थाओं को लेखलिखना, भाषा की विशेषता, समाज सरकारी भाषा सीखकर दूसरों को आदर्शवान बना सकेंगे।

DEPARTMENT OF MATHEMATICS
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (M.P.C., M.P.Cs., M.C.Cs., M.S.Cs)

SEMESTER : I
TITLE OF THE COURSE : DIFFERENTIAL EQUATIONS
COURSE CODE : MATT11A

COURSE OUTCOMES

- **CO1**: Understand how to differentiate linear and non-linear differential equations.
- **CO2:** different methods for solving differential equations of first order but not of first degree.
- **CO3:** Will be able to find the solution of higher-order linear differential equations with constant coefficients.
- **CO4:** Use the method of "variation of parameters" to find the solution of higher-order linear differential equations with variable coefficients and solve the Cauchy-Euler equations

SEMESTER : II
TITLE OF THE COURSE : REAL ANALYSIS
COURSE CODE : MATT21B

COURSE OUTCOMES

CO1: Understand the concepts of limits, Continuity, Discontinuity, Uniform Continuity
CO2: Use the definitions of convergence as they apply to sequences, series, and functions
CO3: Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis
CO4: Identify Riemann Integral functions

SEMESTER : III
TITLE OF THE COURSE : GROUP THEORY
COURSE CODE : MAT 301

COURSE OUTCOMES

- **CO1**: Will be able to assess properties implied by the definitions of groups
- **CO2:** Will be able to use various canonical types of groups (including cyclic groups and groups of permutations)
- **CO3:** Will be able to analyze and demonstrate examples of subgroups, normal subgroups and quotient groups
- **CO4:** Will be able to use the concepts of isomorphism and homomorphism for groups

SEMESTER : IV
TITLE OF THE COURSE : REAL ANALYSIS
COURSE CODE : MAT 401

COURSE OUTCOMES

- **CO1**: Understand the concepts of limits, Continuity, Discontinuity, Uniform Continuity
- **CO2:** Use the definitions of convergence as they apply to sequences, series, and functions
- **CO3:** Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis
- **CO4:** Identify Riemann Integral functions

SEMESTER : IV
TITLE OF THE COURSE : LINEAR ALGEBRA
COURSE CODE : MAT 401

COURSE OUTCOMES

- **CO1**: Recognize the concepts of the terms span, linear independence, basis , dimension and apply these concepts to various vector spaces and subspaces
- **CO2:** Will be able to find the linear independent and dependent vectors to linear transformations
- **CO3:** Use matrix algebra and the related matrices, Compute and use eigenvectors and eigenvalues
- **CO4:** Will be able to find the unit vectors by inner produce spaces and Determine and use orthogonally.

SEMESTER : V
TITLE OF THE COURSE : RING THEORY AND VECTOR CALCULUS
COURSE CODE : MAT 501

COURSE OUTCOMES

- **CO1**: Attain knowledge in Rings, Sub rings, Ideals
- **CO2:** Further learn homomorphism's and polynomial rings
- **CO3:** Will be able to compute and analyze the vector-valued functions of a real variable and their curves and in turn the geometry of such curves including curvature, torsion and the Frenet - Serre frame and intrinsic geometry
- **CO4:** Will be able to compute and analyze the integral ideas of the functions defined including line, surface and volume integrals - both derivation and calculation in rectangular, cylindrical and spherical coordinate systems and understand the proofs of each instance of the fundamental theorem of calculus

SEMESTER : V
TITLE OF THE COURSE : LINEAR ALGEBRA
COURSE CODE : MAT 502

COURSE OUTCOMES

- **CO1**: Recognize the concepts of the terms span, linear independence, basis, and dimension and apply these concepts to various vector spaces and subspaces
- **CO2:** Will be able to find the linear independent and dependent vectors to linear transformations
- **CO3:** Use matrix algebra and the related matrices, Compute and use eigenvectors and eigenvalues
- **CO4:** Will be able to find the unit vectors by inner produce spaces and Determine and use orthogonally.

SEMESTER : VI
TITLE OF THE COURSE : NUMERICAL ANALYSIS
COURSE CODE : MAT 601

COURSE OUTCOMES

- **CO1**: Analyze and detect different form of errors and also will be able to solve Algebraic and Transcendental equations using different methods.
- **CO2:** Interpolate the functions within the range using equally and un equally spaced points
- **CO3:** Use Upon completion of this module the student should : Understand the Least Squares Method, Be able to curve fit data using several types of curves(straight line, second degree parabola, power curve, exponential curve)
- **CO4:** Will be able to solve linear system of equations with ill conditioned method and approximation methods

SEMESTER : VI
TITLE OF THE COURSE : LAPLACE TRANSFORMS AND FOURIER TRANSFORMA
COURSE CODE : MAT 601

COURSE OUTCOMES

- **CO1**: Will be able to find the Laplace transform of a function by definition and by use of a table
- **CO2:** Will be able to find the inverse Laplace transform of a function
- **CO3:** Will be able to find the convolution of two functions and the transform of a convolution
- **CO4:** Will be able to solve linear differential equations with constant coefficients and unit step input functions using the Fourier transform and Fourier Sine and cosine functions

SEMESTER : VI
TITLE OF THE COURSE : ADVANCED NUMERICAL ANALYSIS
COURSE CODE : MAT 603

COURSE OUTCOMES

- **CO1**: Will be able to derive numerical methods for approximating the solution of problems of continuous mathematics
- **CO2:** To obtain numerical approximations to the first and second derivatives of certain functions. Calculate a definite integral using an appropriate numerical method
- **CO3:** Implement a variety of numerical algorithms using appropriate technology Compare the viability of different approaches to the numerical solution of problems arising in roots of solution of non-linear equations, interpolation and approximation, numerical differentiation and integration, solution of linear systems
- **CO4:** To solve the solution of a linear system of equations using direct or iterative methods. To solve the selected class of differential equations using Taylor, Picards, Euler's, Runge Kutta methods

SEMESTER	:	VI
TITLE OF THE COURSE	:	APPLICATIONS OF ADVANCED NUMERICAL ANALYSIS WITH " C" PROGRAMME PROJECT.
COURSE CODE	:	MAT 604

COURSE OUTCOMES

- **CO1**: Will be able to compute and analyze the integral ideas of the applications of Advanced Numerical Analysis.
- **CO2**: To execute the "C" programme by depending the applications of Advanced Numerical Analysis.

DEPARTMENT OF STATISTICS
COURSE OUTCOMES (CO'S)

Programme: B.SC (M.S.Cs)

Semester : I
Title of the Course : Descriptive Statistics and Theory of Probability
Course Code : STATIIB

COURSE OUTCOMES

- CO1 Knowledge of various types of data, their organization and evaluation of summary measures such as non- central and central moments, measures of skew ness and kurtosis.
- CO2 Knowledge to conceptualize the probabilities of events including frequents and axiomatic approach. simultaneously, they will learn the notion of conditional probability including the concept of Bayes' Theorem
- CO3 Knowledge related to concept of discrete and continuous random variables and their probability distributions including expectation and moments,
- CO4 Knowledge related to concept of generating functions and weak law of large numbers.

Semester : II
Title of the Course : Probability Distributions and Statistical Methods
Course Code : STAT21C

COURSE OUTCOMES

- CO1 Develop the basic knowledge in Probability distribution and uncertainty conditions we apply standard discrete probability distributions to identify the probability values
- CO2 Obtained the knowledge of applications on standard continuous distributions. Also get the knowledge in respect of usage in day-to-day life.
- CO3 Analyse the qualitative data
- CO4 Statistically analyse the strengths of relationship between variables.
- CO5 To outline the vital area of regression models applicable in a wide variety of real time situations

DEPARTMENT OF TELUGU
COURSE OUTCOMES (CO'S)

Programme: B.A. / B.COM / B.SC

SEMESTER : I
TITLE OF THE COURSE : TELUGU
COURSE CODE : TELT11A

COURSE OUTCOMES

- **CO1:** ప్రాచీన తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారుతెలుగు సాహిత్యంలో ఆదికవి నన్నయ కాలంవారి భాషా సంస్కృతులను ., ఇతిహాసకాలం నాటి రాజనీతి విషయాలపట్ల పరిజ్ఞానాన్ని పొందగలరు.
- **CO2:** శివకవుల కాలంనాటి మత పరిస్థితులను, భాషా విశేషాలను గ్రహిస్తారుతెలుగు నుడికారు ., సామెతలు, లోకోక్తులు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందగలరు.
- **CO3:** తిక్కన భారతంనాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితా శిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు .
- **CO4:** పోతన అద్భుత కథాకథన శిల్పం, సజీవపాత్ర చిత్రణ, శబ్దాలంకారాల ప్రయోగం మొదలగు విభిన్న రీతుల పట్ల అభిరుచిని పొందగలరుమొల్ల . కవిత్వంలోని వీనుల విందైన పదాలు, పాత్రల మనోభావాల చిత్రణ గుర్తించగలరు.
- **CO5**: తెలుగు పద్యం స్వరూప స్వభావాలను, సాహిత్యాభిరుచిని పెంపొందించుకుంటారుషలోని వ్యాకరణాంశాలను అధ్యయనం ప్రాచీన కావ్యభా . చేయడం ద్వారా భాషా సామర్థ్యాన్ని, రచనలో మెలకువలను గ్రహించగలరు.

SEMESTER : II
TITLE OF THE COURSE : TELUGU
COURSE CODE : TELT21A

COURSE OUTCOMES

- **CO1:** ఆంగ్లభాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని, దాని విశిష్టతను గుర్తిస్తారు.
- **CO2:** సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం, కథ, నవల, నాటకం, విమర్శల" పై అవగాహన పొందుతారు.
- **CO3:** భావ కవిత, అభ్యుదయ కవిత్వాల లక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు. ఇంకా అస్తిత్వవాదం, ఉద్యమాల పుట్టుకను, ఆవశ్యకతను గుర్తిస్తారు.
- **CO4:** కథా సాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు. సిద్ధాంతాల ద్వారా కాకుండా, వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించుకోగలరు.
- **CO5:** ఆధునిక తెలుగు కల్పనా సాహిత్యం ద్వారా సామాజిక, సాంస్కృతిక, రాజకీయ చైతన్యాన్ని పొందుతారు.

SEMESTER : III
TITLE OF THE COURSE : TELUGU
COURSE CODE : TELT01A

COURSE OUTCOMES

- **CO1:** తెలుగు సాహిత్య అభ్యసనం ద్వారా నేర్చుకున్న వైపుణ్యాలను, సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు.
- **CO2:** విద్యార్థులు భాషాతత్త్వాన్ని, ఆవశ్యకతను, ప్రాధాన్యాన్ని గుర్తిస్తారు.
- **CO3:** భాషా నైపుణ్యాలను అలవర్చుకోవడం, వినియోగించడం నేర్చుకుంటారు.
- **CO4:** ప్రాచీన పద్య రచనతోపాటు ఆధునిక కవిత, కథ, వ్యాసం మొదలైన సాహిత్య ప్రక్రియల పట్ల అవగాహన పొందుతారు.
- **CO5:** సృజన రంగం, ప్రసార మాధ్యమాలు, అనువాద రంగాల పట్ల విద్యార్థులకు అవగాహన కల్గుతుంది.

DEPARTMENT OF PHYSICS
COURSE OUTCOMES (CO'S)

Programme: B.SC (M.P.C., M.P.Cs)

SEMESTER : I
TITLE OF THE PAPER : MECHANICS, WAVES & OSCILLATIONS
COURSE CODE : PHYT11B

COURSE OUTCOMES

- **CO1**: Understand Newton's laws of motion and motion of variable mass system and its Application to rocket motion and the concepts of impact parameter, scattering cross Section.
- **CO2:** Apply the rotational kinematic relations, the principle and working of gyroscope and its applications and the processional motion of a freely rotating symmetric top. Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.
- **CO3:** Understand postulates of Special theory of relativity and its consequences such as Length contraction, time dilation, relativistic mass and mass-energy equivalence. Examine phenomena of simple harmonic motion and the distinction between Undammed, damped and forced oscillations and the concepts of resonance and quality Factor with reference to damped harmonic oscillator.
- **CO**4: Appreciate the formulation of the problem of coupled oscillations and solve them to obtain normal modes of oscillation and their frequencies in simple mechanical systems.
- **CO5:** Figure out the formation of harmonics and overtones in a stretched string and acquire Knowledge on Ultrasonic waves, their production and detection and their applications in different fields.

SEMESTER : II
TITLE OF THE PAPER : WAVES OPTICS
COURSE CODE : PHYT21B

COURSE OUTCOMES

- **CO1:** Understand the phenomenon of interference of light and its formation in
  - (i) Lloyd's single mirror due to division of wave front and
  - (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude.
- **CO2:** Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating.
- **CO3:** Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
- **CO4:** Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
- **CO5:** Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.
- **CO6:** Explain about the different aberrations in lenses and discuss the methods of minimizing them.
- **CO7:** understand the basic principles of fiber optic communication and explore the field of Holography and Nonlinear optics and their applications.

SEMESTER : III
TITLE OF THE PAPER : THERMODYNAMICS AND RADIATION PHYSICS
COURSE CODE : PHY 301C

COURSE OUTCOMES

- **CO1**: Understand the microscopic behavior of molecules, interactions and the concepts of transport phenomena of heat transfer, mass transfer and momentum transfer.
- **CO2:** State the First Law and define heat, work, thermal efficiency and the difference between various forms of energy and describe energy exchange processes, reversible and irreversible process
- **CO3:** Derive thermodynamic potentials from first principles and derive the Maxwell relations.
- **CO4**: Understand very low temperatures like the concept of Joule Thomson effect, Lique faction of gases and the properties at very low temperatures.
- **CO5:** Understanding of Black-body radiation as the thermal electromagnetic radiation and the statistical principles to the mechanical behavior of large number of small particles.

SEMESTER : IV
TITLE OF THE PAPER : ELECTRICITY, MAGNETISM AND ELECTRONICS
COURSE CODE : PHY 401C

COURSE OUTCOMES

- **CO1:** Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
- **CO2:** Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
- **CO3:** Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
- **CO4:** Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q factor, Power factor and the comparative study of series and parallel resonant circuits.
- **CO5:** Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors
- **CO6:** Understand the operation of basic logic gates and universal gates and their truth tables.

SEMESTER : IV
TITLE OF THE PAPER : MODERN PHYSICS
COURSE CODE : PHY - 402C

COURSE OUTCOMES

- **CO1**: Remember the different atomic models and basic knowledge of spectroscopy
- **CO2**: Understand the theory and application of microwave, infrared and Raman spectroscopy
- **CO3:** Apply non- relativistic Schrödinger wave mechanics to a variety of potentials in one and three dimensions.
- **CO4**: Analyze the prerequisite in a molecule towards its Rotational and vibrational activity
- **CO5:** Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features.

SEMESTER : V
TITLE OF THE PAPER : ELECTRICITY, MAGNETISM AND ELECTRONICS
COURSE CODE : PHY 501C

COURSE OUTCOMES

- **CO1:** Understand the Gauss law and its application to obtain electric field in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant.
- **CO2:** Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
- **CO3:** Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
- **CO4:** Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
- **CO5:** Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q factor, Power factor and the comparative study of series and parallel resonant circuits.
- **CO6:** Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors
- **CO7:** Understand the operation of basic logic gates and universal gates and their truth tables.

SEMESTER : V
TITLE OF THE PAPER : MODERN PHYSICS
COURSE CODE : PHY - 502 C

COURSE OUTCOMES

- **CO1**: Remember the different atomic models and basic knowledge of spectroscopy
- **CO2:** Understand the theory and application of microwave, infrared and Raman spectroscopy
- **CO3**: Apply non- relativistic Schrödinger wave mechanics to a variety of potentials in one and three dimensions.
- **CO4:** Analyze the prerequisite in a molecule towards its Rotational and vibrational activity
- **CO5:** Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features.

SEMESTER : VI
TITLE OF THE PAPER : ANALOG AND DIGITAL ELECTRONICS
COURSE CODE : PHY- 601 GE

COURSE OUTCOMES

- **CO1:** Understand the fundamental concepts (construction, working and drain & transfer characteristics) of semiconductor devices, FET& MOSFET. Apply the knowledge in the construction of electronic devices.
- **CO2:** Understand the operation of basic differential amplifiers and their applications in Linear Integrated circuits. Learn the basic function of the Operational Amplifier (IC741), its Ideal and Practical characteristics and its parameters (Offset voltages, CMRR, Slew rate and Virtual Ground)
- **CO3:** Understand the function of the Operational Amplifier and apply it to its applications such as inverting and non-inverting amplifiers. Apply the knowledge in designing the various digital devices
- **CO4**: Understand, analyze, design and troubleshoot a broad range of combinational circuits (Multiplexer, De multiplexer, Encoder and Decoder) using digital ICs.
- **CO5**: Understand the construction and operation of flip flops (RS, Clocked SR, JK, D, T, and Master-Slave).

SEMESTER : VI
TITLE OF THE PAPER : Introduction to Microprocessor and Microcontroller
COURSE CODE : PHY – 602 CE

COURSE OUTCOMES

- **CO1:** To design and build an appropriate 'architecture' or program design to apply to a particular situation and to describe some of the characteristics of RISC and CISC architectures
- **CO2:** To understand what is a microcontroller, microcomputer, embedded system and to become familiar with the programming environment used to develop embedded systems
- **CO3**: To know the major classes of programming languages with their characteristics, perform conversions between binary, octal/hexadecimal, and decimal number systems and perform the basic arithmetic operations in these number systems
- **CO4:** To understand key concepts of embedded systems like IO, timers, interrupts interaction with peripheral devices
- **CO5:** To design a system, component, or process to meet desired needs within realistic constraints and also Learn debugging techniques for an embedded system.

SEMESTER : VI
TITLE OF THE PAPER : COMPUTATIONAL METHODS AND PROGRAMMING
COURSE CODE : PHY – 603 CE

COURSE OUTCOMES

- **CO1:** Understand the basic structure of the C - Programming, declaration and Usage of Variables, Constants and Operators.
- **CO2:** Understand a Programme that solves this problem and generate a set of input test values to perform a design walkthrough to verify your design sequence
- **CO3:** Understand a multifunction programme like elements of user-defined functions, return values and their types, function declaration and category of functions
- **CO4**: Solve equations containing exponential, logarithmic, quadratic, linear and non-linear equations
- **CO5**: Understand the common numerical methods and how they are used to obtain approximate solutions.

SEMESTER : VI
TITLE OF THE PAPER : ELECTRONIC INSTRUMENTATION
COURSE CODE : PHY – 604 CE

COURSE OUTCOMES

- **CO1:** Understand the basic measurements of Instruments. Understand the theory, working principle, specifications and significance of Multi meter.
- **CO2**: Apply the knowledge in calibrating the voltmeter, ammeter
- **CO3:** Test and troubleshoot electronic circuits in measuring voltage with Multi meter and Electronic Voltmeter
- **CO4:** Describe the function of basic building blocks of Cathode Ray Oscilloscope. Measure the appropriate parameters (Voltage, Time Period, Frequency and Phase angle)
- **CO5**: Understand the fundamental laws of Kirchhoff's laws and theory of Wheat stone's Bridge. Knows the working of Digital Voltmeter. Build the different bridges to measure relevant.

DEPARTMENT OF POLITICAL SCIENCE

COURSE OUTCOMES (CO'S)

Programme: B.A. (H.E.P.)

SEMESTER : I
PAPER TITLE : INTRODUCATION TO POLITICAL SCIENCE
COURSE CODE : POLT– 11B

COURSE OUTCOMES

- **CO1:** Understand the Nature, Definition, Significance and Scope of Political Science
- **CO2:** To learn Theories of Origin of the State and Essential Elements of State
- **CO3**: Get exposed Sovereignty- Characteristics and Kinds of sovereignty
- **CO4:** Describe the law, liberty, equality and their Sources, features and kinds
- **CO5:** Create awareness about Women's Rights, Safeguards of Rights and Duties of citizen.

SEMESTER : II
PAPER TITLE : BASIC ORGANS OF THE GOVERNEMENT
COURSE CODE : POLT21B

COURSE OUTCOMES

- **CO1**: Come to know about Democracy- forms, Conditions necessary for the success, Merits and demerits of democracy.
- **CO2:** Understand the Ideologies- Individualism, Anarchism Fascism, Marxism and Gandhism andTheory of Separation of Powers.
- **CO3**: Know about Legislature - Powers and Functions, Stages of making the Law.
- **CO4:** Examine the Importance and functions of Executive i.e. Parliamentary- Executive, presidential executive
- **CO5:** Develop interest in Human Rights, popular control, welfare state reasons for the growingimportance and United Nations Declaration of Human Rights.

SEMESTER : III
PAPER TITLE : INDIAN GOVERNMENT AND POLICIES
COURSE CODE : POL301

COURSE OUTCOMES

- **CO1:** Learn about Constituent Assembly and Salient Features of the Constitution of India
- **CO2:** Get awareness about Preamble, Fundamental Rights, Directive Principles of State Policy and Fundamental Duties
- **CO3**: Able to analyze Union Executive, Indian Parliament: Rajya Sabha, Vice- President; Lok Sabha, Speaker and their Powers and Functions
- **CO4:** Come to know about Constitutional provisions on Centre state relations i.e. Legislative Relation, Administrative and Financial Relations
- **CO5:** Acquire knowledge of Supreme Court of India: Composition, Powers and Functions and Public Interest litigation, Judicial Review.

SEMESTER : IV
PAPER TITLE : INDIAN POLITICAL PROCESS
COURSE CODE : POL 401C

COURSE OUTCOMES

- **CO1:** Learn about Constituent Assembly and Salient Features of the Constitution of India
- **CO2:** Know about Election Commission - Structure, Powers and Functions, Electoral Reforms
- **CO3**: Able to analyze Political Parties in India National Parties-Indian National Congress, BJP and Communist Parties - CPI and CPI (M) - Policies &Programmes - causes for the 1964 Regional Parties - Akali Dal, DMK and AIADMK, Telugu Desam Party, T.R.S
- **CO4:** Understand Voting Behavior and its determinants.-Caste, Gender and Religion in politics
- **CO5:** Orient towards Trends in political System-Coalition Politics, National Integration and Social movements.

SEMESTER : IV
PAPER TITLE : PAPER-IV WESTERN POLITICAL THOUGHT
COURSE CODE : POL – 402C

COURSE OUTCOMES

- **CO1:** Understand the Plato's Theory of Justice, Education System, Philosopher –King, Theory of Communism
- **CO2:** Come to know about Aristotle's Ideal state**,** Theory of Revolutions and Classification of governments.
- **CO3**: Discuss theories of state by Machiavelli, Thomas Hobbes, John Locke and Rousseau
- **CO4:** Learn about theories like Hegel's Civil Society, State and Karl Marx's Surplus Value, Materialist Conception of History, State

SEMESTER : V
PAPER TITLE : INDIAN POLITICAL THOUGHT
COURSE CODE : POL – 501C

COURSE OUTCOMES

- **CO1:** Understand Manu: Social laws and Kautilya's kingship, Mandala Theory, Saptanga Theory
- **CO2:** learn about Gandhi's Non-violence, Satyagraha, and Theory of Trusteeship. And also Jyothi Rao Pule's Social reform movement
- **CO3**: Be exposed to modern thought of Nehru's Democratic Socialism, Non-Alignment and also Ambedkar Views on Indian Society.
- **CO4:** Know about M.N. Roy's-Radical Humanism and Jaya Prakash Narayan'-Total Revolution.

SEMESTER : V
PAPER TITLE : PAPER-VI (CORE): WESTERN POLITICAL THOUGHT
COURSE CODE : POL – 502C

COURSE OUTCOMES

- **CO1:** Understand the Plato's Theory of Justice, Education System, Philosopher –King, Theory of Communism
- **CO2:** Come to know about Aristotle's Ideal state**,** Theory of Revolutions and Classification of governments.
- **CO3**: Discuss theories of state by Machiavelli, Thomas Hobbes, John Locke and Rousseau
- **CO4:** Learn about theories like Hegel's Civil Society, State and Karl Marx's Surplus Value, Materialist Conception of History, State

SEMESTER : VI
PAPER TITLE : LOCAL SELF - GOVERNMENT IN ANDHRA PRADESH
COURSE CODE : POL 601GE

COURSE OUTCOMES

- **CO1:** Evolution of Local Self-Government in India and Constitutional Provisions on local Self-Government
- **CO2:** Understand the Importance of Constitutional Amendments -73rd and 74th Amendment on Local bodies
- **CO3**: Know about Structure and functions of Panchayat raj in Andhra Pradesh that is Gram Panchayat, Mandal Parishad and Zilla Parishad.
- **CO4:** Know about Structure and functions of urban local bodies in Andhra Pradesh that is Nagar Panchayats, Municipalities and Municipal Corporations
- **CO5:** Understand the Role of leadership and Emerging Challenges

SEMESTER : VI
PAPER TITLE : PAPER –VIII C1 (CLUSTERS) INTERNATIONAL RELATIONS
COURSE CODE : POL 602CE

COURSE OUTCOMES

- **CO1:** To expose the Students to the scope and Basic Concepts of International Relations
- **CO2:** Able to learn the Approaches to the study of International Relations – Idealism, Classical Realism, realism
- **CO3**: Get acquaintance with the Phases of International Relations (1914-1945) - Causes for the First World War, Causes for the Second World War
- **CO4:** Get acquaintance with the types and Phases of International Relations (1945 onwards) - Origins of First Cold War, Rise and Fall of Détente, Origins and the End of Second Cold War
- **CO5:** Awareness of International Organization- the UNO in the protection of International Peace, Problems of the Third World

SEMESTER : VI
PAPER TITLE : PAPER –VIII C2 (CLUSTERS) INDIAN FOREIGN POLICY
COURSE CODE : POL 603CE

COURSE OUTCOMES

- **CO1:** Understand the Evolution of Indian Foreign of Policy-Determinants of Indian Foreign of Policy
- **CO2:** Describe the Non-Alignment and UNO -Role and Relevance
- **CO3**: Be able to Understand India's Relation with USA and China: Pre- Cold War Era, Post- Cold War Era
- **CO4:** Knows about India and her Neighbors in relation to South Asian Association of Regions Cooperation (SAARC)

DEPARTMENT OF ZOOLOGY
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (B.Z.C.)

SEMESTER : I
TITLE OF THE PAPER : ANIMAL DIVERSITY BIOLOGY OF NON – CHORDATES
COURSE CODE : ZOOT11A

COURSE OUTCOMES

- **CO1:** Gain knowledge in the fundamental concepts underlying the structural complexity in the organization of invertebrates.
- **CO2:** Understand biology and pathogenicity of parasites and their adaptations analyze remedial and preventive measures and promote the same in public domain.
- **CO3:** Appreciate and evaluate the economic, commercial, medicinal and culture importance of invertebrates and their larval stages in relation to phylogeny
- **CO4:** Describe the significance of connecting links in understanding the concept of evolution
- **CO5**: Explain the significance of specific phenomena in different groups of invertebrates in relation to their adaptability for survival
- **CO6:** Comprehend the systems biology of individual phyla with a specific type study and understand the origin and evolutionary relationship of different phyla and appreciate the uniqueness of individual phyla

SEMESTER : II
TITLE OF THE PAPER : ANIMAL DIVERSITY II BIOLOGY OF CHORDATES
COURSE CODE : ZOOT21A

COURSE OUTCOMES

- **CO1:** Gain knowledge in the major Chordate groups, describe their salient features, appreciate the diversity and analyze the uniqueness of different groups.
- **CO2**: Understand the fundamental organization of chordates and evaluate the similarities and differences among the different groups of chordates in the light o evolutionary significance.
- **CO3:** Comprehend and compare the morphology and anatomy of different classes of chordates and apply the same to their fitness in the ecological habitats
- **CO4:** Develop the skill of identifying the vertebrate fauna in general and South Indian fauna in specific.
- **CO5:** Acquaint with the significance of unique mechanisms and behavioral patterns exhibited by different groups of chordates

SEMESTER : III
TITLE OF THE PAPER : Cell Biology, Genetics, Molecular Biology & Evolution
COURSE CODE : ZOO301C

COURSE OUTCOMES

- **CO1:** To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.
- **CO2:** Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.
- **CO3:** To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals
- **CO4:** Acquiring in-depth knowledge on several of aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders
- **CO5:** Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins.
- **CO6:** Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society

SEMESTER : III
TITLE OF THE PAPER : POULTRY FARMING
COURSE CODE : PF301

COURSE OUTCOMES

- **CO1:** Understand the field level structure and functioning of insurance sector and its role in protecting the risks
- **CO2:** Comprehend pertaining skills and their application for promoting insurance coverage
- **CO3:** Prepare better for the Insurance Agent examination conducted by IRDA Plan 'promoting insurance coverage practice' as one of the career options.

SEMESTER : IV
TITLE OF THE PAPER : Animal Physiology, Cellular Metabolism and Embryology
COURSE CODE : ZOO401

COURSE OUTCOMES

- **CO1**: Understand the functions of important animal physiological systems including digestion, cardio respiratory and renal systems.
- **CO2:** Understand the muscular system and the neuro-endocrine regulation of animal growth, Development and metabolism with a special knowledge of hormonal control of human Reproduction.
- **CO3**: Describe the structure, classification and chemistry of biomolecules and enzymes Responsible for sustenance of life in living organisms
- **CO4:** Develop broad understanding the basic metabolic activities pertaining to the catabolism and anabolism of various biomolecules
- **CO5:** Describe the key events in early embryonic development starting from the formation of gametes up to gastrulating and formation of primary germ layers.

SEMESTER : IV
TITLE OF THE PAPER : IMMUNOLOGY AND ANIMAL BIOTECHNOLOGY
COURSE CODE : ZOO402

COURSE OUTCOMES

- **CO1:** To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.
- **CO2:** To describe immunological response as to how it is triggered (antigens) and regulated (antibodies)
- **CO3:** Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.
- **CO4:** Get familiar with the tools and techniques of animal biotechnology

SEMESTER : V
TITLE OF THE PAPER : ANIMAL BIOTECHNOLOGY
COURSE CODE : ZOO501

COURSE OUTCOMES

- **CO1:** Students are made to become aware of the use of technology that is involved in cloning.
- **CO2:** Improved quality of species with gene manipulations
- **CO3:** Recent development in biotechnology that helps for better environment and Production of various monoclonal antibodies and vaccines.
- **CO4:** Formation of different species - transgenic animals
- **CO5:** Resistant variety and better yield

SEMESTER : V
TITLE OF THE PAPER : ANIMAL HUSBANDRY
COURSE CODE : ZOO502

COURSE OUTCOMES

- **CO1**: Students are given awareness about different varieties of chicks.
- **CO2:** Students are familiarized with recent technologies those are applied to produce different species with variations which are more beneficial and income fetching.
- **CO3:** Students with the help of self-help schemes, can set up their own firms, and provide
- **CO4**: Employability to others and to tap the resources of Government and Non-governmental sectors.
- **CO5:** They are given managerial and marketing skills as well.

SEMESTER : VI
TITLE OF THE PAPER : IMMUNOLOGY
COURSE CODE : ZOO601

COURSE OUTCOMES

- **CO1:** Students grow in understanding of immune system, to improve their immunity and to protect them from pathogens.
- **CO2:** They identify their blood groups, their compatibility and the need to donate blood to save life.
- **CO3:** Students identify the classes, structures and functions of antibodies, antigen –antibody reactions.
- **CO4:** This study enables students to take care of themselves and take timely precautions against various diseases.
- **CO5:** They identify the cure of different diseases through various vaccines, the instruments involved in identification of immune reactions etc.

DEPARTMENT OF ZOOLOGY
COURSE OUTCOMES (CO'S)

Programme: B.Sc. (A.B.C.)

SEMESTER : I
TITLE OF THE PAPER : BASIC PRINCIPLES OF AQUACULTURE
COURSE CODE : AQTT11A

COURSE OUTCOMES

- **CO1:** Understand the concept of blue revolution, analyze the history and compare the present status of aquaculture at global, national and state levels and its significance over agriculture and gain knowledge in the various aquaculture resources and advantages of culture over capture
- **CO2**: Acquire knowledge in the different types of aquaculture, culture systems and culture methods in practice worldwide
- **CO3**: Gain knowledge in the different types of culture ponds.
- **CO4:** Understand the arrangement of different types of ponds in a fish farm and design an ideal fish farm.
- **CO5**: Comprehend the best management practices to be adopted in aquaculture for good yield and acquire the skill in the analysis of water and soil parameters of a culture pond.
- **CO6:** Identify the different types of weeds and predators in a culture pond and suggest the suitable control measures for their eradication.

SEMESTER : II
TITLE OF THE PAPER : BIOLOGY OF FIN FISH & SHELL FISH
COURSE CODE : AQTT21A

COURSE OUTCOMES

- **CO1**: Classify the finfish and shellfish, analyze the cultivable species of fin fish and shellfish of commercial importance, describe their salient features and appreciate the diversity and uniqueness of different groups.
- **CO2:** Comprehend the relationship between food and growth, age and growth, hormones and growth in cultivable fin and shell fish.
- **CO3**: Gain knowledge and compare the feeding habits, mouth parts and digestive systems and analyze gut contents.
- **CO4:** Develop the skill of identifying the gut contents, gonadal maturity and fecundity and comprehend the concept of breeding behavior, embryonic and larval development of cultivable aquatic fin and shell fish.
- **CO5:** Acquaint with the significance of unique mechanisms and behavioral patterns like sense organs, electric organs, buoyancy, moulting and metamorphosis exhibited by finfish and shell fish.

SEMESTER : III
TITLE OF THE PAPER : FRESH WATER & BRACKISH WATER AQUACULTURE
COURSE CODE : AQU301C

COURSE OUTCOMES

- **CO1**: Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India and AP.
- **CO2:** Learn about Major Cultivable Indian Carps and Exotic fish Species introduced in India
- **CO3**: Know about recent developments in the culture of clarius, anabas and murrels and special systems of aquaculture.
- **CO4:** Gain knowledge of commercially valuable Fresh water prawns of India and their culturing methods.
- **CO5**: Learn about culturing of brackish water Prawn Species P.mondon and L.vannamei and hatchery technology's involved

SEMESTERE : IV
TITLE OF THE PAPER : FISH NUTRITION & FEED TECHNOLOGY
COURSE CODE : AQU401C

COURSE OUTCOMES

- **CO1**: Understand Nutritional requirements of cultivable fishes and factors affecting energy partitioning and feeding
- **CO2:** Know different types of feed and FCR and different types of feeders
- **CO3**: Gain Knowledge of Feed manufacture and storage methods of feeds
- **CO4:** Understand the value of Feed additives and Non-Nutrient ingredients
- **CO5:** To create awareness of different nutritional deficiency and importance of natural and supplementary feeds and balanced diet.

SEMESTER : IV
TITLE OF THE PAPER : FISH HEALTH MANAGEMENT
COURSE CODE : AQU402C

COURSE OUTCOMES

- **CO1:** Provide students with knowledge about fish diseases and pathological aspects of diseases.
- **CO2:** Learn about Fungal, Viral and Bacterial diseases of finfish.
- **CO3:** Learn about major shrimp viral, bacterial and protozoan diseases and prevention and therapy methods.
- **CO4:** Gain knowledge of Nutritional deficiency related diseases and antibiotic and chemotherapeutics.
- **CO5:** Understand and learn the importance of diagnostic tools in identification of diseases and application and development of vaccines. To know about production of disease free seeds and good feed management

SEMESTER : V
TITLE OF THE PAPER : FISH HEALTH MANAGEMENT
COURSE CODE : AQU501C

COURSE OUTCOMES

- **CO1:** Provide students with knowledge about fish diseases and pathological aspects of diseases.
- **CO2:** Learn about Fungal, Viral and Bacterial diseases of finfish.
- **CO3:** Learn about major shrimp viral, bacterial and protozoan diseases and prevention and therapy methods.
- **CO4:** Gain knowledge of Nutritional deficiency related diseases and antibiotic and chemotherapeutics
- **CO5:** Understand and learn the importance of diagnostic tools in identification of diseases and application and development of vaccines. To know about production of disease free seeds and good feed management.

SEMESTER : V
TITLE OF THE PAPER : EXTENSION, ECONOMICS & MARKETING
COURSE CODE : AQU502C

COURSE OUTCOMES

- **CO1**: Gain the Knowledge of basic concepts of economics with reference to fisheries and various factors influencing the fishery products price.
- **CO2:** Will come to know about fisheries marketing, methods of economic analysis of business organizations and preparation of project and project appraisal.
- **CO3:** To know about application of economic principles to aquaculture operations.
- **CO4:** Get the broad knowledge of scope and objectives, principles of fisheries extension.
- **CO5:** Understand the importance of transfer technology of ICAR programmes and training at DAATT Centers and their role in education of aqua farmers through print and electronic media.

SEMESTER : VI
TITLE OF THE PAPER : ORNAMENTAL FISHERY
COURSE CODE : AQU601C

COURSE OUTCOMES

- **CO1:** Describe and identify the characters of commercially important ornamental fishes
- **CO2:** Explain the procedure for transportation fish and feed preparation
- **CO3**: Identify the diagnosing procedure for ornamental fish diseases
- **CO4:** Construct aquarium and analyze water quality parameters
- **CO5**: Access the role of Mass production of aquarium plants

SEMESTER : VI
TITLE OF THE PAPER : FISH PROCESSING TECHNOLOGY
COURSE CODE : AQU602C

COURSE OUTCOMES

- **CO1**: After completing this course students can able to, deliver the different unit Operations and its equipment's involved in fish processing fishing resources.
- **CO2**: Develop value added products from fish. Able to know about quality control of Fish processing
- **CO3**: Know about different methods of processing of fish Able to acquire a confident to get placement in any fish processing industry.
- **CO4:** Students grow in understanding of Packing, Cold Storage and Export of Fishery Products.
- **CO5:** Export of fishery products from India - major countries

SEMESTER : VI
TITLE OF THE PAPER : FISHERY MICROBIOLOGY AND FISHERY BY-PRODUCTS
COURSE CODE : AQU603C

COURSE OUTCOMES

- **CO1:** The ecosystem and taxonomy of microbes will be understood by the students along with prokaryotic and eukaryotic divisions
- **CO2:** Hands on techniques on handling the microscopes in the class and instrumentation lab will be elaborate study of microbial organisms advanced techniques for easy and speedy identification will be known
- **CO3:** Screening, isolation and enumeration of microbes using different media and application of advanced techniques for easy and speedy identification will be known
- **CO4:** Students will be able to discuss Fishery By - products.
- **CO5:** The practical knowledge of Value Added Products will be achieved by the students.

SEMESTER : VI
TITLE OF THE PAPER : QUALITY CONTROL IN PROCESSING PLANTS
COURSE CODE : AQU604C

COURSE OUTCOMES

- **CO1:** Explain the application of fish quality and quality standards.
- **CO2:** To understand the different types of water treatments
- **CO3:** Examine the chemical and microbiological quality of fish and fish products.
- **CO4:** To gain the knowledge on different types of processing plants.
- **CO5:** Review of legislative approaches for the management of food safety.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF HISTORY

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Student will be able to acquire historical knowledge, depth in terms of content and chronology of contents
PO2	Student will be able to distinguish between Primary and Secondary Sources to study of history and understand how to make use of them
PO3	Student should possess effective communication skills to deliver presentations to a variety of audiences.
PO4	Student should understand the basic skills and tools of historical writings and analysis.
PO5	Students apply a biblical philosophy of history to their analysis of social, political, religious, cultural, economic issues.
PO6	Student should recognise values and ethical standards in every walk of life

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	To understand the History of People and societies like religious, customs institution Administration.
PSO2	To create an awareness of different political cultural social and economic structures in the past and their Interrelationship.
PSO3	Analyse relationship between the past and the present is lively presented in the history.
PSO4	To prepare students for future study employability and responsible citizenship. a) Further study-post graduate in history, B.Ed, M.Phil, Ph.D b) Employability – Archaeologists, Historians, UPSC- jobs APPSC-Jobs, Teachers, NGO's Travel and Tourism experts.
PSO5	To develop interest in the study of History and activities, skills relating to history. a) Draw historical Maps, Charts b) Collect ancient arts, coins c) Visit Archaeological sites, Museums, archives and Historical important places. d) To take active role in activities of historical organizations.
PSO6	Empowering students in the historical research and to write articles on historical topics.
PSO7	Inculcate moral and ethical values among students.
PSO8	To install the feeling of patriotism among the students.
PSO9	To orient student to become perfect social being.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF ECONOMICS

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and by connecting people, ideas, books, media and technology across the World.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	Effective Citizenship: Demonstrate empathetic social concern and equity-Centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	Ethics: Recognize different value systems including that of own, understand the moral dimensions of our decisions, and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues in the contexts of environmental and sustainable development.
PO7	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	How the consumers and producers will take rational decisions in the context of unlimited needs and availability of scarce resources
PSO2	How the economy at the aggregate level works, what are the determinants of national income, prices, demand for and supply of money, poverty, and unemployment in an economy;
PSO3	He/she Gets understanding of the process of economic growth, economic development, sustainable growth in the context of existence of trade-off between rapid economic growth and environmental sustainability in the long run;
PSO4	He/she will be able to apply the determinants of economic growth and development to the economies of India and Andhra Pradesh and appraise the fiscal, monetary and other socio-economic policies being pursued in India and Andhra Pradesh
PSO5	He/she will get a basic understanding of Statistical Methods with a view to applying them to economics and real life situations

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF POLITICAL SCIENCE

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Understand the world, their country, their society, as well as themselves and Develop the ability of reflective thinking and reasoning
PO2	Get awareness of ethical problems, social rights, values and responsibility
PO3	Take individual and team responsibility as a member or a leader of a team and have the skills to work effectively.
PO4	Student will be able to understand the basic tools of analysis such as analysis of social, political, religious, cultural and economic issues.
PO5	Prepare Students to recognise values and ethical standards in every walk of life
PO6	Develop the ability to make logical inferences about social and political issues on the basis of comparative knowledge
PO7	Create the feeling of patriotism among the students and sense of belongingness of the society they live in
PO8	Exposed to the Knowledge of philosophical underpinnings of modern politics , government and the legal principles
PO9	Prepare students for a variety of careers and professions in fields such as law, government, education, politics, policy, and business.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Be able to describe and explain political theory, political systems around the world, and politics in the international arena
PSO2	To create an awareness of different political, social and economic cultures in the past and their Interrelationship.
PSO3	Identify the principal arguments for and against alternative forms of government and evaluate alternative political ideas and ideologies
PSO4	Understand basic political and governmental structures, processes, and policies and operation of the system.
PSO5	Able to explain the role of political ideas, value conflicts, and ideology in human societies
PSO6	Critically assess the actions of the political process and determine their motives
PSO7	Understand the foundations of Indian government, including the structure and relationships between the branches of government
PSO8	Know how laws are made, policies are developed, programs implemented, and what influences and constraints are placed upon the process
PSO9	Inculcate moral and ethical values among students to become a responsible citizens

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF MATHEMATICS

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO2	Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO3	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO4	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO5	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	To increase the skills in different branches of Mathematics and increase Mathematical abilities in learning Mathematics.
PSO2	To increase the capability in learning Mathematics and increase the ideas in understanding the proofs.
PSO3	To facilitate students to appreciate the technique of formal proof (unique aspect of this discipline) in establishing facts through procedural, valid and logical reasoning.
PSO4	To familiarize students with the universal language of Mathematics precise in symbolic vocabulary, abstractions, generalizations and conventions.
PSO5	To enhance the Mathematical maturity in them with in depth of knowledge in pure and applied branches of Mathematics.
PSO6	To encourage students to become techno savvy with a perception widened by Mathematics.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF STATISTICS

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology
PO2	Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering
PO3	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO4	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO5	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO6	Specialized Skills / Transferable Skills: Acquisition of communication and soft, analytical and technological skills that aid in enhancing
PO7	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Apply the concepts, principles and methods of statistics to various fields of study
PSO2	Understand the importance and value of statistical principles and convert a problem description into testable research hypotheses
PSO3	Select appropriate statistical tools to investigate a research hypothesis.
PSO4	Perform data analysis by apply appropriate statistical methodology and interpret result in a variety of settings
PSO5	Compute statistical measures using software and programs.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF PHYSICS

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical Thinking: Physics deals with a wide variety of systems, certain theories are used by all physicists.
PO2	Effective Communication: Each of these theories were experimentally tested numerous times and found to be an adequate approximation of nature.
PO3	Effective Citizenship: Physics uses mathematics to organize and formulate experimental results.
PO4	Value- based development: From those results, precise or estimated solutions, quantitative results from which new predictions can be made and experimentally confirmed or negated.
PO5	Ethics: After successful completion of three year degree program in physics a student should be able to; Demonstrate, solve and develop an understanding of major concepts in all disciplines.
PO6	Environment and Sustainability: Solve the problem and also think methodically, independently and draw a logical conclusion.
PO7	Self-directed and Life-long Learning: Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results of Physics experiments. Create an awareness of the impact of Physics on the society, and development outside the scientific community.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Able to understand various physics based applications in daily life and get motivated to pursue higher studies, research, attempt competitive examinations leading to career opportunities industries.
PSO2	These theories continue to be in areas of active research today.
PSO3	The student will gain the knowledge of Physics through theory and practical's.
PSO4	The student will understand good laboratory practices and safety.
PSO5	The student will develop research oriented skills.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF CHEMISTRY

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Effective citizenship: Provide a broad foundation in chemistry that stresses scientific reasoning and Analytical problem solving with a molecular perspective.
PO2	Practical Knowledge: Provide students with the skills required to succeed in graduate school, the chemical industry or professional school.
PO3	Problem analysis: To expose the students to a breadth of experimental techniques using modern instrumentation.
PO4	Modern tool usage: The student will understand the importance of the Periodic Table of the Elements, how it came to be, and its role in organizing chemical information.
PO5	The Botanist and society: The student will learn the laboratory skills needed to design, safely conduct and interpret chemical research.
PO6	Scientific Knowledge: The student will acquire a foundation of chemistry of sufficient breadth and depth to enable them to understand and critically interpret the primary chemical literature.
PO7	Ethics: The student will learn professionalism, including the ability to work in teams and apply basic ethical principles.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	The objective of this paper is to bring awareness among students on the general characteristics and properties of p-block elements, basic concepts in organic chemistry and aromatic of benzene
PSO2	The objective of this paper is to bring awareness among students on concepts in different states of matter i.e. solid, liquid and gaseous. It gives information about properties of solutions and stereochemistry of carbon compounds.
PSO3	The objective of this paper is to bring awareness among students on the general characteristics and properties of d and f-block elements, reaction mechanisms of various organic reactions.
PSO4	The objective of this paper is to bring awareness among students on basic knowledge of spectroscopy and concepts of Electrochemistry
PSO5	The objective of this paper is to bring awareness among students on bonding theories of coordination compounds and reaction mechanisms of nitrogen compounds and concepts of thermodynamics.
PSO6	The objective of this paper is to bring awareness among students on reactivity of coordination compounds, importance of amino acids and mechanism of chemical reactions.
PSO7	The objective of this paper is to bring awareness among students on titrimetric analysis, separation techniques and basic knowledge of Chromatography techniques.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF CHEMISTRY (PG)

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical Thinking: Think critically and analyse chemical problems related to Inorganic, Organic, Physical and Analytical.
PO2	Effective Communication: Understand the need for scientific communication in both written & oral forms and as well as the role of computers and software in solving problems related to chemistry and can use modern library tools to locate and retrieve scientific information about a topic, chemical or technique relating to chemistry.
PO3	Social Interaction: Function individually and as a member or leader in team with the fundamental and advanced knowledge gained in the field of chemistry and other allied fields.
PO4	Effective Citizenship: Apply conceptual knowledge gained in the field of chemistry to assess social, health, safety, legal and cultural issues and the relevant consequences of it.
PO5	Ethics: Record and analyse the experimental results by maintaining professional ethics, responsibilities and norms of the scientific practices.
PO6	Environment and sustainability: Understand the issues of environmental pollution and sustainable development.
PO7	Self-directed & lifelong learning: Engage in independent and lifelong learning of the concepts related to chemistry in broadest context of socio-technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Self-motivation towards global level research opportunities to pursue Ph.D. Programme Agreed approach of CSIR – NET examination
PSO2	Required skill to have specific placement in R&D, pharmaceutical Industry and allied Divisions.
PSO3	Required knowledge to clear discipline specific competitive exams conducted by service Commission and other organizations.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF COMPUTER SCIENCE

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Provide students with fundamental knowledge and ability to expertise in Computer Science.
PO2	Provide insight to problem solving to succeed in Technical Profession through precise education and to prepare students to excel in postgraduate programs
PO3	To inculcate in students professional, effective communication skills, team work, multidisciplinary approach and an ability to relate issues to broader social context
PO4	Prepare students to be aware of excellence, leadership, written ethical codes and guidelines and lifelong learning needed for successful professional career by providing them with an excellent academic environment.
PO5	Empower the students in academic, social, psychological and economic arenas by developing relevant competencies
PO6	Interpret and apply the implications of environment awareness initiatives incorporated in curriculum.
PO7	Participation and contribution to community development activities through NCC, NSS etc.
PO8	Acquire sufficient knowledge base in the Domain Specific area leading to the pursuit of advanced level of study in the chosen Domain Specific area.
PO9	Adaptability and capacity building to the ever changing needs of the industry and employment opportunities.
PO10	Inculcate the human values through curricular, co-curricular and extracurricular activities

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Ability to apply foundations of Mathematics, Principles of Physics/Statistics and Theory of Computer Science in solving the real-world problems.
PSO2	Identify, formulate, review research literature, and analyses complex problems reaching substantiated conclusions using first principles of mathematics and Computer science.
PSO3	Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations
PSO4	Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction and modelling to complex activities with an understanding of the limitations.
PSO5	Understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PSO6	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PSO7	Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF COMPUTER SCIENCE (PG)

2022-23

PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

PEO1	Technical Expertise and Knowledge in Multiple Domains: Ability to develop an understanding of modern computing concepts and architectures from a design and performance perspective of various domains.
PEO2	Assessment from System Level Perspective: Able to analyse and appreciate the structure of computer systems and the processes involved in their construction at various levels of detail and abstraction.
PEO3	Critical Thinking, Business Analytics &Problem Solving and Innovation: An ability to apply knowledge of mathematics and computer science practices to build Innovative Public & Private Sector Applications involving complex computing problem solving and in research.
PEO4	Professional Ethics & Social Responsibility: Ability to apply and commit to professional ethics following cyber regulations in a global economic environment. Create and design innovative applications to solve complex problems using established practices for the betterment of the society.
PEO5	Apposite to Industry: Gain exposure to multiple programming languages, tools, paradigms, and technologies as well as the fundamental underlying principles throughout their education there by making them the right choice for industry positions.
PEO6	Effective Communication & Leadership: Ability to communicate effectively and present technical &project management information using audio-visual tools as well as in oral and written reports. Rise up to the need and be able to lead teams of individuals.
PEO7	Life-long Learning and Research: Understand the importance of, and possess pre-requisite skill set to undertake lifelong independent learning and research in the content of contemporary technological advancements.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	To make the students industry ready as far as possible to enhance their employability in the industries.
PSO2	Create an ambience of education through faculty training, self-learning, sound academic practices and Research endeavors.
PSO3	Able to develop strong analytical skills, critical thinking and experimental skills
PSO4	Able to solving on Computational problems, system networking knowledge, use of technology with innovative ideas
PSO5	Able to maintain the software network to handle the technological challenges.

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DEPARTMENT OF BOTANY

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Acquire in-depth knowledge of Botany and its allied branches, develop skills to identify and classify plants belonging to different groups from microbes, Algae up to Angiosperms.
PO2	Acquire Organization of tissues and tissue systems in plant and interpret various aspects of embryology, Develop awareness about environmental conservation and management strategies
PO3	Demonstrate various laboratory skills and acquire knowledge to handle instruments, equipment's glass wares, skills of callus culture, biotransformation technique for production of secondary metabolites etc. in the field of plant tissue culture.
PO4	Demonstrate various laboratory skills and acquire knowledge to handle instruments, equipment's, glass wares composting and the materials required for spawning and casing cultivation of various mushrooms. Etc. in the field of mushroom cultivation.
PO5	Acquire knowledge in the classification and comparison of Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycle.
PO6	Acquire in-depth knowledge of Botany - water in plant life and mechanisms for transport of water and solutes in plants role of minerals in plant nutrition and their deficiency symptoms and also Interpret the role of enzymes in plant metabolism.
PO7	Gain knowledge about basics of Mendelian genetics, Evaluate the structure, function and regulation of genetic material and modern techniques in plant breeding.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Understand the diversity to know the systematic position, morphology, structure and life cycle pattern of Algae, useful and harmful activities of Algae. Know the Economic Importance of Fungi, and the morphological diversity of Bryophytes.
PSO2	Understand the diversity of Gymnosperms, to know the evolutionary trends and affinities of living gymnosperms with respect to external and internal features and the conceptual development of taxonomy and systematic, and trends in classification. Know the floral variations in angiospermic families, their phylogeny and evolution. Understand various rules, principles and recommendations of plant nomenclature produces in plant identification.
PSO3	Understand the Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity unity of life with the rich diversity of organisms and their ecological and evolutionary significance. Learn about conservation of biodiversity, vegetation types of Andhra Pradesh.
PSO4	Able to understand importance and scope of plant physiology, plant cells in relation to water, process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways and respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.
PSO5	Able to understand the eukaryotic cell, Structure and organization of cell membrane and Mendelian genetics, experimental evidences to prove DNA as a genetic material. Get the detail knowledge about modern strategies applied in Plant Breeding for crop improvement i.e. Mass selection, Pure line Selection and Clonal selection.
PSO6	Acquire basic knowledge and experimental skills in Biotechnology and, tissue culture, necessary for scientific investigation.
PSO7	Enable self-employment with knowledge and skills in certain applied branches like mushroom cultivation.
PSO8	Apply the theoretical knowledge gained during the program to the actual practice of laboratory plant science.
PSO9	Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF ZOOLOGY

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical thinking: Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during biological study.
PO2	Effective communication: Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
PO3	Social interaction: Able to develop individual behaviour and influence society and social structure.
PO4	Effective citizenship: Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
PO5	Ethics: Ability to demonstrate and discuss ethical conduct in scientific activities.
PO6	Environment and Sustainability: Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development.
PO7	Self-directed and life-long learning: Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Understand the nature and basic concepts of chordates, non-chordates, Cell biology, Evolution, Genetics, Embryology, Physiology, Ecology and applications of Biotechnology and Immunology
PSO2	Identify the major groups of organisms, be able to classify them within a phytogenic framework, compare and contrast the characteristics of animals that differentiate them from other forms of life.
PSO3	Understand the unity of life with the rich diversity of organisms and their ecological and evolutionary significance
PSO4	Use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.
PSO5	Explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
PSO6	Acquire basic knowledge and experimental skills in Biotechnology and immunology, necessary for scientific investigation.
PSO7	Provide knowledge and skills in aquaculture systems, how they work, and how to best manage them as there is a need for qualified and professional people to work in the aquaculture industry.
PSO8	Apply the theoretical knowledge gained during the program to the actual practice of laboratory animal science.
PSO9	Enable self-employment with knowledge and skills in certain applied branches like Aquaculture, Poultry and Biotechnology.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF ACQUACULTURE

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical thinking: Able to understand and utilize the principles of scientific enquiry, think analytically, clearly and evaluate critically while solving problems and making decisions during aqua cultural study.
PO2	Effective communication: Able to formally communicate Scientific ideas and investigations of the biology discipline to others using both oral and written communication skills.
PO3	Social interaction: Able to develop individual behaviour and influence society and social structure.
PO4	Effective citizenship: Able to work with a sense of responsibility towards social awareness and follow the ethical standards in the society.
PO5	Ethics: Ability to demonstrate and discuss ethical conduct in scientific activities.
PO6	Environment and Sustainability: Able to understand the impact of biological science in societal and environmental contexts and demonstrate the knowledge for sustainable development
PO7	Self-directed and life-long learning: Able to recognize the need of life-long learning and engage in research and self-education.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Demonstrate a sound understanding of the biology of aquaculture organisms and of breeding, genetics, nutrition and water quality issues relevant to aquaculture
PSO2	Design aquaculture systems and solve engineering issues in aquaculture
PSO3	Employ knowledge of health and safety issues in aquaculture
PSO4	Employ scientific techniques, practical skills, critical analysis of data and business management strategies to improve aquatic resource management.
PSO5	Understand and interpret critical scientific and ethical issues in aquaculture
PSO6	Engage effectively with information and communication technologies
PSO7	Demonstrate research skills appropriate for further study and employment. Appreciate the need for continuing professional development.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF COMMERCE

2022-23

PROGRAMME OUTCOMES (PO'S)

PO1	Critical Thinking: Knowledgeable in the core disciplines of Commerce, Economics and Business through a number of specializations and practical exposure enables them to face the challenges in the field of Commerce
PO2	Effective Communication: Demonstrate proficiency in communicating competently in groups and organizations in English and in one Indian language
PO3	Effective Citizenship: Ability to act with an informed awareness of issues and participate in civic life through volunteering
PO4	Value- based development: Recognize values such as justice, trust, equity, fairness, kindness and, understand the moral Dimensions of your decisions, and accept responsibility for them.
PO5	Environment and Sustainability: Understand the issues of environmental contexts and Sustainable development
PO6	Self-directed and Life-long Learning: promoting continuous development and improvement of the knowledge and skills needed for employment and personal fulfilment

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

PSO1	Getting the knowledge and the importance of accounting and auditing Standards for the reliability of financial statements.
PSO2	Interpret the legal and environmental aspects of business and Analyze quantitative data in order to take business decisions
PSO3	Empowering the student to understand the accounting practices and Procedures followed by different business entities
PSO4	Promising the Practical skills for a bright career as accounting officers, computer professionals, audit assistants, businessmen, entrepreneurs, managers with required knowledge in computers.
PSO5	Knowledge of major theories and models in key areas which motivate them to pursue higher studies / face competitive exams like SSC,P.C,BANK,R.R.B/ professional courses like CA,CS, ICWA and other courses.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF ENGLISH

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA / B.Com / B.Sc.
Semester : I
Title of the Course : A course in Communication & Soft Skills
Course Code : ENGT11B

CO1	Gain more confidence in learning various kinds of listening techniques as well as create more effective strategies to improve one's ability to listen and to understand people.
CO2	Improve their speaking ability in English both in terms of fluency and comprehensibility and practice in using English to perform preliminary communicative functions required for their everyday social and professional interactions with others.
CO3	Explore basic elements of grammar and test their abilities in concord, modals, tenses, articles, prepositions, question tags and transformation of sentences.
CO4	Develop their written expression of thought and discover opportunities to build connections within the areas of punctuations, spelling and paragraph writing.
CO5	Formulate problem solving skills, making appropriate and responsible decisions, improve their attitude, emotional intelligence, telephone etiquette and interpersonal skills.

Name of the Programme : BA / B.Com / B.Sc.
Semester : II
Title of the Course : A COURSE IN CONVERSATIONAL SKILLS
Course Code : ENG T01A

CO1	Analyse interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose and form.
CO2	Comprehend effectively for a variety of professional and social settings, adapting other writer's ideas as they explore and develop their own.
CO3	Engage in simple, common and basic social and academic conversations, demonstrating the ability to open and close a conversation and to ask for clarification, information or assistance, as well as agreeing/disagreeing and giving examples.
CO4	Convey their own interpretations by building dialogues and developing the learner's performance level in spoken English through the activities.
CO5	Acquaint the learner with the skills to debate, describe and role play.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

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DEPARTMENT OF TELUGU

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA / B.Com / B.Sc.
Semester : I
Title of the Course : TELUGU
Course Code : TELT11A

CO1	ప్రాచీన తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారు. తెలుగు సాహిత్యంలో ఆదికవి నన్నయ కాలంవారి భాషా సంస్కృతులను, ఇతిహాసకాలం నాటి రాజనీతి విషయాలపట్ల పరిజ్ఞానాన్ని పొందగలరు.
CO2	శివకవుల కాలంనాటి మత పరిస్థితులను, భాషా విశేషాలను గ్రహిస్తారు. తెలుగు నుడికారు, సామెతలు, లోకోక్తులు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందగలరు.
CO3	తిక్కన భారతంనాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితా శిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు.
CO4	పోతన అద్భుత కథాకథన శిల్పం, సజీవపాత్ర చిత్రణ, శబ్దాలంకారాల ప్రయోగం మొదలగు విభిన్న రీతుల పట్ల అభిరుచిని పొందగలరు. మొల్ల కవిత్వంలోని వీనుల విందైన పదాలు, పాత్రల మనోభావాల చిత్రణ గుర్తించగలరు.
CO5	తెలుగు పద్యం స్వరూప స్వభావాలను, సాహిత్యాభిరుచిని పెంపొందించుకుంటారు. ప్రాచీన కావ్యభాషలోని వ్యాకరణాంశాలను అధ్యయనం చేయడం ద్వారా భాషా సామర్థ్యాన్ని, రచనలో మెలకువలను గ్రహించగలరు.

Name of the Programme : BA / B.Com / B.Sc.
Semester : II
Title of the Course : TELUGU
Course Code : TELT21A

CO1	ఆంగ్లభాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని, దాని విశిష్టతను గుర్తిస్తారు.
CO2	సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం, కథ, నవల, నాటకం, విమర్శల" పై అవగాహన పొందుతారు.
CO3	భావ కవిత, అభ్యుదయ కవిత్వాల లక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు. ఇంకా అస్తిత్వవాదం, ఉద్యమాల పుట్టుకను, ఆవశ్యకతను గుర్తిస్తారు.
CO4	కథా సాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు. సిద్ధాంతాల ద్వారా కాకుండా, వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించుకోగలరు.
CO5	ఆధునిక తెలుగు కల్పనా సాహిత్యం ద్వారా సామాజిక, సాంస్కృతిక, రాజకీయ చైతన్యాన్ని పొందుతారు.

Name of the Programme : BA / B.Com / B.Sc.
Semester : III
Title of the Course : TELUGU
Course Code : TELT01A

CO1	తెలుగు సాహిత్య అభ్యసనం ద్వారా నేర్చుకున్న వైపుణ్యాలను, సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు.
CO2	విద్యార్థులు భాషాతత్త్వాన్ని, ఆవశ్యకతను, ప్రాధాన్యాన్ని గుర్తిస్తారు.
CO3	భాషా నైపుణ్యాలను అలవర్చుకోవడం, వినియోగించడం నేర్చుకుంటారు.
CO4	ప్రాచీన పద్య రచనతోపాటు ఆధునిక కవిత, కథ, వ్యాసం మొదలైన సాహిత్య ప్రక్రియల పట్ల అవగాహన పొందుతారు.
CO5	సృజన రంగం, ప్రసార మాధ్యమాలు, అనువాద రంగాల పట్ల విద్యార్థులకు అవగాహన కల్గుతుంది.

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF HINDI

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA / B.Com / B.Sc.
Semester : I
Title of the Course : General Hindi
Course Code : HINT11A

CO1	मनव मूल्यों को पहचान कर समाज कल्याण हेतु देने के लिए तैयार रहना।
CO2	आधुनिक युग की भावनाओं को पहचानकर सामाजिक समस्याओं का सामना करते हुए, निरंतर आगे बढ़ना।
CO3	विद्यार्थियों को शब्दावली से एक भाषा से दुसरे भाषा का अनुवाद कर सकता है।
CO4	छात्रों को इस व्यकरण के द्वारा भाषा में निपुणता आतीहैं।
CO5	छात्रों के इस पत्र-लेखन द्वारा लिखित कार्य बढता है और संप्रेषण का विकास होता है।

Name of the Programme : BA / B.Com / B.Sc.
Semester : II
Title of the Course : General Hindi
Course Code : HINT21A

CO1	मानव मूल्यों से विद्यार्थी अवगत होंगे तथा इस दिशा में आगे बढ़ेंगे।
CO2	आधुनिक युग की भावनाओं को पहचानकर,निरंतर सामाजिक समस्याओं का सामना करते हुए,आगे बढ़ेंगे।
CO3	विषय के विश्लेषण से सामाजिक दायित्व को निभाने में अग्रसर होंगे।
CO4	ग्रहण किये गये पाठ्यांशों के द्वारा विद्यार्थियों का ज्ञान मापन बढ़ेगा तथा अपने क्षेत्र में भी आगे होंगे
CO5	भाषा की प्रवीणता और प्रयोग से विद्यार्थी उज्वल भविष्य की ओर बढ़ेंगे।

Name of the Programme : BA / B.Com / B.Sc.
Semester : III
Title of the Course : General Hindi
Course Code : HINT01A

CO1	दोहों के द्वारा विद्यर्थियों में समाज सुधारक, मानव मूल्य बढ़ते हैं।
CO2	हिन्दी साहित्य का इतिहास के द्वारा हिन्दी भाषा की प्रामुख्यता और कविताओं की प्रामुख्यता मिल जातीहै।
CO3	समाज कल्याण विषयोंको समझकर अपना ज्ञान बढ़ते हैं।
CO4	समाज में भाषा पर प्रामुख्यता, भाषा में ज्ञान प्राप्त करके, दूसरों से आसानी से संप्रोषित करना सीखेंगे।
CO5	सरकारी व्यवस्थाओं को लेख लिखना, भाषा की विशेषता, समाज में सरकारी भाषा सीखकर दूसरों को आदर्शवान बना सकेंगे।

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF HISTORY

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA
Semester : I
Title of the Course : Ancient Indian history and culture from Indus valley civilization to 13th century AD
Course Code : HIST21A

CO1	It encourages students to think explicitly about the aims of Indian History and culture
CO2	Acquire knowledge of Indian religion such Buddhism and Jainism. Acquainted with Indian kingship and culture – Mouryas and satavahanas
CO3	Evaluate the south indian administration and cultural contribution of pallavas
CO4	Ancient knowledge of golden age of Gupta's and cultural contribution of Harsha
CO5	Evaluate the administration of cholas and greatness of kakatiyas

Name of the Programme : BA
Semester : II
Title of the Course : Mediaeval Indian History and culture (1206AD to 1764 AD)
Course Code : HIST21B

CO1	Acquire the knowledge of Delhi sultanate
CO2	ANALYSE the socio, Religious consciousness in India
CO3	Acquire knowledge about the Mughal rulers and their policies
CO4	Students will learn to understand, ANALYSE and evaluate the administration and cultural aspects of Mughal
CO5	Acquainted with the advent of the European and their settlements in India

Name of the Programme : BA
Semester : III
Title of the Course : Modern Indian History and culture (1764-1947AD)
Course Code : HIS 301

CO1	Acquired the knowledge of British rule and 1857 revolt
CO2	Learnt about the social and religious system of India
CO3	Gained the knowledge about freedom struggle
CO4	Inspired by the national leaders like Gandhi and their ideologies
CO5	Thoroughly learned about partition of India and integration of princely states syllabus

Name of the Programme : BA
Semester : IV
Title of the Course : History and culture of Andhra (from 1512 -1956AD)
Course Code : HIS 401

CO1	Known about nizams of Hyderabad
CO2	Learnt the impact of British on Andhra – Monroe- C.P.Brown, Sir Arthur Cotton
CO3	They were aware of social reformers and their contribution
CO4	Acquired knowledge about the national leaders and their ideologies
CO5	Acquired with the knowledge of Andhra state formation and Andhra Pradesh formation

Name of the Programme : BA
Semester : IV
Title of the Course : History of modern world (15th century AD to 1945AD)
Course Code : HIS 402

CO1	Acquired the knowledge about the evolution of changes in the modern Europe
CO2	Learnt about Revolution and their impact on world
CO3	Had idea about the unification of Italy and Germany
CO4	Learnt lessons from world war 1&2
CO5	Gained knowledge about the work and importance of international organisations

Name of the Programme : BA
Semester : VI
Title of the Course : Tourism and Hospitality services
Course Code : SECHIS601

CO1	Understand hospitality as a career
CO2	Inculcate interpersonal skills
CO3	Develop the ability for multitasking and crisis management
CO4	Understand the spirit of team work
CO5	Acknowledge the importance of guest service and satisfaction

Name of the Programme : BA
Semester : VI
Title of the Course : Tourism Guidance and operating Skills
Course Code : SECHIS602

CO1	Acquire tour guiding, operating and skills
CO2	Understand different situations under which one has to work
CO3	Cultivate cultural awareness and flexibility
CO4	Understand and apply team spirit
CO5	Plan and organise tour operator efficiently

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DEPARTMENT OF ECONOMICS

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA
Semester : I
Title of the Course : Micro Economic Analysis
Course Code : ECO-T11B

CO1	Students are able to understand fundamentals of microeconomics
CO2	Students are able to understand the behaviour of consumer.
CO3	Students are able to understand the behaviour of producer.
CO4	Student can evaluate the different market structures.
CO5	Students can analyse the different theories of distribution.

Name of the Programme : BA
Semester : II
Title of the Course : Macro Economic Analysis
Course Code : ECO-T21B

CO1	Able to understand the nature and scope of macro economics
CO2	Able to understand different concepts of national income and methods to measure national income
CO3	Able to acquire the knowledge about the classical and Keynes theories of employment.
CO4	Able to understand Keynes theory of consumption function and working of multiplier and accelerate principle
CO5	To understand the functions of money different theories of money

Name of the Programme : BA
Semester : III
Title of the Course : Development Economics
Course Code : ECO-T31B

CO1	To acquire the knowledge about the scope, importance of economic growth and economic development
CO2	To acquire the knowledge about the modern theories of economic growth
CO3	To acquire the knowledge about the theories of Development and under Development
CO4	To acquire knowledge about the strategies of economic development
CO5	To acquire knowledge about the role of institutions in economic development

Name of the Programme : BA
Semester : III
Title of the Course : Financial Markets
Course Code : SDC-ECOT01

CO1	Acquire knowledge of financial terms
CO2	Know the concepts relating to markets and different avenues of investment
CO3	Understand the career skills related to stock exchanges
CO4	Comprehend the personal financial planning and money market skills

Name of the Programme : BA
Semester : IV
Title of the Course : Economic Development in India and Andhra Pradesh
Course Code : ECO-T41

CO1	Remembers and states in a systematic way (Knowledge) • leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses • Objectives, outlays and achievements of economic plans and growth strategies
CO2	Explains (understanding) • Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies • Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy • Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds • Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance
CO3	Critically examines using data and figures (analysis and evaluation) • Leading issues of current importance relating to India and AP economy, major policies and programmes • COVID– 19 and its impact on Indian economy
CO4	Uses official statistical data and reports including tables and graphs • To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation

Name of the Programme : BA
Semester : IV
Title of the Course : Statistical Methods for Economics
Course Code : ECO-T42

CO1	Remembers and states in a systematic way (Knowledge) • The definitions, terms and their meaning relating to statistical methods • Various formulae used to measure central tendency, correlation regression and Indices
CO2	Explains (understanding) • Importance of statistics and its applications • The method of classification of primary data • Uses of Correlation and Regression analysis, time series and index numbers in economic analysis
CO3	Analyses and solves using given data and information (analysis and evaluation) a. different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices b. to interpret data and suggest solutions to economic problems
CO4	Draws critical diagrams and graphs. • Histogram, Frequency Polygon and Frequency Curve • More than cumulative and less than cumulative frequency curves • Different types of Bar diagrams • Pie Diagram and its uses in economic analysis

Name of the Programme : BA
Semester : V
Title of the Course : Insurance Services
Course Code : ECO-601C

CO1	Students are able to acquit the knowledge about principles of insurance since and functioning of insurance science
CO2	Students are about know importance of life insurance and products
CO3	Students are able to again the knowledge about general and health insurance
CO4	Students are able to acquit the knowledge about practicing as an insurance agent
CO5	Students are able to acquire the knowledge about understanding the continuous midst and case studies related to the general or health

Name of the Programme : BA
Semester : VI
Title of the Course : Banking and Financial Services
Course Code : ECO-602C

CO1	Students are able to acquit the knowledge about the principles of banking and Indian Banking system.
CO2	Students are able to acquit the knowledge about Deposits, Loans and Digital Banking Systems.
CO3	Students are able to acquit he knowledge about Banking correspondents and common service centres
CO4	Students are able to acquit the knowledge about Financial service of NBFIs.
CO5	Students are able to acquit the knowledge about more with Finance service Company (FSC).

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DEPARTMENT OF POLITICAL SCIENCE

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA
Semester : I
Title of the Course : Introduction to political science
Course Code : POLT11B

CO1	Define important field-specific theories and concepts, and understand their role in developing political science Knowledge
CO2	Summarize conceptual arguments or theoretical approaches
CO3	Apply them to field relevant situations and support their application with appropriate evidence.
CO4	Compare and evaluate the merits of multiple policies, theories or concepts from different disciplinary perceptions.
CO5	With the course, students are expected to learn the political concepts and theory in the Basic Concepts of Political Science.

Name of the Programme : BA
Semester : II
Title of the Course : Basic organs of the government
Course Code : POLT201B

CO1	To demonstrate and describe the salient features of the constitution of India interpret, integrate the salient and critically analyse the political economy of Indian Constitution
CO2	To understand the historical growth of the idea of fundamental human rights and create an awareness on directive principles of state policy.
CO3	Acquaint themselves with different theories of origin of State
CO4	To define federation and its features in Indian constitution and how it divides power between union and state governments, legislations, administrative and financial spheres and recommendations of Sarkaria Commission
CO5	To learn the contents of Indian constitution and how the supreme court and other court functions and develop an awareness foreign and state constitutions

Name of the Programme : BA
Semester : III
Title of the Course : Indian government and politics
Course Code : POL301C

CO1	The student's community has acquired knowledge of the making of the Indian Constitution and its philosophical background.
CO2	Information about the functionaries of the government both at the union and state level was acquainted by the student community
CO3	To Understand the legislative procedures which ensure the orderly conduct of business in our parliament and state legislative assemblies in India.
CO4	To understand know the Ministers, their role &responsibilities.
CO5	To understand Judiciary of India.

Name of the Programme : BA
Semester : III
Title of the Course : Indian political process
Course Code : POL401C

CO1	To demonstrate Legislative procedures which ensure the orderly conduct of business in our Parliament and state legislative assemblies in India.
CO2	To understand the election commission and functions
CO3	To study the local government administration.
CO4	To understand the awareness of financial and government commissions
CO5	To understand the dynamics of Indian political system and awareness of voting importance in the society.

Name of the Programme : BA
Semester : IV
Title of the Course : Western political thought
Course Code : POL402C

CO1	It helps students discover the political philosophy that forms the basis of politics in the Western world, to interpret the political philosophies of the Greek, Roman , French, English and Germen philosophers in historical context as well as relate them to contemporary politics.
CO2	Origin of the knowledge in political thought.
CO3	To understand the political thoughts in medieval period and how it laid foundation to modern.
CO4	To demonstrate how government politics people by democracy and individual people.
CO5	To demonstrate individual freedom, surplus value, materialist.

Name of the Programme : BA
Semester : IV
Title of the Course : E-governance
Course Code : SECPOL601

CO1	Acquaint students with the introduction to good governance and how it can be achieved by information and communication technology.
CO2	Understand the growing needs of E-Governance, improving transparency in the system of governance.
CO3	Have understanding of various government schemes and E-Governance projects and initiatives.
CO4	Provide the practical knowledge about the effective delivery of citizen services through online mode.
CO5	Realize the issues and challenges of E-Governance

Name of the Programme : BA
Semester : V
Title of the Course : Local administration
Course Code : SECPOL602

CO1	Understand the existing context of Local Government Institutions in India.
CO2	Have knowledge on the need of empowerment and autonomy of LGIs.
CO3	Provide an overview on financial resources and constitutional provisions.
CO4	Analyse the issues, problems and conflicts in Local Administration.
CO5	Develop communication skills to interact with the elected members and officials. Enhance skills for observation, organizing, networking, documentation.

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DEPARTMENT OF ENVIRONMENTAL STUDIES

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BA/BCOM/BSC
Semester : I
Title of the Course : Environmental Studies
Course Code : LST06

CO1	Realize the importance of environment, the goods and services of a healthy biodiversity, dependence of humans on environment.
CO2	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities
CO3	Discuss the laws/ acts made by government for environmental conservation and acquaint with international agreements and national movements and realize citizen's role in protecting environment and nature

Name of the Programme : BA/BCOM/BSC
Semester : II
Title of the Course : Human Values & Professional Ethics
Course Code : LST01

CO1	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity.
CO2	Understanding harmony in the family and society
CO3	Gaining competence in Professional Ethics

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DEPARTMENT OF MATHEMATICS

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : I
Title of the Course : Differential Equations
Course Code : MATT11A

CO1	Determine the solution of differential equations of the first order and of the first degree by Exact, Linear and Bernoulli's method.
CO2	Understand the basic concepts of first order differential equations to find Orthogonal trajectories
CO3	Determine the solution of differential equations of the first order and of a degree higher than first by using methods of solvable for P, X, and Y.
CO4	Compute all solutions of second and higher order linear differential equations with constant coefficients, linear equations with variable coefficients.
CO5	Calculate the solutions of higher order differential equations by Cauchy Euler and Variation of parameters.

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : II
Title of the Course : Real Analysis
Course Code : MATT21B

CO1	Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate the limit of a bounded sequence.
CO2	Apply the Ratio, Root, and Alternating series and limit comparison tests for convergence and absolute convergence of an infinite series of real numbers.
CO3	Calculate the limit and examine the continuity of a function at a point.
CO4	Understand the consequences of various mean value theorems for differentiable functions.
CO5	Determine the Riemann inerrability and the Riemann-Stieltjes inerrability of a bounded function and prove a selection of theorems concerning integration.

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : III
Title of the Course : Abstract Algebra
Course Code : MAT T31

CO1	Understand concepts of groups and its properties.
CO2	Determine sub groups and whether the given subsets of a group are sub groups.
CO3	Explain the significance of co-sets, normal subgroups and factor groups.
CO4	Determine group homo morphisms and isomorphism.

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : III
Title of the Course : Analytical Skills
Course Code : LSCT03

CO1	Analytical skills are the ability to visualize, gather information, articulate, analyse, solve complex problems
CO2	Analyse the data from the information collected, and come up with a solution to a problem
CO3	Easily to attempt all types of competitive exams
CO4	The objective of conducting an online examination for Analytical Skills under General Education for II Degree students to equip them with a training in Time-Management and Decision Making for Competitive Exams which are time based
CO5	Analytical skill is the ability to visualize, articulate, and solve both intricate and fundamental problems and concepts, and make decisions that make sense based on available information

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : IV
Title of the Course : Solid Geometry
Course Code : MATT01A

CO1	Understand the basic concepts of plane to find the length of perpendicular from given point to given plane, bisectors of angles between two planes, angle between the pair of planes.
CO2	Determine the equation of a line in various forms & image of a given point w.r.t. a line and plane.
CO3	Compute the equations of the hallow spheres through the given points, plane section of a sphere.
CO4	Determine orthogonal spheres, coaxial system of spheres. The equation of cone, vertex of a cone, General equation of second degree should represent a cone

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : IV
Title of the Course : Linear Algebra
Course Code : MATT41A

CO1	Knowledge in fundamental concepts of vector spaces.
CO2	Ability to understand the basic concepts of Basis and Dimensions.
CO3	Discuss the linear transformations, rank and nullity.
CO4	Appreciation in the concept of matrices as a tool in solving system of linear equations and determining Eigen values and Eigen vectors.
CO5	Ability to understand the basic concepts of inner product spaces and to develop hypothetical ideas and laws to solve the related problems in the context.

Name of the Programme : BSC (MPC, MPCS, MCCS, MSCS)
Semester : V/VI
Title of the Course : Multiple Integrals and Applications of Vector Calculus
Course Code : SECMAT501 / SECMAT601

CO1	Students learn about Multiple Integrals, Change of Order of Integration in Double Integral, Area and Volume by Double Integration. Triple Integrals
CO2	To set up and evaluate multiple integrals for regions in the plane. To find Area of the region bounded by curves and to find volume, surface area, Mass, C.G and M.I of solid geometric figures.
CO3	Recognize vector fields and vector calculus, and define Gradient, Divergence and Curl operators.
CO4	Compute the derivatives and line integrals, surface integrals and volume integrals of vector functions and learn their Applications
CO5	Students learn Green's theorem, Gauss Divergence theorem, Stroke's theorem and applications to evaluating line integrals and finding areas

Name of the Programme	:	BSC (MPC, MPCS, MCCS, MSCS)
Semester	:	V/VI
Title of the Course	:	Integral Transforms with Applications
Course Code	:	SECMAT502 / SECMAT602

CO1	Evaluate Laplace transforms of certain functions, find Laplace transforms of derivatives and of integrals.
CO2	Determine properties of Laplace transform which may be solved by application of Special functions namely Dirac delta function, error function, Bessel function and periodic function.
CO3	Understand properties of inverse Laplace transforms, find inverse Laplace Transforms of derivatives and of integrals
CO4	Solve ordinary differential equations with constant/ variable coefficients by using Laplace transforms method.
CO5	Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.

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DEPARTMENT OF STATISTICS

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BSC (MSCS)
Semester : I
Title of the Course : Descriptive Statistics and Theory of Probability
Course Code : STATIIB

CO1	Knowledge of various types of data, their organization and evaluation of summary measures such as non- central and central moments, measures of skew ness and kurtosis.
CO2	Knowledge to conceptualize the probabilities of events including frequents and axiomatic approach. simultaneously, they will learn the notion of conditional probability including the concept of Bayes' Theorem
CO3	Knowledge related to concept of discrete and continuous random variables and their probability distributions including expectation and moments,
CO4	Knowledge related to concept of generating functions and weak law of large numbers.

Name of the Programme : BSC (MSCS)
Semester : II
Title of the Course : Probability Distributions and Statistical Methods
Course Code : STAT21C

CO1	Develop the basic knowledge in Probability distribution and uncertainty conditions we apply standard discrete probability distributions to identify the probability values
CO2	Obtained the knowledge of applications on standard continuous distributions. Also get the knowledge in respect of usage in day-to-day life.
CO3	Analyze the qualitative data
CO4	Statistically analyze the strengths of relationship between variables.
CO5	To outline the vital area of regression models applicable in a wide variety of real time situations

Name of the Programme : BSC (MSCS)
Semester : III
Title of the Course : Statistical Inference
Course Code : STAT31C

CO1	Obtain the knowledge on Exact sampling distributions and their application towards real world examples
CO2	Knowledge of point and interval estimation procedures and different methods of point estimation
CO3	Obtain the knowledge on various testing hypothetical statements and finding Uniformly Most Powerful Test
CO4	A fundamental understanding of Parametric models for developing relevant inferences on associated parameters large and small samples
CO5	To obtain the knowledge and to know the applications of various Non-Randomized tests

Name of the Programme : BSC (MSCS)
Semester : IV
Title of the Course : Sampling Techniques and Design of Experiments
Course Code : STAT41B

CO1	To understand the principles and principal steps of sampling, and different sampling techniques.
CO2	To analyze the unbiasedness and efficiencies of estimates obtained using different sampling techniques.
CO3	To understand the basic concepts and principles of experimental designs.
CO4	To Analyze the various design of experiment concepts and missing plot techniques.
CO5	To Identify the factors and variable for the experiment for building statistical model

Name of the Programme : BSC (MSCS)
Semester : IV
Title of the Course : Applied Statistics
Course Code : STAT01

CO1	Measure the Mortality and Fertility rates and the construction of Life tables
CO2	Construct the Quality Control charts for Variables.
CO3	construct the Quality Control charts for Attributes
CO4	Obtain the knowledge on asses the population growth by using vital statistics
CO5	Helps asses the normalization processes of different scores and estimating the IQ levels.

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VUYYURU-521165, KRISHNA DISTRICT, ANDHRA PRADESH

DEPARTMENT OF PHYSICS

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BSC (MPC, MPCS)
Semester : I
Title of the Course : MECHANICS, WAVES AND OSCILLATIONS
Course Code : PHYT11B

CO1	Understand Newton's laws of motion and motion of variable mass system and its Application to rocket motion and the concepts of impact parameter, scattering cross Section.
CO2	Apply the rotational kinematic relations, the principle and working of gyroscope and Its applications and the processional motion of a freely rotating symmetric top. Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.
CO3	Understand postulates of Special theory of relativity and its consequences such as Length contraction, time dilation, relativistic mass and mass-energy equivalence. Examine phenomena of simple harmonic motion and the distinction between Un damped, damped and forced oscillations and the concepts of resonance and quality Factor with reference to damped harmonic oscillator.
CO4	Appreciate the formulation of the problem of coupled oscillations and solve them to Obtain normal modes of oscillation and their frequencies in simple mechanical systems.
CO5	Figure out the formation of harmonics and overtones in a stretched string and acquire Knowledge on Ultrasonic waves, their production and detection and their applications In different fields.

Name of the Programme : BSC (MPC, MPCS)
Semester : II
Title of the Course : WAVES OPTICS
Course Code : PHYT21C

CO1	Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude.
CO2	Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating
CO3	Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
CO4	Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
CO5	Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.

Name of the Programme : BSC (MPC, MPCS)
Semester : III
Title of the Course : THERMODYNAMICS AND RADIATION PHYSICS
Course Code : PHYT31A

CO1	Understand the microscopic behaviour of molecules, interactions and the concepts of transport phenomena of heat transfer, mass transfer and momentum transfer.
CO2	State the First Law and define heat, work, thermal efficiency and the difference between various forms of energy and describe energy exchange processes, reversible and irreversible process.
CO3	Derive thermodynamic potentials from first principles and derive the Maxwell relations
CO4	Understand very low temperatures like the concept of Joule Thomson effect, Lique faction of gases and the properties at very low temperatures.
CO5	Understanding of Black-body radiation as the thermal electromagnetic radiation and the statistical principles to the mechanical behaviour of large number of small particles.

Name of the Programme : BSC (MPC, MPCS)
Semester : IV
Title of the Course : ELECTRICITY, MAGNETISM AND ELECTRONICS
Course Code : PHYT41A

CO1	Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances
CO2	Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
CO3	Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves
CO4	Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q factor, Power factor and the comparative study of series and parallel resonant circuits.
CO5	Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors

Name of the Programme : BSC (MPC, MPCS)
Semester : IV
Title of the Course : MODERN PHYSICS
Course Code : PHYT01

CO1	Remember the different atomic models and basic knowledge of spectroscopy
CO2	Understand the theory and application of microwave, infrared and Raman spectroscopy
CO3	Apply non- relativistic Schrödinger wave mechanics to a variety of potentials in one and three dimensions.
CO4	Analyse the prerequisite in a molecule towards its Rotational and vibrational activity
CO5	Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features

Name of the Programme : BSC (MPC, MPCS)
Semester : V/VI
Title of the Course : Applications of Electricity and Electronics
Course Code : SECPHY501C

CO1	Understand the types of resistors, Inductors and capacitors and its applications
CO2	Distinguish between AC and DC sources and understand about the batteries and Network theorems for DC circuits.
CO3	Explain the working principle and construction of Generators and transformers
CO4	Learn the applications of EM induction and power supplies.
CO5	Understand the principles and laws of electricity which is essential to constantly emerging newest technologies

Name of the Programme : BSC (MPC, MPCS)
Semester : V/VI
Title of the Course : ELECTRONIC INSTRUMENTATION
Course Code : SECPHY502C

CO1	Understand the basic measurements of Instruments (accuracy, precision, range, Resolution, sensitivity and errors). Understand the theory, working principle, specifications and significance of Multi meter.
CO2	Describe the function of basic building blocks of Cathode Ray Oscilloscope. Measure the appropriate parameters (Voltage, Time Period, Frequency and Phase angle)
CO3	Understand the A/D & D/A converters and display instruments
CO4	Gain knowledge about amplifiers, oscillators and biomedical instruments
CO5	Understand the fundamental theory of Transducers and bridges

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DEPARTMENT OF CHEMISTRY

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : I
Title of the Course : Inorganic and Physical chemistry
Course Code : CHET11A

CO1	Understand the basic concepts of p-block elements
CO2	To compare the periodic properties of d and f block elements and explain the bonding and structures of metal carbonyls.
CO3	To understand the properties and structure of Solid state.
CO4	To understand the properties of gaseous and liquid states
CO5	To explain the properties of Solutions

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : II
Title of the Course : Organic and General chemistry
Course Code : CHET21A

CO1	Understand and explain the differential behaviour of organic compounds based on fundamental concepts learnt.
CO2	Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.
CO3	Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.
CO4	Understand the concepts of absorption and adsorption, colloidal chemistry and nature of Chemical Bonding.
CO5	Correlate and describe the stereo chemical properties of organic compounds and reactions.

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : II
Title of the Course : Food adulteration
Course Code : SDCFA201

CO1	Get basic knowledge on various foods and about adulteration.
CO2	Understand the adulteration of common foods and their adverse impact on health
CO3	Comprehend certain skills of detecting adulteration of common foods.
CO4	Be able to extend their knowledge to other kinds of adulteration, detection and remedies.
CO5	Know the basic laws and procedures regarding food adulteration and consumer protection.

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : III
Title of the Course : Organic chemistry and Spectroscopy
Course Code : CHE-301C

CO1	Remember the preparations, properties and reactions of halo alkanes, halo arenas and oxygen containing functional groups.
CO2	Understand preparation, properties and reactions of carbonyl compounds.
CO3	Apply preparation methods for carboxylic acids and their derivatives
CO4	Analyse various molecules and polyatomic molecules using different spectroscopy methods.
CO5	Evaluate the functional groups of different organic compounds. Create applications of spectroscopy for various organic molecules.

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : IV
Title of the Course : Inorganic, Organic & Physical Chemistry
Course Code : CHET01

CO1	To learn about applications of Organ metallic Compounds
CO2	To learn about classification of Carbohydrates
CO3	To understand the concept of Amino acids and proteins
CO4	To learn about the laws of absorption of light energy by molecules and the subsequent photochemical reactions.
CO5	To understand the concept of quantum efficiency and mechanisms of photochemical reactions

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : IV
Title of the Course : Inorganic and Physical chemistry
Course Code : CHET41A

CO1	Understand concepts of Coordination Chemistry and Inorganic Reaction Mechanism
CO2	Understand concepts of Phase Roll and Phase diagram
CO3	Understand concepts of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation value
CO4	Application of quantization to spectroscopy.
CO5	Various types of spectra and their use in structure determination

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : V/VI
Title of the Course : Analytical methods in chemistry-I
Course Code : CHE-501C

CO1	Remember the basic concepts of .quantitative analysis data treatment, separation techniques and analysis of water.
CO2	Acquire knowledge on the concepts quantitative analysis data treatment, separation techniques and analysis of water.
CO3	Apply the conceptual knowledge gained in the areas of quantitative analysis data treatment, separation techniques and analysis of water in the chosen job role.
CO4	Analyse that how far the quantitative methods, data treatment methods separation techniques and Analysis of water

Name of the Programme : BSC (MPC, MCCS, BZC, ABC)
Semester : V/VI
Title of the Course : Analytical methods in chemistry-II
Course Code : CHE-502C

CO1	Remember the basic concepts of Chromatography like paper, TLC, Column, GC & HPLC.
CO2	Understand the significance of paper, TLC, Column, GC & HPLC in separation and identification of compounds
CO3	Apply the conceptual knowledge gained in the techniques of chromatography in separating and identifying the chemical compounds as and when required.
CO4	Analyze that how far one chromatographic technique is much use full in separation and identification of compounds over the other chromatographic technique.

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DEPARTMENT OF CHEMISTRY (PG)

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : I
Title of the Course : General chemistry
Course Code : 22CH1T1

CO1	Recollect the concepts of titrimetric analysis, statistical rules, visible spectrophotometry and group theory in chemistry
CO2	Identify the role of titrimetric analysis, statistical rules, visible spectrophotometry and group theory in chemistry.
CO3	Demonstrate knowledge of titrimetric analysis, statistical data analysis, visible spectrophotometry and group theory in chosen job role.
CO4	Test the conceptual knowledge gained in titrimetric analysis, statistical rules / principles, Visible spectrophotometry and group theory in chemistry.
CO5	Recollect the concepts of titrimetric analysis, statistical rules, visible spectrophotometry and group theory in chemistry

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : I
Title of the Course : Inorganic chemistry-1
Course Code : 22CH1T2

CO1	Memorize the basic concepts of quantum chemistry, co-ordination chemistry and chemical Bonding.
CO2	Comprehend the role of basic and advanced concepts of quantum chemistry, co-ordination chemistry and chemical bonding.
CO3	Execute the conceptual knowledge gained in the concepts of quantum chemistry, co-ordination chemistry and chemical bonding in chosen job role.
CO4	Investigate the role and importance of concepts of quantum chemistry, co-ordination chemistry and chemical bonding in various allied fields of chemistry.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : I
Title of the Course : Organic chemistry-1
Course Code : 22CH1T3

CO1	Recollect the basic concepts of aromaticity, reactive intermediates, addition, elimination and Substitution reactions.
CO2	Explain the basic and advanced concepts of aromaticity, reactive intermediates, and addition, elimination and substitution reactions.
CO3	Solve high level concepts in organic chemistry with conceptual knowledge gained in Aromaticity, Reactive intermediates, addition, elimination and substitution reactions.
CO4	Exercise the knowledge about aromaticity, reactive intermediates, and addition, elimination and Substitution reactions in understanding the properties of organic compounds.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : I
Title of the Course : Physical chemistry-1
Course Code : 22CH1T4

CO1	Recall the basic concepts of thermodynamics, surface chemistry, electrochemistry, chemical Kinetics and potentiometric in detail.
CO2	Apply the spontaneous and non-spontaneous reaction and derive various thermodynamic and Chemical kinetic derivations.
CO3	Describe the physical significance of thermodynamics, chemical kinetics and electrochemistry in Explaining the chemical properties and reactivity of molecules.
CO4	Analyse the important techniques of surfaces with the help of ESCA, Auger electron spectroscopy and potentiometric techniques of complex metric, neutralization, oxidation and reduction Titrations.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : II
Title of the Course : Advanced Inorganic chemistry
Course Code : 22CH2T1

CO1	Memorize the fundamental concepts of Metallic & non-metallic clusters, Inorganic reaction mechanisms, organo-metallic chemistry, electronic spectra& magnetic properties of complexes and bioinorganic chemistry.
CO2	Comprehend the basic and advanced concepts of metallic & non-metallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry.
CO3	Apply the conceptual knowledge gained in the concepts of metallic & non-metallic clusters, inorganic reaction mechanisms, organometallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in other fields of chemistry as well as in research.
CO4	Analyse the role of metallic & non-metallic clusters / cages, inorganic reaction mechanisms, organo metallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in understanding the similarities and differences among the concepts of chemistry.
CO5	Assess that how far the concepts of metallic & non-metallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry are useful in rendering theoretical explanations for the concepts in chemistry.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : II
Title of the Course : Advanced Organic chemistry
Course Code : 22CH2T2

CO1	Understand the basic and advanced concepts of stereochemistry, conformational analysis, green chemistry, Nanochemistry and named reactions.
CO2	Apply the concepts related to stereochemistry, conformational analysis, and green and nano chemistry in establishing the mechanism of the reaction.
CO3	Assess that how far the knowledge gained in stereochemistry, green chemistry and Nanochemistry is useful in understanding the nature of product.
CO4	Evaluate the role of stereochemistry, green principles and nano chemistry in establishing the mechanism of a reaction as well as in other areas of chemistry.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : II
Title of the Course : Advanced Physical chemistry
Course Code : 22CH2T3

CO1	Remember the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
CO2	Understand the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
CO3	Apply the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry in research and other allied fields.
CO4	Analyse the role and significance of concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.
CO5	Evaluate the role of concepts of Symmetry and Group theory in chemistry and applications of group theory, construction of character tables.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : II
Title of the Course : Molecular spectroscopy
Course Code : 22CH2T1

CO1	Memorize the basic principles and theory involved in molecular absorption spectroscopy.
CO2	Comprehend the advanced concepts of molecular absorption spectroscopy.
CO3	Apply the knowledge of spectroscopy in calculating the bond length, identifying the functional group present in molecules.
CO4	Identify the role UV – visible spectroscopy in the determination of absorption maximum and ESR spectroscopy in studying the properties of paramagnetic substances.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : II
Title of the Course : Research methodology & Intellectual property
Course Code : 22CH2T2

CO1	Memorize the basic concepts of research and its methodologies.
CO2	Understand some basic and advanced concepts of research and its Methodologies.
CO3	Demonstrate the ability to choose methods appropriate to research aims and objectives
CO4	Analyse the role of research methodologies in designing the new Strategies.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : III
Title of the Course : Advanced organic spectroscopy
Course Code : 2OCH3T1

CO1	To Summarize the principle, theory and advanced aspects of ^{1}HNMR, ^{13}C NMR, ^{2}D NMR, ORD & CD spectroscopic techniques.
CO2	Display the knowledge gained in the areas of ^{1}HNMR, ^{13}C NMR, ^{2}D NMR, ORD & CD spectroscopic techniques in chosen job role.
CO3	Interpret the spectral data of ^{1}HNMR, ^{13}C NMR, ^{2}D NMR, and ORD & CD in elucidating the structure of the molecule.
CO4	Assess that how far the spectral data of ^{1}HNMR, ^{13}C NMR, ^{2}D NMR, ORD & CD are useful in establishing the structure of the molecule.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : III
Title of the Course : organic reaction & mechanisms
Course Code : 2OCH3T2

CO1	Acquire sound knowledge of oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry.
CO2	Understand the concepts involved in oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry.
CO3	Apply the conceptual knowledge gained in oxidations, reductions, molecular rearrangements, pericyclic reactions and photo chemistry in chosen fields.
CO4	Analyse and categorise the various types oxidations' reductions, molecular rearrangements, pericyclic reactions and photo chemistry in a given reactions.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : III
Title of the Course : Organic synthesis
Course Code : 2OCH3T3A

CO1	Memorize the concepts, principles and theories related to formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis.
CO2	Understand the role and significance of formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis.
CO3	Apply the conceptual knowledge gained in formation of C – C single bond, C – C double bond, Diel's Alder related reactions. Protecting groups and disconnection approach in organic synthesis as and when required.
CO4	Analyse the role of various reagents in carrying out the organic reactions like formation of C – C single bond, C – C double bond, Diel's Alder related reactions .Protecting groups and disconnection approach in organic synthesis.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : III
Title of the Course : chemistry of Natural products
Course Code : 2OCH3T4B

CO1	Memorize the concepts related to Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
CO2	Understand the chemical role of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
CO3	Execute the conceptual knowledge gained in the areas of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.
CO4	Analyse the role of methods involved in structure elucidation of Alkaloids, Terpenoids, Steroids, Flavonoids and Isoflavonoids and Pigments.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : IV
Title of the Course : Organic chemistry-1(MOOCS)
Course Code : 22CH4T1

CO1	Memorize basic concepts of analytical chemistry, chemical equilibrium, absorption spectrometry, thermal methods of analysis and potentiometry.
CO2	Understand the principle, theory and advanced aspects of analytical chemistry, chemical equilibrium, absorption spectrometry, thermal methods of analysis and potentiometry.
CO3	Display the knowledge gained in the areas of analytical chemistry, chemical equilibrium, absorption spectrometry, thermal methods of analysis and potentiometry in chosen job role.
CO4	Analyse the role of analytical chemistry, chemical equilibrium, absorption spectrometry, thermal methods of analysis and potentiometry as and when required.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : IV
Title of the Course : Green chemistry
Course Code : 22CH4T2B

CO1	Memorize the principles of green chemistry and concepts related to green organic synthesis.
CO2	Understand the role and significance of green organic synthesis.
CO3	Exercise the basic and advanced knowledge gained on green organic synthesis in chosen job role.
CO4	Analyze how far green methods are environmentally benign over conventional methods of synthesis.

Name of the Programme : M.SC (ORGANIC CHEMISTRY)
Semester : IV
Title of the Course : Techniques for modern industrial applications
Course Code : 22CH4T3A

CO1	Comprehend the concepts of purification methods and chromatographic methods.
CO2	Exercise the knowledge gained in purification and chromatographic techniques in their chosen job role.
CO3	Exercise that how far the purification and chromatographic techniques are useful in assessing the Purity of the compound.
CO4	Evaluate that how far a compound is purified / separated using purification and chromatographic techniques.

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DEPARTMENT OF COMPUTER SCIENCE (PG)

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : I
Title of the Course : Problem Solving Using Python Programming
Course Code : 22CS1T1

CO1	Understand basics of Python Programming.
CO2	Gain knowledge on Decision Control Statements and Functions & Modules.
CO3	Be familiar with Python Strings and Data Structures.
CO4	Have knowledge on Classes & Objects.
CO5	Apply Inheritance, Error and Exception Handling and Operator Overloading.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : I
Title of the Course : Database Management Systems
Course Code : 22CS1T2

CO1	Understands the Concepts & Architecture of Databases.
CO2	Able to apply simple and complex SQL Queries & Relational Algebra & Relational Calculus.
CO3	Gain knowledge on ER, EER Schemas & Normalization.
CO4	Understands Disk Storage Organization, Hashing & Indexing.
CO5	Be aware of Transaction Processing, Concurrency Control and Distributed Databases.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : I
Title of the Course : Formal Languages and Automata Theory
Course Code : 22CS1T3

CO1	Understand Fundamentals of Automata and Finite Automata.
CO2	Able to apply Regular Languages.
CO3	Gain knowledge on Grammar Formalism and Context Free Grammars.
CO4	Design Pushdown Automata.
CO5	Understand Turing Machine and Computability Theory.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : I
Title of the Course : Operating Systems
Course Code : 22CS1T4

CO1	Operating System, Operating System Structure and Process Concept.
CO2	Applying concepts of Threads, Process Synchronization & CUP Scheduling.
CO3	Understand Deadlock, Main Memory & Virtual Memory.
CO4	Explain Mass Storage Structure, File System Interface & File System Implementation.
CO5	Understanding on I/O Systems, Protection & Security

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : I
Title of the Course : Personality Development through Life Enlightenment Skills
Course Code : 22PG101

CO1	Develop their personality and achieve their highest goals of life.
CO2	Lead the nation and mankind to peace and prosperity
CO3	Practice emotional self-regulation.
CO4	Develop a positive approach to work and duties
CO5	Develop a versatile personality

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Computer Networks
Course Code : 22CS2T1

CO1	Understand functionality of Layered Network Architecture, Different types of Transmission Media.
CO2	Understand various Networks and their functions.
CO3	Understand the IP Addresses and various Routing Algorithms used in internet working.
CO4	Understand different Transport Layer Protocols.
CO5	Understand the various Application Layer Protocols and Security Issues over internet.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Data Structures
Course Code : 22CS2T2

CO1	To define data structures, operation of data structure, time and space complexities.
CO2	To understand concepts of string processing, arrays, records and pointers, linked lists, stacks, queues, recursion, trees, graphs & searching techniques. About searching and sorting techniques.
CO3	To implement applications of linked lists, stacks, queues, trees, graphs, sorting & searching techniques.
CO4	To analyse applications of linked lists, stacks, queues, trees, graphs, sorting & searching techniques.
CO5	To evaluate applications of linked lists, stacks, queues, trees, graphs, sorting & searching techniques in terms of time & space complexity.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Web Technologies
Course Code : 22CS2T3

CO1	Students are able to describe the concepts of WWW including browser and HTTP protocol and various HTML tags and use them to develop the user friendly Webpages.
CO2	Students will be able to use the Java Script and VBScript to develop the dynamic Webpages.
CO3	Students will be able to define the CSS with its types and develop the modern web pages using the HTML and XML elements with different layouts as per need of applications.
CO4	Students use server side scripting with PHP to generate the web pages dynamically using the database connectivity.
CO5	Develop the modern Web applications using the client and server side technologies and the web design fundamentals

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Software Engineering
Course Code : 22CS2E1

CO1	Understand various Software Engineering Methods, Practices, Process Models and Agile Development Strategies.
CO2	Illustrate Core Principles, Requirements & Modelling Concepts.
CO3	Identify different Software Testing Approaches and various aspects of Software Quality Assurance.
CO4	Classify various Process & Project Management Concepts.
CO5	Estimate Software Projects & apply Formal Methods Modelling.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Research Methodology& IPR
Course Code : 22PG201

CO1	Demonstrate the ability to choose methods appropriate to research aims and objectives
CO2	Understand the limitations of particular research methods
CO3	Develop skills in qualitative and quantitative data analysis and presentation
CO4	Develop advanced critical thinking skills
CO5	Demonstrate enhanced writing skills

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : II
Title of the Course : Computer Organization
Course Code : 20CS1T2

CO1	Understand Digital Logic Circuits, Digital Components and Data Representation.
CO2	Know Register Transfer and Micro Operations and Basic Computer Organization and Design.
CO3	Be familiar with Micro Programmed Control and Central Processing Unit.
CO4	Have knowledge on Computer Arithmetic.
CO5	Understand Input-Output Organization & Memory Organization.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : III
Title of the Course : Internet of Things (IoT)
Course Code : 22CS3E5

CO1	Attain knowledge over view of Internet of Things.
CO2	Understand Models, Layers & Standardization.
CO3	Apply Protocols & Design Principles for Connected Devices.
CO4	Understand Internet Connectivity Principles, Protocols & Application Layer Protocols.
CO5	Understand Data Acquiring, Business Models and Business Processes.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : III
Title of the Course : Cryptography & Network Security
Course Code : 22CS3E3

CO1	Understand Computer & Network Security Concepts, Classical Encryption Techniques and Advanced Encryption Standard.
CO2	Gain knowledge on Number Theory, Public Key Cryptography and RSA, Other Public-Key Crypto Systems and Message Authentication Codes.
CO3	Know Digital Signatures, Key Management and Distribution and User Authentication.
CO4	Understand Transport Level Security, Electronic Mail Security and IP Security.
CO5	Gain knowledge about Intruders and Firewalls

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : III
Title of the Course : Design & Analysis of Algorithms
Course Code : 22CS3E1

CO1	Understand Basic Ideas about Analysis of Algorithms and the Concept of Data Structures.
CO2	Know Divide and Conquer, Greedy Methods and Solving Various Problems by applying them.
CO3	Apply Dynamic Programming Method and Basic Traversal and Search Techniques to solve various Problems.
CO4	Understand Backtracking and Branch and Bound Techniques to Design Algorithms.
CO5	Categorize NP-Hard and NP-Complete Problems.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : III
Title of the Course : Data Mining Techniques
Course Code : 22CS3E2

CO1	Understand the Basics of Data Mining and Data Pre-Processing Techniques.
CO2	Aware of constructing the Data Warehouse, OLAP and relevant Data Model Concepts.
CO3	Understand the Frequent Item set Mining Methods and Different Levels in Association Rules.
CO4	Understand the Basic Concepts in Classification and Advanced Classification Methods by Implementing Various Algorithms
CO5	Find the similarities among the data using Clustering Algorithms and Outlier Analysis.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : IV
Title of the Course : Big Data and Analytics
Course Code : 22CS3E2

CO1	Understand basics of Big Data.
CO2	Gain knowledge on Big Data Analytics.
CO3	Be familiar with HDFS, and Hadoop environment.
CO4	Have knowledge on Mongo DB.
CO5	Gain knowledge on PIG and Jasper soft

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : IV
Title of the Course : Machine Learning
Course Code : 20CS4T1

CO1	Identify problems that are amenable to AI techniques and analyses search techniques to solve those problems.
CO2	Awareness of representation languages like first order logic.
CO3	Formalize and implement different AI algorithms, various Knowledge Representations and identify the importance of planning to solve AI problems.
CO4	Understands about basics of machine learning and conceptual learning.
CO5	To acquire knowledge about ANN and Instance based learning.

Name of the Programme : M.SC (COMPUTER SCIENCE)
Semester : IV
Title of the Course : Machine Learning
Course Code : 20CS4T1

CO1	Identify problems that are amenable to AI techniques and analyses search techniques to solve those problems.
CO2	Awareness of representation languages like first order logic.
CO3	Formalize and implement different AI algorithms, various Knowledge Representations and identify the importance of planning to solve AI problems.
CO4	Understands about basics of machine learning and conceptual learning.
CO5	To acquire knowledge about ANN and Instance based learning.

Name of the Programme	:	M.SC (COMPUTER SCIENCE)
Semester	:	IV
Title of the Course	:	Cloud Computing
Course Code	:	20CS4E1

CO1	Understand the Basic Concepts of Operating System, Operating System Structure and Process Concept.
CO2	Applying concepts of Threads, Process Synchronization & CUP Scheduling.
CO3	Understand Deadlock, Main Memory & Virtual Memory.
CO4	Explain Mass Storage Structure, File System Interface & File System Implementation.
CO5	Understanding on I/O Systems, Protection & Security.

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DEPARTMENT OF COMPUTER SCIENCE

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : I
Title of the Course : Problem solving in C
Course Code : CSCT11B

CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
CO2	Understand tokens and control structures in C.
CO3	Understand arrays and strings and implement them.
CO4	Understand the right way of using functions, pointers, structures and unions in C
CO5	Develop and test programs written in C files

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : II
Title of the Course : Data Structures
Course Code : CSCT21B

CO1	Learn the concepts of ADT and understand analysis of algorithms
CO2	Understand available Data Structures for data storage and processing.
CO3	Learn stacks, queues and their applications
CO4	Understand trees, graphs and implement their operations
CO5	Develop ability to implement different Sorting and Search methods

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : III
Title of the Course : Data Base Management System
Course Code : CSCT37

CO1	Understand database concepts and design.
CO2	Create databases using structured query language.
CO3	Apply data manipulation commands in SQL.
CO4	Learn the programming basics of PL/SQL.
CO5	Implementation of cursors in PL/SQL.

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : IV
Title of the Course : Object Oriented Programming using Java
Course Code : CSCT01

CO1	Understand the concept and underlying principles of Object-Oriented Programming, Understand how object-oriented concepts are incorporated into the Java programming language.
CO2	Implement Object Oriented Programming Concepts (class, constructor, overloading, inheritance, overriding) in java.
CO3	Analyse inheritance and interfaces in a Java program
CO4	Evaluate Multithreading, exception handling in Java
CO5	Create applets and packages in a Java program, Use of Input/output Streams in java and use of JDBC with Oracle database.

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : IV
Title of the Course : Operating System
Course Code : CSCT41C

CO1	Understand Operating System Architectural design and its services
CO2	Implementation of Scheduling Algorithms
CO3	Analyse memory management techniques, concepts of virtual memory and disk scheduling
CO4	Understand the implementation of file systems and directories with the interfacing of IO devices with the operating system
CO5	Identify the deadlock situation and provide appropriate solutions so that protection and security of the operating system is also maintained

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : V/VI
Title of the Course : Web Interface Designing Technologies
Course Code : SECCSCT01

CO1	Understand web application and static web page using Html.
CO2	Gain knowledge about various designing of style sheets.
CO3	Demonstrate skills regarding creation of an interface to dynamic website.
CO4	Gain knowledge about various advantages of XML and validating schema
CO5	Learn how to install word press and gain the knowledge of installing various plugins to use in their websites.

Name of the Programme : B.Sc (M.P.Cs, M.C.Cs, M.S.Cs)
Semester : V/VI
Title of the Course : Web Applications Development using PHP& MYSQL
Course Code : SECCSCT02

CO1	Learn basic structure and key concepts in PHP, Control statements and functionsconcept and related programs
CO2	Know What is an Array concept related programs, What is an Object, variousobjects, Formatting strings, Date and time and related programs
CO3	Learn importance of Forms, Combining HTML with PHP code. Importance ofCookies and Sessions related programs of forms cookies and sessions.
CO4	Know importance of File concept in PHP how to Create, Open, Read and write data in file related programs, Knowing about Image creation, drawing, and modification image
CO5	Know about Database concept of MySQL, Connection, Creation of Database, Tableadding Record into it related programs

Name of the Programme : B.Com (Computer Applications)
Semester : I
Title of the Course : Information Technology
Course Code : CSBT11A

CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyse type of soft wares and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

Name of the Programme : B.Com (Computer Applications)
Semester : I
Title of the Course : Computer Applications
Course Code : CABT22A

CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an Ms-Office and MS-Word Window Components Windows Desktop
CO3	Analyse type of soft ware's and programming languages
CO4	Have knowledge in MS-Excel and MS Access
CO5	Understand the need of Finding, Sorting and Displaying Data and get familiarize

Name of the Programme : B.Com (Computer Applications)
Semester : II
Title of the Course : E–COMMERCE & WEB DESIGNING
Course Code : CABT21A

CO1	Gain knowledge in E- commerce and its business models
CO2	Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS
CO3	Understand the structure of HTML its basic tags
CO4	Implement various HTML tags for web page development
CO5	Understand about web page designing

Name of the Programme : B.Com (Computer Applications)
Semester : III
Title of the Course : Programming with C & C++
Course Code : CABT31A

CO1	To understand the meaning and generations of a programming language and to learn about c tokens.
CO2	To learn about operators and conditional statements in C
CO3	To Gain knowledge about functions and to learn how to work with arrays- knowledge about strings and its functions.
CO4	To learn about the concepts of structures and unions.
CO5	To understand about Object-Oriented Programming concepts using CPP

Name of the Programme : B.Com (Computer Applications)
Semester : IV
Title of the Course : DBMS
Course Code : CABT41A

CO1	Understand the Characteristics and basics of Database.
CO2	Understand file system and Architecture of DBMS
CO3	Enlighten ER Diagrams, Relationship, Notation & schema.
CO4	Enlighten EER Diagrams & Applying constraints on data.
CO5	Implementing SQL commands retrieve, insert, modify and update

Name of the Programme : B.Com (Computer Applications)
Semester : IV
Title of the Course : Object Oriented Programming using Java
Course Code : CCSCT42

CO1	Able to Understand the concept and underlying principles of Object-Oriented Programming.
CO2	Able to Understand the Basic concepts of Data types & Operators
CO3	Able to Implement Decision & Looping Statements
CO4	Able to Implement Object Oriented Programming Concepts like class, constructor, overloading.
CO5	Able to Understand the concept of Inheritance and Exceptions Object-Oriented Programming.

Name of the Programme : B.Com (Computer Applications)
Semester : V/VI
Title of the Course : Big data Analytics using R
Course Code : SECCAT01

CO1	Understand data and classification of digital data.
CO2	Gain knowledge of technologies used in big data Analytics.
CO3	Understand basics of R and control structures in R.
CO4	Load data into R objects and manipulate them as needed.
CO5	Create and edit visualizations with R

Name of the Programme : B.Com (Computer Applications)
Semester : V/VI
Title of the Course : Data Science using Python
Course Code : SECCAT07

CO1	Understand the need and importance of data science
CO2	Understand basic concepts of python and implementing control structures in python.
CO3	Implement strings and other data structures in python
CO4	Learn and Implement functions and modules in python
CO5	Learn and Implement data cleaning and plotting using pandas.

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : I
Title of the Course : Information Technology
Course Code : CSBT11A

CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyse type of soft wares and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : I
Title of the Course : Computer Applications
Course Code : CABT22A

CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an Ms-Office and MS-Word Window Components Windows Desktop
CO3	Analyse type of soft ware's and programming languages
CO4	Have knowledge in MS-Excel and MS Access
CO5	Understand the need of Finding, Sorting and Displaying Data and get familiarize

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : II
Title of the Course : Programming in C
Course Code : ECCSC21

CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
CO2	Understand tokens and control structures in C.
CO3	Understand arrays and strings and implement them.
CO4	Understand the right way of using functions, pointers, structures and unions in C
CO5	Develop and test programs written in C files

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : III
Title of the Course : Problem Solving in 'C'
Course Code : CSCT11B

CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.
CO2	Understand tokens and control structures in C.
CO3	Understand arrays and strings and implement them.
CO4	Understand the right way of using functions, pointers, structures and unions in C
CO5	Develop and test programs written in C files

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : IV
Title of the Course : OOP'S using Java
Course Code : ECCSCT 41

CO1	Able to Understand the concept and underlying principles of Object-Oriented Programming.
CO2	Able to Understand the Basic concepts of Data types & Operators
CO3	Able to Implement Decision & Looping Statements
CO4	Able to Implement Object Oriented Programming Concepts like class, constructor, overloading.
CO5	Able to Understand the concept of Inheritance and Exceptions Object-Oriented Programming.

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : IV
Title of the Course : DBMS
Course Code : ECCSCT 42

CO1	Understand the Characteristics and basics of Database.
CO2	Understand file system and Architecture of DBMS
CO3	Enlighten ER Diagrams, Relationship, Notation & schema.
CO4	Enlighten EER Diagrams & Applying constraints on data.
CO5	Implementing SQL commands retrieve, insert, modify and update

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

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DEPARTMENT OF BOTANY

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : B.Sc (BZC, ABC)
Semester : I
Title of the Course : Fundamentals of Microbes and Non-vascular Plants
Course Code : BOTT11A

CO1	Explain origin of life on the earth
CO2	Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
CO3	Analyse and ascertain the plant disease symptoms due to viruses, bacteria and fungi
CO4	Classify fungi, lichens, algae and bryophytes based on their structure, reproduction and life cycles
CO5	Evaluate the ecological and economic value of microbes, thallophytes and bryophytes

Name of the Programme : B.Sc (BZC, ABC)
Semester : II
Title of the Course : Basics of Vascular plants and Phytogeography
Course Code : BOTT21A

CO1	Gain knowledge in the classification and comparison of Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycle
CO2	Justify evolutionary trends in Tracheophytes to adapt for land habitat. Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their good and services for human welfare
CO3	Explanation of the process of fossilization and compare the characteristics of extinct and extant plants
CO4	Analyse the morphology of the most common Angiosperm plants of their localities and recognize their families.
CO5	Locate different Phyto-geographical regions of the world and India and can analyse their floristic wealth

Name of the Programme : B.Sc (BZC, ABC)
Semester : III
Title of the Course : Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity
Course Code : BOTT31A

CO1	Understand on the organization of tissues and tissue systems in plants
CO2	Illustrate and interpret various aspects of embryology
CO3	Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and Biotic factors on plant communities
CO4	Appraise various qualitative and quantitative parameters to study the population and community ecology
CO5	Correlate the importance of biodiversity and consequences due to its loss and enlist the Endemic / endangered flora and fauna from two biodiversity hot spots in India and assess strategies for their conservation.

Name of the Programme : B.Sc (BZC, ABC)
Semester : IV
Title of the Course : Plant Physiology and Metabolism
Course Code : BOTT 41A

CO1	Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.
CO2	Evaluate the role of minerals in plant nutrition and their deficiency symptoms, Interpret the role of enzymes in plant metabolism
CO3	Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants.
CO4	Analyse the biochemical reactions in relation to Nitrogen and lipid metabolisms.
CO5	Evaluate the phytohormones that regulate growth and development in plants, examine the role of light on flowering and explain physiology of plants under stress conditions

Name of the Programme : B.Sc (BZC, ABC)
Semester : IV
Title of the Course : Cell Biology, Genetics and Plant Breeding
Course Code : BOTT 42A

CO1	Distinguish prokaryotic and eukaryotic cells and design the model of a cell
CO2	Explain the organization of a eukaryotic chromosome and the structure of genetic material.
CO3	Demonstrate techniques to observe the cell and its components under a microscope.
CO4	Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.
CO5	Elucidate the role of extra-chromosomal genetic material for inheritance of characters. Evaluate the structure, function and regulation of genetic material.

Name of the Programme : B.Sc (BZC, ABC)
Semester : V/VI
Title of the Course : Plant tissue culture
Course Code : SECBOT 501

CO1	Comprehend the basic knowledge and applications of plant tissue culture
CO2	Identify various facilities required to set up a plant tissue culture laboratory
CO3	Acquire a critical knowledge on sterilization techniques related to plant tissue culture
CO4	Demonstrate skills of callus culture through hands on experience.
CO5	Understand the biotransformation technique for production of secondary metabolites

Name of the Programme : B.Sc (BZC, ABC)
Semester : V/VI
Title of the Course : Mushroom Cultivation
Course Code : SECBOT 502

CO1	Comprehend the value of mushrooms
CO2	Identify the methods of composting and the materials required
CO3	Acquire a critical knowledge on spawning and casing
CO4	Demonstrate skills in cultivation of various mushrooms
CO5	Understand the Post-harvest technology

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DEPARTMENT OF ZOOLOGY

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : B.Sc (BZC)
Semester : I
Title of the Course : Animal Diversity – I Biology of Non-Chordates
Course Code : ZOO T11A

CO1	Gain knowledge in the fundamental concepts underlying the structural complexity in the organization of invertebrates
CO2	Understand biology and pathogenicity of parasites and their adaptations analyse remedial and preventive measures and promote the same in public domain
CO3	Appreciate and evaluate the economic, commercial, medicinal and culture importance of invertebrates and their larval stages in relation to phylogeny
CO4	Describe the significance of connecting links in understanding the concept of evolution
CO5	Explain the significance of specific phenomena in different groups of invertebrates in relation to their adaptability for survival

Name of the Programme : B.Sc (BZC)
Semester : II
Title of the Course : Animal Diversity- Biology of Chordates.
Course Code : ZOO T21A

CO1	Gain knowledge in the major Chordate groups, describe their salient features, appreciate the diversity and analyse the uniqueness of different groups.
CO2	Understand the fundamental organization of chordates and evaluate the similarities and differences among the different groups of chordates in the light o evolutionary significance.
CO3	Comprehend and compare the morphology and anatomy of different classes of chordates and apply the same to their fitness in the ecological habitats
CO4	Develop the skill of identifying the vertebrate fauna in general and South Indian fauna in specific.
CO5	Acquaint with the significance of unique mechanisms and behavioural patterns exhibited by different groups of chordates.

Name of the Programme : B.Sc (BZC)
Semester : III
Title of the Course : Cell Biology, Cellular Metabolism, Genetics, Organic Evolution and Animal Behaviour
Course Code : ZOOT31A

CO1	To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure. Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.
CO2	To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals
CO3	Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders
CO4	Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins.
CO5	Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society

Name of the Programme : B.Sc (BZC)
Semester : III
Title of the Course : Health and Hygiene
Course Code : LSCZOOT01

CO1	Able to understand how can we use available information to optimize our diet
CO2	Able to understand how can nutrition be used for a healthy life
CO3	Awareness in public through digital media viz., mobile apps
CO4	To create awareness on community health and hygiene
CO5	To provide knowledge on different health indicators and types of hygiene methods

Name of the Programme : B.Sc (BZC)
Semester : IV
Title of the Course : Embryology, Physiology and Ecology
Course Code : ZOO401

CO1	Comprehend and describe the process of formation and fusion of gametes and appraise the significance of foetal membranes and placenta in the formation of an embryo.
CO2	Understand the mechanism of functioning of the different organ systems of a vertebrate and analyse their coordination in adapting the animal to the changing environment.
CO3	Identify and describe the histology of various organs of a mammal and developmental stages of chick embryo at different hours of incubation.
CO4	Develop skill in conducting tests for identification of the presence of biomolecules and excretory products and estimating various water parameters.
CO5	Acquaint with the structural and functional aspects of an ecosystem, concept of community and population - their characteristics and interactions.

Name of the Programme : B.Sc (BZC)
Semester : IV
Title of the Course : Immunology and Animal Biotechnology
Course Code : ZOO402

CO1	Understand the basic concepts of immune system and hypersensitivity reactions and apply the same in identification of diseases and describe the triggering and regulation of immunological response.
CO2	Acquire basic knowledge in r DNA technology and acquaint with the techniques of PCR, hybridization and DNA sequencing.
CO3	Comprehend Animal Cell Culture technology, Reproductive technologies and techniques.
CO4	Apply the techniques of animal biotechnology in various fields like industry, medicine, animal husbandry etc., for improving the quality of life.
CO5	Acquaint with safety measures in using the techniques and develop skills in handling and maintaining laboratory equipment.

Name of the Programme : B.Sc (BZC)
Semester : V/VI
Title of the Course : Sustainable Aquaculture Management
Course Code : SEC- 6A501

CO1	Evaluate the present status of aquaculture at the Global level and National level
CO2	Classify different types of ponds used in aquaculture
CO3	Demonstrate induced breeding of carps
CO4	Acquire critical knowledge on commercial importance of shrimps
CO5	Identify fin and shell fish diseases

Name of the Programme : B.Sc (BZC)
Semester : V/VI
Title of the Course : Postharvest Technology of Fish and Fisheries
Course Code : SEC- 7A 502

CO1	Identify the types of preservation methods employed in aquaculture
CO2	Choose the suitable processing methods in aquaculture
CO3	They can earn while they learn
CO4	Maintain the standard quality control protocols laid down in aqua industry
CO5	Identify the best seafood quality assurance system

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DEPARTMENT OF ACQUACULTURE

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : B.Sc (ABC)
Semester : I
Title of the Course : Basic Principles of Aquaculture
Course Code : AQTT11A

CO1	Understand the concept of blue revolution, analyse the history and compare the present status of aquaculture at global, national and state levels and its significance over agriculture and gain knowledge in the various aquaculture resources and advantages of culture over capture.
CO2	Acquire knowledge in the different types of aquaculture, culture systems and culture methods in practice worldwide.
CO3	Gain knowledge in the different types of culture ponds.
CO4	Understand the arrangement of different types of ponds in a fish farm and design an ideal fish farm.
CO5	Comprehend the best management practices to be adopted in aquaculture for good yield and acquire the skill in the analysis of water and soil parameters of a culture pond.

Name of the Programme : B.Sc (ABC)
Semester : II
Title of the Course : Biology of Fin fish & Shell fish
Course Code : AQTT21A

CO1	Classify the finfish and shellfish, analyse the cultivable species of fin fish and shellfish of commercial importance, describe their salient features and appreciate the diversity and uniqueness of different groups.
CO2	Comprehend the relationship between food and growth, age and growth, hormones and growth in cultivable fin and shell fish.
CO3	Gain knowledge and compare the feeding habits, mouth parts and digestive systems and analyse gut contents.
CO4	Develop the skill of identifying the gut contents, gonadal maturity and fecundity and comprehend the concept of breeding behaviour, embryonic and larval development of cultivable aquatic fin and shell fish.
CO5	Acquaint with the significance of unique mechanisms and behavioural patterns like sense organs, electric organs, buoyancy, moulting and metamorphosis exhibited by finfish and shell fish.

Name of the Programme : B.Sc (ABC)
Semester : III
Title of the Course : Fresh water & Brackish water Aquaculture
Course Code : AQTT31A

CO1	Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India and AP.
CO2	Learn about Major Cultivable Indian Carps and Exotic fish Species introduced in India
CO3	Know about recent developments in the culture of clarius, anabas and murrels and special systems of aquaculture
CO4	Gain knowledge of commercially valuable Fresh water prawns of India and their culturing methods
CO5	Learn about culturing of brackish water Prawn Species P. mondon and L. vannamei and hatchery technology's involved

Name of the Programme : B.Sc (BZC)
Semester : III
Title of the Course : Poultry Farming
Course Code : PF-201

CO1	Understand the basic concepts of poultry farming and apply the same in the management practices of poultry farming
CO2	Acquire knowledge in the preparation of project report for banking and Insurance
CO3	Acquaint with the poultry feed management practices
CO4	Understand the nutrient requirements for different stages of layers and Broilers
CO5	Gain knowledge in harvesting of eggs and recycling of poultry waste

Name of the Programme : B.Sc (ABC)
Semester : IV
Title of the Course : Fish Nutrition & Feed technology
Course Code : AQTT01

CO1	Understand Nutritional requirements of cultivable fishes and factors affecting energy partitioning and feeding.
CO2	Know different types of feed and FCR and different types of feeders
CO3	Gain Knowledge of Feed manufacture and storage methods of feeds
CO4	Understand the value of Feed additives and Non-Nutrient ingredients
CO5	To create awareness of different nutritional deficiency and importance of natural and supplementary feeds and balanced diet.

Name of the Programme : B.Sc (ABC)
Semester : IV
Title of the Course : Fish Health Management and Fisheries Economics, Extension and Marketing
Course Code : AQTT42

CO1	Describe the various fungal, viral and bacterial diseases of fin fish and their prevention and therapy.
CO2	Explain the various viral, bacterial and protozoan diseases of shell fish and their prevention and therapy.
CO3	Describe the fish health management strategies.
CO4	Explain different fisheries economic policies.
CO5	Describe the various schemes for the welfare of fishermen community.

Name of the Programme : B.Sc (ABC)
Semester : V/VI
Title of the Course : Aquarium Management and Ornamental fish culture
Course Code : SECAQU-601C

CO1	After successful completion of this course student will be able to
CO2	Understand the design and construction of aquarium
CO3	Identify the ornamental fresh water fishes
CO4	Identify the marine ornamental fisher sources
CO5	Know the mass production of ornamental fishes

Name of the Programme : B.Sc (ABC)
Semester : V/VI
Title of the Course : Postharvest Technology of Fish and Fisheries
Course Code : SECAQU-602C

CO1	Identify the types of preservation methods employed in aquaculture
CO2	Choose the suitable processing methods in aquaculture
CO3	They can earn while they learn
CO4	Maintain the standard quality control protocols laid down in aqua industry
CO5	Identify the best seafood quality assurance system

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DEPARTMENT OF COMMERCE

COURSE OUTCOMES (CO'S)

2022-23

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : I
Title of the Course : Fundamentals of Accounting
Course Code : COMT11B

CO1	Identify transactions and events that need to be recorded in the books of accounts.
CO2	Equip with the knowledge of accounting process and preparation of final accounts of sole trader
CO3	Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
CO4	Analyse the difference between cash book and pass book in terms of balance and make reconciliation.
CO5	Critically examine the balance sheets of a sole trader for different accounting periods.

Name of the Programme : B.Com (General, Computer Applications)
Semester : I
Title of the Course : Business Organization and Management
Course Code : COMT12A

CO1	Recall the basic knowledge on conceptual areas such as commerce trade and industry of different types of business organizations.
CO2	Have a demonstrated understanding on nature purpose and importance of different types of organizations
CO3	Articulate the fundamentals of joint-stock company as per companies Act 2013
CO4	Appraise the documentation and incorporation stages of a company
CO5	Discuss and implement the managerial traits and talents essential for managing business

Name of the Programme : B.Com (General)
Semester : I
Title of the Course : Business Environment
Course Code : COMT13

CO1	Understand how an entity systematically explores the external environment in which business operates
CO2	To enlighten/familiarize the impact of economic environment and its effect on government policies for development of business
CO3	To acquire specialized knowledge relating to economic policies in India.
CO4	Critically examine the economic, social political and legal environment components in business decision making
CO5	Synthesize multiple perspective to formulate responses to opportunities and institutions in international environment.

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : I
Title of the Course : Principles of management
Course Code : COM14P

CO1	Understand different forms of business organizations
CO2	Comprehend the nature of Joint Stock Company and formalities to promote a Company
CO3	Describe the Social Responsibility of Business towards the society.
CO4	Critically examine the various organizations of the business firms and judge the best among them
CO5	Design and plan to register a business firm. Prepare different documents to register a company at his own.

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : I
Title of the Course : Insurance promotion
Course Code : COMT15S

CO1	Understand the online business and its advantages and disadvantages
CO2	Recognize new channels of marketing, their scope and steps involved
CO3	Analyse the procurement, payment process, security and shipping in online business
CO4	Create new marketing tools for online business
CO5	Define search engine, payment gateways and SEO techniques.

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : II
Title of the Course : Financial Accounting
Course Code : COMT21A

CO1	Able to discuss and describe various methods of depreciation and valuation of depreciation to depreciable assets.
CO2	Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts
CO3	Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills
CO4	Gain an understanding with regard to special transactions related to accounting for consignment
CO5	Gain the knowledge with regard to special transactions relating to joint Venture business

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : II
Title of the Course : BUSINESS ECONOMICS
Course Code : COMT23B

CO1	Describe the nature of economics in dealing with the issues of scarcity of resources.
CO2	Analyse supply and demand analysis and its impact on consumer behaviour
CO3	Evaluate the factors, such as production and costs affecting firms behaviour
CO4	Recognize market failure and the role of government in dealing with those failures
CO5	Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business

Name of the Programme : B.Com (General)
Semester : II
Title of the Course : Banking Theory &Practice
Course Code : COMT22B

CO1	Understand the basic concepts of banks and functions of commercial banks.
CO2	Demonstrate an awareness of law and practice in a banking context.
CO3	Engage in critical analysis of the practice of banking law.
CO4	Organize information as it relates to the regulation of banking products and services.
CO5	Formulate the procedure for better service to the customers from various banking innovations

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : II
Title of the Course : Advertising
Course Code : CAD-201G/C

CO1	Understand the field of Advertising
CO2	Comprehend opportunities and challenges in Advertising sector
CO3	Prepare a primary advertising model
CO4	Understand applying of related skills
CO5	Examine the scope for making advertising a future career Syllabus

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : II
Title of the Course : Retailing
Course Code : CR202G/C

CO1	Know the retailing business, its growth in India and social impact
CO2	Understand the and organization and supply in retailing
CO3	Comprehend the opportunities and challenges in retailing
CO4	Learn the functions that support outlet operations, sales and services
CO5	Create a shopping experience model that builds customer loyalty and business promotion

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : III
Title of the Course : Advanced Accounting
Course Code : COMT31

CO1	Student will be able to understand different situations to calculate interest on various instalments and understand need for re-possession and the procedure in case of default.
CO2	Student will be able to understand Profit & Non-profit concern and to ascertain the surplus/deficit relating to various non-trading concerns
CO3	Student will get the knowledge of partnership business, its accounts and modes of settlement in case of partnership restructuring.
CO4	Student will acquire the capacity to settle the accounts in case of dissolution by realization of various assets.
CO5	Student will obtain the knowledge of branch accounting procedure and the process of conversion of foreign branch transactions into Indian currency

Name of the Programme : B.Com (General, Computer Applications)
Semester : III
Title of the Course : Business Statistics
Course Code : COMT32

CO1	Students will be able to understand the basic knowledge and characteristics of business statistics.
CO2	Determine the value of the mean, the median, and the mode of ungrouped data.
CO3	Explains the disparity of data from one another delivering a precise view of the distribution of data.
CO4	Design, Evaluate and apply regression analysis.
CO5	Students will able to understand interpret indexes to identify trends in a data set. And what the trend, seasonality, cyclical irregularity in time series.

Name of the Programme : B.Com (General)
Semester : III
Title of the Course : Marketing
Course Code : COMT33

CO1	To introduce the concepts of marketing and understand the factors influence the market environment.
CO2	Analyse the consumer market models and enlightens consumer buyer behaviour models.
CO3	Understand the concept of product and identify the need of product mix and product line decisions.
CO4	Develop an idea about pricing strategies and pricing decisions.
CO5	Enhance the students about decisions regarding promotion and distribution channels.

Name of the Programme : B.Com (E-Commerce & Computers)
Semester : III
Title of the Course : e-Commerce
Course Code : COMT34

CO1	Students understand the mechanism of E- commerce
CO2	Students themselves equip specialization in website designing for E-Commerce
CO3	Students are able to enhance their skills in operational services of E-Commerce
CO4	Students are able to involve in activities of E-Commerce
CO5	Students are able to create awareness among the public one commerce activities

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : III
Title of the Course : Online Business
Course Code : COMT 35S

CO1	Understand the online business and its advantages and disadvantages
CO2	Recognize new channels of marketing, their scope and steps involved
CO3	Analyse the procurement, payment process, security and shipping in online business

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : III
Title of the Course : Insurance promotion
Course Code : COMT 36SI

CO1	Understand the online business and its advantages and disadvantages
CO2	Recognize new channels of marketing, their scope and steps involved
CO3	Analyse the procurement, payment process, security and shipping in online business

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : IV
Title of the Course : Corporate Accounting
Course Code : COMT41A

CO1	The students will have a good command on issue of shares and also forfeiture and reissue of shares.
CO2	The students will be able to apply various modes for redemption of Debentures and also they can be able to utilize the free reserves for issue of bonus shares.
CO3	The student will be able to determine the value of goodwill by using different methods.
CO4	The students will have a good command on ascertainment of value of share by using Asset backing method and Yield method.
CO5	The students will acquire the knowledge of preparing final accounts of companies as per the provisions of Companies Act 2013

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : IV
Title of the Course : Cost and Management Accounting
Course Code : COMT45

CO1	Impart knowledge on the fundamental concept of cost accounting and management accounting.
CO2	Comprehend the knowledge in effective control of raw materials, work in progress, and labour cost
CO3	Students will understand the profit making decisions in complex situations of any business Organisation
CO4	Students will critically understanding the financial and management accounting importance in understanding the business operations using different tools
CO5	Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations

Name of the Programme : B.Com (General)
Semester : IV
Title of the Course : Income Tax
Course Code : COMT43A

CO1	Acquire knowledge about tax rate schedule and residential status of an individual
CO2	Enlist the ability of provisions of income from salary and its taxability
CO3	The student can build on idea about taxability of income from house property and business income
CO4	Comprehend the knowledge about Income from capital gain
CO5	Import knowledge in the provisions of Income from other sources and to compute the Total income

Name of the Programme : B.Com (Computer Applications & E-Commerce & Computers)
Semester : IV
Title of the Course : Taxation
Course Code : COMT48

CO1	Impact knowledge on the provisions of income tax law and practice
CO2	Enlist the ability of provisions of income from salary and House property its taxability
CO3	The student can acquire knowledge in calculation of business income and professional income
CO4	Acquaint the students with basic principles of goods and service tax.
CO5	To impart knowledge and best practices in corresponding to trade appliance at customs.

Name of the Programme : B.Com (General, Computer Applications, E-Commerce & Computers)
Semester : IV
Title of the Course : Business Laws
Course Code : COMT42A

CO1	Impacts the students in acquiring the basic knowledge regarding contracts in business. And impact of it to "QUID-PRO-QUO" for the enforceability of the contract
CO2	Students will have clarity on competency of persons, modes of discharge of contract, analysing and approaching to remedies in times of breach of contract.
CO3	Students will get knowledge in law and procedure relating to sale of goods in Indian context.
CO4	Students are able to acquire knowledge in law and procedure relating to consumer rights
CO5	Students will get knowledge in new dimensions in business Organisation relating to cyber laws

Name of the Programme : B.Com (General)
Semester : IV
Title of the Course : Auditing
Course Code : COMT46

CO1	Students will develop the knowledge & importance of auditing and accounting in modern era.
CO2	Students will have the ability of understanding the applicability of auditing types for different organizations.
CO3	Students will have knowledge in planning the effectiveness of auditing of any Organisation.
CO4	Students will have proper understanding of the requirements of documentary evidence for the completion of audit
CO5	Students will have the knowledge of the competency of person, his rights and duties regarding auditing and audit report.

Name of the Programme : B.Com (General)
Semester : IV
Title of the Course : Goods and Service Tax
Course Code : COMT44

CO1	Understand the basic principles underlying the Indirect Taxation Statutes.
CO2	Examine the method of tax credit. Input and Output Tax credit and Cross Utilisation of Input Tax Credit.
CO3	Identify and analyse the procedural aspects under different applicable statutes related to GST.
CO4	Compute the assessable value of transactions related to goods and services for levy and determination of duty liability.
CO5	Develop various GST Returns and reports for business transactions in Tally.

Name of the Programme : B.Com (General, E-Commerce & Computers)
Semester : V/VI
Title of the Course : Advanced Corporate Accounting
Course Code : CACA-501G/C

CO1	The students are able to calculate purchase consideration and different methods of determining purchase consideration and its accounting treatment.
CO2	Students will acquire the knowledge on provisions for amalgamation of company as per accounting standard 14 and its treatment.
CO3	The students will get the knowledge on forms of internal reconstruction and alteration and reduction of share capital and its accounting treatment.
CO4	The students will be able to prepare consolidated financial statements and calculate minority interest and its accounting treatment.
CO5	Students will be able to prepare liquidators final statement of accounts at the time of winding up of a company. and are able to calculate liquidators remuneration and acquire the capacity for preparation of statement of affairs and deficiency account and its accounting treatment

Name of the Programme : B.Com (General, E-Commerce & Computers)
Semester : V/VI
Title of the Course : Software Solutions to Accounting
Course Code : CSSA-502 G/C

CO1	Understand the technical environment of accounting softwares.
CO2	Highlight the major accounting software in India.
CO3	Apply basics of accounting software into business firms for accounting transactions.
CO4	Understand the various versions of Tally and other softwares.
CO5	Integrate the concept of different Accounting softwares for accounting purpose

Name of the Programme : B.Com (General, E-Commerce & Computers)
Semester : V/VI
Title of the Course : Advertising and Media Planning
Course Code : CAMP-503G/C

CO1	Understand the role of advertising in business environment
CO2	Understand the legal and ethical issues in advertising
CO3	Acquire skills in creating and developing advertisements
CO4	Understand up-to-date advances in the current media industry.
CO5	Acquire the necessary skills for planning an advertising media campaign.

Name of the Programme : B.Com (General, E-Commerce & Computers)
Semester : V/VI
Title of the Course : Sales Promotion and Practice
Course Code : CSPP -504 G/C

CO1	Analysis of various sales promotion activities
CO2	Get exposed to new trends in sales Promotion
CO3	Understand the concepts of creativity in sales promotion
CO4	Enhance skills to motivate the salesperson to reach their targets
CO5	Develop the skills of designing of sales promotion events

Name of the Programme : B.Com (General)
Semester : V/VI
Title of the Course : Digital Marketing
Course Code : CDM -505 G

CO1	Analyse online Micro and Macro Environment
CO2	Design and create website
CO3	Discuss search engine marketing
CO4	Create blogs, videos, and share
CO5	Enhance skills to motivate the salesperson to reach their targets

Name of the Programme : B.Com (General)
Semester : V/VI
Title of the Course : Service Marketing
Course Code : CSM -506 G

CO1	Discuss the reasons for growth of service sector.
CO2	Examine the marketing strategies of Banking Services, insurance and education services.
CO3	Review conflict handling and customer Responses in services marketing
CO4	Describe segmentation strategies in service marketing.
CO5	Suggest measures to improve services quality and their service delivery.