



# CRITERIA - II

2.6.1. **POs, COs & SPOs** •



- 2. POs
- 3. SPOs

Course Outcomes		
Course Name	CO Number	Course Outcome
ENGLISH		
ENGLISH, POETRY, PROSE, FURTHER READING AND LANGUAGE USAGE	CO1	To identify various forms and types of early Indian poetry
	CO2	To learn, to read, analyse and appreciate poetry critically
	CO3	To be able to analyse and appreciate Indian Dramaatic techniques, characterization and contemporary thems
	CO4	To recognise the infuence of British short story on the Indian Short Story and its unique features.
INDIAN WRITING IN ENGLISH -	CO1	To understand modern view of feminism as depicted in Indian English poetry
	CO2	To Understand the power politics which is charcacterised by vilence, corruption in Vijay Tendulkar's Drama
	CO3	To understand the theme of alienation in Mulk Raj Anand's Untouchable
	CO4	To understand the multiculturalism in the short Story
ENGLISH, POETRY, PROSE, FURTHER READING AND LANGUAGE USAGE	CO1	To Study various Indian English Poets, their mottos and works
	CO2	To understand the Indian Philosophy in Tagore's plays
	CO3	To understand the impact of History on IndianEnglish Novel of the pre-independence era
	CO4	To understand the humour and nativity in R.k.Narayan's Novels
COMMUNICATION AND SOFT SKILS -I	CO1	To build an elementary understanding of form,meaning and use in various discourse settings

		To understand and apply the conventions of academic writing in English
	CO2	
	332	To use grammatical structures accurately
	CO3	
		To identify main ideas of a text
	CO4	
TO THE OWNER OF		To use basic grammatical structure in short conversations and discussions
	CO1	
		To practice the grammar skills involved in writing sentences and short paragraphs
COMMUNICATION AND SOFT	CO2	
SKILLS - II		To demonstrate consistent and appropriate language use in extended conversations and discussions
	CO3	
Prog.		To make inferences and predictions based on information in the text
	CO4	
		To evaluate learning and performance, and set goals for progress
	CO1	
		To use communication strategies to participate in classroom discussions
COMMUNICATION AND SOFT	CO2	
SKILS -III		To demonstrate behaviour and attitudes appropriate to a work environment
	CO3	
		To use digital literacy tools to develop listening skills
	CO4	
	TEL	UGU
	- 6001110	To realize the impact of values, culture, and
PRACHEENA PADYA BHAGAM-VYAKARANAM	CO1	religion on life and literature in the ancient period by going through ancient Telugu liteature
		To be able to understand the distinction between the
	CO2	ancient and modern grammar and the value given to stylistics, metre, rhythm, and musical quality
	CO3	To be able to understaned the difference between the works of different classical poets, their works and their impact on the community.
		To master the basic rules of grammar of the classics and locate the same in the poetry selections.
	CO4	

	CO5	To acknowledge the beauty of nature through figures of speech. To receive the rhyme and rhythm by prosody
ADUNIKA SAHITYAM	CO1	To understand the distinction between the classical and modern styles of writing poetry and the efforts to come out from the clutches of metre, rhyme, rhythm etc. to reach out to the common man.  To understand the beauty of creative poetry and
	CO2	poetry of imagination with common themes such as the literature of the downtrodden and the oppressed classes
	CO3	To have ecological awareness through the description and analysis about charecterstics of plant
	CO4	To be aware of social evils such as suppression of women, plight of widows, etc. in our traditional society
	CO5	To be aware of equality men and women, work distribution, dignity of labour in home ,to know how the spoil the tradional arts and employement
Telugu Ancient and Modern Poetry Prose and Alankaras	CO1	To acquire knowledge of the Alankaras (prosody) in the ancient liteary texts
1 TOSE and Alankaras	CO2	To understand the use of Alankaras through comparative study of the poetry lessons
	CO2	To analyse the liteary texts to know how the ancient poetry given prominence to Alankaras and how the texts gave significance to prosody.
		To apply the acquired knowledge of Prosody in analysing the ancient poetry works
	CO4	To acknowledge the beauty of nature through figures of speech and to receive the rhyme, and rythem by prosdy
		ORY
INDIAN HISTORY AND CULTURE (FROM EARLIEST TIME TO 647 AD )	CO1	To gain basic Knowledge about the Indian History and Culture and Geographical Features of India
	CO2	To observe the changes between pre Historic time to Historic time critically
		To do analysis of Political system from Vedic Period to Later Guptas
	CO3	To understand the diffferences of socio Religious conditions from Muryas to later guptas with special reference to Position of Women in Epic Age
	CU4	

MEDIVAL INDIAN HISTORY AND CULTURE FROM 647 TO 1526 AD	CO1	To Identify the different styles of Architecture from Pallavas to Vijayanagara period
	CO2	To observe the Administrative Stuctures from Cholas to Vijayanagara period
		To understand the political and Administrative Structure of Delhi Sultanates period
	CO3	To do a Comparative study of Indo Islamic Culture and position of Women and Hindu & Muslim Society
INDIAN HITORY AND CULTURE	CO4	To have knowledge on the historical sources of Medieval period
FROM 1526 TO 1857 AD	CO1	To understand the diffences of Administrative Structures from Moghals to British period
	CO2	To have thorough knowledge on the Moghual Architecture style
	CO3	To analyse how the British Empire expanded through out India and its Impact and special
MODERN INDIAN HISTORY AND	CO4	reference to Sir Author Cotton  To understand the causes for the revolts of peasants, Tribes and Sepoys in 19th Centurary
CULTURE FROM 1857 TO 1950 AD	CO1	To understand the ways of introduction of the English Education system and its impact on Indian
	CO2	To Acquire Knowledge of Freeedom Movement, different phases in the Movement, and to
	CO3	understand the patriotic and Nationalistic spirit of the freedom fighters  To Know the progress of Freedom Movement in
	CO4	India and special reference to Local Women Freedom Fighters
EARLY MODERN WORLD HISTORY (1453 TO 1815 AD )	CO1	To dnderstand the Renaissance and Reformation Movement in Modern Europe
	CO2	To observe the emergence of National States
		To analyse the Revolutionary Age in Europe and its global impact
	CO3	To Acquire Knowledge about Napolean Era and special reference to Eastern Question from 1875 AD.

HISTORY AND CULTURE OF MODERN ANDHRA (FROM EARLEST TIME TO 1857 AD)	CO1	To understand the Political conditions from Various dynasties of Andhra they inspired by the great peoples History to build up their Character
Santa Santa		To make a Comparative study of Traditions & Cultures of Qutub Shahis and Asaf Jahis
	CO2	To analyse the socio, cultural, and political situation
	CO3	in the Andhra under colonial rule
	CO4	To observe the Impact of Industrial Revolution in Andhra and special reference to Cotton Irrigation Policiy in Andhra
MODERN WORLD HISTORY 1816 TO 1945 AD	CO1	To comparative study of Industiral Revolution befor and after in Europe
1343 AD		To analyse the Unification Movements in europe
	CO2	To observe the causes and consiquences of Two
	CO3	World wars
	CO4	To acquire Knowledge of UNO and its Functions and special reference to Indo-Pack relations from 1945 to 1971 AD
	C01	To Observe the Cold War & USSR relations with East European Countries
CONTENPORARY HISTORTY OF WORLD	C02	To acquire knowledge about the emergency of III World
WOILE	002	To understand the conflicts in the Middle East Countries
1945 to 2000 AD	C03	To another the and of cold war 0 at the of
		To analyse the end of cold war & study of Globlisation
HISTORY AND CULTURE OF MODERN ANDHRA PRADESH FROM	C04	To appreciate the Socio Religious Movement in Andhra special reference to Kandukuri
1858 TO 1956 AD	CO1	
		To observe the Vandemataram Movement in Andhra special reference to Arts College Incident
	CO2	To make a Comparitive study of three phases of
	CO3	Freedom Struggle in Andhra
	CO4	To analyse the separation of Andhra State and Formation of Andhra Pradesh and special reference to Vandamatharam Movement in East Godavari

SOUTH INDIAN HISTORY FROM		To Know about the sources of South Indian History and Political conditions from sangam age to
SATAVAHANAS TO 1653 AD	CO1	Sathavahanas period
	CO2	To make a Comparative study of Art and Architecture and political conditions of South indian Dyanasties
		To analyse the greatness of Kakathiya Rulers to uplift the Telugu Literature
	CO3	Trade and the Classical attention
		To observe the Glouries period of Vijiyanagara
	CO4	
		To gain Knowledge of Tourism basic Consepts
CULTURAL TOURISM IN ANDHRA		
PRADESH	CO1	To Conseque the Lorent Tourism
		To Compare the types of Tourism
	CO2	To the decease of the difference and Tourisms
1000 7 1000 1000		To Understand the History and Tourism relationship and development of Tourism in
		Andhra Pradesh
	CO3	
		To gain Practical Knowledge about Field Trip - to a Historical place, Tourist spot
	00.	riistoricai piace, rourist spot
	CO4	To condense and the placed area at a filtration
		To understand the development of Andhra in various sectors After formation of Andhra Pradesh
CONTEMPORARY HISTORY OF	004	various sectors Arter formation of Anuma Fradesii
ANDHRA PRADESH	CO1	Analysis the causes and impacts of Communist,
		Naxalbari, and Dalit Movements
	603	readibari, and bane wovernents
	CO2	To Know about the Early trends towards
		Bifurcation of Andhra Pradesh
	603	Bridi Gation Orymania i radesii
	CO3	To Acquire Knowledge about the Bifurcation of
		Andhra Pradesh
DOZENIA DOZ	CO4	
	CO+	To Understand the Basics of Tourism in General
		and Tourism in India in particular
TOURISM IN INDIA	CO1	
TO STUDIN IN INDIV	551	To analyse the Socio - Economic significance of
		Tourism
	CO2	
	30=	To Observe the General Problems of Toursim
DO S III		
	CO3	
		To do a Comparitive study of To do a Comparitive
		study of Centre and State Government Tourism
	CO4	Policies of Centre and State Governments

		To Understand the significance of Tourism and its
	B.Sc., B.A.,	impact on Physical Environment
Tourism and Trave Management	B.Com	
		To Identify the Archaeological & Historical
		Monuments and the vital role they play in the development of Tourism
		To Acquire Knowledge about diffrent Cultures in India and to explore the opportunities to develop
		Tourism around these
		To Observe the different sectors of Tourism and to
		explore the ways and means to make Toursism and
	1000	Travel management a sustainable growth sector
	ECON	OMICC
	ECON	OMICS
	4.114	To gain knowledge on how households (demand)
		and business (supply) firms interact in various
Micro Economics-I	CO1	market structures to determine price and quantity of a good produced.
THISTO ECONOMICS I	CO1	To Understand that Economics is about the
		allocation of scarce resources, that scarcity forces
		choice, trade-offs exist and that every
	CO2	choice has an opportunity cost.
		To Demonstrate the concepts of Micro Economics using a production possibility frontier diagram.
	000	using a production possibility frontier diagram.
	CO3	To understand how comparative advantage
		provides the basis for gains through trade.
	CO4	g
	204	To understand Producers equilibrium with the help
		of isoquants, expansion path and elasticity of
Micro Economics-II	CO1	substitution
	4,1143	To understand Different types of markets and their
		features
	CO2	
		To identify and list the determinants of the
		demand and supply for goods in a competitive market and explain how that demand and supply
	CO3	together determine equilibrium price.
		To demonstrate marginal productivity theory of
		distribution, theory of wages, identify different
	604	types of rent, illustrate different theories of
	CO4	interest and profit.  To understand the difference between Micro and
		Macro Economics, importance of macro Economics
Macro Economics-I	CO1	and Macro Economic variables
	002	To be able to define and explain the process of
		calculating national income, identify its
		components, demonstrate circular flow of income,
	CO2	analyse the various identities with government and international trade
	CO2	international trade

		To Demonstrate the meaning and functions of money, illustrate various versions of quantity
	CO3	theory of money
Samuel Samuel		To explain the meaning of consumption function, relationship between APC and MPC, consumption and income, concept of multiplier and accelerator,
	CO4	MEC and rate of interest.
		To analyse different phases of trade cycles, demonstrate various phases of trade cycles, understand the impact of cyclical fluctuations on the growth of business, and lay
Macro Economics-II	CO1	policies to control trade cycles.
	CO2	To Illustrate the meaning of inflation, identify different kinds of inflation, causes and effects of inflation on different sectors of the economy, describe different measures to control it.
	CO3	To Identify types of banks, explain the meaning and functions of commercial banks, illustrate how bank create credit, and suggest the instruments to control it
	CO4	To Explain economic growth and development, determinants of economic development and measurement of economic development.
	1 4 6	To develop ideas of the basic characteristics of Indian economy and Andhra Pradesh economy
Indian Economy-I	CO1	To understand the importance of planning
	CO2	undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.
	202	To Understand agriculture as the foundation of economic growth and development, analyse the changing nature of agriculturalsector and its
	CO3	To be aware of the economy as a whole, and to understand the basic features of Andhra Pradesh's economy,
	CO4	sources of revenue, how the state government finance its progrmmes and projects.
		To understand the meaning and difference of internal and external trade
	CO1	To Understand the different theories of international trade
	CO2	
		To analyze the protection policy of the international trade.
International Economics	CO3	

		To assess the recent trends in the foreign trade,
		EXIM policy and FDI in India
	CO4	
		To demonstrate the role of quantitative techniques
		in the field of business/industry, illustrate different
		types of functions,
		primary and secondary data, diagram and graphic
Quantitative Techniques-I	CO1	presentation of data.
		To recognise central tendency and various
		measures of central tendency.
	CO2	7.0
		To Recognise the importance of dispersion,
Commence of the Commence of th		explains and evaluates the measures of dispersion- Range, Quartile deviation,
	CO3	Mean deviation, Standard deviation.
		To understand the concept of two variables and
		quantitative measurement of correlation including
		the interpretation of positive, negative and zero
	CO4	correlation
		To understand limited resources available in the
		economy. Realize the need to exploit and utilize
Agricultural Foonamies	CO1	through development and improvement of
Agricultural Economics	COI	production techniques  To gain knowledge on the Productivity trends in
		Indian agriculture with special reference to Andhra
	CO2	Pradesh
	CO2	To have knowledge on Green revolution and its
		impact on Indian economy
	CO3	
	C03	To observe and understand the emerging trends in
		processing, marketing and exports in agricultural
	CO4	products
	CO4	To Understand the role of agriculture in
		development process
Agribusiness Environment in AP	CO1	
g	552	To be able to demonstrate importance of
		agricultural finance in modern agriculture and inter
		linkage of agricultural credit and other input
	CO2	markets and product markets
		To Demonstrate production and processing trends
		in exports and imports of major agricultural
	CO3	commodities
		To Understand the marketing policy of agricultural
		commodities
	CO4	
		To Assess the performance of the marketing
		systems of agricultural commodities and products
Agricultural Output Marketing	CO1	
		To have general idea about the marketing
		structure of major agricultural commodities
	CO2	

		To Understand the problems and challenges in agricultural marketing
	CO3	agricultural marketing
		To assess the impact of WTO on Indian agriculture with special reference to Andhra Pradesh
	CO4	
Agricultural Input Marketing	CO1	To Understand the meaning and importance of Agricultural input marketing, distribution channels of agricultural inputs
		To analyse and understand the issues in seed marketing, strengths and weaknesses of Indian seed industry. the marketing systems for
	CO2	agricultural commodities and products
	CO3	To Analyse the crop wise and area wise distribution of pesticides consumption
	CO4	To assess the need for the development of agricultural machinery and implements to suit the local resource endowments
Rural Economics and Social	CO1	To gain insights into the socio-economic structure of rural India
Changes	COI	To Understand the prospects and problems of rural
		development in India
	CO2	To assess the role of agriculture in rural
		development
DATE OF THE PARTY.	CO3	
		To Understand the social structure of rural society in India
// // // // // // // // // // // // //	CO4	To Understand the meaning and scope of rural
Dural Davalanment	CO1	development and indicators of rural development
Rural Development	COI	To Understand the different types of rural infrastructure
	CO2	
	CO3	To examine different types of community development programmes of the Central and State Governments
		To Understand rural development and administration, planning for rural development
	CO4	Understand nature and scene role of and
		Understand nature and scope, role of and importance of industries in rural development
Rural Industrialization	CO1	Types of rural industries and scope for
		development
	CO2	

		Understand the industrial policy with reference to
		backward areas and rural areas
	CO3	Assesses the role of technology, skills, training in
		rural development
	CO4	
		Explore the various facets of rural marketing and
		develop an insight into rural marketing regarding
Rural Marketing	CO1	and basic practices in the area
Raid Marketing	601	Understand the consumer behavior in rural
DOT NOT		markets
	CO2	
		Analyse the product mix and life cycle
	CO3	
		Problems of marketing rural products and
		marketing information system
	CO4	
	1000	Understand the Nature and Scope of Economics
Basin of Business Factories	601	
Basics of Business Economics	CO1	Study the Consumer's Behavior
		Study the consumer's behavior
	CO2	
	CO2	Analysis the different Market Forms
100 7 100 1000	CO3	DO F WAR DO F WAR
		Assess the National Income Accounts
	CO4	
		Understand that Economics is about the allocation
		of scarce resources, that scarcity forces choice, trade-offs exist and that every choice has an
Micro Economics	CO1	opportunity cost.
		Producers equilibrium with the help of isoquants,
	1000	expansion path and elasticity of substitution
	CO2	
		Different types of markets and their features
	CO3	Domonaturate magning languages in the control of th
		Demonstrate marginal productivity theory of distribution, theory of wages, identify different
		types of rent, and illustrate
	CO4	different theories of interest and profit.
		Define and explain the process of calculating
		national income, identify its components,
		demonstrate circular flow of income , analyses the various identities with government
Macro Economics	CO1	and international trade

		Fundain the magning of consumption function
		Explain the meaning of consumption function, relationship between APC and MPC, consumption
		and income, concept of
		multiplier and accelerator, MEC and rate of
	CO2	interest.
		Analyses different phases of trade cycles,
		demonstrate various phases of trade cycles,
		understand the impact of cyclical
		fluctuations on the growth of business, and lay
	CO3	policies to control trade cycles.
		Explain economic growth and development,
		determinants of economic development and
	CO4	measurement of economic development.
		Understands meaning and functional of Office and
		Duties of an Office Management
Office Management	CO1	
		Study the concepts of filling and Indexing
	CO2	
	COZ	Assess the office record management
DOTE NO.		7.53c33 the office record management
	602	
	CO3	Analyse the different ways of recoverage of
		Analyse the different ways of measurement of office work
		office work
	CO4	
PO	LITICA	L SCIENCE
		To Discuss the most important political theorists in
		the western tradition and the ideas associated with
Basic Concepts of Political Science	CO1	them.
Basic Concepts of Political Science	CO1	To Describe basic political and governmental
		structures, processes, and policies
	603	of detailes, processes, and policies
	CO2	Ta variable and a value of the late of the
		To understand what is law, liberty and equality
	CO3	
100 mm 500 mm		To have more idea on various rights and duties and
		also how to behave in the society
	CO4	also how to behave in the society
	CO4	also how to behave in the society  To understand the nature and scope of political
Politial Science:Concpts theories	CO4	
Politial Science:Concpts theories and Institutions	CO4	To understand the nature and scope of political
· · · · · · · · · · · · · · · · · · ·		To understand the nature and scope of political
· · · · · · · · · · · · · · · · · · ·		To understand the nature and scope of political theory.
· · · · · · · · · · · · · · · · · · ·	CO1	To understand the nature and scope of political theory.
· · · · · · · · · · · · · · · · · · ·		To understand the nature and scope of political theory.  To understand the significance of political theory.
· · · · · · · · · · · · · · · · · · ·	CO1	To understand the nature and scope of political theory.  To understand the significance of political theory.  To acquaint with the theories, approaches,
· · · · · · · · · · · · · · · · · · ·	CO1	To understand the nature and scope of political theory.  To understand the significance of political theory.

		To appreciate the procedure of different
		theoretical ideas in political theory.
	CO4	
		To have the knowledge of how governments work
Indian Constitution	CO1	
Indian Constitution	CO1	To learn and acquire in-depth knowledge of their
		society and how it functions
	CO2	
		To know about the Evolution of Indian
1970 2		constitution, Fundamental Duties & Supreme court functions
	CO3	
		to prepare for competitive exams and useful for civil service aspirants.
	CO4	
		To have an idea on caste system in India
Indian Political Process	CO1	
1970 2		To know the evolution of modernity in India
	CO2	
	COZ	To have overall idea on electoral trends of the
All the second of the second o		loksabha from 1952 to 2004
	CO3	
		To understand the party system and idealogy of
		various parties Ex: INC, BJP, CPM, DMK, TDP etc
	CO4	To demonstrate knowledge of key thinkers and
		concepts
Indian Politcal Thought	CO1	
		To understand the nature, methods and
		significance of political thought.
	CO2	
		To analyse the theory of ancient & medieval political thought of Greek and India.
DOG THE STATE OF	CO3	parameter of order and main.
	000	To understand the relationship between religion
		and politics in early modern western political
	CO4	though
		To have more idea on classical theory of Henry
Dringings of Dublic Advisory	CO1	Foyal, decision making theory of HA Simon
Principles of Public Administration	CO1	To be able to know the policy formation
DOE NO.		
	CO2	
		To have more knowledge on composition and
		functions of UPSC and APPSC
	CO3	

		To have knowledge on financial aministration Ex:
		Budgetiong, Accounting, auditiong etc
	CO4	
		To have more idea on classical theory of Henry
		Foyal, decision making theory of HA Simon
Principles of Public Administration	CO1	
		To be able to know the policy formation
	602	
	CO2	To have more knowledge on composition and
		functions of UPSC and APPSC
	CO3	
		To have knowledge on financial aministration Ex:
		Budgetiong, Accounting, auditiong etc
	CO4	
		To have an idea on western political philosophy
Wastury Political Thought	601	
Westren Political Thought	CO1	To know the ideas various thikers like Plato
		Aristotle
	CO2	
		To have an idea on Modern Political Thought
		propounded by Hobbes Locke Rousseaue
	CO3	
		To have an idea on theory of JS Mill and Karl Marx
The second second second	604	
	CO4	To understand the evolution, scope and
		significance of international relations and the rise
International Relations	CO1	of sovereign state system
		To analyze the history of international relational
		through the causes and phases of colonialism.
	CO2	
		To know the impact of first world war and second world war and its causes and consequences
THE PARTY OF THE P	CO3	Total war and its causes and consequences
	COS	To criticizes the various ideologies which lead to
		the destruction of world.
	CO4	
		To have a knowledge on Indian foreign policy
Indian Foreign Policy	CO1	Student is able to understand the rate of india in
THE STATE OF THE S		Student is able to understand the role of india in the non-alignment movement
	CO2	3.0
	002	To know the composition and powers of UNO
	CO3	
	CO3	

		To have more idea on Indo-pak relations and have an idea on SAARC
	CO4	
MATHEMATICS		
		To Understand how to differentiate linear and non- linear differential equations.
Differential Equations	CO1	To Apply different methods for solving differential equations of first order but not of first degree.
	CO2	
	CO3	To find the solution of higher-order linear differential equations with constant coefficients.
	604	To Use the method of "variation of parameters" to find the solution of higher-order linear differential equations with variable coefficients and solve the
	CO4	Cauchy-Euler equations  To understand geometrical terminology for angles, triangles, quadrilaterals and circles, measure angles using a protractor, use geometrical results
Solid Geometry	CO1	to determine unknown angles.  To find the areas of triangles, quadrilaterals and circles and shapes based on these
	CO2	To Define annulled lines December and small
	CO3	To Define parallel lines, Recognize and create parallel lines on graphs and with equations, define perpendicular lines, Recognize and create graphs and equations of perpendicular lines
	CO4	To recognise line and rotational symmetries and the applications of spheres
Abstract Algebra	CO1	To be able to assess properties implied by the definitions of groups
7.250.0007.18601.0	CO2	To be able to use various canonical types of groups (including cyclic groups and groups of permutations)
	CO3	To be able to analyze and demonstrate examples of subgroups, normal subgroups and quotient groups
	CO4	To be able to use the concepts of isomorphism and homomorphism for groups
		To Understand the concepts of limits, Continuity, Discontinuity, Uniform Continuity
Real Analysis	CO1	

		To Use the definitions of convergence as they apply to sequences, series, and functions
Access to the second	CO2	
	CO3	To apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis
		To identify Riemann Integral functions
	CO4	
MATHEMATICS-V (RING THEORY & VECTOR CALCULUS	CO1	To recognize the concepts of the terms span, linear independence, basis, dimension and apply these concepts to various vector spaces and subspaces
	CO2	To use matrix algebra and the related matrices to linear transformations,
	CO3	To be able to Compute and use eigenvectors and eigenvalues
	203	To Determine and use orthogonality
	CO4	
MATHEMATICS-VI (LAPLACE TRANSFORMS	CO1	To analyze and detect different form of errors and also will be able to solve Algebraic and Transcendental equations using different methods.
	CO2	To Interpolate the functions within the range using equally and un equally spaced points
	CO3	To understand the Least Squares Method and be able to curve fit data using several types of curves (straight line, second degree parabola, power curve, exponential curve)
	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, Adams and Milne's method.
Multiple Integrals 9 Vestor Calculation	CO1	To 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
Multiple Integrals & Vector Calculus	CO1	Intrinsic geometry  To gain the ability to compute and analyze integral curves of vector fields and solving differential equations to find such curves
	CO3	To be able to compute and analyze the differential ideas of divergence, curl, and the Laplacian along with their physical interpretations, using differential forms or tensors to represent derivative operations

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	CO4	coefficients and unit step input functions using the Laplace transform
	CO3	To solve linear differential equations with constant
		To find the convolution of two functions and the transform of a convolution
	CO2	
Laplace Transforms	CO1	To find the inverse Laplace transform of a function
		To find the Laplace transform of a function by definition and by use of a table
	CO4	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
	CO3	To Compare the viability of different approaches to
	CO3	To implement a variety of numerical algorithms using appropriate technology
	CO2	To obtain numerical approximations to the first and second derivatives of certain functions • Calculate a definite integral using an appropriate numerical method
Advanced Numerical Analysis-II	CO1	Will be able to derive numerical methods for approximating the solution of problems of continuous mathematics
	CO4	To learn the concepts of connected & disconnected graphs
	CO3	To learn about subgraphs, walks,paths,circuits in a graph
	CO2	To understand different fundamental definitions and some techniques used in proving simple theorems
Graph Theory	CO1	life situation
	CO4	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  To appreciate the relevance of Graph theory in real
		To acquire the knowledge to compute and analyze

# **CHEMISTRY**

		To Describe the trends in the physical and chemical
		properties of group 13 to group 17 elements. Know
Inorgania & Organia Chamistry	CO1	the Chemistry of some important compounds of Boron, Carbon, Silicone etc.
Inorganic & Organic Chemistry	COI	To Identify and judge the structure, type of
		reaction, mechanism and chemical behavior of an
		organic compound during its transformation from
	CO2	reactants to products.
		To identify the reason for the aromaticity of
		various organic compounds that are used in the
	CO3	manufacturing of many products.
010 2 17 200		To understand the importance of Structural theory
	- 1000	in the organic chemistry which provides a strong
	00.4	basic knowledge for the students that helps in their
	CO4	further studies.  To Understand the formation of bonds and
		interactions between the atoms, molecules, ions
		crystals and other stable substances that are used
		in attaining the best knowledge about future
		projects like quantum mechanics. Rationalize the
		existence of compounds and properties, structures
Physical & Inorganic Chemistry	CO1	and uses of various molecules.
TOTAL PROPERTY.	1.64	To understand the spatial arrangement of atoms
		that determine the structure of a compound which
	CO2	is fundamental study all the concepts of organic chemistry with the help of Stereochemistry
	CO2	To gain the knowledge about various synthetic
		techniques and synthesized products that helps a
		lot while working in manufacturing companies.
		Learn about various techniques for the conversion
	1000	of different states of a substance (Liquefaction of
		gases, condensation, distillation etc., ) that are
	CO3	used in daily life
		To identify a type of reaction involving in the formation of a product .The practical knowledge is
		very essential for the identification of various ions
	CO4	and elements.
		To understand the ways in which mono, di and
		unsaturated carboxylic acids are easily prepared by
		at industrial level. knowing about the active
		methylene compounds Studying about oxidizing
		and reducing Reagents, reactions and their
		mechanisms are very useful for the establishment of small industries and also for their self
Inorganic & Organic Chemistry	CO1	employment
		To study d block elements which is useful in
		determination of colored complex formation in
		Dye industry and formation alloys which are
		essential for the manufacture of utensils and
	CO2	vessels that are used in daily life
		To Various theories studied by the students
		involved in bonding in metals is very useful in gaining knowledge about thermal and electrical
	CO3	conductance of metals.
	203	conductance of metals.

	604	To gain the knowledge of conductors, insulators and semi conductors will help the students in building their career in battery industry
Advanced Inorganic & Physical Chemistry	CO4	To be able to generate an Electric Current in an Electro Chemical Cell. This is the basis of all batteries and Fuel Cells.
Chemistry	CO2	To gain command on Dilute Solutions, Elevation of B.P. & depression of Freezing point, osmotic pressure, colligative properties
	CO3	To gain command on Phase rule, components and degrees of freedom, eutectic point, Pb-Ag system, NaCl system and freezing mixtures.
	CO4	To know about Spectroscopy, electromagnetic spectrum, Electronic, IR spectroscopies, selection rules applications and NMR s-pectroscopy, chemical shift,m spin-spin coupling.
Applied Inorganic & Applied		To know how the Coordination compounds play many roles in the animals and plants. They are essential in the storage and transport of oxygen, as electron transfer agent, as catalysts, and in photosynthesis. Because of its central function as an oxygen carrier for metabolic processes, Hemoglobin is probably the most studied of all the proteins. The interaction of transition metal ions with biological molecules provides one of the most
Organic Chemistry	CO1	fascinating areas of coordination chemistry.
	CO2	To identify molecular geometries associated with various d-orbital splitting patterns, predict electron configurations of split d orbitals for selected transition metal atoms or ions.
	C02	To know about the stability constant (formation constant, binding constant) which is an equilibrium constant for the formation of a complex in solution. It is a measure of the strength of the interaction between the reagents that come
	CO3	together to form the complex.  To have knowledge on isomerization and racemization reactions, to the general field of redox reactions, and to the reactions of coordinated ligands. To know about the applications in other fields such as organic, bioinorganic and biological chemistry, providing a bridge to organic reaction mechanisms. The topic also contains a chapter on the kinetic background to the subject with many illustrative examples which should prove useful to those beginning research.
Applied Physical & Applied Organic Chemistry	CO1	To gain knowledge of the laws of physical chemistry such as chemical equilibrium, law of thermochemistry, distribution law, etc. can be deduced from law of thermodynamics. Moreover, it can predict the feasibility of a process and extent of yield of the product obtain.

		To understand chemical kinetics which deals with the measurement of rates of reactions proceeding
No.		under given conditions, hence study of this topic help them to locate favorable conditions to speed
		up a reaction, there by getting the products in a
	CO2	short time.
Carried Co.		To understand the laws of photochemistry and to know about a number of applications of
		photochemical process which are useful in daily life
	CO3	such as fluorescence, phosphorescence, photosensitization etc.
	CO3	To gain knowledge on carbohydrates which
		constitutes one of the most important group of
		natural products. By their study of classification,
		structural elucidation, properties, and their interconversions are useful to understand about
		important foodstuffs and other forms of
		carbohydrates. Amino acids are another important natural products as they are building units of other
		natural products as they are building units of other natural products like enzymes, peptides, proteins
		etc. their study is necessary to understand
	CO4	structure of various substances present in living organisms.
	CO4	To analyze the sample materials by using
		spectrophotometry in research and development.
		Determine the impurities and conjugation in organic compound and biological macro molecules
Chemistry & Industry	CO1	by U.V spectroscopy.
		To determine the functional groups in organic
170		molecules by using I.R spectroscopy. N.M.R technique is useful in quality control and research
		for determining the contents and purity of a
	CO2	sample as well as its molecular structure.  To learn about the renewable source which are
		used in daily life. The polymer chemistry known
		about the synthesis properties and application of
	CO3	polymers.  To identify and analyse the adult rents in food
TO THE RESIDENCE OF		materials. Learning about Qualitative analysis.
	CO4	
		To be able to recognize different polymeric
Polymer Chemistry	CO1	materials commonly seen in our environment and their applications.
1 digities elicitiisti y	CO1	To explain the general reaction course and reaction
		mechanism of free radical, ionic and Zeigler – Natta
	CO2	Polymerization.
		To know the method of calculating the degree of polymerization and molecular weight of polymers
		by Viscometry, Osmometry, and light scattering
	CO3	methods.
1/1 = 1 1/1/1		To determine glass transition temperature and various factors effecting it. Also the free volume
	CO4	theory and WLF equation is learnt. Describe the

		effect of addition of various polymer additives to enhance the properties of polymeric materials.
Instrumentals methods of chemical analysis	CO1	To acquire fundamental knowledge of spectroscopy and chromatographic techniques.
		To understand the instrumentation and application of spectroscopy through U.V, I.R, N.M.R, for the quantitative and qualitative analysis of organic compounds (molecules) useful in analysis of drugs
	CO2	(pharmacy industry).
	CO3	To acquire the knowledge of handling sophisticated instruments like spectrophotometer which are used to identify functional groups (I.R)
	COS	To leran about atomic absorbtion, emmmision and flurosence spectroscopies, electro analytical
	CO4	methods and radio chemical methods.  To gain knowledge about various forms,
Analysis of Drug, Food Dairy		formulation and therapeutic uses of drugs. Can identify different modes of administration of drugs which helps in creating awareness while using
Products & Bio Chemical Analysis	CO1	medians.  To learn about the structures, preparation methods and analysis of various basic drugs which
	CO2	will be very helpful if they chose the field of pharmaceuticals in their career.
	CO3	To identify various elements or substituents present in the food material that are often consumed in daily diet and also useful in some manufacturing industries.
	CO4	To know about the major diagnostic methods which can be useful in creating awareness among themselves and also the people around them.
		ANY
MICROBIAL DIVERSITY, ALGAE & FUNGI	CO1	To know about the origin and evolution of life, formation of earth in the universe and existence of life on earth.
	CO2	To know about microbial diseases regarding to various micro organism in man, animals and plants.
	CO3	To gain knowledge on Algae for growing the populations with lot of Economic importance as food, fodder and feed etc.,
		To gain knowledge of fungi as pathogen causing many famines as in the past and to overcome and manage the fungal disease and protect the life
	CO4	forms on the earth.

		To Know the structure of non-vascular plants.
DIVERSITY OF ARCHEGONIATES		
AND ANATOMY	CO1	To Know the importance of mass plants.
		To know the importance of mass plants.
	CO2	
		To know the structure of vascular plants.
	CO3	To know the importance plant anatomy
		To know the importance plant anatomy
	CO4	
County of the County		To acquire knowledge to maintain botanical garden
PLANT TAXONOMY AND		worldwide.
EMBRYOLOGY	CO1	To acquire the knowledge of classification of the
		plants and the comparison, origin and evolution of
	CO2	angiosperms which are the most important species
	CO2	in our daily life.  To acquire the knowledge of the development of
	- 1000	embryo and structure.
	CO3	
		To know the pollination and fertilization methods
	CO4	to develop with new genetically combinations leading to new varieties.
	C04	To Know the Process of various metabolic activities
PLANT PHYSIOLOGY AND		in plant body
METABOLISUM	CO1	
		To Know the process of photosynthesis and respiration
	CO2	respiration
	CO2	to know the importance of phyto hormones
	CO3	
		To know the process of stress physiology
	CO4	
	331	To gain knowledge regarding the unit of life that is
		cell, types, functions of the various organelles of
CELL BIOLOGY AND ECOLOGY	CO1	the cell.
		The know the DNA Structure which is very useful at molecular levels of genes in various aspects of
		life quality of genetical characters and forensic
	CO2	methods of the society etc.
		To have the knowledge of elements of environment.
	CO3	
		To understand the importance of Climatic factors
		like light, temperature, in related to growth of plant.
	CO4	piant.

PHYSIOLOGY, TISSUE CULTURE AND	601	To Know the Process of various metabolic activities in plant body
BIOTECHNOLOGY	CO1	To know about variuos methods in tissue culture
	CO2	
		To know the importance of tissue culture and biotechnology
	CO3	To know the applications of bio technology.
		To know the applications of bio technology.
	CO4	
GENETICS, BIODIVERSITY AND CONSERVATION	CO1	To acquire knowledge regarding the unit of life that is cell, types, functions of the various organelles of the cell.
		To know the DNA Structure which is very useful at molecular levels of genes in various aspects of life quality of genetical characters and forensic
	CO2	methods of the society etc.
		To Acquire the knowledge about Genetical Aspects
	CO3	
4		To Know how to conserve the threatened plants in environment.
	CO4	
PHYSIOLOGY, SEED TECHNOLOGY	Laco.	To Know the Process of various metabolic activities in plant body
AND HORTICULTURE	CO1	To Know the structure of Seed.
Many State of the state of	14,000	To know the structure of seed.
	CO2	
		To Know the various methods in seed storage.
	CO3	
	CO4	To Know the knowledge of various methods in Horticulture techniques.
	CO4	To know the culture and ethonology of ethnic
ETHNO BOTANY AND MEDICINAL BOTANY	CO1	communities
		To know the uses of ethno medicinal plants
	CO2	
		To Know the history of Various Methods in ancient Medicines.
	CO3	
4	- 14 10	To know the uses of surronding medicinal plants.
	CO4	

PLANT BREEDING AND ECONOMIC BOTANY	CO1	To know about the selection of the best genetic cell characters by advanced molecular techniques in genetics and in crop improvement.
	CO2	To know about Plant breeding techniques with help of biotechnology at molecular level breeding with variety of special environmental Habbarder
		To Know the importance of Food yielding plants.
	CO3	To know the importance Timber Yielding plants
		To know the importance fimber fielding plants
	CO4	
ZOOLOGY		
		To instill knowledge across different Areas of Inveretebrates.
Animal diversity of Nonchordates	CO1	
		To be familiarized with the life cycles and mode of reproduction in different invertebrates
	CO2	Animal groups.
	CO3	To understand the systemic and functional morphology of various groups of Invertebrates.
		To study their economic importance, affinities and adaptations
	CO4	
		To instill knowledge across different

CO1

CO2

CO3

CO4

CO1

CO2

CO3

Animal diversity of chordates

Cytology ,Genetics& Evolution

Areas of chordates

vertebrates

chordates,

organelles

and adaptations

To acquire knowledge on the

To understand the systemic and

To know the different types of cells

life cycles and mode of reproduction in different

functional morphology of various groups of

To study their economic importance, affinities

To be able to Name the cell organelles, List of cell

To Know MENDAL LAWS The inter-relationship

Organisms in population and communities

		To understand and communicate the major
		evolutionary innovations in animal groups and describe the
		functional
	CO4	Significance of associated morphologies and behaviours.
		To study the concepts of Digestion, Respiration and
Embryology, Physiology, ecology, zoogeography	CO1	other phyiological activities of mammals and Reproduction
		To Know The inter-relationship between
	602	Organisms in population and communities
	CO2	To study the population dynamics and
		Population control Propagate and follow
	CO3	environment friendly practices.
		To study the concepts of
		zoogeography and, zoogeographical importance
	CO4	Of Indian subcontinent.
		To study the concepts of Digestion, Respiration and
Animal physiology genetics&		other phyiological activities of mammals
evolution-l	CO1	To Know MENDAL LAWS The inter-relationship
		between
	CO2	Organisms in population and communities
		To Understand and communicate the major
		evolutionary
	CO3	innovations in animal groups
		To Understand the organic evolution
	CO4	
		To study about Aqua culture and post harvest
		technology and clinical science
Applied zoology-I	CO1	
		To learn about Types of fisheries and systems
DIST. W. S. WINS.	CO2	
		To learn about different types of Diseases caused
		by Microorganisms
	CO3	
		To learn about Seed collection, Hypophysation
	CO4	
	COT	To learn about Synthesis of Biomolecules
Elective VII-B Cellular metabolism		
& Molecular biology	CO1	
		To learn about Production of Energy
	CO2	
	CO2	

		To understand the Cell cycle	
		To understand the cen cycle	
	CO3		
	-1 (1)	To understand the Importance of Molecular	
		biology in Present senario	
	CO4	To Learn shout Immunoglabling and Tunos	
		To Learn about Immunogloblins and Types	
Elective VII-A Immunology	CO1		
		To understand the Immunological disorders	
197.5 5		197.5 5	
	CO2	To understand the language and conviced increases	
		To understand the Innate and acquired immunity	
4	CO3		
		To learn about oncology	
	CO4	To gain knowledge	
DOTE NO.		To gain knowledge, understanding and skills required to apply	
Cluster B-1 – Principles of		theoretical AQUACULTURE & To understand the	
Aquaculture	CO1,2,	aquaculutre systems	
		To know the principles of fishery management, aquaculture and fish	
		Biology in industry. & Aquaculture in india and	
	CO3,4	world  To improve scientific, technical and vocational	
		skills required in the area of employment in	
B-2 Aquaculture management	CO1,2,	the fisheries industry & Aquaculture Management	
		To improve practical skills such as fish	
Anna Carlo		surveying, fish husbandry, identification and treatment	
	CO3,4	Of diseases and Prevention methods	
		To learn about Handling and principles of fish	
		preservation	
B-3 Post harvest technology	CO1	To gain knowledge about Processing of Fish	
		products	
	CO2		
71, 100, 100, 100, 100, 100, 100, 100, 1		To understand the importance of sanitation and	
	603	Quality control	
	CO3	To raise knowledge on Quality assurance and	
		management and certification	
	CO4		
CTATICTICS			

# **STATISTICS**

		To learn about primary secondary data, Measures of central tendency, measures of dispersion,
Descriptive Statistics & Probability	CO1	importance of moments, Skewness and kurtosis
	CO2	To learn the basic concepts of probability, definitions of probability, addition and multiplication theorems
	CO3	To learn about different types of random variables, probability mass function and probability density function and distribution function and its properties
	CO4	To be able to apply the knowledge of random variables, Joint, marginal and conditional distributions and independence of random variables
Mathematical Expectations & Probability distributions	CO1	To learn about Mathematical Expectation and its properties, Addition and multiplication theorems, Generating functions, Chebyshev's and Cauchy Schwartz inequalities and Central limit theorem
	CO2	To gain knowledge about discrete distributions like Bernoulli, Binomial, Poisson, Negative binomial, Geometric and Hypergeometric and their properties
	CO3	To learn about continuous distributions like Rectangular, Normal, Exponential, Gamma Beta and Cauchy and their properties and applications.
	CO4	To apply the knowledge of Statistics to solve the practical examples of both continuous and discrete in their real life and their reproductive property.
Statistical methods	CO1	To learn about the topics Correlation and Regression and their properties and the relationship between two variables and interpretation
	CO2	To know the principle of least squares, fitting of straightline, second degree parabola, power curves and the theory of attrobutes, and its various measures.
	CO3	To understand the concepts of population, parameter, sampling distribution and standard error, Exact sampling distributions like chisquare, t and F distribution their properties and applications.
		To understand the theory of estimation, Criteria of good estimator, methods of estimation like Maximm likelihood method, method of moments and its properties and to learn about confidence
	CO4	To analyse the given data and to use the knowledge of the testing of hypothesis, null and
Statistical Inference	CO1	alternative hypothesis, two types of errors, one tail and two tailed tests and problem solving skills.  To learn about Large sample tests like proportions, standard deviations and correlation coefficients.
	CO2	standard deviations and correlation coefficients.

		To learn about small sample tests like chisquare, t and F, test for goodness of fit and goodness of fit
	CO3	for independence of attributes.
		To learn about Non parametric tests, their advantages and disadvantages, One sample and
	CO4	two sample tests
Sampling Techniques & Design of Experiments	CO1	To know about the sampling methods and different types of sampling methods, and to estimate their population mean, population total and their variances and to also to study about their advantages and disadvantages.
	CO2	To be able to know about Simple random sampling, Stratified random sampling, systematic sampling techniques, their advantages and disadvantages
	CO3	To learn about Completely Randomised design, Randomised block design, Latin square design their analysis and comparison of the efficiencies of these designs
	CO4	To know about Analysis of Variance technique and design of experiments and principles of experimentation
		To learn about Importance of statistical quality control in industry, Construction of control charts for variables and attributes and to draw
Quality & Reliablity	CO1	To learn about acceptance sampling plans-single and double sampling plans of attributes
	CO2	To be able to be succeeded as a succeeded as in the succeeded
	CO3	To be able to know the concept of reliability and the role of Exponential distribution and its memoryless property.
	CO4	To get the ability to estimate reliability function and to understand the concept of system reliability.
Applied Statistics	CO1	To learn about Time series and its components, Determination of trend by least squares, moving averages methods and to determine seasonal indices by Ratio to moving average, ratio to trend and link relative methods.
Applied Statistics	CO2	To know the functions and organization of CSO and NSSO, National income and its computation, difficulties in estimation of national income.
	CO3	To know about the definition, uses of vital statistics and its sources, Various mortality and fertility rates, Life tables-its construction and uses.
	CO4	To know about different types of Reproduction rates and abridged life tables.
Cluster-1(a) Optimization Techniques	CO1	To gain the knowledge about the origin and development of Operations Research, its scope

		and phases, advantages and disadvantages of operations research
	CO2	To know about Linear Programming problem, its formulation ,solution of LPP by Graphical method, exceptional cases in graphical method.
	CO3	To understand the Simplex algorithm and solvation of problems,, Artificial Variable Technique, and Concept of degeneracy
	CO4	To understand the concept of duality, primal dual relationship and dual simplex method.
Cluster-1(b) Operations Research	CO1	To define and understand the concepts of operations research, phases and models, to know about Linear Programming problem, its formulation and solvation of LPP by Graphica method
	CO2	To understand the basic conceptsof game theory, finding solutions for 2x2 and 2x n games.
		To learn about the Definition of Transportation problem, obtaining feasible solution by Northwest, Matrix minimum and Vogel's approximation methods, Obtaining Optimal solution through
	CO3	MODI method and stepping stone methods and the concepts of degenracy and resolving it.  To understand the formulation and description of Assignment problem and finding optimal solution by Hungarian method and also to learn about the problem of sequencing and finding optimal
	CO4	solution through Johnson's algorithm method.  To apply the tools and techniques of statistics learnt in the class in project work
Cluster-1(c) Project Work & Viva	CO1	To get the ability to apply various concepts of subject in the project work
	CO3	To acquire the ability to analyse and understand the concepts of statistics and apply them in daily life
	CO4	To know about functions in statistics and their application in real life stituations
CO	MPUTE	R SCIENCE
Compter Fundamentals & Photoshop	CO1	To acquire the basic knowledge on computer hardware and software.

		To learn the concepts and be able to work on adobe Photoshop applications.
	CO2	
		To get the ability to create and edit photo albums
	CO3	
		The apply the knowledge gained in the classroom to design and edit Banners and visiting cards etc
	CO4	To appreciate and understand the working of a
		To appreciate and understand the working of a digital computer
Programming In C	CO1	To another a single graph and develop an
		To analyse a given problem and develop an algorithm to solve the problem
	CO2	
4 10 10 10		To understand the 'C' language constructs in the right way
	CO3	
		To apply the knowledge to Design, develop and test programs written in 'C'
Rota no Stant Labor	CO4	
Object Oriented programming using	1 4 18	To Understand the concept and underlying principles of Object-Oriented Programming
JAVA	CO1	
		To Understand how object-oriented concepts are incorporated into the Java programming language
	CO2	to serving and improve model on solving and
Samuel Samuel		to acquire and improve problem-solving and programming skills using OOP concept
	CO3	To become familiar with the fundamentals and
	604	acquire programming skills in the Java language.
	CO4	To acquire the knowledge of arrays, records, linked
Data Structures	CO1	structures, stacks, queues, trees, and graphs as represented in memory and its applications
Data Structures	501	To Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs
	CO2	and graphs
	302	To discuss the computational efficiency of the
	CO3	principal algorithms for sorting, searching, and hashing.
		To describe the concept of recursion, give
	CO4	examples of its use, describe how it can be implemented using a stack.
		To gain knowledge on database structure and its design
Database Management Systems	CO1	
<u> </u>		

		To understand different data models used for database design
	CO2	database design
Stanta de Santa		To understand database transactions and data recovery
	CO3	
		To apply the knowledge of DML,DDL,DCL commands to manipulate data in the database
	CO4	
		To learn about variety of software engineering models serving specific user requirements.
Software Engineering	CO1	Talgary the phases of Software Engineering
		Tolearn the phases of Software Engineering
	CO2	
		To analyse design and develop software
	CO3	
DOT LANDS		testing Error handling depolying
	CO4	
	1	To understand the web architecture and web services.
Web Technologies	CO1	
		To practice latest web technologies and tools by conducting experiments.
	CO2	T. daii alaii a
		To design static web pages using HTML and Style sheets.
	CO3	To study the framework and building blocks of
	604	.NET Integrated Development Environment.
	CO4	To gain fundamental knowledge on SQL and Advanced SQL
Advanced DBMS	CO1	
		To understand Transaction Management and Concurancy Control
	CO2	Town down and District the Line 19 and 19 an
		To understand Distributted Database Management System
	CO3	To consider the shifts of the State of the S
DOTAL MARKET		To acquire the ability to use Datawarehouse concept
	CO4	To analyze the concepts of process in a continu
		To analyse the concepts of processes in operating system and illustration of the scheduling of
Operating systems	CO1	processor for a given problem instance.

		To identify the dead lock situation and provide appropriate solution so that protection and
AND THE SECOND	CO2	security of the operating system is also maintained.
	CO3	To analyse memory management techniques, concepts of virtual memory and disk scheduling.
	C03	To Understand the implementation of file systems and directories along with the interfacing of IO
	CO4	devices with the operating system.
Cluster A1: Advanced GUI		To Design and develop Windows application using file concepts
Programming	CO1	To understand Data Environment and ActiveX
	CO2	Controls
	COZ	To demonstrate how to use ActiveX EXE and ActiveX DLL
	CO3	
		To apply the knowledge of Web Browsers and DHTML programming skills
	CO4	To you denote and the graph and it seture and you h
	100	To understand the web architecture and web services.
Cluster A2: Web Technologies	CO1	To practice latest web technologies and tools by
		conducting experiments.
	CO2	
		To design interactive web pages using HTML,CSS, JavaScript and PHP.
	CO3	
		To study the framework and building blocks of .NET Integrated Development Environment.
	CO4	To apply fundamental algorithmic ideas to process
Cluster B1: Foundation of Data Science	CO1	data.
JUICITUE	COI	To apply the knowledge of hypotheses and data
	CO2	into actionable predictions.
	CO3	To get the ability to document and transfer the results and effectively communicate the findings using visualization techniques.
	CO4	To understand the importance of documentation and deployment – producing effective presentations– Introduction to graphical analysis
		To learn tips and tricks for Big Data use cases and solutions.
Cluster B2: Big Data	CO1	

		To Learn building and maintaining reliable, scalable, distributed systems with Apache Hadoop.	
Access to the same	CO2		
		To get the ability to apply Hadoop ecosystem components.	
	CO3	To illustrate Architecture and Installation,	
	CO4	Comparison with Traditional Database, HiveQL - Querying Da	
	CO-4	To understand basic concepts of INTERNET AND	
FOUNDATION COURSE, INTERNET FUNDAMENTALS AND WEB TOOLS	CO1	www	
		To learn the methods of creating web pages using HTML	
	CO2		
		To be able to design forms using HTML	
	CO3		
		To learn about web tools, viruses, anti virus software	
	CO4		
COMP	COMPUTER APPLICATIONS		
		To acquire the basic knowledge on computer	
Compter Fundamentals &		hardware and software.	
Photoshop	CO1		
		To learn the concepts and be able to work on adobe Photoshop applications.	
	CO2	To part the solition to supply and solition to all the solition to	
		To get the ability to create and edit photo albums	
	CO3	The apply the large state of the	
		The apply the knowledge gained in the classroom to design and edit Banners and visiting cards etc	
	CO4	To conveniente and and and an about the second seco	
		To appreciate and understand the various office automation tools	
Office Automation Tools	CO1		
		Get expertise in Using MS-Word for documentation	
		documentation	
	CO2		
	CO2	Expertisein MS-Excel for data preparation and analysis	

CO4

Expertise in Using MS-Powerpoint for presentations

		To appreciate and understand algorithms and flow charts
Programming In C	CO1	Charts
Trogramming in C	001	To analyse a given problem and develop an algorithm to solve the problem
Acres Charles Control	CO2	
		To understand the 'C' language constructs in the right way
	CO3	To combath a language to Design, develop and
		To apply the knowledge to Design, develop and test programs written in 'C'
	CO4	To Understand the concept and underlying
	004	principles of Object-Oriented Programming
OOP using C++	CO1	To Understand how object-oriented concepts are
	602	incorporated into the C++ programming language
	CO2	to acquire and improve problem-solving and
	000	programming skills using OOP concept
	CO3	To become familiar with the fundamentals and
	100	acquire programming skills in the C++ language.
	CO4	To gain knowledge on database structure and its design
Database Management Systems	CO1	
		To understand different data models used for database design
	CO2	
		To understand database transactions and data recovery
	CO3	To apply the knowledge of DMI DDI DCI
	CO4	To apply the knowledge of DML,DDL,DCL commands to manipulate data in the database
	CO-7	To understand the web architecture and web
Web Technologies	CO1	services.
Web recimologies	COI	To practice latest web technologies and tools by
	CO2	conducting experiments.
nice III. Intic.		To design static web pages using HTML and Style sheets.
	CO3	
		To study the framework and building blocks of .NET Integrated Development Environment.
	CO4	

		To understand the Benefits of E-Commerce		
E- Commerce	CO1			
E- Commerce	COI	To Learn various sites offering online products and services.		
	CO2			
		To learn about SET and the related protocols		
	200			
	CO3	To understand Electronic payment methods and		
		security issues		
	CO4			
		To gain fundamental knowledge on PHP		
PHP and MYSQL	CO1	To unnderstand writing the scripts using PHP		
		To annuclatand writing the acripts using the		
	CO2			
		To understand developing forms using PHP		
	- 100			
	CO3	To acquire the ability to use MYSQL server		
70	100	To acquire the ability to use introduserver		
	CO4			
	COMN	IERCE		
	- 1 Con 1	To study and understand business economics		
Business Economics – I	CO1	concepts and their application in business firm.		
Busiliess Economics – I	COI	To understand dynamics s of consumers buying		
		behavior and their implications in taking business		
	CO2	decisions.		
		To be able to forecast the consequences of a change in determinants of demand on revenue.		
The second second	CO3	change in determinants of definant off revenue.		
	CUS	To make the students acquire the conceptual		
		knowledge of Accounting		
Financial Accounting – I	CO1			
		To equip the students with the knowledge of		
	CO2	accounting process and preparation of Final Accounts		
	COZ	To develop the skills of recording financial		
DOT M. Dalbo		transactions and preparation of reports using		
		Campustana		
	CO3	Computers		
	CO3	To understand the basic concepts and functions of		
Business Organization and Management	CO3			

	CO2	To develop a set of personal business career options and apply business ethics and social responsibility
Business Economics – II	CO1	To study and understand production and cost functions, pricing under various Market structures.
Business Economics II	CO2	To understand macro concepts: national income and economic systems. To study and understand structural reforms.
Financial Accounting – II	CO1	To Understand the fundamental concepts underlying accounting, finance, management and marketing.
	CO2	To Utilize the Accounting Information in the business processes and practices, such as problem analysis and decision making.
		To understand the environmental factors affecting business and Economic and Monetary policies influence on business decision making.
Business Environment	CO1	To understand the concept of business environment its meaning, scope and importance.
	CO2	To provide the knowledge relating to the
Corporate Accounting	CO1	accounting standards To enable students to company final accounts using computer.
	CO2	To enable the students to prepare financial statements of Companies
Business Statistics	CO1	To impart knowledge on the application of statistical Tools and techniques in business decisions.
authorise diameter	CO2	To making and use of MS Excel in interpretation of statistical data.
Panking Theory and Dynatics		To discuss and evaluate the theories relating to the role of banks as financial intermediaries
Banking Theory and Practice	CO1	To discuss and explain how bank-based systems differ from market-based system
	CO2	To Understand the role of transaction costs and informational asymmetries in the operation of the banking system
Accounting for Service Organizations	CO1	To Understand the fundamental concepts underlying accounting, finance, management and marketing.

		To Utilize the Accounting Information in the
		business processes and practices, such as problem
	CO2	analysis and decision making.
Income Tax	CO1	To learn the concepts of income tax, tax procedure and how to calculate the incomes, taxable Income and apply them in real life situations
		To make the students to learn about fundamentals
		of various tax aspects
	CO2	
		To make the students learn the basics of business laws and apply them in real life situations, like general contracts and the Sale of Goods Act 1930
Business Law and Income Tax	CO1	
	CO2	To learn the concepts of income tax, tax procedure and how to calculate the incomes, taxable Income and apply them in real life situations
		To Educate the students about Consumer
		Protection Act 1986, Information Technology Act
Busines Law	CO1	2000 and the Company Law.
		To understand the legal environment of business.
	CO2	
	COZ	To understand the Auditors' liabilities, and be able
		to apply case law in making a Judgement whether
Income Tax and Auditing - I	CO1	auditors might be liable to certain parties.
		To learn the concepts of income tax, tax procedure
	602	and how to calculate the incomes, taxable Income and apply them in real life situations
	CO2	To Understand role of Financial Accounting, Cost
		Accounting and Management Accounting
ADVANCED ACCOUNTING-I	CO1	
		To Understand the various concepts in the three
		types of Accounting Systems.
	CO2	To Understand the consent of Figure 3.1
		To Understand the concept of Financial Accounting, Cost Accounting and Management
Harman Grant Commence	CO3	Accounting
		To gain the ability to account for a range of
		advanced financial accounting issues
Cost Accounting	CO1	
		To understanding of the accounting requirements for a corporate group and familiarity with the
		theory underlying the methods used to account for
DOMESTIC TO SERVICE	CO2	inter-company investments.
Harman Grant Commence		To gain an understanding of differences related to
GOODS & SERVICE TAX	604	the field of Governmental Accounting
FUNDAMENTALS -I	CO1	

	CO2	To describe the different types of relationships amongst business entities and identify these relationships for financial reporting purposes;
Commercial Geography	CO1	To understand key terms, topics and concepts in marketing.
Commercial deography	CO2	To understand and apply marketing concepts to real life situations from consumer and managerial perspectives
Management Accounting – I	CO2	To enable the students to analyse the financial statements by applying various tools and interpret the results of financial statement analysis
waragement recounting :	CO2	To critically analyse and provide recommendations to improve the operations of organisations through the application of management accounting techniques
	CO3	To identify joint allocation principles and effective decision making skills for accounting managers
Rural Marketing	CO1	To understand and appreciate the differences and similarities between urban and rural Indian markets.
	CO2	To understand and develop marketing strategies that are unique to rural India
Business Law – II	CO1	To have knowledge about Consumer Protection Act 1986, Information Technology Act 2000 and the Company Law.
	CO2	To understand the legal environment of business.
Income Toy and Auditing II		To learn the concepts of income tax, tax procedure and how to calculate the incomes, taxable Income and apply them in real life situations
Income Tax and Auditing - II	CO1	To understand role of Financial Accounting, Cost Accounting and Management Accounting
	CO2	To understand sampling techniques and auditing in a computer environment
Cost and Management Accounting	CO3	To understand role of Financial Accounting, Cost Accounting and Management Accounting
	CO2	To understand the various concepts in the three types of Accounting Systems.
	CO3	To understand the concept of Financial Accounting, Cost Accounting and Management Accounting

		To have the ability to account for a range of
		advanced financial accounting issues
Corporate Accounting – II	CO1	
		To understanding of the accounting requirements
		for a corporate group and familiarity with the
		theory underlying the methods used to account for
	CO2	inter-company investments.
		To understanding of the basic principles of
		accounting for investments in associates
	CO3	
		To gain an understanding of differences related to
DOT THE RESERVE		the field of Governmental Accounting
Advanced Corporate Accounting – II	CO1	
		To describe the different types of relationships
		amongst business entities and identify these
	CO2	relationships for financial reporting purposes;
		To get knowledge on idea generation and
Braduct Davidonment and		screening
Product Development and Marketing	CO1	
Widi Keting	CO1	To understand - Concept and Product development
		and testing
	CO2	
	CO2	To analyse the financial statements by applying
		various tools and interpret the results of financial
	004	statement analysis
Management Accounting – II	CO1	
		To critically analyse and provide recommendations to improve the operations of organisations through
		the application of management accounting
	CO2	techniques
		To identify joint allocation principles and effective
		decision making skills for accounting managers
	CO3	
	203	To develop Marketing skills among students with
		Rural Markets in focus
Practical Pural Marketing	CO1	
Practical Rural Marketing	COI	To understand the dynamics of Rural Markets
DOG NO.		To differstatio the dynamics of Kurai Warkets
	603	
	CO2	To be able to design and deviales Dradusts and
		To be able to design and develop Products and Services to Rural Markets
		Services to rui ai iviai kets
	CO3	

# PROGRAMME OUTCOMES

On successful completion of Graduate Programme, the student will be able to:

### PO 1 Domain Expertise:

Acquire comprehensive knowledge and skills.

Make use of the knowledge in an innovative manner.

Effectively apply the knowledge and skills to address various issues.

### PO 2 Life-long Learning and Research:

Learn "how to learn"- Self motivated and self directed learning.

Adapt to the ever emerging demands of work place and life.

Be inquisitive and establish cause and effect relationship.

Investigate and report.

#### PO 3 Modern equipment Usage

Use ICT effectively.

Access, retrieve and use authenticated information.

Access, retrieve and use authenticated information. Have knowledge of software applications to analyzedata.

## PO 4 Computing Skills and Ethics

Develop rationale and scientific thinking process.

Use technology intelligently for communication, entertainment and for the benefit of mankind. Ensure ethical practices throughout ones endeavors for the well being of human race.

# PO 5 Complex problem Investigation & Solving

Predict and analyze problems. Frame hypotheses.

Investigate and interpret empirical data. Plan

and execute action.

### PO 6 Perform effectively as Individuals and in Teams

Work efficiently as an individual

Cooperate, coordinate and perform effectively in diverse

teams/groups. Prioritize common interest to individual interest.

#### PO 7 Efficient Communication & Life Skills

Express thoughts in an effective manner

Listen, understand and project views in a convincing manner.

Decide appropriate media to share information

Develop skills to present significant information clearly and concisely to interested groups.

## PO 8 Environmental Sustainability

Understand sensibly the Environmental challenges.

Think critically on environment sustainability measures.

Propagate and follow environment friendly practices.

#### PO 9 Societal contribution

Render service for the general good of the society.

Involve voluntarily in social development activities at Regional, National, global levels.

Have own pride in volunteering to address societal issues viz: calamities, disasters, poverty, epidemics.

Be a patriotic citizen to uphold the values of the nation

# PO 10 Effective Project Management

Identify the goals, objectives and components of a project and decide the appropriate time of completion.

Plan, organize and direct the endeavors of teams to achieve the set targets in time. Be competent in identifying opportunities and develop strategies for contingencies.

### PROGRAMME SPECIFIC OUTCOMES

B.A -History, Economics, Political Science(HEP)

- **PSO 1:**Understand the basic concepts like National Income, Poverty, Employment, International trade, Fiscal and Monetary policies, Economic conditions of various historic periods, Satavahana's Foreign trade, numismatics, agriculture economy from ancient period to modern times and their role in administration for formulating relevant policies for effective utilization of resources and tackling various problems like unemployment and improved standard of living.
- **PSO 2**:To analyse the economic importance of various sectors like agriculture, industry and service sector in different dynasties that influence administration like Chola administration (local self Government), Mauryan administration (Urban governance) and British administration.
- **PSO 3:**To understand the impact of agriculture and foreign trade in economic development that attract foreign invaders towards India, resulting in changed administration in due course upto and after independence.
- **PSO 4:**To provide life skills required for gainful employment by using domain knowledge such as Economic Service, Historians/ History writing and bureaucrats at various levels.

To promote values such as sustainable development, Optimum utilization of resources, patriotism, respecting the ideals of freedom struggle and responsible citizenship, political participation and socialization.

#### B.Com -General

- **PSO 1 :** To understand the nature, scope and concepts of Accounting, Business Operations and Management.
- **PSO 2**: To analyse the relationship between Accounting, Auditing and Taxation.
- **PSO 3 :** To understand the application of Corporate Accounting Principles and Practices inreal time business situations.
- **PSO 4:** To equip the students with leadership skills and knowledge in computing skills.
- **PSO 5 :** To enable the students to understand the legal environment and its effect on business, industry, commerce and management.

B.Com - Computer Applications (CA)

- **PSO 1 :** To understand the nature, scope and concepts of Accounting, Business Operations and Management.
- **PSO 2**: To enable the students to understand the concepts of computer software and itsapplications in business operations.
- **PSO 3**: To equip the students with business analytics and e-commerce skills.
- **PSO 4**: To develop the students with communication, leadership and entrepreneurial skills.
- **PSO 5 :** To make them learn the latest technologies and their application in modern businessoperations.

#### B.Sc - Botany, Zoology, Chemistry (B.Z.C)

- **PSO 1:** To understand principles of origin of life and its evolutionary trends, Microbialdiversity, chemical theory related to origin of life
- **PSO 2:** To analysis the taxonomic range of various life forms as per their external charactersand internal chemical constitutions (chemo taxonomy)
- **PSO 3:** The knowledge About of ecological and phyto geographical studies related in environmental biodiversity with biotic and abiotic factors
- **PSO 4:** Skills to study the principles of tissue culture techniques in biology leads to various diversity of life forms (hybrids) by using chemically synthesised growth hormones.
- **PSO 5:** Ability to design the evolution of drugs form the biological sources and its applications without any side effects in nature.

#### B.Sc – Mathematics, Statistics, Computer Science (M.S.CS)

- **PSO 1:** Understand the concepts of vector spaces, group theory, probability, distributions, sampling techniques, algorithm design, data base design and web design.
- **PSO 2:** Analyse the concepts of mathematics, statistics and computers science able to use them in algorithm design and data science.
- **PSO 3:** Acquire the skills to use various sampling techniques, statistical inference, data analysis in MS-Excel, implementation of numerical algorithms by using various programming languages.
- **PSO 4:** Ability to interlink the skills developed and develop an aptitude to address the problems in DBMS, web and mobile app development.