

**PROGRAMME OUTCOMES (PO),
PROGRAMME SPECIFIC OUTCOMES (PSO)
&
COURSE OUTCOMES (CO)
OF
B.A./B.Com./B.Sc**

**GOVERNMENT DEGREE COLLEGE, MANTHANI
DIST.: PEDDAPALLI – 505184
2019-20**

Department of English

Programme Outcomes:-

- Developing intellectual, personal and professional abilities through effective communicative skills; ensuring high standard of behavioral attitude through literary subjects and shaping the students socially responsible citizens.
- To enhance employability of the students by developing their linguistic competence and communicative skills
- Students should be able to develop their intellectual, personal and professional abilities. Students should acquire basic language skills, such as Listening, Speaking, Reading and Writing.

Programme Specific Outcomes:-

- On successful completion of the Programme, the students will be accurate both in oral and written communication as they will be strong in Grammar and its usage.
- They can express a thorough command of English and its linguistic Structures.
- They can apply critical frameworks to analyze the linguistic, cultural and historical background of texts written in English.
- They will be familiar with the conventions of diverse textual genres including fiction, non-fiction, poetry, autobiography, biography, Journal, film, plays, editorials etc.
- To enable students to understand the passage by silent reading
- To learn phonetics and proper intonation

Course Outcomes:-

S. No.	Semester	Course	Credits	Course Outcome
1	I	English enrichment for	4	<ul style="list-style-type: none">➤ Students can enjoy all the essays and improves literary skills➤ Students can learn all the grammar skills
2	II	English enrichment for	4	<ul style="list-style-type: none">➤ Students will be able to improve comprehensive skills as well as advanced grammar skills➤ Students can understand the values of literature
3	III	English enrichment for	4	<ul style="list-style-type: none">➤ The anthology contains selected literary pieces offering glimpses of life and world from different perspectives➤ Students will be able to make use of grammar skills when they face competitive exams
4	IV	English enrichment for	4	<ul style="list-style-type: none">➤ Students will be able to improve human values by following the given anthology➤ Students can improve telephonic conversations, e-mails, job oriented skills

Department of Telugu

(As a 2nd language in Under Graduate courses)

Programme Outcomes:-

Telugu language is a main language and largely spoken as a mother tongue in Telugu states since time immemorial. In the united A.P.'s Universities as a IInd language , Telugu language is introduced on common core syllabus. After Telangana formation, the importance shifted from Andhra writers of united A.P. and focused on Telangana states nativity, literature and culture. So, the faculty of various universities in the state designed to implement curriculum instructions to the current needs accordingly. Thus, the literary works of the poets and writers from Telangana mainly occupied in the syllabus of Ist year and IInd year text books (viz. Sahithi manjira and Sahithi Kinnera).

- 1) All the UG programmes of Govt. Degree College, Manthani attain high level of result and academic achievements with enriching programme outcomes. The students empower themselves from Telugu department learning to independent learning by the end of II year degree programme.
- 2) All the UG programmes have Telugu as second language subjects. The motto behind is to improve the language skills like listening, speaking, reading and writing of all students in the class. The second language is generally the mother tongue i.e. Telugu or Sanskrit or Hindi. These subjects promoted culture, customs, moral and literary values in the students.

Programme Specific Outcomes:-

- Empower the knowledge of Telugu Language and Literature.
- Improve writing skills like short stories, stories, novels etc,

Course Outcomes:

S. No.	Semester	Course	Credits	Course Outcomes
1	I	Sahiti Manjeera	4	<ul style="list-style-type: none">➤ Students can enjoy all the essays and improves literary skills➤ Students can learn all the grammar skills➤ Differentiate the methods of old and modern poetry thoughts.➤ Understand the culture of old society and comparison with modern trends.
2	II	Sahiti Manjeera	4	<ul style="list-style-type: none">➤ Students will be able to improve comprehensive skills as well as advanced grammar skills➤ Students can understand the values of literature➤ Differentiate the methods of old and modern poetry thoughts.➤ Understand the culture of old society and comparison with modern trends.
3	III	Sahiti Kinnera	4	<ul style="list-style-type: none">➤ The anthology contains selected literary pieces offering glimpses of life and world from different perspectives➤ Students will be able to make use of grammar skills when they face competitive exams➤ Differentiate the methods of old and modern poetry thoughts.➤ Understand the culture of old society and comparison with modern trends.
4	IV	Sahiti Kinnera	4	<ul style="list-style-type: none">➤ Students will be able to improve human values by following the given anthology.➤ Students can improve prosody and grammar skills➤ Differentiate the methods of old and modern poetry thoughts.➤ Understand the culture of old society and comparison with modern trends.

Department of Mathematics

Programme Outcomes:

- Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
- A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
- Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution.
- Introduction to various courses like group theory, ring theory, field theory, metric spaces, number theory.
- Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- Ability to pursue advanced studies and research in pure and applied mathematical science.

Programme Specific Outcomes:

- Think in a critical manner.
- Know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.
- Formulate and develop mathematical arguments in a logical manner.
- Acquire good knowledge and understanding in advanced areas of mathematics and statistics, chosen by the student from the given courses.
- Understand, formulate and use quantitative models arising in social science, Business and other contexts.

Course Outcomes:-

S. No.	Semester	Course	Credits	Course Outcomes
1	I	Differential Calculus	5	<p>Gain Knowledge of fundamental concepts of real numbers.</p> <p>Verify the value of the limit of a function at a point using the definition of the limit</p> <p>Introduction to sequence and series.</p> <p>Learn to check function is continuous understand the consequences of the intermediate value theorem for continuous functions.</p>
2	II	Differential Equations	5	<p>Student will be able to solve first order differential equations utilizing the standard techniques for separable, exact, linear, homogeneous, or Bernoulli cases.</p> <p>Student will be able to find the complete solution of a nonhomogeneous differential equation as a linear combination of the complementary function and a particular solution.</p> <p>Student will have a working knowledge of basic application problems described by second order linear differential equations with constant coefficients.</p>
3	III	Real Analysis	5	<p>Student will be to understand differentiation and fundamental theorem in differentiation and various rules.</p> <p>Geometrical representation and problem solving on MVT and Rolls theorem.</p> <p>Finding extreme values of function.</p> <p>Describe fundamental properties of the real numbers that lead to the formal development of real analysis.</p> <p>Comprehend rigorous arguments developing the theory underpinning real analysis.</p> <p>Demonstrate an understanding of limits and how they are used in sequences, series, Construct rigorous mathematical proofs of basic results in real analysis</p>

4	IV	Algebra	5	<p>Learn to solve system of linear equation.</p> <p>Learn to solve Diophantine equation.</p> <p>Learn to find roots of polynomial over rational.</p> <p>Learn to find graphs, roots and primes integer using maxima software.</p> <p>Introduction to complex analysis.</p> <p>Understand the importance of algebraic properties with regard to working within various number systems.</p> <p>Extend group structure to finite permutation groups (Caley Hamilton Theorem).</p> <p>Generate groups given specific conditions.</p> <p>Symmetry using group theory.</p>
5	V Paper - V	Linear Algebra	5	<p>Introduction to vector space and subspace.</p> <p>Use computational techniques and algebraic skills essential for the study of systems of Linear equations, matrix algebra, vector spaces, eigenvalues and eigenvectors, Orthogonality and Diagonalization. (Computational and Algebraic Skills).</p>
6	V Paper - VI	Analytical Solid Geometry	5	<p>Introduction to analytical geometry of 2 dimensional.</p> <p>Study of lines in 2 and 3 dimension.</p> <p>Finding equation in various form of line, circle, ellipse, sphere, cones etc.</p>
7	VI Paper - VII	Numerical Analysis	4	<p>To apply appropriate numerical methods to solve the problem with most accuracy.</p> <p>Using appropriate numerical methods determine approximate solution of ODE and system of linear equation.</p> <p>Compare different methods in numerical analysis w.r.t. accuracy and efficiency of solution.</p>
8	VI Paper - VIII	Vector Calculus	4	<p>To know about gradient, curl of a scalar function.</p> <p>Proving vector identities</p> <p>Learning about laplacian operator, divergent of vector function</p>

DEPARTMENT OF PHYSICS

Programme Outcomes (POs):

Students having an academic background of science at 10+2 level can pursue B.Sc programme in various branches. After the completion of the B.Sc degree there are various options available for the science students, they can pursue master degree in Science i.e. M.Sc, work in research related fields and can even look for professional job oriented courses. Often, in some reputed universities or colleges the students are recruited directly by big MNC's after the completion of the course. The student is also eligible for the job of a Medical Representative. The student after graduating will be eligible for various government exams conducted by UPSC, SSC etc.

Programme Specific Outcomes (PSOs):

By the end of the course, the students will be able to:

PSO1: Students are expected to acquire knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special theory of relativity and modern physics.

PSO2: Students are also expected to develop written and oral communication skills in communicating physics-related topics.

PSO3: Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.

PSO4: Students will develop the proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.

PSO5: Students will learn the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility.

PSO6: Students will realize and develop an understanding of the impact of physics and science on society.

PSO7: Apply conceptual understanding of the physics to general real-world situations.

PSO8: Describe the methodology of science and the relationship between observation and theory.

PSO9: Learn to minimize contributing variables and recognize the limitations of equipment.

PSO10: Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.

PSO11: Develop the following experimental tools: Numerically model simple physical systems using Euler's method, curve fitting, and error analysis.

PSO12: Analyze physical problems and develop correct solutions using natural laws.

Course Outcomes:

S. No.	Semester	Course	Credits	Course Outcomes
1	I	Mechanics	5	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand the concept of central forces and vector analysis. ➤ Study the behavior of rigid body dynamics ➤ Understand the negative result of michelson morley experiment, galilean and lorentz transformation ➤ Students will be able to investigate Young's modulus and rigidity modulus ➤ Students are able to understand various properties of liquids i.e. surface tension, refractive index, viscosity
2	II	Waves and Oscillations	5	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand the concept of fundamentals of vibrations. ➤ Understand the concept simple harmonic motion, Damped Oscillations and Force oscillations. ➤ Understand the concept of vibrating in strings and bars. ➤ Understand the oscillations in simple, compound pendulum and bifilar suspension. ➤ Understand the concept laws of stretched strings
3	III	Thermodynamics	5	<p>By the end of this course, Students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand the concepts kinetic theory of gases. ➤ Understand the concept of Low temperature physics and black body radiation ➤ Understand the concept of Maxwell's Equations ➤ Understand thermal conductivity of a bad conductor by Lee's method. ➤ Understand Specific heat of a liquid by

				applying Newton's law of cooling correction.
4	IV	Optics	5	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Overview of Interference, Diffraction and Polarization. ➤ Details of Aberrations and Fiber Optics ➤ Understand measurement of wavelength using Newton's Rings method and minimum deviation , Normal method ➤ Understand Resolving power of telescope, Dispersive power of prism ➤ Understand the optical rotation.
5	V Paper - V	Electromagnetism	4	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Study the electric field using coulomb's inverse square law in electrostatics of current ➤ Understand the chemical and heating effect of current ➤ Understand the relations between b, h and m ➤ Understand the faradays laws of electromagnetic induction ➤ Understand the Thevenin Theorem, Norton Theorem, Superposition Theorem and maximum power transfer theorem. ➤ To determine a small resistance by Carey Foster's bridge. ➤ To determine the (a) current sensitivity, (b) charge sensitivity, and (c) CDR of a B.G
6	V Paper - VI	Solid State Physics	4	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand the basic concepts of force between atoms and bonding between molecules ➤ Analyze the relationship between conductors and insulators and super conductivity ➤ Understand about types of lasers and its functioning ➤ Understand the PE Hysteresis loop of a Ferroelectric Crystal, the BH curve of Fe using Solenoid & energy loss from Hysteresis. ➤ Understand the resistivity of a semiconductor (Ge) with temperature

				by four-probe method.
7	VI Paper - VII	Modern Physics	4	<p>Students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand Wave Particle Duality de Broglie hypothesis, Experimental confirmation of matter wave, Davisson Germer Experiment, velocity of de Broglie wave. ➤ Understand Nuclear Physics Size and structure of atomic nucleus and its relation with atomic weight. ➤ Understand Radioactivity Understand Atomic Spectra and Models of classical physics. ➤ Understand the Thevenin's Theorem, Norton Theorem, Superposition Theorem and maximum power transfer theorem. ➤ To determine a small resistance by Carey Foster's bridge. ➤ To determine the (a) current sensitivity, (b) charge sensitivity, and (c) CDR of a B.G
8	VI Paper - VIII	Basic Electronics	4	<ul style="list-style-type: none"> ➤ Students will be able to: ➤ Understand Network Elements and Network Theorems. ➤ Understand Band theory of P-N junction, diodes and transistors. ➤ Understand the importance of Digital Electronics. ➤ Understand AND, OR, NOT, NAND and NOR gates Truth table ➤ Understand Characteristics of a Transistor in CE configuration and R.C. coupled amplifier – frequency response. ➤ Understand De Morgan's Theorem and Zener diode V-I characteristics.

Department of Botany

Programme Outcomes:

1. The scope of plant diversity with respect to environmental relationships.
2. Study of plant classification to understand the taxonomy.
3. The utilization of plants for human beings in terms of its economic importance.
4. Take projects, study case to understand plant biodiversity.
5. Student learns practical work as per the syllabus prescribed by SPPU, field studies for optimizing proficiency the subject.
6. Use of IT tools, communication skills in scientific knowledge¹ for specific needs.
7. Career planning.

Programme Specific Outcomes:

1. Understanding phylogenetic relationships of plants.
2. Identification of plants becomes easier.
3. Students will apply statistical method to interpret their data collected from various fields
4. Students will be able to explain plant development at molecular level, development of plant, plant anatomy, photosynthesis and life cycle of plants.
5. Students will be able to develop practical skill in experimental techniques.

Course Outcomes:

S. No.	Semester	Course	Credits	Course Outcomes
1	I	Microbial Diversity of Lower Plants	5	Understanding the microbial organisms in nature and their diversity with Lower Plants
2	II	Bryophytes, Pteridophytes, Gymnosperms and Paleobotany	5	Understanding the nature and life cycle of non flowering plants.
3	III	Taxonomy of Angiosperms and Medicinal Botany	5	Identification and taxonomical study Angiospermic plants and Medicinal values of important plants
4	IV	Plant Anatomy, Embryology and Palynology	5	Study of internal structure of plant parts.
5	V Paper - V	Cell Biology and Genetics	4	Study of biological activities in Cell and Cell Organelles and Genetics
6	V Paper - VI	Ecology and Biodiversity	4	Understanding the ecological problems and remedies for biodiversity
7	VI Paper - VII	Plant Physiology	4	Study of physiological reactions in plants and plant organisms.
8	VI Paper - VII	Seed Technology	4	Understanding the structure, process, storage and transport of Seeds

Department of Zoology

Programme Outcomes

The primary objective of the department is to impart quality education in the subject of Zoology as a basic science and its applied branches to the students from rural Telangana with very minimum fees.

- To provide quality education in a branch of Biological sciences i.e Zoology with different specializations.
- To facilitate Higher education & research in zoology.
- **To provide quality education offering skill based programs and motivate the students** for self employment in applied branches of Zoology.
- To inculcate the value based education and entrepreneurial skills among the students.
- To Inculcate the spirit of resource conservation and love for nature.
- To conduct field studies and different projects of local and global interests.
- To provides opportunities for professional and personal development through curricular and co- curricular activities.
- Provide consultancy and organize extension activities.

Programme Specific Outcomes:

1. The specific learning goals for General Zoology are to provide students with a working knowledge of fundamental principles in zoology that will provide a foundation for their later advanced course work in more specific biological subjects.
2. As General Zoology is a basic course, students will become familiar with animal classification schemes and associated taxonomic group diagnostic characteristics as well as developing an understanding of and ability to apply basic zoological principles.
3. The laboratory and lecture sections of the course are highly integrated and directed toward teaching students the principles of animal evolution, classification, form and function.

Course Outcomes:

S.No.	Semester	Course	Credits	Course Outcomes
1	I	Animal Diversity - invertebrates	5	Students will be able to identify and define an invertebrate. Students will be able to classify animals as an invertebrate.
		Animal Diversity		Students will be able to identify and define vertebrate. Students will be able to classify

3	III	Ecology, Zoo- Geography & Animal Behavior	5	<p>The larger objective of ecology is to understand the nature of environmental influences on individual organisms, their populations, and communities, on echosopes and ultimately at the level of the biosphere. If ecologists can achieve an understanding of these relationships, they will be well placed to contribute to the development of systems by which humans could sustainably use ecological resources, such as forests, agricultural soil, and hunted animals such as deer and fish. This is an extremely important goal because humans are, after all, completely reliant on ecologically goods and services as their only source of sustenance.</p> <ol style="list-style-type: none"> 1. Be able to list some of the distinguishing features of prokaryotes versus eukaryotes. 2. Describe the stages of the cell cycle, of mitosis, and of meiosis. Describe the major function of each step in each cycle, specifically with regards to the chromosomes 3. Given the number of chromosomes in a diploid organism, be able to determine how many different combinations of chromosomes could be found in the gametes simply due to independent assortment.
4	IV	Cell & Molecular Biology, Genetics and Evolution	5	<ol style="list-style-type: none"> 4. Be able to perform problems similar to those we've done in class, in Problem Set 1, and those at the end of each chapter covered. In summary, (a) be able to predict the phenotypic classes and their ratios from a monohybrid cross involving dominant and recessive alleles; (b) be able to predict the phenotypic classes and their ratios from a cross involving co-dominant or incompletely dominant alleles; (c) be able to predict the ratio of a specific genotype and/or phenotype from a cross involving multiple independently assorting genes (d) be able to recognize when two interacting genes are influencing the expression of each other, which will be reflected in the numbers and ratios of phenotypic classes of the F2 progeny resulting from a dihybrid cross , (e) given the phenotypes of parents

			<p>and the phenotypes and ratios of F1 and/or F2 progeny, be able to distinguish between a trait that is determined by two alleles at one gene manifesting incomplete dominance versus two genes interacting with each other epistatically;</p> <p>5. Be able to list features of an organism that could make it a good genetic model. Be able to cite features of peas and flies that make them ideal organisms in which to study many aspects of genetics.</p> <p>6. Be able to perform and interpret the results of a Chi Square analysis.</p> <p>7. Be able to distinguish between maternal effect, sex-linked, and cytoplasmic modes of inheritance.</p> <p>8. Be able to look at a pedigree chart and discern the most likely mode of inheritance.</p> <p><u>EVOLUTION</u></p> <p>The relationship between natural selection and evolution • What is adaptive radiation?</p> <ul style="list-style-type: none"> • What is the difference between homologous and analogous? • How do fossils provide a historical record of evolution? • How is evolution observed at the molecular level? • Hardy-Weinberg equilibrium • What are the agents of evolution? • Three types of selection: stabilizing, disruptive, and directional <p>Learning Objectives • Human impact on natural selection Industrial melanism♣ • Guppies as an example of natural selection</p> <ul style="list-style-type: none"> • What is the biological species concept? • What are the two categories of barriers to reproduction? • What are the six isolating mechanisms that fall into the category of pre-zygotic barriers to reproduction? • Post-zygotic barriers to reproduction.
			<p>1-The major aims of this course are to provide students with a basic understanding of the fundamental processes and mechanisms that serve and control the various functions of the body.</p> <p>To learn to properly and safely use animals and modern laboratory equipment to conduct research.</p> <p>Biochemistry is the study of biological</p>

5	V-SEM V-Paper	Physiology and Biochemistry	4	<p>phenomena at the molecular level. Its aim is to understand the fundamental chemical principles that govern complex biological systems.</p> <p>The program is an interdepartmental major between biology and chemistry that emphasizes the importance of a solid foundation in the natural sciences, including mathematics and physics. The major focuses, however, on disciplines within biology and chemistry, ranging from cell biology and molecular biology to analytical chemistry and physical chemistry.</p> <p>The Programme seeks to graduate biochemists who are conversant in concepts ranging from biological evolution to quantum chemistry. Understanding the molecular logic of life and being able to participate in the acquisition of this knowledge is integral to the liberal education. Our required courses come from the existing offerings in biology and chemistry. We rely on the goodwill of both to fulfill these general education responsibilities. We also rely on those departmental courses to develop our students' cognitive and technical skills, skills that will make them scientifically literate and able to contribute to the discipline during their Vassar careers and after graduation.</p> <p>The primary objectives of the major are</p> <ol style="list-style-type: none"> 1) to give students a solid foundation in biology and chemistry; 2) To develop analytical and critical-thinking skills that allow independent exploration of biological phenomena through the scientific method. 3) To introduce students to modern methods of biochemical experimentation within the disciplines of biology and chemistry.
				<p>Development of existing water bodies and creation of additional water area for large scale fish production.</p> <p>Reclamation/rehabilitation of marshy and swampy lands and Bheels and other water area and developing them into modern fish production system.</p>

6	V Paper - VI	Applied Zoology	4	<p>Creation of mass awareness, capacity building, exposure training and skill development of all the stakeholders, for long term sustainability of fishery sector.</p> <p>Conservation of native, endangered and traditional species (Masher and Chocolate Masher) of Meghalaya and developing breeding farms of commercially potential species on a large scale.</p> <p>Introduce and promote ornamental fisheries as also diversify the current range, so as to capture several emerging opportunities in the aquaculture sector viz., fresh water scampi culture, etc.</p> <p>Enhancement of water storage capacity through development of small water areas and microclimate to sustain agricultural production .</p> <p>Extend all technical support at the door step of the stakeholders.</p> <p><u>sericulture</u></p> <p>Motivating the farmers to plant high yielding mulberry varieties to increase income and productivity.</p> <p>Imparting training in mulberry cultivation, silkworm rearing and silk reeling.</p> <p>Assist in procurement of improved rearing equipment and construction of separate rearing house.</p> <p>Ensure supply of disease free silkworm seeds.</p> <p>Enhance skill of farmers for increased cocoon productivity and to prevent silkworm diseases.</p> <p>Provide assistance to establish silk reeling units in the private sector.</p> <p>Provide assistance to establish drip irrigation system in mulberry gardens.</p> <p>Assist sericulturists and reelers to dispose of their cocoon, silk etc., in regulated cocoon markets /silk exchange</p> <p>Facilitate sericulturists to adopt new technologies developed.</p> <p><u>APICULTURE</u></p> <p>“To establish areas of conservation throughout the island for the conservation of the native Irish honey bee.”</p> <p>To help promote areas of conservation throughout the island to conserve the native Irish honey bee.</p>
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				<p>“To promote the formation of Bee Improvement groups.” To liaise with bee-keepers with a view to establishing bee improvement groups. To advise and encourage bee-keepers to promote our aims and objectives. In pursuit of Aim “To provide education on Bee improvement and awareness to the public of the values of the native Irish honey bee.” To provide information as to where local improvement groups are established. To provide information about ongoing events.</p> <p><u>Animal Husbandry:</u> To satisfy the need for food of the growing population. To do proper management of the domestic animals. To develop high yielding breeds of animals. To increase the standard of living of formers. To increase the production of milk. To increase the production of eggs. To increase the production of meat. To increase the production of Fish. To help in systematic disposal of animal wastes and maintaining a healthy environment.</p>
7	VI Paper - VII	Immunology and Animal Biotechnology	4	<p>The students will be able to identify the cellular and molecular basis of immune responsiveness. The students will be able to describe the roles of the immune system in both maintaining health and contributing to disease. The students will be able to describe immunological response and how it is triggered and regulated. The students will be able to demonstrate a capacity for problem-solving about immune responsiveness. Identification and characterization of animal breeds, Developing DNA - based diagnostics and genetically engineered <u>vaccines</u> for animals, Studying animal genomics and its varied applications</p>

				<p>Developing embryo -transfer technology, cloning, <u>transgenic animals</u> DNA forensics, <u>molecular diagnostics</u> , cloning, wildlife conservation, stem cell research and bio - processing technologies are other import areas of <u>animal biotechnology</u> .</p>
8	VI Paper - VIII	Aquatic Biology	4	<p>To study the lifecycles of fish, emphasizing physiological and anatomical adaptations to different aquatic habitats: fish diversity and distribution, physiology of swimming, osmoregulation, respiration, diet and digestion, reproduction and larval development;</p> <p>To introduce the cultivation of aquatic organisms based on the biological and technological requirements of individual species: production of young fish, genetics, diet, fish nutrition and health;</p> <p>To undertake a laboratory or fieldwork project on aspects relevant to research on topics of aquatic and marine biology;</p>

Department Of Chemistry

Programme Outcome:

Students will demonstrate an understanding of major concepts in all disciplines of chemistry. Students will employ critical thinking and the scientific method to design, carry out, record and analyze the results of chemical experiments and get an awareness of the impact of chemistry on the environment, society, and other cultures outside the scientific community.

Programme specific out comes

By the end of the course, the students will be able to:

- ❖ Join school as Chemistry teacher.
- ❖ Prepare for competitive exams like MPSC,UPSC, GATE,CAT.
- ❖ Analyze and grasp abstract ideas to apply them to important practical problems.
- ❖ Develop strong analytical skills and a broad-based background in the Chemical sciences to join Indian industry.

Course Outcomes:

S. No.	Semester	Course	Credits	Course Outcomes
1	I	Chemistry – I	05	<p>By the end of this course, Students will be able to:</p> <ul style="list-style-type: none"> ❖ Inculcate industrial applications of carbides, silicones, acidity and reactivity of boron compounds. ❖ Detail understanding of various compounds of elements of p-block and theoretical knowledge to perform semi micro analysis i.e Identification of inorganic salts. ❖ Understand the concept nature of chemical bond. ❖ Overview of periodic table and S,P block elements ❖ These topics provide excellent understanding of basic knowledge of organic chemistry in future of course. ❖ These topics give a foundation to cater the needs of quantum mechanics future of course and use full to learn behaviour of real gases, liquification phenomenon, viscosity of liquids etc.
2	II	Chemistry – II	05	<p>By the end of this course, Students will be able to:</p> <ul style="list-style-type: none"> ❖ Understand reactivity and structures of oxides, oxy acids, structures of inter halogen compound. zero group elements and d-block elements. ❖ Understand the concept structure and bonding in organic compounds. ❖ Understand the concept of stereochemistry. Understand different types of reaction mechanism. ❖ Understand alkanes, alkenes. Understand the aromaticity of organic compounds. ❖ Understand the crystal structures, solutions, colligative properties. Certain physical techniques such as steam and fractional distillation methods. separation techniques based on Nernst law. ❖ Understand the quantitative analysis (volumetric analysis) and gravimetric analysis ❖ Inculcates the practical knowledge of identification and confirm the given unknown salt mixture

3	III	Chemistry – III	05	<ul style="list-style-type: none"> ❖ Understand the chemistry of –F- block and non aqueous solvents. and symmetry of the compounds. ❖ Understand the structure and chemical bonding in aryl ,alkyl halides,aldehydes. ❖ Understand the structure and chemical bonding in alcohols and phenols.. ❖ Understand chemical reactions of acids, alcohols, phenols etc. ❖ Understand the phase rule and phase diagramme. Surface chemistry and adorption, their importance in industry ❖ Understand the stereo chemistry of carbon compounds. Its importance in research field. Importance of nano materials in medical and industrial field. ❖ Volumetric analysis, and gravimetric analysis. estimation of carbonate, bicarbonate, copper etc.
4	IV	Chemistry – IV	05	<ul style="list-style-type: none"> ❖ Understand the chemistry complex compounds, metal carbonys and organometallic compounds and applications. ❖ Understand the chemistry of carboxylic acids and their derivatives , active methylene compounds and nitro compounds . industrial and research importance. ❖ Understand the electrolytical cells, electrochemical cells applications batteries industry. Conductometric titrations, emf etc. ❖ Understand the modern approach of chemistry i.e pericyclic reactions, strategic synthesis and stereoselectivity and their research applications ❖ To estimate the concentrations of given compounds by technical methods. Conductometry and potentiometry.
5	V Paper - V	Chemistry – V	4	<ul style="list-style-type: none"> ❖ Understand the CFT, magnetic properties, colour properties, applications of complex compounds. ❖ Understand the chemistry amines and heterocyclic compounds and their importance medical fields. ❖ By the end of this course, Students will be able to: Understand the thermodynamics of chemical reactions.Understand the concept of chemical kinetics.
6	V Paper - VI	Chemistry – VI	4	

				<ul style="list-style-type: none"> ❖ Understand the spectroscopic techniques to elucidation of the given compound. Gains the knowledge of I.R, U.V and ELECTRONIC SPECTRAL TECHNIQUES ❖ Students are able to Preparation of and checking purity through T.L.C ,of few organic compounds
7	VI Paper - VII	Chemistry – VII	4	<ul style="list-style-type: none"> ❖ Student able to understand the reaction mechanism of inorganic complexes, inert and labile nature ,bio inorganic chemistry i.e importance of micro and macro nutrients in human. ❖ Student able to understand the the chemistry and reactions of carbohydrates and amino acids. Their importance in medical and biological fields. ❖ Student able to understand the thermo chemical reactions and thermodynamic parameters, spontaneous and non spontaneous, equilibrium, Cp and Cv, thermodynamically carried processes such as entropy etc., ❖ Students are able to identify and confirm the given organic compounds and able to test the purity samples.
8	VI Paper - VIII	Chemistry – VIII	4	<ul style="list-style-type: none"> ❖ Understand the various types of diseases and various terms involved in medicinal chemistry. nomenclature of drugs and therapeutic activity of drugs. absorption , distribution, metabolism and elimination of drugs. ❖ Understand the chemistry of enzymes and their action, drug action –receptor theory , drug function with an example. ❖ Understand the synthesis of drugs and about the drugs to treat metabolic disorders. And those drugs which acting on nervous system ❖ Understand about molecular messenger and health promoting drugs in detail. ❖ Students are able to perform practicals of various physical chemistry experiments and gain the sound knowledge of their significance.

Department of History

Programme Outcomes of B.A.:

- After graduation with B.Ed. course, student can chose teaching career .
- Graduates can select Museum curator, Historians, Tourism, History Expert etc. as their career options.
- Eligible to appear for any competitive exams conducted by UPSC, TSPSC, Indian Railway Board, etc for entering into the government services.

Programme Specific Outcomes:

- The students obtain thorough knowledge of facts and figures of the past and make the learner take in the essence of that through multidisciplinary approach.
- It inculcates the learners into the intellectual forum through the study of history.
- It builds a sense of nationalism to enable the student community to face the onslaught of communalism and casteism.
- Employment Areas include, Archaeology & archives, UPSC, TSPSC, Historians parks, Research centre, Journalism, Museums, Preservation departments, Radio jock, Curator and guide, Documentation specialist, Historian, Online search specialist, Teacher, Writer and Editor.
- Advance Course In B.A. History are M.A. (History), M.Phil. (History) and Ph.D. (History).

Course Outcomes:

S. No.	Semester	Course	Credits	Course Outcomes
1	I	History of India (From Earliest Times to c.700 CE)	5	<ul style="list-style-type: none"> ➤ It provides a base for understanding the Indian history. ➤ Helps the student to understand the history of early India from the prehistoric times to the age of the Mauryas. ➤ Emphasizes on the factors and forces behind the rise, growth and spread of civilization and culture of India along with the dynastic history. ➤ To help the students to understand the contribution of Early Indians to polity, philosophy, literature, art, religion and science and technology.
2	II	History of India (700-1526 CE)	5	<ul style="list-style-type: none"> ➤ Students will come to know consequences of the foreign invasions, particularly on the polity, society, economy and art and architecture. ➤ Students can acquire the knowledge on Arab Conquest, foundation of Delhi Sultanate and Growth of Education and Literature – and the decline of Delhi Sultanate.
3	III	History of India (1526-1857 CE)	5	<p>It provides the knowledge to understand the following</p> <ul style="list-style-type: none"> ➤ Establishment of Mughal Dynasty ➤ Rise of Regional Powers - Marathas, Sikhs. ➤ Rise of Princely States – Hyderabad – Avad - Junagarh – Mysore – Kashmir. ➤ Advent of European Powers ➤ Decline of Rural Cottage Industries and Urban Handicrafts ➤ 1857 Revolt – Nature, Causes and Results.
4	IV	History of India (1858-1964 CE)	5	<p>It provides the knowledge to understand the following</p> <ul style="list-style-type: none"> ➤ Queen's Proclamation ➤ Socio-Religious Reform Movements ➤ Factors for the Rise of Nationalism ➤ Revolutionary Movement ➤ Emergence of Communal Politics ➤ Jawaharlal Nehru and His Policies
5	V Paper - V	History of the Modern World (From 1453 CE to 1815 CE)	5	<p>It provides the knowledge to understand the following</p> <ul style="list-style-type: none"> ➤ Decline of Medieval Socio-Political, Religious, Economic conditions ➤ Rise of Capitalism

6	V Paper - VI	History and Culture of Telangana (From earliest times to 1724 CE)		<p>It provides the knowledge to understand the following</p> <ul style="list-style-type: none"> ➤ Pre-History of Telangana ➤ Brief Political Survey of Satavahanas, Ikshvakus, Vishnukundins, Medieval Telangana from Kakatiyas to Qutb Shahis.
7	VI Paper - VII	History of the Modern World (From 1815 to 1950 CE)	5	<ul style="list-style-type: none"> ➤ To understand the contemporary world in the light of its background History. ➤ To become conversant with political history of Modern World. ➤ To provide knowledge about the main developments in the Contemporary World (To understand to important development in 20th century World.) ➤ To gain knowledge about world concepts. ➤ To enable students to understand the economic transition in World during the 20th Century and create awareness about the principles, forces, processes and problems of the recent times. ➤ To impart the students with growth of various political movements that shaped the modern world. ➤ To bring to light the rise and growth of nationalism as a movement in different parts of the world.
8	VI Paper - VIII	History and Culture of Telangana (1724 - 2014 CE)	5	<ul style="list-style-type: none"> ➤ Foundation of Asaf Jahi Dynasty ➤ Political Developments in Hyderabad State 1900 to 1942 ➤ Anti-Nizam and Anti-Feudal Movements ➤ December 2009 Declaration and the Formation of Telangana State, June 2014.

Department of Economics

Programme Outcomes of B.A.:

- Students will get acquainted with varied social sciences like sociology, economics, political science etc
- The students of humanities will develop a sense of responsibility and will be dutiful citizens.
- The students will be able to develop critical temper and creative ability.
- Students should be able to identify, analyze, interpret and describe the critical ideas, values, and themes on versatile topics of economics, political science, sociology etc

Programme Specific Outcomes:

- a. The students will be familiarized with the broad contours of Economics and its methodologies, tools and its analysis.
- b. Students will be able to analyze the economics and institutional arrangements of specific regions, countries, organizations, localities, industries or firms.
- c. Students will develop a scientific approach towards varied branches of economics like modern banking, economic development and planning, micro economics etc
- d. Students will be able to evaluate economic issues and public policy by using economic models or data analysis while identifying underlying assumptions of the model(s) and limitations
- e. Students will be able to formulate informed opinions on policy issues and recognize the validity of opposing viewpoints.
- f. Students will be able to effectively communicate and debate economic ideas and policies.

Course Outcomes

S.No.	Semster	Course	Credits	Course Outcomes
1	I	Micro Economics	5	Students will be able to recognize, apply and analyze concepts and theories in micro economics Student will develop an ability to attempt questions in competitive examinations Students will be able to appraise and assess the theories in micro economics and apply them in real life situations Ability to develop an

				<p>understanding of the subject areas in Economics with its intricacies and imperfections and to be able to construct intellectual dialogue.</p> <p>Ability to discuss and debate on the changing structures and theoretical developments in the subject.</p>
2	II	Macro Economics	5	<p>Students will be able to explain the concepts of macro economics like opportunity cost, economic fluctuations etc</p> <p>Students will be able to explain the concepts of National income, inflation and concepts related to inflation and unemployment, and how they are measured.</p> <p>Students will be able to explain the circular flow model and use the concepts of aggregate demand and aggregate supply to analyze the response of the economy to disturbances.</p> <p>Students will be able to describe the determinants of the demand for money, the supply of money and interest rates and the role of financial institutions in the economy.</p> <p>Students will be able to define fiscal and monetary policies and how these affect the economy.</p>
3	III	Statistics For Economics	5	<p>It enhances them to compute and assess the real situation of economy</p> <p>Identifying graphical and numerical methods to calculate and illustrate descriptive statistics. To know about matrices, averages, probability etc.</p>
4	IV	Public Economics	4	<p>Understanding the meaning and functions of public finance</p> <p>Judging the progress of financial inclusion</p>

				Measuring growth volume composition of public fianance.
5	V	Telangana Economy	5	1)Understanding characteristics ,features structural changes in telangana economy 2)know the problems of unemployment poverty&economic inequality 3)Evaluating the changing role of agriculture Industrial & service sector
6	VI	Development Economics	5	Understanding the concept and aspect of development economics Knowing the theories of economic growth &development Measuring the concept and issue of economic planning

Department Of Political Science

Programme Outcome Of B.A.:

Students Seeking Admission For BA Programme Are Expected To Inspire With Following Quality Which Help Them In Their Future Life To Achieve The Expected Goals.

- A) Realization Of Human Values
- B) Sense Of Social Service
- C) Responsible And Dutiful Citizen
- D) Quick Response To Social&Political Issues
- E) Critical Temper

Programme Specific Outcomes:

- 1) Knowledge About Political System Of The Nation
- 2) Study Of National And International Political Affairs
- 3) Study From Competitive Examination Point Of View
- 4) Understanding The Govt Mechanism, Its Functions, Duties And Responsibilities
- 5) Creating Appropriate And Efficient Political Leaders
- 6) Getting Knowledge Of Public Law
- 7) Getting Knowledge Of Constitution Of India

Course Outcomes

S.No.	Semester	Course	Credits	Course Outcomes
1	I	Political Science: Concepts, Theories And Institutions	5	<ul style="list-style-type: none"> ➤ Acquiring The Knowledge About Political Theories And Concepts. ➤ Getting The Awareness About Political Institutions, Their Types, Functionality And Duties. ➤ Understand The Basic Principles Of Politics Including Governing Institutions And Branches, Political Wings And Organisations.
2	II		5	
3	III	Indian Government & Politics	5	<ul style="list-style-type: none"> ➤ Acquiring The Knowledge About Indian Constitution. ➤ Getting Awareness About Ones Rights & Duties. ➤ Getting Information About Political Parties And System Of Justice In India. ➤ Knowledge About The Problems And Challenges In Indian Politics.
4	IV		5	
5	V Paper - V	Western Political Thought	4	<ul style="list-style-type: none"> ➤ Getting Information About Western Political Thinkers And Political Thoughts And Ideologies.
6	V Paper - VI	International Relations - I	4	<ul style="list-style-type: none"> ➤ Study Of The International Political System ➤ Study Of The International And Regional Organisations And History Of International Relations
7	VI Paper - VII	PapeIndian Political Thought	4	<ul style="list-style-type: none"> ➤ Getting Information About Western Political Thinkers And Their Political Thoughts
8	VI Paper - VIII	International Relations - II	4	<ul style="list-style-type: none"> ➤ Study Of The Bilateral Relations Of India With Neighbouring Countries, International Security And Emerging Issues.

				to identify the systems and processes of financial material management
6	V Paper - VI	Rural Governance	5	To aware the evolution and continuance of local self governments. To impart the knowledge the regarding the rural governance To develop the changing patterns of development programme in the rural areas
7	VI Paper - VII	Financial And Material Management	6	to understand the indian financial system to undrstand the various parliamentary related committees To develop the knowledge relating the budget process.
8	VI Paper - VIII	Urban Governance	5	to identify the the urban local bodies to understand the concept of democratic decentralisation to comprehend the institutional arrangements and processes of urban governance

Department Of Commerce

Programme Outcomes:

- This Programme could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.
- After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.
- Capability of the students to make decisions at personal & professional level will increase after completion of this course.
- Students can independently start up their own Business.
- Students can get thorough knowledge of finance and commerce.
- The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.

Programme Specific Outcomes:

The students can get the knowledge, skills and attitudes during the end of the B.com degree course.

- By goodness of the preparation they can turn into a Manager, Accountant , Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.
- Students will prove themselves in different professional exams like C.A., C S, CMA, TSPSC, UPSC. .
- The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
- Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.
- Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator. As well as other financial supporting services.
- Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- Students will be able to do their higher education and can make research in the field of finance and commerce.

Course Outcomes:

S. No.	Semester	Title of the Paper	Credits	Course Outcome
1	I	Financial Accounting – I	5	<ul style="list-style-type: none"> ➤ Students will be able to acquire conceptual knowledge of basics of accounting and preparation of final accounts of sole trader.
2	I	Business Economics	5	<ul style="list-style-type: none"> ➤ Students will be able to acquire the knowledge of application of economic principles and tools in business practices. ➤ To arouse the students interest by showing the relevance and use of various economic theories. ➤ To apply economic reasoning to solve business problems.
3	I	Business Organization	4	<ul style="list-style-type: none"> ➤ Students will be able to acquaint the students with the basics of Commerce and Business concepts and functions and forms of Business Organization
4	II	Financial Accounting – II	5	<ul style="list-style-type: none"> ➤ To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting. ➤ The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects. ➤ To find out the technical expertise in maintaining the books of accounts. ➤ To encourage the students about maintaining the books of accounts for further reference.
5	II	Managerial Economics	5	<ul style="list-style-type: none"> ➤ It will impart conceptual and

				<p>practical knowledge of managerial economics.</p> <ul style="list-style-type: none"> ➤ To aware students about Gross National Product (GNP), Net National Product (NNP), Income at Factor cost or National Income at Factor Prices, Per Capita Income, Personal Income (PI), Disposable Income etc. ➤ To Study the relationship among broad aggregates.
6	II	Principles of Management	4	<ul style="list-style-type: none"> ➤ Students will be able to familiarize the students with the basic principles of management. ➤ To understand the concept & functions and importance of management and its application. ➤ To make the student understand principles, functions and different management theories.
7	II	Foreign Trade	4	<ul style="list-style-type: none"> ➤ Students will be able to gain the knowledge of Indian and foreign trade policies and international institutions.
8	III	Advanced Accounting	5	<ul style="list-style-type: none"> ➤ To acquire accounting knowledge of partnership firms and joint stock companies ➤ To provide the knowledge of various accounting concepts ➤ To impart the knowledge about accounting methods, procedures and techniques. ➤ To acquaint students with practical approach to accounts writing by using software package and by learning various accounts.
9	III	Business Statistics-I	5	<ul style="list-style-type: none"> ➤ To inculcate analytical and computational ability among the students.
10	III	Income Tax -I	4	<ul style="list-style-type: none"> ➤ To acquire the conceptual and legal knowledge about Income Tax provisions relating to computation of Income from different heads

				<p>with reference to an Individual Assesse..</p> <ul style="list-style-type: none"> ➤ Students will be versed in the fundamental concepts of Auditing and different aspects of tax. ➤ Students can understand Income Tax system properly, and can get the knowledge of different tax provisions. ➤ To give knowledge about preparation of Audit report, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961.
11	III	Entrepreneurial Development, Business Ethics	4	<ul style="list-style-type: none"> ➤ To have exposure to the entrepreneurial culture, development and business ethics to set up and manage small units. ➤ To develop entrepreneurial awareness among students. ➤ To motivate students to make their mind set for thinking entrepreneurship as career.
12	IV	Corporate Accounting	5	<ul style="list-style-type: none"> ➤ To acquire the knowledge of AS-14 and preparation of accounts of banking and insurance companies. ➤ This course aims to enlighten the students on the accounting procedures followed by the Companies. ➤ Student's skills about accounting standards will be developed. ➤ To make aware the students about the valuation of shares. ➤ To impart knowledge about holding company accounts, amalgamation, absorption and reconstruction of company.
13	IV	Business Statistics-II	5	<ul style="list-style-type: none"> ➤ To inculcate analytical and computational ability among the students.
14	IV	Income Tax –II	4	<ul style="list-style-type: none"> ➤ to acquire the conceptual and legal knowledge about Income Tax provisions

				relating to computation of Income from different heads with reference to an Individual Assessee.
15	IV	Financial Inst.&Markets (BCom Gen)	4	<ul style="list-style-type: none"> ➤ To familiarize with various Financial Institutions and Markets.
16	V	Cost Accounting	5	<ul style="list-style-type: none"> ➤ To make the students acquire the knowledge of cost accounting methods. ➤ To understand Basic Cost concepts, Elements of cost and cost sheet. ➤ Providing knowledge about difference between financial accounting and cost accounting. ➤ Ascertainment of Material and Labor Cost. <ul style="list-style-type: none"> ➤ Student's Capability to apply theoretical knowledge in practical situation will be increased.
17	V	Business Law	5	<ul style="list-style-type: none"> ➤ To make the students acquire the basic conceptual knowledge of different laws relating to Business. ➤ To impart students with the knowledge of fundamentals of Company Law and provisions of the Companies Act of 2013. ➤ To apprise the students of new concepts involving in company law regime. ➤ To acquaint the students with the duties and responsibilities of Key Managerial Personnel. ➤ The student will well verse in basic provisions regarding legal frame work governing the business world. ➤ To know the students with the basic concepts, terms & provisions of Mercantile and Business Laws. ➤ To develop the awareness among the students regarding these laws affecting trade business, and commerce.

18	V	Banking Theory & Practice	4	<ul style="list-style-type: none"> ➤ To acquire the knowledge of the working of the Indian Banking system. ➤ To familiar the students with the fundamentals of banking and thorough knowledge of banking operations. ➤ To build up the capability of students for knowing banking concepts and operations. ➤ To make the students aware of banking business and practices. ➤ To make understandable to the students regarding the new concepts introduced in the banking system.
19	V	Computerised Accounting	4	<ul style="list-style-type: none"> ➤ To acquire basic knowledge in the computerised accounting systems and its applications in the area of business.
20	V	Financial Institutes & Markets (For BCom (CA) only)	4	<ul style="list-style-type: none"> ➤ To familiarize with various Financial Institutions and Markets. ➤ Enable the students with Financial Markets and its various segments. ➤ To give the students and understanding of the operations and developments in financial markets in India.
21	V	Financial Management Spl-1 (OR)	4	<ul style="list-style-type: none"> ➤ To understand the basics in financial management.
22	V	Principles of Marketing Spl-2 (OR)	4	<ul style="list-style-type: none"> ➤ To expose to the basics of marketing management as a functional area and to understand the various decisions under this discipline. ➤ This course enables the students, the practical knowledge and the tactics in the marketing. ➤ To study and critically analyze the basic concepts and trends in Marketing. ➤ To aware of the recent changes in the field of marketing.

23	V	Computerised Accounting (For BCom(CA) only)	4	<ul style="list-style-type: none"> ➤ To acquire the knowledge of managerial accounting decision making techniques, preparation of budgets and estimation of working capital.
24	VI	Managerial Accounting	5	<ul style="list-style-type: none"> ➤ To understand the legal provisions applicable for establishment- management and winding up of companies in India.
25	VI	Company Law	5	<ul style="list-style-type: none"> ➤ To understand the meaning and elements of auditing and gain the knowledge of execution of audit.
26	VI	Auditing	4	<ul style="list-style-type: none"> ➤ To become familiar with various business documents and acquire practical knowledge, which improve over all skill and talent. ➤ Students will be versed in the fundamental concepts of Auditing ➤ To give knowledge about preparation of Audit report.
27	VI	Commerce Lab	4	<ul style="list-style-type: none"> ➤ To understand about filling of Banking vouchers, insurance documents and registration of businesses.
28	VI	Human Resource Management Spl-1 (For BCom (Gen))	4	<ul style="list-style-type: none"> ➤ To gain knowledge of the basics of Human Resource Management.
29	VI	E-Commerce (For BCom (CA))	4	<ul style="list-style-type: none"> ➤ To acquire conceptual and application knowledge of ecommerce.
30	VI	Tax Planning & Management Spl-2 (For BCom (Gen))	4	<ul style="list-style-type: none"> ➤ To equip with the conceptual and legal knowledge about Tax planning and Management with reference to various Heads of Income relating to an Individual Assessee.
31	VI	Management Information System (For BCom (CA))	4	<ul style="list-style-type: none"> ➤ To know about the Management Information System
32	VI	Regulation of Insurance Business (SEC)	2	To equip the students with the knowledge regarding Insurance Business Regulations

Department Of Computer Science & Applications

Programme Outcome:-

- Students should be able to understanding of the basic operations of a computer system, specifically in terms of the systems' hardware and software components, use computer applications software.
- Develop ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution.
- To prepare students to undertake careers involving problem solving using computer science and technologies.
- Develop ability to pursue advanced studies and research in computer science.
- To produce entrepreneurs who can innovate and develop software product.
- They can able to solve problems and discuss, comment on the social impact of the widespread use of computer technology and automate simple tasks in specific applications.

Programme Specific Outcome:-

The students can get the knowledge and skills during the end of the degree course.

- By goodness of the preparation they can turn into a Banking jobs, Data Entry Operator, Clerical Jobs, Government as well as Private employments and so on.
- Students will prove themselves in different professional exams like C.A., C S, CMA, TSPSC, UPSC. .
- Students will be able to do their higher education and can make research in the field of Computer Science and Applications.

<i>S. No.</i>	<i>Semester</i>	<i>Course</i>	<i>Credits</i>	<i>Course Outcome</i>
1	BSC (MPCs) Semester - I	Programming In C	5	Explore algorithmic approaches to problem solving. <ul style="list-style-type: none">• Ability to analyze a problem and devise an algorithm to solve it.• Able to formulate algorithms, pseudo codes and flowcharts for arithmetic and logical problems.

				<ul style="list-style-type: none"> • Ability to implement algorithms in the 'C' language. • Develop modular programs using control structures and arrays in 'C'.
2	B.Com.(CA) Sem ester – I	Information Technology	4	Students will be able to acquire basic knowledge in Information Technology and its applications in the areas of business
4	BSC (MPCs) Sem ester - II	Object Oriented Programming In C++	5	Able to understand the concept of object oriented programming. • Use the benefits of object oriented design and understand when it is an appropriate methodology to use. • Design object oriented solutions for small systems involving multiple objects.
5	B.Com.(CA) Sem ester – II	Programming with C	4	Explore algorithmic approaches to problem solving. <ul style="list-style-type: none"> • Ability to analyze a problem and devise an algorithm to solve it. • Able to formulate algorithms, pseudo codes and flowcharts for arithmetic and logical problems. • Ability to implement algorithms in the 'C' language. • Develop modular programs using control structures and arrays in 'C'.
6	BSC (MPCs) Sem ester – III	Data Structures using JAVA	5	Understand to implement object oriented programming concepts. • Understand how to design graphical user interface in Java programs. • Understand how to design and develop applets. • Able to design User Interface using Swing and AWT. • Understand concept of packages and study how to implement them.
7	B.Com.(CA) Sem ester - III	Fundamentals Of Web Designing	4	The aim of this course is to provide the conceptual knowledge of web page design which enables the student to develop the skill of web

				page design.
9	BSC (MPCs) Sem ester – IV	Data Base Management System	5	Understand fundamental concepts of database. <ul style="list-style-type: none"> • Understand user requirements and frame it in data model. • Ability in creations, manipulation and querying of data in databases. • Ability to solve real world problems using appropriate set, function, and relational models. • Ability to design E-R Model for given requirements and convert the same into database tables.
10	B.Com.(CA) Sem ester -IV	Relational Database Management	4	Able to understand database concepts and database management system software. <ul style="list-style-type: none"> • Analyze and design a real database application. • Develop and evaluate a real database application using a database management system. • Able to develop applications using PL/SQL & front end tools.
12	BSC (MPCs) Sem ester – V Paper - V	Operating Systems	5	Understand the role of operating system as System software. <ul style="list-style-type: none"> • Able to compare the various algorithms and comment about performance of various algorithms used for management of memory, CPU scheduling, File handling and I/O operations. • Understand various concept related with Deadlock to solve problems related with Resources allocation, after checking system in Safe state or not. • TounderstandroleofProcess synchronization towards increasing throughput of system.
13	BSC (MPCs)	Programming	5	To Learn Python scripting elements to Discover how to work with lists

	Semester – V Paper - VI	With Python		and sequence data. Write Python functions to facilitate code reuse. Use Python to read and write files.
14	B.Com.(CA) Sem ester – V	Object Oriented Programming In C++	4	Able to understand the concept of object oriented programming. • Use the benefits of object oriented design and understand when it is an appropriate methodology to use. • Design object oriented solutions for small systems involving multiple objects.
15	BSC (MPCs) Sem ester – VI Paper - VII	Software Engineering	5	Able to design and conduct experiments, as well as to analyze and interpret data. • Able to identify, formulate, and solve engineering problems. • Able to analyze, design, verify, validate, implement, apply, and maintain software systems. • Able to understand different phases of SDLC.
16	BSC (MPCs) Sem ester – VI Paper - VIII	Web Technology	5	The aim of this course is to provide the conceptual knowledge of web page design which enables the student to develop the skill of web page design.
17	B.Com.(CA) Sem ester – VI	E-Commerce	4	To acquire conceptual and application knowledge of ecommerce.