



GOVERNMENT DEGREE COLLEGE

RAZOLE, Dr B R AMBEDKAR KONASEEMA (Dist), A.P-533242

NAAC Re-Accredited with 'B' Grade



B.Sc (CBZ) Course Outcomes (COs)

Course Name - C1	CO Number	CO Statements	Blooms Taxonomy Level
English-I	CO 1	Use grammar effectively in writing and speaking	L1, L2, L4
	CO 2	Demonstrate the use of good vocabulary	L1,L3
	CO 3	Demonstrate an understating of writing skills	L5,L3,L2
	CO 4	Acquire ability to use soft skills in professional and daily life	L1,L4
	CO 5	Confidently use the tools of communication skills	L1,L4
Course Name - C2	Course Outcome	CO	Blooms Taxonomy Level
Telugu-I	CO 1	ప్రాచీన తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారు. తెలుగు సాహిత్యంలో	L1,L2,L5
	CO 2	తిక్కన భరతం నాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితా శిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు	L1,L2,
	CO 3	ఎఱ్ఱన సూక్తి వైచిత్ర్యాన్ని, ఇతిహాస కవిత్యంలోని విభిన్న రీతులపట్ల అభిరుచిని పొందగలరు	L1,L2,L5
	CO 4	శ్రీనాథుని కాలం నాటి కవితా విశేషాలను, తెలుగు పద్యం స్వరూప స్వభావాలను, సాహిత్య అభిరుచిని పెంపొందించుకుంటారు	L3,L5
	CO 5	మొల్ల కవితా విశిష్టతను గుర్తించగలరు	L2, L3
Course Name - C3	CO Number	CO	Blooms Taxonomy Level
BOTANY-1	CO 1	Demonstrate the techniques of use of lab equipment, preparing slides and identify	L3

		the material and draw diagrams exactly as it appears.	
	CO 2	Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.	L1,L2,L4
	CO 3	Critically understand various taxonomical aids for identification of Angiosperms.	L2, L3
	CO 4	Analyse the biochemical reactions in relation to Nitrogen and lipid metabolisms.	L4
	CO 5	Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.	L2
Course Name - C4	Course Outcome	CO	Blooms Taxonomy Level
ZOOLOGY-1	CO 1	Describe general taxonomic rules on animal classification	L1,L2,L6
	CO 2	Classify Protozoa to Coelenterata with taxonomic keys	L2
	CO 3	Classify Phylum Platy hemninthes to Annelida phylum using examples from parasitic adaptation and vermin composting.	L2
	CO 4	Describe Phylum Arthropoda to Mollusca using examples and importance of insects and Molluscans	L1,L2,L6
	CO 5	Describe Echinodermata to Hemi chordata with suitable examples and larval stages in relation to the phylogeny	L1,L2,L6
Course Name - C5	CO Number	CO	Blooms Taxonomy Level
CHEMISTRY-1	CO 1	Write the preparations of diborane and higher boranes	L3,L5
	CO 2	Get knowledge of inter Halogen compounds	L2, L3

	CO 3	Identify cation and anion in the given inorganic salt by doing systematic procedure in laboratory	L1,L2,L4
	CO 4	Understand the difference between Physical absorption and Chemical absorption	L2, L3
	CO 5	Get knowledge about Raoult's Law, completely miscible liquids, partial miscible liquids , immiscible liquids (Nernst distribution Law) and Colloids	L2, L3
Course Name - C6	Course Outcome	CO	Blooms Taxonomy Level
ENGLIS -2	CO 1	Use reading skills effectively.	L1, L2, L4
	CO 2	Comprehend different texts	L1,L3
	CO 3	Interpret different types of texts	L5,L3,L2
	CO 4	Analyse what is being read	L1,L4
	CO 5	Build up a repository of active vocabulary	L1,L4
Course Name - C7	CO Number	CO	Blooms Taxonomy Level
TELUGU-2	CO 1	ఆంగ్లభాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని , దాని విశిష్టతను గుర్తిస్తారు	L1,L2,L5
	CO 2	సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం , కథ , నవల , నాటకం , విమర్శ"	L1,L2,
	CO 3	భావకవిత , అభ్యుదయ కవితాలక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు . అస్తిత్వవాద ఉద్యమాల పుట్టుకను , ఆవశ్యకతను గుర్తిస్తారు	L1,L2,L5
	CO 4	కథాసాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు . సిద్ధాంతాల ద్వారా కాకుండా , వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించగలరు .	L3,L5
	CO 5	ఆధునిక తెలుగు కల్పనాసాహిత్యం ద్వారా సామాజిక ,	L2, L3

		సాంస్కృతిక , రాజకీయ చైతన్యాన్ని పొందుతారు..	
Course Name - C8	CO Number	CO	Blooms Taxonomy Level
BOTANY-II	CO 1	Classify and compare Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycles.	L2
	CO 2	Justify evolutionary trends in tracheophytes to adapt for land habitat.	L6
	CO 3	Explain the process of fossilization and compare the characteristics of extinct and extant plants.	L2,L5
	CO 4	Analyse the morphology of the most common Angiosperm plants of their localities and recognize	L4
	CO 5	Locate different phytogeographical regions of the world and India and can analyse their floristic wealth	L5
Course Name - C9	Course Outcome	CO	Blooms Taxonomy Level
ZOOLOGY-II	CO 1	Describe general taxonomic rules on animal classification of chordates	L1,L2,L6
	CO 2	Classify Protochordate to Mammalia with taxonomic keys	L2
	CO 3	Understand Mammals with specific structural adaptations	L2,L3
	CO 4	Understand the significance of Identification and evolutionary significance	L2,L3
	CO 5	Understand the origin and Evolutionary relationship of different phyla from Prochordata to Mammalia.	L2,L3
Course Name - C10	CO Number	CO	Blooms Taxonomy Level

CHEMISTRY-II	CO 1	Understand the difference between carbocation and carbanion	L2,L3
	CO 2	Understand Inductive effect , mesomeric effect, Hyper conjugation	L2,L3
	CO 3	Understand the preparation and properties of alkenes , alkynes and cyclo alkanes	L2,L3
	CO 4	Understand Hybridization, valence bond theory, Molecular Orbital diagrams	L2,L3
	CO 5	Explain Stereo Chemistry, R,S – Nomenclature, D,L and E,Z- Nomenclature	L2,L5
Course Name - C11	Course Outcome	CO	Blooms Taxonomy Level
English-III	CO 1	Speak fluently in English	L1, L2, L4
	CO 2	Participate confidently in any social interaction	L1,L3
	CO 3	Face any professional discourse	L5,L3,L1
	CO 4	Demonstrate critical thinking	L1,L4
	CO 5	Enhance conversational skills by observing the professional interviews	L2,L4
Course Name - C12	CO Number	CO	Blooms Taxonomy Level
Telugu-III	CO 1	తెలుగు సాహిత్య అభ్యసన ద్వారా నేర్చుకున్న నైపుణ్యాలను , సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు	L1,L2,L5
	CO 2	విద్యార్థులు భాషాతత్వాన్ని , భాష యొక్క ఆవశ్యకతను , భాష యొక్క ప్రాధాన్యాన్ని గుర్తిస్తారు	L1,L2,
	CO 3	రచనా, భాషానైపుణ్యాలను సృజనాత్మక రూపంలో వ్యక్తీకరించగలరు .	L1,L2,L5
	CO 4	ప్రాచీన పద్యరచనతో పాటు ఆధునిక కవిత ,కథ,వ్యాసం , మొదలైన సాహిత్య ప్రక్రియల	L3,L5
	CO 5	సృజన రంగం , ప్రసార మాధ్యమ రంగాల్లో ఉపాధి అవకాశాలను అందిస్తున్నట్లుగా గుర్తించగలరు .	L2, L3

Course Name - C13	Course Outcome	CO	Blooms Taxonomy Level
BOTANY-III	CO 1	Critically understand various taxonomical aids for identification of Angiosperms.	L2, L3
	CO 2	Analyse the morphology of the most common Angiosperm plants of their localities and recognize their families.	L4
	CO 3	Illustrate and interpret various aspects of embryology.	L4
	CO 4	Get familiarized with microscopic study of reproductive structure of plants.	L1
	CO 5	Analyst the endemics by endangered flora and fauna from to biodiversity hotspots in India and asses strategies for their conservation	L2, L3
Course Name - C14	CO Number	CO	Blooms Taxonomy Level
ZOOLOGY-III	CO 1	To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.	L2, L3
	CO 2	Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.	L1,L2,L6
	CO 3	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	L2, L3
	CO 4	Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders	L2, L3
	CO 5	Understand the principles and forces of evolution of life on	L2, L3

		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	
Course Name - C15	CO Number	CO	Blooms Taxonomy Level
CHEMISTRY-III	CO 1	Understand P-type, n-type semiconductors	L2, L3
	CO 2	Study the properties and electronic configuration of transition elements	L3
	CO 3	Study of Nomenclature, preparations, properties and reactivity of alkyl halides	L3
	CO 4	Understand difference between SN1, SN2 mechanisms	L2, L3
	CO 5	Understand the Properties and preparations of mono carboxylic acids, di carboxylic acids	L2, L3
Course Name - C16	Course Outcome	CO	Blooms Taxonomy Level
BOTANY-IV	CO 1	Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.	L1, L3
	CO 2	Evaluate the role of minerals in plant nutrition and their deficiency symptoms.	L3
	CO 3	Interpret the role of enzymes in plant metabolism.	L3
	CO 4	Analyse the biochemical reactions in relation to Nitrogen and lipid metabolisms.	L4
	CO 5	Evaluate the physiological factors that regulate growth and development in plants.	L3
Course Name - C17	CO Number	CO	Blooms Taxonomy Level
ZOOLOGY-IV	CO 1	Describe the key events in early embryonic development starting from the formation of	L1, L2, L6

		gametes up to gastrulation and formation of primary germ layers	
	CO 2	Understand the functions of important animal physiological systems including digestion, cardio-respiratory and renal systems.	L2, L3
	CO 3	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.	L2, L3
	CO 4	Describe the structure, classification and chemistry of biomolecules and enzymes responsible for sustenance of life in living organisms	L1,L2,L6
	CO 5	Develop broad understanding the basic metabolic activities pertaining to the catabolism and anabolism of various biomolecules	L5
Course Name - C18	Course Outcome	CO	Blooms Taxonomy Level
CHEMISTRY- IV	CO 1	To study UV, IR and NMR Spectroscopy	L2, L3
	CO 2	Determine the structure of compounds by Spectroscopic methods	L2, L3
	CO 3	Explain the Potentiometric, Conduct metric titrations	L2
	CO 4	Understand the Phase rule, Phase diagram for one component, two component systems	L2, L3
	CO 5	Study about Colligative Properties of the Solutions	L3
Course Name - C19	CO Number	CO	Blooms Taxonomy Level

BOTANY-VA	CO 1	Distinguish prokaryotic and eukaryotic cells and design the model of a cell.	L2,L4
	CO 2	Explain the organization of a eukaryotic chromosome and the structure of genetic material.	L2,L5
	CO 3	Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.	L2
	CO 4	Evaluate the structure, function and regulation of genetic material	L3
	CO 5	Explain the procedures of selection and hybridization for improvement of crops.	L2
Course Name - C20	Course Outcome	CO	Blooms Taxonomy Level
BOTANY-VB	CO 1	Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and biotic factors on plant communities.	L2,L3
	CO 2	Appraise various qualitative and quantitative parameters to study the population and community ecology.	L1,L3,L4
	CO 3	Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their goods and services for human welfare.	L1,L2,L6
	CO 4	Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their goods and services for human welfare.	L1,L2,L6
	CO 5	Locate different phytogeographical regions of the world and India and can analyse their floristic wealth.	L1,L4
Course Name - C21	CO Number	CO	Blooms Taxonomy Level

ZOOLOGY-VA	CO 1	Knowledge on animal cell and tissue culture and their preservation	L2, L3
	CO 2	To empower with latest biotechnology techniques like stem cell technology, genetic engineering, hybridoma technology, transgenic technology and their application in medicine and industry for the benefit of living organisms	L1,L3
	CO 3	Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.	L2, L3
	CO 4	Get familiar with the tools and techniques of animal biotechnology.	L2, L3
	CO 5	Analise the functioning of life at cellular level.	L2,L4
Course Name - C22	CO Number	CO	Blooms Taxonomy Level
ZOOLOGY-VB	CO 1	To get knowledge of principles of animal sciences include genetics, nutrition, reproduction and physiology.	L4
	CO 2	understand animal husbandry and handling techniques to effectively interact with animal and humane manner	L2, L3
	CO 3	communicate effectively both written and orally and interpret scientific sources and data	L2, L3
	CO 4	Get familiar with the techniques of animal husbandry	L2, L3
	CO 5	Develop feeding system for farm animal production	L1,L5
Course Name - C23	Course Outcome	CO	Blooms Taxonomy Level
CHEMISTRY-VA	CO 1	Study of Co-ordination compounds and related theories	L2, L3

	CO 2	Study of Geometrical and Stereo isomerism in Co-ordination Compounds	L2, L3
	CO 3	Get knowledge of Nitrogen compounds (Nitro compounds, Cyanides, Amines)	L2, L3
	CO 4	Understand Thermodynamics First and Second Law	L2, L3
	CO 5	Derive the work done by the system in isothermal reversible process	L6
Course Name - C24	CO Number	CO	Blooms Taxonomy Level
CHEMISTRY-VB	CO 1	Understanding of reaction mechanism in Inorganic Chemistry	L2, L3
	CO 2	Get knowledge of Heterocyclic compounds	L2, L3
	CO 3	Study of Preparation and Properties of Amino acids	L5
	CO 4	Derive the rate expression for first and second order kinetics	L6
	CO 5	Draw Jablonski diagram to explain IC, ISC, Phosphorescence, Fluorescence	L4
Course Name - C25	Course Outcome	CO	Blooms Taxonomy Level
BOTANY-VI	CO 1	Study of Plant Propagation and Nursery Management	L5
	CO 2	Deals with seed production technology of horticultural crops.	L3
	CO 3	Analyse the greenhouses based on shape, utility, construction, covering materials and cost	L4
	CO 4	fundamental components of Production technology of following sub-tropical and temperate fruits	L3
	CO 5	Complete knowledge about Scope and importance of commercial floriculture in India	L2, L3
Course Name - C26	CO Number	CO	Blooms Taxonomy Level

B1	CO 1	An understanding of physics in biosensor, electrode	L2, L3
biological instruments	CO 2	An understanding of biomedical instrumentation principles in aspects of device design and applications.	L2, L3
	CO 3	An ability to analyse contemporary bioinstrumentation studies to make connections and decisions based on their scientific merit	L4
	CO 4	An ability to communicate and function effectively on a multi-disciplinary team.	L2, L3
	CO 5	An ability to strengthen self-learning methods and organizational skills to enhance problem-solving abilities and efficiency.	L2, L3
Course Name - C27	Course Outcome	CO	Blooms Taxonomy Level
B2	CO 1	Students study the morphology and types of Mushrooms.	L2, L3
mushroom culture and technology	CO 2	They are aware of the identification of edible and poisonous Mushrooms	L2,L4,L6
	CO 3	Students will be able produce spawn on their own.	L3
	CO 4	understands facilities required for mushroom cultivation.	L2, L3
	CO 5	Exhibit skills on various cultivation practices for an edible mushroom.	L1,L3,L4
Course Name - C28	CO Number	CO	Blooms Taxonomy Level
B3	CO 1	Students study the morphology and types of Mushrooms.	L2, L3
project work	CO 2	They are aware of the identification of edible and poisonous Mushrooms	L2,L4,L6
	CO 3	Students will be able produce spawn on their own.	L3
	CO 4	understands facilities required for mushroom cultivation.	L2,L3

	CO 5	Exhibit skills on various cultivation practices for an edible mushroom.	L1,L3,L4
Course Name - C29	CO Number	CO	Blooms Taxonomy Level
ZOOLOGY-VI	CO 1	To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.	L2, L3
	CO 2	To describe immunological response as to how it is triggered (antigens) and regulated (antibodies)	L1,L2,L6
	CO 3	Discuss the concepts of antigen and antibody.	L1,L2,L3
	CO 4	Defines the concept of immunology.	L1,L2
	CO 5	Explain immune system cells	L1,L2,L5,L6
Course Name - C30	Course Outcome	CO	Blooms Taxonomy Level
C1	CO 1	Introduction to post harvest technology of agricultural produce; Status of Production, Losses, Need, Scope and Importance	L1,L3
Principles of aquaculture	CO 2	Define, scope and significance of aquaculture	L1,L2
	CO 3	Acquire knowledge on taxonomy and morphology of fishes	L1,L2
	CO 4	Examine the types and practices of aquaculture.	L1,L4
	CO 5	Describe food, feeding, growth in fishes	L1,L2,L6
Course Name - C31	CO Number	CO	Blooms Taxonomy Level
C2- Aquaculture management	CO 1	Introduction to various post-harvest operations such as Primary Processing Operation Vs. Secondary Operation, Operations like Harvesting, Handling cleaning, grading, sorting, drying, storage,	L1,L3

		milling, size reduction, expelling, extraction, blending, heat treatment, separation, material handling (transportation, conveying, elevating), washing; their functions and use in the post-harvest processing	
	CO 2	Estimate water quality, evaluate nutrition in aquafarming.	L1,L2,L6
	CO 3	Apply the knowledge on microbial infection, disease diagnosis and control measures.	L1,L3
	CO 4	Acquire the knowledge on culture of fishes.	L1,L2
	CO 5	Explain the economic importance of fishes	L1,L3
Course Name - C32	Course Outcome	CO	Blooms Taxonomy Level
C3	CO 1	Describe the knowledge necessary for professional or academic work in the field of aquaculture. this includes knowledge in the areas of ecology, biology physiology health, reproduction, nutrition, and genetics.	L1,L2,L6
post-harvest technology	CO 2	Awareness of the updated quality standouts in processing plants and culture unit.	L1,L2,L3
	CO 3	Possess the ability to identify and control spoilage.	L1,L2,L3.
	CO 4	Essential knowledge requires to work as a technologist and quality assurance manager.	L1,L2,L3.
	CO 5	Adopt in the management technics and regulatory mechanism in the processing sector	L1,L2,L3.
Course Name - C33	CO Number	CO	Blooms Taxonomy Level
CHEMISTRY-VI	CO 1	Learn environment pollution and its impact	L1,L3

Elective	CO 2	Learn causes of environmental pollution such as depletion of natural resources, climate change, ozone depletion	L1,L3
	CO 3	Role of Chemistry in environment pollution	L2,L3
	CO 4	Understand different chemical aspects of Pollution viz: air, water, energy etc	L2,L3
	CO 5	Introduction to different segments of environments and their importance	L1,L3

PRINCIPAL

Government Degree College
(NAAC Reaccredited at 'B' Grade)
RAZOLE - 533 242, E.G.D., (A.P.)