

Autonomous & Affiliated to Bharathiar University, Coimbatore Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle) An ISO 9001-2015 Certified Institution www.gvgvc.ac.in. gvgprincipal@gmail.com Ph.04252-223019, Fax:04252-2233111

## 2.6.1 Programme Outcomes and Course Outcomes for Programmes offered – 2020-2021

S.No.	Programme Name	Page No.
1.	B.A. Economics	1
2.	B.A. History	7
3.	B.A. English Literature B.A. English Literature (SF)	13
4.	B.Sc. Mathematics B.Sc. Mathematics (SF)	20
5.	B.Sc. Physics	26
б.	B.Sc. Chemistry	34
7.	B.Sc. Zoology	42
8.	B.Com B.Com (SF)	49
9.	B.Sc Computer Science	56
10.	B.Sc IT	65
11.	BCA	73
12.	BBA (CA)	81
13.	B.Com (CA)	90
14.	B.Com (E-Commerce)	98
15.	B.A. Tamil Literature	105
16.	B.Sc Statistics	118
17.	B.A. Economics with Logistics & Freight Management	126



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# **B.A. Economics**

	Programme Outcomes
PO1	Provide a proper understanding of concepts, principles, theories and models used in the subject of
	economics and also provide skills to find out the emerging trends.
PO2	Augment the students to possess entrepreneurial and computing skills.
PO3	Inculcate the thrust of research attitude in the field of Economics and enable the students to take up
	research projects effectively.
PO4	Prepare the students to take up higher studies and equip them to explore the employment opportunities.
PO5	Develop the students as pillars of the society by imparting ethical, moral, environmental, legal, social and
	economic values.
PO6	Guide the students with the ways and means to achieve their goals.

Programme Specific Outcomes			
PSO1	Explain the basic and core terms, concepts and theories in Economics.		
PSO2	Demonstrate the application of 'economic way of thinking' in their day-to-day life.		
PSO3	Use the acquired knowledge and skills in taking up higher studies and/or creating appropriate career		

	Course Outcomes		
Course Name	CO	Statement	
Core I - Micro	CO1	Identify the basic concepts of economics.	
Economics I	CO2	Draw the behaviour of consumers and producers in market conditions	
	CO3	Identify the ways in which various decision-making units in the economy (individuals and firms) operates.	
	CO4	Recognize economies of scale, diseconomies of scale and constant returns to scale	
	CO5	Develop knowledge that provide a foundation for pursuing lifelong learning	
	CO6	Analyse the current events from an economic perspective	
Core II	CO1	Comprehend the significance of agriculture in national development	
Agricultural Economics	CO2	Identify the basic economic concepts and principles necessary for economic analysis of agriculture sector.	
	CO3	Express the inputs and strategies related to green revolution.	
	CO4	Discuss the drivers of change in the growth of agricultural sector.	
	CO5	Generalize the agricultural price policy and food security issues.	
	CO6	Relate the problems of agricultural labour and agricultural marketing	
Allied I - Social	CO1	Comprehend the concepts and characteristics of social issues	
Problems in India	CO2	Identify the causes and consequences of social problems.	
mula	CO3	Describe the preventive measures to control social problems.	



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	CO4	Summarise the factors involved in child abusement and juvenile delinquency.
	CO5	Recognise the violence against women and elders.
	CO6	Deduce the knowledge of black money, corruption and terrorism transmitted to the society.
Core III Micro CC		Recognize the knowledge about cost and revenue.
Economics II	CO2	Explain the equilibrium of a firm under marginal conditions.
	CO3	Describe the various types of markets and compare their efficiency.
	CO4	Use the information to make informed judgments on pricing decisions under various market conditions.
	CO5	Comprehend the pricing of factors of production
	CO6	Assess the relevance of market and factor pricing models in current scenario.
Core IV	CO1	Enumerate the sources of demographic data and growth of population.
Demography	CO2	Relate the intricacies of various theories of population.
	CO3	Associate the demographic characteristics of population.
	CO4	Generalize the causes and consequences of urbanization.
	CO5	Assess the economic issues and problems of urbanization.
	CO6	Explain the population policies in India.
Allied II Basic	CO1	Describe the concept of accounting system to maintain the business transactions
Accountancy		systematically.
	CO2	Identify basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems.
	CO3	Recognize the financial performance of an organization using these reports.
	CO4	Describe and apply accounting concepts and principles in preparing financial statements.
	CO5	Execute the various techniques and methods of depreciation followed in the business
	CO6	Use the knowledge on processing of bills of exchange in credit transactions
Core V Urban	CO1	Comprehend the subject matter and concepts of Urban Economics.
Economics	CO2	Describe the trends, causes and consequences of urbanization.
	CO3	Describe the evolution of cities and urban areas.
	CO4	Assess the economic issues and problems of urbanization.
	CO5	Evaluate the planning and policies of urban planning.
	CO6	Review the Government policy towards urban growth
Core VI	CO1	Describe the nature and scope of economics of marketing and the basic concepts of marketing
Economics of Marketing	CO2	Comprehend the basic concepts and basics of product lifecycle, branding, packaging, labelling and new product development.
	CO3	Associate the buyer's behaviour with market segmentation.
	CO4	Summarize the significance of pricing decision and pricing of Products, thereby promoting sales.
	CO5	Demonstrate the sales techniques through personal selling, advertising and media marketing
	CO6	Compare the various methods of sales promotion.
Allied III	CO1	Comprehend the basic concepts of mathematical techniques that are widely used in economics

Mathematical	CO2	Estimate the techniques of matrix algebra and basic rules of differentiation in economics
Methods	CO3	Operate with profit maximization and cost minimization.
	CO4	Apply the mathematical tools in research.
	CO5	Build the mathematical techniques in economic theories.
	CO6	Discuss a set of problem-solving and analytical skills in the fields of finance.
Part IV – Non	CO1	Identify their goals and values and thereby set their standards
Major Elective	CO2	Develop the values and efficient management of family.
Home	CO3	Choose nutrients for healthy life.
Economics	CO4	Implement the knowledge for preparing family budget.
	CO5	Utilize the updated information to maintain the healthy household activities and kitchen garden
	CO6	Execute the taste of interior decoration
Part IV – Skill	CO1	Identify the concepts and principles of communication
Enhancement	CO2	Comprehend the skills in development communication
Course I	CO3	Prepare the communication letters for business activities
Communication Skills for	CO4	Demonstrate the skills on correspondence with banking, insurance and other agencies
Business	CO5	Produce the skills on different kinds of report writing.
	CO6	Recognise the media planning and advocacy
Core VII Macro	CO1	Describe the functioning and linkages of different sectors and their contribution to
Economics I		National Income.
	CO2	Relate the basic concepts and basics of national income accounting.
	CO3	Demonstrate the theories in macroeconomics from classical and Keynesian perspectives.
	CO4	Explain the working of the free market economy.
	CO5	Build the relevance of classical & Keynesian theories to Indian Conditions
	CO6	Apply the principles of macroeconomics for setting goals and policies
Core VIII	CO1	Identify the major ideas associated with contemporary economic thinking.
Economic	CO2	Relate the ideas and theories within the context in which they were developed and
Doctrines		in relation to other economic ideas.
	CO3	Summarise the economic models and concepts.
	CO4	
	CO5	Develop the impact of past analytical contributions on current economic analysis.
A 114 1 TT /	CO6	Generalise the contribution of Indian economists to economic literature.
Allied IV	CO1	Comprehend the concept of statistics and the ways to mobilizing data.
Statistics	CO2	Apply various statistical tools in economic theories.
	CO3	Recognize the strengths and shortcomings of statistical problems.
	CO4	Estimate the ways of measuring the inter-relationship among variables
	CO5	Interpret the relationship between two variables in statistical terms.
	CO6	Execute the skills in calculating basic statistical parameters independently.
Part IV– Skill	CO1	Create account heads.



TallyCO4Prepare final accAccountingProgramme –PracticalCO6Execute the finalAdvancedCO1Produce their suLearners CourseCO2Relate the econdI Subject VivaCO3Develop their orVoceCO5Utilize their indeCO6Execute their precision	pts in business accounting. counts in accordance with generally accepted accounting principles. ncial and inventory reports. bject knowledge effectively. omic concepts to real world situations. atory and leadership skills. oblem solving capabilities. ependent thinking ability. ng interviews. vorking of the macro economy. ponents of aggregate economic activity, fluctuations and effects for
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CO4Execute their productCO5Utilize their indeCO6Prepare for facing	ependent thinking ability. ag interviews. vorking of the macro economy. ponents of aggregate economic activity, fluctuations and effects for nomy.
CO6 Prepare for facin	ag interviews. Forking of the macro economy. ponents of aggregate economic activity, fluctuations and effects for nomy.
	orking of the macro economy. ponents of aggregate economic activity, fluctuations and effects for nomy.
<b>Core IX Macro</b> CO1 Recognize the w	ponents of aggregate economic activity, fluctuations and effects for nomy.
	nomy.
the national eco	tionality of the principle of multiplier and accelerator.
and fiscal policy	
	understanding of monetary and fiscal policy options as they relate bilization in the short run and in the long run.
CO6 Assess and evaluation	ate the various determinants of macroeconomic variables
	in channels of monetary transaction mechanism.
Monetary CO2 Comprehend the	fundamental monetary theories.
Economics         CO3         Interpret the work	rking of Business Cycles.
CO4 Discuss the role of	f financial intermediaries in general, and the banking sector in particular
CO5 Explain the mor	etary policy strategies formulated by the central bank.
CO6 Relate how mone	tary policy decisions are implemented and transmitted to the economy
<b>Core XI</b> CO1 Identify the entr	epreneurship scenario in the economy.
Entrepreneurshi CO2 Recognize the fu	unctions and role of women entrepreneurs.
p Development CO3 Classify projects	s and enumerate the problems.
CO4 Deduce the sour	ces of finance.
CO5 Develop the kno	wledge on special agencies for training and institutional finance.
CO6 Prepare a busine	
Core XII CO1 Comprehend the	basic concepts and components of tourism.
<b>Economics of</b> CO2 Estimate the eco	nomic benefits and costs of tourism.
Tourism         CO3         Discuss the variation	ous tourism services.
CO4 Create, apply, and	evaluate marketing strategies for tourism destinations and organizations
	and functions of tourism organizations and travel agencies.
	n policy and planning initiatives.
	re and scope of insurance.
Principles ofCO2Deduce the major	or insurance products.

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Insurance	CO3	Examine the property and liability insurance contracts.
insurance	CO4	Comprehend insurance laws and regulation.
	CO4	Compare various kinds of insurance plans and the duties of agents.
	CO5	Discuss the role of Insurance Intermediaries
Elective I Tamil		
	CO2	Associate the issues related to agriculture, industry and service sectors.
	CO3	Justify the growth rate of the economy and contribution of different sectors
	CO4	Recognize the Human Resources in Tamil Nadu.
	CO5	Summarise the State Finance and various development programmes.
	CO6	Design alternative viewpoints on economic issues.
Skill	CO1	Apply information technology tools and techniques to meet the needs and
Enhancement	GOA	expectations in business and academics.
Course III -	CO2	Use Microsoft Word to Construct business and academic documents.
Computer Application	CO3	Create spreadsheets with formulas and graphs using Microsoft Excel.
Techniques -	CO4	Develop presentations containing animation and graphics using Microsoft
Practical	COF	PowerPoint.
	CO5	Generate and manage databases.
	CO6	Prepare and manipulate different programs and functions.
Core XIII Fiscal	CO1	Comprehend the nature and working of public finance and its theories.
Economics	CO2	Identify the types of public needs and the mechanisms of their financing.
	CO3	Examine the revenue and expenditure administration at national and regional levels.
	CO4	Discuss the causes and effects of public debt; the role and fiscal policies of central,
	COF	state and local governments.
	CO5	Interpret the central and state budgets to understand the financial planning of the government
C VIV	CO6	Relate budgeting information and performance evaluation.
Core XIV International	CO1	Define the key concepts of international trade.
Economics	CO2	Describe the main economic theories and models of international trade.
Leonomies	CO3	Estimate the exchange rates and the balance of payments.
	CO4	Analyse foreign exchange transactions.
	CO5	Associate trade, international finance and economic growth.
	CO6	Explain the key legal issues related to trade operating in other countries.
Core XV Indian	CO1	Describe the basic structure of Indian Economy.
Economic	CO2	Explain the need for capital formation and the role of human capital for economic development
Development	CO3	Examine the reasons for industrial sickness and the remedial measures.
	CO4	Relate and justify the growth rate of the economy, fiscal deficit and contribution of different sectors.
	CO5	Deduce the knowledge of the growth of service sector.
	CO6	Apply the concepts and information in competitive exams.
Elective II	CO1	Identify the functions of modern banking.
Modern	CO2	Recognize the various types of accounts.

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Banking	CO3	Classify the negotiable instruments.
	CO4	Use the principles and types of loans and advances.
	CO5	Execute the recent developments in Banking.
	CO6	Generalize the application of modern banking techniques through demonstration.
Elective II	CO1	Comprehend the concepts, principles and procedures of transport economics for
Transport		effective decision making.
Economics	CO2	Explain the various modes of transport.
	CO3	Examine the modernization in transport system.
	CO4	Relate the benefits of privatization of transport sector for domestic and international trade
	CO5	Develop the knowledge of air transportation services for international trade.
	CO6	Discuss the government regulations in transport sectors.
Elective III	CO1	Recognize the ways that retailers use marketing tools and techniques to interact
<b>Retail Business</b>		with their customers.
Management	CO2	Estimate the factors affecting strategic decisions involving investments in locations, supply chain, information system and customer relation programmes.
	CO3	Compare different customer service strategies that can be used to improve the consumer experience.
	CO4	Discuss the strategies of pricing, merchandise assortment, store management, visual merchandising for extracting profit.
	CO5	Characterize the challenges faced by the retail marketing.
	CO6	Develop the functional areas of business to guide innovation and follow business ethics
Elective III	CO1	Describe the research concepts and process.
Introduction to Research	CO2	Explain the quantitative and qualitative research designs and identify the advantages and disadvantages associated with it.
Methodology	CO3	Compute the key data generation methods.
	CO4	Design a research study using a suitable model, associated methodologies and
	001	methods of data collection and analysis.
	CO5	Develop a comprehensive research methodology for a research question.
	CO6	Prepare a research proposal.
Skill	CO1	Draw the flexible data aggregations using pivot tables.
Enhancement	CO2	Create the data visually using charts.
Course IV -	CO3	Demonstrate, calculate and interpret various descriptive or summary measures of data.
Introduction to Data Analysis	CO4	Using formula-based techniques, Calculate measures of correlation and regression.
using Excel–	CO5	Create trend lines and project trend values.
Practical	CO6	Prepare index function with syntax.
Advanced	CO1	Produce their subject knowledge effectively.
Learners Course	CO2	Relate the economic concepts to real world situations.
II Subject Viva	CO3	Develop their oratory and leadership skills.
Voce	CO4	Execute their problem-solving capabilities.
	CO5	Utilize their independent thinking ability.
	CO6	Prepare for facing interviews.



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# **B.A. History**

	Programme Outcomes			
PO1	1 Provide knowledge in political and social setup			
PO2	Develop the sense of responsibility in National Building			
PO3	Facilitate for Excelling in Teaching and Research			
PO4	D4 Equip to appear for all competitive examination			
PO5	Provide capability of being employed in any field			

Programme Specific Outcomes				
PSO1	Take up teaching profession			
PSO2	Undertake research			
PSO3	Appear for competitive examination			

Course Outcomes			
Course Name	CO	Statement	
117H01- Core I-	CO1	Demonstrate the physical features and record the civilizations of Ancient India.	
Main Currents in Indian History	CO2	Determine the rise of Mauryan empire and the commencement of political history in India.	
upto A.D. 647.	CO3	Sketch the age of the Guptas.	
	CO4	Explain the contribution of the Guptas – the rulers of the Golden Age.	
	CO5	Analyse the development of Buddhism in India.	
	CO6	Highlight the contribution of Satavaganas society and culture	
117H02 - Core II-	CO1	Identify the Islamic penetration in to India.	
Main Currents in	CO2	Assess the reforms of Alauddin khilji	
Indian History A.D. 647 - A.D	CO3	Explain the establishment of Delhi Sultanate	
A.D. 047 - A.D 1526.	CO4	Discuss the consolidation of Delhi Sultanate.	
1020	CO5	Examine the causes for the downfall of the Delhi Sultanate	
	CO6	Describe the rise of contemporary South Indian kingdoms	
117AH1-Allied I-	CO1	Define and identify the components and Elements of Tourism.	
Introduction to	CO2	Sketch the history of Tourism.	
Tourism	CO3	Distinguish travel through the Ages.	
	CO4	Indicate the social and economic impact of Tourism.	
	CO5	Examine the role of Ministry of Tourism in India.	
	CO6	Identify the role of State Tourism Department	
217H03 - Core	CO1	Analyse the foundation of the Mughal Empire	



### Sri G.V.G. Visalaskhi College for Women, Udumalpet-642128 Autonomous & Affiliated to Bharathiar University, Coimbatore

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III Main	CO2	Asses the achievements of Akbar.			
Currents in	CO3	Distinguish the policies of the Mughal rulers.			
Indian History	CO4	Identify the rise of Marathas.			
A.D. 1526 - A.D. 1707	CO5	Interpret the Mughal art.			
1/0/	CO6	Examine the Bhakti Movement of the Sikhs			
217H04 –Core IV Main Currents in	CO1	Analayse the coming of the Europeans and the establishment of the British rule			
Indian History	CO2	Examine the economic policies during the 18th century.			
A.D.1707 –	CO3	Explain the expansion of the British rule.			
A.D.1857	CO4	Summarize the social reforms.			
	CO5	Demonstrate the reforms of Lord Dalhousie.			
	CO6	Highlight the Upheaval of 1857			
217AH2 –Allied II	CO1	Use the mouse to navigate windows and applications			
Learning with the Internet-	CO2	Set up logical storage location hard drive			
Practical	CO3	Use microsoft office programme to create personal and academic			
Tactical	CO4	Identify and use Internet browser features.			
	CO5	Apply skills and concept for use of Internet.			
	CO6	Utilize the Internet web resources for online booking			
317H05 - Core V	CO1	Distinguish between the reforms of Lord Canning and Lord Lytton			
Main Currents in	CO2	Identify the causes for the rise of Indian Nationalism			
Indian History - A.D. 1858 - A.D.	CO3	Examine the circumstances leading to the partition of Bengal and Swadeshi Movement.			
1919	CO4	Discuss the rise of Muslim league and Home Rule movement			
	CO5	Sketch the impact of British rule on agriculture and Industry			
	CO6	Explain the role of various leaders in the struggle			
317H06 - Core VI	CO1	Analyse the significant events of Freedom Movement.			
Main Currents in Indian History –CO2Identify the causes and results of Round Table Conferences.		Identify the causes and results of Round Table Conferences.			
A.D. 1920 – A.D.	CO3	Examine the circumstances leading to the partition of India and its impact.			
1965	CO4	Differentiate the Integration of Princely States and Linguistic Reorganization of the States.			
	CO5	Explain the domestic and foreign policy of Jawaharlal Nehru the first Prime Minister of Post Independent India.			
	CO6	Describe the impact of Indo Pakistan wars			

317AH3– Allied	CO1	Distinguish the different types of constitution				
III Modern	CO2	Examine the constitution of England				
Governments	CO3	Discuss the structure and functions of British legislature				
Course Code:	CO4	Describe the salient features of the U.S. Constitution				
	CO5	Explain the powers of the President of USA				
	CO6	Demonstrate the unique features of the Swiss Constitution				
317NHC- Non-	CO1	Describe the physical features and record the civilizations of ancient India.				
Major Elective -	CO2	Discuss the rise of south Indian kingdom				
History for	CO3	Assess the establishment of Muslim invasions.				
Competitive	CO4	Explain the expansion of British rule.				
Examinations	CO5	Density the causes for the rise of Indian Nationalism.				
	C06	Explain the role of Religious and Philosophical leaders				
317HS1- Skill	CO1	Examine the role of Travel Agency				
Enhancement	CO2	Explain the structure and functions of Travel Agency.				
Course I	CO3	Discuss the role of tour operators.				
Tourism	CO4	Discuss the Travel Documents				
Industry- Travel Management	CO5	Describe the procedure to start a Travel Agency				
Management	CO6	Identify the Travel Procedure				
417H07- Core	CO1	Summarize the achievements of Mrs. Indira Gandhi as a first Women				
VII Main		Prime Minister.				
Currents in	CO2	Describe Rajiv Gandhi's administration and his new educational policy.				
Indian History –	CO3	Distinguish the administrative measures of P.V.Narasimha Rao,H.D.Deve Gowda and I.Kgujral.				
A.D. 1965 – A.D. 2014	004					
2014	CO4	Explain Atal Bihari Vajpayee's administration.				
	CO5	Discuss the main events during the Prime Minister ship of Dr.Man Mohan Singh				
417H08 - Core	CO6 CO1	Assess the impact of Mandal Commission on social aspects				
VIII History of	CO1 CO2	Identify the Sources for the History of Tamilnadu.Discuss the origin of the Pallavas.				
Tamil Nadu	CO2 CO3	Examine the Contribution of the Pallavas to Religion, Art and architecture				
Upto	CO3	Describe the local Administration of the Cholas.				
A.D.1336417H08	C04	Analyse the political History of the second Pandyan empire				
	CO5	Asses the Art and Architecture of Imperial Cholas				
417AH4–	CO0	Identify the Rights and duties of the people				
Allied IV Indian	Explain the position and powers of the president and Prime minister					
Constitution	CO2 CO3	Discuss the Indian Parliament				
	CO3	Sketch the Indian Judiciary				
	C04	Examine the position and powers of the Governor and Chief Minister				
	CO5	Describe the significance of Constitution of Democracy				
		Describe the significance of Constitution of Democracy				

417HS2 SI-:11	CO1	Discuss the national and international Hotels				
417HS2 - Skill Enhancement						
Course -II	CO2	Describe the various types of supplementary accommodation				
Tourism Industry	CO3	Assess the role of sole proprietorship and partnership				
- Hospitality	CO4	Analyze Front office Management				
Management	CO5	Examine Human Resource in Hotel Industry				
	CO6	Explain the various career opportunities in the Hotel Industry				
417ALH-	CO1	Produce their Subject Knowledge effectively				
Advanced	CO2	To impart knowledge of the past and reinterpret with the present				
Learners Course-	CO3	Develop their oratory and leadership skills				
I -Subjecy Viva Voce	CO4	Execute their problem solving capabilities				
v oce	CO5	Utilize their independent thinking ability				
	CO6	Prepare for facing interviews				
517H09 – Core	CO1	Identify the expansion of the Vijayanagar empire in Tamilnadu				
IX History of	CO2	Examine the establishment of Poligar system				
Tamil Nadu from	CO3	Describe the inception of Nayaks of Madurai, Tanjore, Senji and Sethupathies of Ramnad				
A.D 1336 - A.D.1806	CO4	Analyze the contribution of the Nayaks to Art and Architecture				
A.D.1000	CO5	Assess the contribution of Marathas of Tanjore to education and culture				
	CO6	Discuss the coming of Europeans and their settlements on the Coromandal coast				
517H10- Core X	CO7	Interpret the various rebellion against the British				
World History	CO1	Explain the Fall of Constantinople and Fall of Feudalism				
A.D 1453 -	CO2	Examine the Geographical discoveries and Scientific inventions				
A.D1783	CO3	Summarize the Renaissance and Reformation Movement				
	CO4	Discuss features of the Age of Absolutism				
	CO5	Identify the Establishment of European Colonies				
517H11 - Core XI	CO6	Analyze the impact of various Revolutions				
History of China	CO1	Identify the early relationship of China with the West				
and Japan	CO2	Analyze the Sino Japanese relations				
A.D.1800 - A.D.1970	CO3	Explain the various movements and the rise of Communism in China				
A.D.1770	CO4	Outline the chain of invasions and war crimes.				
	CO5	Demonstrate the rise of Militarism in Japan				
	CO6	Examine the emerge of Japan as a super power during the Second World War				
	CO7	Discuss the contemporary history of China and Japan				
517HS3-Skill	CO1	Identify the duties of a caterer				
Based Course -	CO2	Explain different types of food and the importance of food safety				
III-Tourism	CO3	Discuss and evaluate industry trends				
Industry Catering Services	CO4	Describe the safety measures of a catering unit				
	CO5	Explain the reception management				
	CO6	Provide good customer care using effective communication				
	CO7	Summarize the role and functions of the room divisions department				

617H13 - Core	CO1	Asses the impart of British rule in Tamilnadu and movement in Tamilnadu						
XIII- History of	CO2	Outline the significant events during Colonial rule						
Tamil Nadu from	CO3	Compare and assess the contribution of prominent personalities						
A.D 1807 to A.D	CO4	Identify the Socio-cultural changes in Tamilnadu						
2016	CO5	Describe the administration of Madras Presidency						
	CO6	Compare the governance of various administrators						
	CO7	Sketch the political and economic developments in Tamilnadu						
617H14- Core	CO1	Describe a key historical event						
XIV World	CO2	Assess the impact of French revolution on the concepts of rights						
History A.D. 1789	CO2	Outline the impact of revolutions						
- A.D.2000	CO4	Assess the reasons and results of the World war I and II						
	CO4	Examine the impact of Russian revolution on the world						
	CO6	Explain the reasons for the emergence of the international peace and Security						
		organization						
	CO7	Discuss the problems of middle Eastern nations						
617H15- Core	CO1	Assess the complexity of India's relationship with its neighbors.						
XV - India and	CO2	Analyze the role of India as contributor to the regional peace in Asia.						
Her Neighbors	CO3	Discuss the complexity of political relationship of India with Nepal, Bhutan,						
		Burma and Maldives.						
	CO4	Sketch India's role in Srilankan Ethics crisis						
	CO5	Highlight India's cultural conditions with the neighboring countries.						
	CO6	Explain the significance of Indo-Pak war and Indo China war						
	CO7	Demonstrate India's Border issue with Pakistan and China.						
617HE3- Elective	CO1	Identify the major tourist places State wide						
II- Tourist	CO2	Interpret and evaluate tourism as a phenomenon and as a business system						
Destinations in Tamilnadu	CO3	Describe a minimum of Three to Four major tourist destination for each region studied						
Tammauu	CO4	Define the concept of tourist attraction						
	CO5	Identify the religious and pilgrimage tourist destination in Tamilnadu						
	CO6	Describe natural, historical, archaeological and religious spots in Tamilnadu						
617HE4 - Core	CO1	Demonstrate the sociological concept and the relations with other social science						
XV Sociology	CO2	Outline and compare the different methods of study of Sociology						
	CO3	Explain the relationship between individual and sociology						
	CO4	Analyze the influence of social stratification and ethnicity on family diversity						
	CO5	Outline the influence of culture and social change						
	CO6	Analyse the Indian family system						
617HE5- Elective	CO1	Compare the status of women in different ages						
III Women	CO2	Identify the prominent women personalities						
Studies	CO3	Asses and Analyses the social legislation for Women						
	CO4	Discuss the role of women in Media						
	CO5	Examine the changing role of women in India.						

	CO6	Outline the challenges faced by women			
617HE6 - Elective	CO1	Differentiate the different types of Temple			
III Temple Study	CO2	Identify the village deities			
	CO3	Compile the sources available in the Temples			
	CO4	Explain the administration of the Temple			
	CO5	Assess the contribution of Temple to culture			
	CO6	Compare the different architectural styles of the Temples			
6174S4- Skill	CO1	Describe the concept and feature about Health Tourism			
Based Course - IV	CO2	Explain the development of Health Tourism			
-Tourism	CO3	Analyse health Tourism in India and the World			
Industry- Health Tourism	CO4	Examine important Ethical issue regarding health tourism practices			
1 001 15111	CO5	Summarize the AYUSH systems of health care			
617ALH-	CO1	Produce their subject knowledge effectively			
Advanced	CO2	To impart knowledge of the past and reinterpret with the present			
Learners Course-I	CO3	Develop their oratory and leadership skills			
-Subjecy Viva Voce	CO4	Execute their problem solving capabilities			
VULE	CO5	Utilize their independent thinking ability			
	CO6	Prepare for facing interviews			
	000	riepaie for facing interviews			



# **B.A. English Literature, B.A English Literature (SF)**

	Programme Outcomes				
PO1	Students will be able to get knowledge about the genres of literature				
PO2	Students will be able to acquire proficiency in communicative and teaching skills				
PO3	Students will be able to apply critical theories in literary texts				
PO4	Students will be able to understand and apply translation theories				
PO5	Students will be able to acquire a commitment to life-long learning				

	Programme Specific Outcomes				
PSO1	Students will be able to acquaint with the various forms of literature and recent theories				
PSO2					
	competence				
PSO3	Students will be able to get suitable career opportunities				

Course Outcomes			
Course Name	CO	Statement	
Part II – English I	CO1	Comprehend the grammatical structures in various genres	
	CO2	Understand the text styles and grammatical elements	
	CO3	Write compositions and constructive passages	
	CO4	Interpret text by relating them to other materials	
	CO5	Develop an interest in the appreciation of literature	
	CO6	Discuss and respond to content of a reading passage	
Core I - Poetry I	CO1	Identify the genres of poetry from the different historic periods	
	CO2	Recognize rhythms, metrics and other musical aspects of poetry	
	CO3	Appreciate the experiences and their expressions in poetry	
	CO4	Draw upon the movements related to poetry in English	
	CO5	Develop skills for analyzing and criticizing poetry	
	CO6	Assess the co-relation between society, man and nature	
Core II - Prose	CO1	Acquire familiarity with the style of prose writings	
	CO2	Analyze and appreciate prose pieces	
	CO3	Acquire good vocabulary	
	CO4	Enrich creativity	
	CO5	Convey constructive meaning in speech and writing	
	CO6	Interpret text with attention to form, genre, ambiguity and complexity	



Allied I – Literary Forms	CO1	Acquire the basic knowledge of all the genres of literature
	CO2	Understand the usage of various dramatic devices
	CO3	Obtain knowledge of literary schools and movements
	CO4	Reckon and Interpret literary pieces
	CO5	Appreciate emotional and intellectual expressions in various genres
	CO6	Create a link between literature and human expression
English II	CO1	Distinguish main points from the supporting details
	CO2	Develop the narrative skill
	CO3	Implement the descriptive skill
	CO4	Comprehend the skill of writing reports
	CO5	Compare and contrast ideas
	CO6	Examine the content of a reading passage
Core III- Fiction	CO1	Gain knowledge about the culture and life style of people in a particular age
	CO2	Understand the aesthetic and ethical value of the text
	CO3	Comprehend the narrative techniques
	CO4	Enrich vocabulary and power of expression
	CO5	Develop creative skills
	CO6	Acquire intellectual and practical training needed to pursue writing career
Core IV – Grammar &	CO1	Comprehend the basics of grammar and its usage
Usage	CO2	Assimilate the correct patterns of the language
	CO3	Produce coherent and unified paragraphs
	CO4	Understand the differences between spoken and written English
	CO5	Develop and practice writing as a process
	CO6	Use appropriate stylistic formats for various purposes
Allied II – Social History of	CO1	Acquire in depth knowledge of the social and historical milieu
England	CO2	Expose the cause and effect of Revolutions and Wars
	CO3	Recognize the writers of various ages and their contributions
	CO4	Analyze the impact of social and historical events in literature
	CO5	Imbibe the socio-cultural values
	CO6	Examine the interrelationship between literature and society
English III	CO1	Recognize the structures in writing composition
	CO2	Enrich conversational and writing skills
	CO3	Plan, organize and present ideas coherently
	CO4	Interpret sentence structures
	CO5	Enrich proficiency for global competency
	CO6	Relate with Professional and Personal lives

Core V- Women's Writings	CO1	Define and apply basic terms and concepts related to women studies
_	CO2	Gain knowledge about the development of women's writing in various
		countries
	CO3	Construe class, race and gender as social constructs and how they
		influence women's lives
	CO4	Communicate effectively about gender issues in both writing and
	COF	Speech
	CO5	Evaluate literary works from a feminist perspective
	CO6	Apprehend the lives and context of multi-cultured women
Core VI - Drama	CO1	Identify dramatic and theatre aesthetics
	CO2	Build dramaturgical skills
	CO3	Develop oral communication and performing arts
	CO4	Understand critical perception and dramatic imagination
	CO5	Interpret stage performance skills
	CO6	Create a supportive and respectful atmosphere for one another
Allied III History of	CO1	Identify the salient features of literary texts from a broad range of
English Literature		literary periods
	CO2	Familiarize with representative literary and cultural texts within a
	<u> </u>	significant number of historical, geographical and cultural context
	CO3	To gain insight into the distinctive features of major literary movements and genres
	CO4	To learn about the lesser known works obscured often by dazzling
	004	canons
	CO5	To analyze the important literary figures and canonical works of the
		historical period
	CO6	To evaluate the existing works with the knowledge acquired
Non-Major Elective–	CO1	Improve lexical, grammatical and communicative competence
English for Competitive	CO2	Enhance communicative skills in real life situations
Examinations	CO3	Acquire LSRW skills
	CO4	Prepare for competitive examinations
	CO5	Strengthen employability skills
Part IV - Skill	CO1	Acquire fundamental knowledge about the basics of nature and
Enhancement Course I -		importance of language
English Language	CO2	Create a link between Mother Tongue and Second Language
Teaching I	Ç03	Analyze the position of English language teaching
	CO4	Learn language objectives and aims
	CO5	Enrich teaching of English language pedagogy
	CO6	Expose the mastery level of teaching principles
Core VII – Poetry II	CO1	Identify the terminologies and elements of poetry
	CO2	Appreciate poetic forms and structure in shaping a text's meaning
	CO3	Enjoy the expressions, connotations and denotations in poetry
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	CO4	Enhance comprehension and writing skills
	CO5	Apply the principles of literary criticism in the analysis of poetry
	CO6	Develop creativity and expression
Core VIII- Children's	CO1	Define terms and concepts related to children's literature
Literature	CO2	Gain knowledge of classics and contemporary children's texts
	CO3	Comprehend cultural encounters faced by children
	CO4	Stimulates the emotional intelligence and creativity of children
	CO5	Evaluate texts from children's perspective
	CO6	Understand children's literature from multiple perspectives
Allied IV Phonetics	CO1	Gain knowledge about the functioning of air stream mechanism
	CO2	Identify the technical aspects related to English Pronunciation
	CO3	Acquire proficiency in enunciating English speech sounds
	CO4	Comprehend the English syllable, word-accent and intonation
	CO5	Obtain knowledge in phonetic transcription
	CO6	Enrich employable skills
Part IV - Skill	CO1	Acquire basic knowledge of English language teaching
Enhancement Course II -	CO2	Inculcate comprehensive study of English teaching methods
English Language Teaching II	CO3	Understand the teaching methods and approaches
Teaching II	CO4	Implement language learning techniques
	CO5	Adopt innovative teaching technology
	CO6	Enrich employability skills
Part IV - Advanced	CO1	Acquire dramaturgical skills
Learners' Course I-	CO2	Understand dramatic literature and theatre aesthetics
Literature and Theatre Arts	CO3	Proficiency in oral communication and performing arts
	CO4	Acquire critical perception and dramatic imagination
	CO5	Enrich skills of stage performance
	CO6	Proficiency in script writing
Core IX - Shakespeare	CO1	Acquire familiarity with the most significant plays of Shakespeare and all the facets of Shakespearean drama, themes, conflicts, characters and Sonnets.
	CO2	Comprehend the relationship between Literature and historical context
	CO3	Recognize the dramatic genres of Shakespeare
	CO4	Shakespeare's influence on English language and his powerful
	COF	characters and extraordinary storyline.
	CO5	Outline the social, political, and intellectual context of Elizabethan England
	CO6	Utilize contemporary criticism and history as ways of providing a context for understanding the plays

Core X - American	CO1	Understand various difficulties to identify themes, metaphors, symbols
Literature	COI	and a wide variety of literary devices
	CO2	Acquaint authors' contributions to American literature
	CO3	Appreciate the works of American literature
	CO4	Understand the knowledge of emotional, intellectual and aesthetic levels
	CO5	Interpret the various historical and cultural context with different aspects
	CO6	Demonstrate the comprehension of basic historical, political, social, intellectual and economic influence on American literature.
Core XI – Indian Writing in English	CO1	introduce the major movements and writers of Indian Literature in English
	CO2	expose the artistic and innovative use of language employed by the writers
	CO3	examine the relationship between the Indian Writings and their social contexts
	CO4	enhance the sense of appreciation of literary works
	CO5	develop literary sensibility and critical response
	CO6	instill values and develop concern for humanity
Core XII - English for	CO1	Recognize, explain and use the formal elements of specific genres of
<b>Business Correspondence</b>		organizational communication.
	CO2	Enhance the unique qualities of professional rhetoric and writing skills.
	CO3	Participate in writing activities both individually and group
	CO4	Realize the impact of language usage on applying business etiquette to a
	COF	variety of professional situations.
	CO5	Recognize the importance of cultural differences
	CO6	Understand the influence of socio - cultural aspects on a business environment
<b>Elective I Principles of</b>	CO1	Comprehend the key forms and techniques of literary criticism
Literary Criticism	CO2	Read a text critically and to interpret the literary concept of the text
	CO3	Approach Literature with an inquiring attitude
	CO4	Think cognitively and to develop critical thinking skill
	CO5	Develop Superior Research Skill
	CO6	Criticize a work meaningfully
Elective I – Approaches to	CO1	Comprehend the texts in English and in English Translation
Literature	CO2	Criticize and analyze the texts
	CO3	Understand the literary, historical and social and cultural movements
		associated with prescribed texts
	CO4	Examine the historical contexts for the development of contemporary theory and criticism
	CO5	Appreciate the relevance and value of theoretical models in literary study
	C06	Apply the concepts or arguments in a close reading of a literary text



Part IV - Skill	C01	Acquire the basic skills of micro-teaching
Enhancement Course III -	CO2	Understand the micro-teaching components
English Language	CO3	Analyse a link between micro –teaching, link lesson and macro lesson
Teaching III	CO4	Achieve proficiency in the format of lesson plan
	CO5	Comprehend innovative technology in language teaching
	C06	Implement language teaching strategies
Core XIII - Intensive Study	C01	Relate literature and real life
of an Author (Tagore)	CO2	Recognize the emotional development of human mind
	CO3	Comprehend social implications in poetry
	CO4	Interpret naturalistic and aesthetic values
	CO5	Depict the relationship among the individuals, family and society
	C06	Develop co-relation between man and nature
Core XIV - New	C01	Imbibe the trends in various genres of literature
Literatures	CO2	Enhance the cultural and literary perceptions of various countries
	CO3	Interpret the human experience and their expressions in literature
	CO4	Acquire critical perception of human life and literature
	CO5	Promote multicultural, pluralistic approach
	C06	Appreciate literary writers from various nations and cultures
Core XV -Classics in	CO1	Comprehend the texts in English Translations
World Literature	CO2	Criticize and analyze the texts
	CO3	Understand the literary, historical and social and cultural movements associated with prescribed texts
	CO4	Enrich Language through discussion and writing about texts and theories related to them
	CO5	Show an appreciation of the relevance and value of theoretical models in literary study
	C06	Apply the concepts or arguments in a close reading of a literary text
Elective II - Translation	CO1	Comprehend literary trends and movements
	CO2	Evaluate theories concerning the nature and use of translation
	CO3	Apply theoretical frameworks to the works of translation
	CO4	Identify translation problems on different levels of language
	CO5	Illustrate that language is shaped by culture and context
	CO6	Undertake translation activities
Elective II- Comparative	CO1	Introduce the translated works across the globe
Literature	CO2	Imbibe socio-cultural impacts in literature
	CO3	Comprehend the uniqueness and peculiarities of different societies
	CO4	Acquire rich knowledge of literary traditions in comparative
		perspectives



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	CO5	Trace the transformation of literary genres and texts across time and
	CO6	space Explore the connection of literature with history, philosophy, politics and literary theory
Elective III - Journalism	C01	Introduce the basics of journalism
	CO2	Comprehend the basics of good journalistic writing
	CO3	Ascertain legal, moral and ethical responsibilities
	CO4	Create an awareness of the world around -both social and political
	CO5	Reveal the challenges of the constantly evolving world of journalism
	CO6	Develop news reporting and interviewing techniques
Elective III – Mass	CO1	Acquire the characteristics of contemporary mass media
Communication	CO2	Gain knowledge about the influence and roles of media history, media law and ethics, governmental regulations and evolving technology
	CO3	Expose technical developmental skills with respect to both teaching and research
	CO4	Promote skills in investigative journalism
	CO5	Instill advertising and marketing techniques
	CO6	Enhance employability skills
Skill Enhancement Course	CO1	Imbibe the trends involved in teaching English language
IV -English Language Teaching IV (Project and	CO2	Adopt techniques to manage class room activities
Viva-Voce)	CO3	Learn language structures and ability to teach English language skills
	CO4	Practice communicative skills
	CO5	Understand the innovative technology in language teaching
	CO6	Implement language teaching strategies
Advanced Learners'	CO1	Acquire the art of rhetoric skills
Course II - Eminent Essayists	CO2	Understand the literature aesthetics
1200ay1010	CO3	Proficiency in written communication with error free
	CO4	Comprehend the critical perception of literature
	CO5	Enhance different styles of writing
	CO6	Expose the linguistic aesthetics



# **B.Sc. Mathematics, B.Sc. Mathematics (SF)**

	Programme Outcomes
PO1	Acquire adequate knowledge in the principles underlying standard applications of mathematics.
PO2	Posses the ability to analyse and synthesize mathematics/mathematics oriented problem and use appropriate mathematical techniques, skills and modern computing tools necessary for problem solving.
PO3	Be able to comprehend and analyse real world problems and also develop creativity through practical components of the curriculum.
PO4	Be capable of proposing new ideas and solutions, plan and organize various tasks through the co- curricular, extra-curricular and interdisciplinary activities and are able to communicate effectively.
PO5	Engage in independent and lifelong learning to become freelance mathematics tutors and are able to communicate effectively or professionals and commit to social and professional ethics.

	Programme Specific Outcomes
PSO1	Acquire analytical and logical skills.
PSO2	Be able to solve real life problems depicted in Mathematical form.
PSO3	Possesses sound mathematical knowledge necessary to progress to higher education, research or
	employment.

		Course Outcomes
Course Name	CO	Statement
Part III - Core I Algebra	CO1	test the concepts of convergency and divergency of a series.
and Calculus	CO2	compute the summation of binomial, exponential and logarithmic series.
	CO3	transform and solve algebraic equations with ease.
	CO4	find curvature of curves and distinguish the significance of curvature representation in different co-ordinate systems.
	CO5	evaluate double integrals by changing the order of integration and triple integrals.
	CO6	acquire skill in comprehending and applying the properties of improper integrals
Part III - Core II Differential Equations and Laplace Transforms	CO1	identify the methods of solving first order and higher degree differential equations and apply them.
	CO2	solve the linear differential equations with constant and variable coefficients.
	CO3	derive solution of simultaneous differential equations.



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	CO4	solve the first order partial differential equations.
	CO5	know about the Laplace transforms of various functions.
	CO6	apply Laplace transforms to solve differential equations.
Part III - Allied I Basic	CO1	solve a system of linear equations by direct and iterative methods
Mathematics and Statistics	CO2	estimate a data using interpolation methods and determine the derivatives of functions using various interpolation methods.
	CO3	evaluate integrals using various numerical techniques
	CO4	apply correlation concepts to determine the correlation coefficients.
	CO5	derive regression equations and also recall the basic properties of Normal distributions
Part III - Allied I-	CO1	know the basic concepts of convergency and divergency of series.
Mathematics for Statistics I	CO2	compute the summation of binomial, exponential and logarithmic series.
	CO3	determine the roots of a algebraic equations
	CO4	perform Mathematical operations of complex numbers in trigonometric form
	CO5	solve simple trigonometric function using expansion
Part III - Core III	CO1	represent straight lines, circles and conics using polar co-ordinates
Analytical Geometry	CO2	apply the concepts of direction ratios and direction cosines in planes and straight lines
	CO3	analyse the concept of straight lines through planes.
	CO4	discuss about the various aspects of sphere and sections of a sphere.
	CO5	identify various types of cone and obtain their equations.
	CO6	use GeoGebra to draw Geometric figures.
Part III - Core IV	CO1	solve algebraic, transcendental and system of equations by Direct and Iterative methods
Numerical Methods	CO2	illustrate the use of different types of difference operators
	CO3	identify unknown values using available data.
	CO4	solve physical problems using different types of operators.
	CO5	find the derivatives of functions using various interpolation methods.
	CO6	perform integration of functions using numerical techniques.
Part III - Core V Vector	CO1	know about the concepts of Gradient, Divergence and Curl.
Calculus and Fourier Series	CO2	relate the identities involving the operators.
	CO3	evaluate Line integrals and surface integrals using Gauss divergence theorem
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	CO4	evaluate surface and volume integrals using Stoke's and Green's theorem.
	CO5	obtain Fourier series for various functions.
	CO6	convert any mathematical function to trigonometric function.
Part III - Core VI Statics	CO1	find the resultant of two or more forces acting on a particle
	CO2	understand the concepts of equilibrium of a particle under three or more forces
	CO3	compute the moment of a force and a couple.
	CO4	obtain the equation of the line of action of the resultant.
	CO5	comprehend the effect of friction on planar motion.
	CO6	identify the centre of mass for different geometrical figures.
Part III - Allied III Mathematical Statistics I	CO1	calculate the expected values and probabilities associated with the distributions of random variables
	CO2	evaluate expectation and variance.
	CO3	identify the relationship between attributes
	CO4	describe the theorectical distributions.
	CO5	apply the special continuous probability distributions in real world problems
Part IV – Non-Major	CO1	simplify fractions easily.
Elective Basic Mathematics for Competitive Examinations	CO2	acquire enough knowledge to solve problems on ages and profit and loss.
	CO3	solve problems in ratio and proportion and partnership.
	CO4	gain knowledge in solving problems involving time and other factors.
	CO5	calculate simple interest, compound interest and true discount.
	CO6	improve their numerical aptitude
Part III - Core VII	CO1	know various connectives in logic.
Discrete Mathematics	CO2	construct truth table for statement formulae
	CO3	convert the statement formulae to its equivalent forms.
	CO4	characterize posets, semigroups and monoids.
	CO5	examine the concepts of lattices and Boolean algebra.
	CO6	minimize Boolean functions
Part III - Core VIII	CO1	Interpret and illustrate the basic concepts in Kinematics
Dynamics	CO2	gain knowledge about simple harmonic motion and its application in Physical situation
	CO3	recall various properties of a projectile
	CO4	describe and evaluate direct and oblique impact of bodies.
	CO5	describe the properties of the central orbits.
	CO6	analyze the effects of forces on material bodies



Part III – Allied IV- Statistics for	CO1	to calculate the expected values and probabilities associated with the distributions of random variables.
Mathematics	CO2	compute moments and moment generating functions of various distributions.
	CO3	identify the relationship between attributes
	CO4	describe Normal, uniform, Gamma, beta ,t ,F and chi-square distributions.
	CO5	apply sampling distributions in real world problems
Part IV - Skill	CO1	find the degree sequence, connectivity and isomorphism of graphs.
Enhancement Course II Graph Theory	CO2	identify various types of graphs
Shuph Theory	CO3	identify and differentiate Hamiltonian and Eulerian graphs.
	CO4	explain various properties of digraphs
	CO5	write adjacency and incidence matrix of a given labeled graph or digraph and vice versa.
Part III - Core IX Real	CO1	apply the properties of real numbers.
Analysis I	CO2	acquire the knowledge of sets, relations and functions.
	CO3	classify the countable, uncountable, open, closed and compact sets.
	CO4	interpret the properties of sets in Metric spaces.
	CO5	analyse the nature of sets under limits and continuity.
	CO6	identify the relation between completeness and compactness of sets in metric space
Part III - Core X	CO1	specify the geometric properties of the complex number system.
Complex Analysis I	CO2	analyze differentiability of complex functions in various domains.
	CO3	identify analytic and harmonic functions.
	CO4	derive and apply bilinear transformations and cross ratio.
	CO5	examine the convergence of power series.
	CO6	express exponential, trigonometric, hyperbolic and logarithmic functions in terms of power series
	CO7	describe the transformation of various curves and regions in the complex plane under elementary analytic functions.
Part III - Core XI	CO1	acquire knowledge about mapping and Euclidean algorithm.
Abstract Algebra	CO2	acquire knowledge about the concept of rings and their basic properties.
	CO3	classify the properties of different algebraic structures.
	CO4	characterize the mappings between algebraic structures.
	CO5	discuss the structure preserving mappings like homomorphism, isomorphism etc
	CO6	solve the problems related to algebraic structures.
Part III - Core XII Group	CO1	collaborate and cooperate among themselves to execute the task.
Project	CO2	develop communication and teamwork skills.



### Sri G.V.G. Visalaskhi College for Women, Udumalpet-642128 Autonomous & Affiliated to Bharathiar University, Coimbatore Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle) An ISO 9001-2015 Certified Institution

www.gvgvc.ac.in. gvgprincipal@gmail.com Ph.04252-223019, Fax:04252-2233111

	CO3	pool their expertise, knowledge and skills and complete the tasks.
	CO4	effectively manage time, execute the plan and integrate various activities
	CO5	break down a complex problem into simple components and determine solutions for the same.
	CO6	prepare and present the report of the project in an organized manner.
Part III – Elective I	CO1	know about the basic concepts of numbers.
Number Theory	CO2	understand the origin of the operations of integers and algorithms relevant to it.
	CO3	identify all prime numbers in a given range using the sieve of Eratosthenes.
	CO4	solve congruences
	CO5	test primitive roots.
	CO6	apply number theory in cryptography.
Part IV – Skill	CO1	describe the basic features of the SCILAB software.
Enhancement Course III SCILAB	CO2	use basic structures to develop code in SCILAB to handle arrays and perform mathematical operations.
	CO3	demonstrate appropriate use of graphical functions
	CO4	apply the concept of structures and functions in establishing databases/ simple banking operations.
	CO5	interpret and visualize application of mathematical concepts in application processing and numeric manipulations.
	CO6	apply the working knowledge of SCILAB package to solve ODE's and LPP's.
Part III - Core XIII Real Analysis II	CO1	explain and illustrate the connectedness of metric spaces and its relation to continuity of functions.
	CO2	describe the concept of uniform continuity and compact sets.
	CO3	gain a complete knowledge of derivatives and apply them appropriately .
	CO4	analyze various properties of monotonic functions and functions of bounded variation.
	CO5	recognize the impact of monotonicity and bounded variation in Riemann-Stieltjes Integral.
	CO6	relate upper and lower integrals with Riemann- Stieltjes Integral.
Part III - Core IX Real	CO1	apply the properties of real numbers.
Analysis I	CO2	acquire the knowledge of sets, relations and functions.
	CO3	classify the countable, uncountable, open, closed and compact sets.
	CO4	interpret the properties of sets in Metric spaces.
	CO5	analyse the nature of sets under limits and continuity.
	CO6	identify the relation between completeness and compactness of sets in metric space.
Part III - Core XIV	CO1	understand the basic idea of complex integration.



Complex Analysis II	CO2	derive and apply various Cauchy's integral formulae.
	CO3	express a given function as a power series in the defined region.
	CO4	identify and classify the singular points and the behaviour of a function in the neighbourhood of a singular point.
	CO5	acquire knowledge about the residue of a function and various methods to find the same.
	CO6	derive and apply Cauchy residue theorem to evaluate certain types of real definite integrals.
Part III - Core XV	CO1	find basis, linear independence and dimension in a vector space.
Linear Algebra	CO2	relate the concept of dual space and the notion of an inner product space.
	CO3	identify the algebra of linear transformations and the matrix of a linear transformation.
	CO4	acquire knowledge about the types of linear transformations and their properties
	CO5	discuss about the types of matrices
	CO6	apply the concept of characteristic roots and characteristic vectors of a square matrix.
Part III - Elective II	CO1	recall the basic concepts of Linear Programming Problems and solve them
Operations Research	CO2	explain the concept of Duality and its applications
	CO3	minimize the cost in transportation problems and assignment problems
	CO4	determine the appropriate order for a series of jobs to be done on a finite number of service facilities
	CO5	apply the optimization techniques in inventory control.
	CO6	demonstrate the applications of various optimization tools to the real life problems involving networks.
Part III - Elective III -	CO1	compare fuzzy sets with crisp sets.
Fuzzy and Intuitionistic Fuzzy Sets	CO2	acquire knowledge about the fuzzy logic and defuzzification methods and apply them.
	CO3	acquire knowledge about Genetic Algorithms.
	CO4	express the given system using associative memories.
	CO5	explain the concepts of Intuitionistic fuzzy sets and its basic properties.
	CO6	apply the methods of fuzzy sets and fuzzy logic in fuzzy control systems.
Part IV-Skill	CO1	learn to use profession specific terminology.
Enhancement Course IV	CO2	effectively plan and utilize ICT tools to complete the task.
Internship /Summer Training	CO3	apply the knowledge acquired in the campus to the task.
	CO4	demonstrate problem-solving and critical thinking skills.
	CO5	exhibit appropriate workplace attitudes
	CO6	manage and review their personal behavior and attitudes.



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# **B.Sc. Physics**

	Programme Outcomes
PO1	Provide a fundamental knowledge in the core areas of Physics supported by the interdisciplinary courses.
PO2	Improve the elemental and essential understanding of the theory topics integrated with
	laboratory experiment work(activity).
PO3	Develop rudimentary skills and knowledge to handle instruments effectively and
	Perform measurements efficiently.
PO4	Provide streamline learning methods and techniques with systematic and strategic
	approach.
PO5	Inculcate an innate thrust to pursue for higher education and Research.
PO6	Enhance the employable skills towards seeking appointments in the relevant areas.
PO7	Instill a moral responsibility to remain as self disciplined, socially adjustable individual
	respecting the human values.

	Programme Specific Outcomes					
PSO1	Deliver an effective knowledge in the fundamental areas of Physics with a clear and a					
	potential understanding of the integrated approach of Theory with Practicals.					
PSO2	Facilitate in acquiring intrinsic skills in the relevant Core areas to progress towards					
	Higher education and Research					
PSO3	Accomplish the individual with employable skills thus evolving one as a self- disciplined personality					
	committed to serve the society with an environment friendly attitude					

Course Outcomes		
Course Name	CO	Statement
Mechanics, Properties of	CO 1	Recognise the basic theories related with properties of matter and its
Matter and Sound (117P01)		application to determine values of various physical quantities associated with matter.
	CO 2	Discuss the elastic properties of matter and deduce the expression for
		bending of beams with its applications
	ÇO 3	Analyze the viscous nature of the fluids and describe the methods to
		determine the property of the liquids
	<b>CO4</b>	Determine the surface tension of different liquids and correlate the
		property with different natural phenomena
	CO 5	Explain the knowledge about perception of sound and building
		acoustics and will be able to develop a fundamental knowledge of
		building design
	CO 6	Solve problems and perform experiments in the topics related to the
		properties of matter



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Core II Heat and **CO**1 Explain the fundamental behavior of the gases, the heat transport **Thermodynamics (217P02)** phenomena in them and thermodynamical system. **CO 2** Define and describe the terms involving temperature and the effect of them on the mechanical systems State the thermo dynamical laws and the disorder associated with the **CO 3** universal systems **CO 4** Deduce thermo dynamical relations and explain the concept of entropy CO 5 comprehend on the Statistical distribution of particles in the thermo dynamical systems **CO 6** Solve problems related to thermo dynamical laws and systems. **Core III Optics (217P03)** CO 1 Define the terms related to aberration, diffraction, interference and polarization Describe and analyse the defects in lenses and the methods of **CO 2** rectification. Explain the formation of diffraction, interference and polarization and **CO 3** its applications. **CO 4** | Explain different types of LASERs and its applications. **CO 5** Solve problems in the topics related to the light. **Core Practical I (217PP1)** CO 1 Perform experiment with appropriate equipments and procedures for the determination of particular physical property **CO 2** Determine a particular property of a liquid by performing experiments, recording and analyzing the data **CO 3** Draw the electrical circuit, select the appropriate meters, perform the experiments, record and interpret the results **Core IV-Atomic and Solid CO1** Describe vector atom model, fine structure and explain the magnetic State Physics (317P04) splitting of spectral lines. **CO 2** Gain knowledge in the generation of Positive rays, X-rays and X-ray spectra. Relate crystalline structure to X-ray diffraction data and the reciprocal **CO 3** lattice. **CO 4** Discuss the properties of super conducting materials CO 5 Distinguish magnetic materials and its related theories CO 6 Assimilate knowledge in the magnetic and dielectric behavior of the materials. Outline the importance of solid state physics in the modern society. CO 7 Solve problems relating to Zeeman effect, Vector atom model, X rays **CO 8 Part IV - Non Major** Recognize the significance of Health and life sciences CO 1 **Elective - Science in CO 2** Relate everyday life with science **Everyday Life (317NSE) CO 3** Discuss the applications of earth sciences and physical sciences in everyday life **CO 4** Express the knowledge of life sciences and general sciences in the day to day events.

Part IV –Skill	CO 1	Interpret characteristics of measuring instruments and errors in the
Enhancement Course I -		measurements.
Mechanical and Medical	CO 2	Gain knowledge about the construction and working of various pumps,
Instrumentation (317PS1)		gauges and electrodes.
	ÇO 3	Describe the working of different thermometers and its application in
		temperature measurements.
	CO 4	Explain different bio signals through ionic potentials generated and
		also interpret the purpose of using different electrodes.
	CO 5	Handle and maintain instruments and develop skill in using it.
Core V: Classical	CO 1	Explain Gauss divergence theorem, Stokes theorem and Green's
Mechanics and		theorem and its applications to solve Physics problems.
Mathematical Physics	CO 2	Write gradient, divergence, curl and Laplacian in different coordinate
(418P05)	~ ~ ~	systems
	ÇO 3	Describe Lagrangian, Hamiltonian and D'Alembert's principle
	CO 4	Solve the problems for different physical systems under classical
		mechanics
	CO 5	Obtain the solution for the problems involving differentiation
	<u> </u>	integration and simultaneous algebraic equations numerically
	CO 6	Discuss the need for finding approximate solution by using numerical
Core Practical II (417PP2)	CO 1	methods and able to access the reliability of the solution Calibrate the given electrical meters using appropriate circuit
Core Fractical II (41/FF2)	COT	components, record the data, draw the calibration graph and interpret
		the results
	CO 2	Draw the electrical circuit, select the appropriate meters, perform the
	001	experiments, record and interpret the results
	CO 3	Use magnetometer to determine the moment of the magnet and
		magnetic flux density
	ÇO 4	Use optical sources and lasers for the determination of optical
		parameters with appropriate procedure, tabulate the findings and
		analyze the results
Part IV Skill Enhancement	CO 1	Describe the construction and working of the types of galvanometers
Course II - Electrical	<u> </u>	and ammeters.
Instrumentation (417PS2)	CO 2	Express the knowledge about meter movements, their sensitivity,
	CO 2	loading effects and merits.
	ÇO 3	Discuss current transformers, their errors, rectification and power measurement in AC, DC circuits.
	<b>CO 4</b>	Handle and maintain electrical instruments
Advanced Learners Course I Space Physics (417ALP)	CO 1	Describe the main characteristics of the different orbit types.
1 Space 1 Hysics (41/ALF)	CO 2	Discuss about the various satellite probes and planets
	ÇO 3	Explain the types of launch vehicles used for various applications such
		as earth observation, navigation and communication.
	CO 4	Demonstrate an Understand of how space physics has a practical
		impact on everyday life.



Core VI : Electronic Devices and Circuits	CO 1	Recollect the basics of diodes and discuss current voltage Characteristics.
(517P06)	CO 2	Explain the working principle of diodes, rectifiers, transistors and op- amp
	ÇO 3	Draw the circuit diagrams to explain the function of diodes, transistors and op-amp
	<b>CO 4</b>	Discuss the applications of diodes, rectifiers, transistors and op-amp
	CO 5	Construct amplifiers, Oscillators and wave shaping circuits using electronic components and equipments.
	CO 6	Apply theoretical knowledge to solve problems involving electronic circuits
Core VII :Nanosciences	CO 1	Explain the fundamental aspects of Nano science.
(517P07)	CO 2	Discuss the classification and properties Nano materials.
	ÇO 3	Describe the methods of synthesis of nano structures.
	<b>CO 4</b>	Explain the instruments used for characterization of nano structures.
	CO 5	Discuss the applications of nano materials and nano structures
	CO 6	Discuss a recent developments in Nanoscience and Nanotechnology
Core Practical III 517PP3	CO 1	Use optical sources and lasers to study the optical parameters, record the data and interpret the results.
	CO 2	Draw the electrical circuit, select the appropriate meters, perform the experiments, record and interpret the results
	CO 3	Determine the physical constants such as Plank's constant, compressibility, dielectric constant, for solids, bandgap energy of thermistor with the use of appropriate devices, record the data and analyze the results
	ÇO 4	Construct OP-AMP as Adder, Subtractor, Inverter, Non inverter and peaking amplifier, with appropriate electrical components and devices, record the data and interpret the results.
Elective 1 Scilab (T & P)	CO 1	Explain about the main features of SCILAB environment
(517PE1)	CO 2	Explain Scilab data types, graphics and its Programming structures
	ÇO 3	Apply working knowledge of Scilab to solve Physics problems and to the electrical circuits in Physics
	<b>CO 4</b>	Solve and simulate the electrical circuits in Scicos environment
	CO 5	Realize the importance of the course and evaluate, analyse and present the results
	CO 6	Identify the errors and predict the output of the program
Elective I Atmospheric	CO 1	Explain the composition and structure of the atmosphere.
Sciences (517PE2)	CO 2	Apply natural sciences to investigate and understand atmospheric phenomena.
	ÇO 3	Describe the atmospheric general circulation and the basic principles of physical and applied climatology and climate change.
	<b>CO 4</b>	Use and interpret weather charts, maps, and diagrams.



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	CO 5	Diagnose and forecast synoptic and mesoscale weather phenomena.
	CO 6	Comprehend the underlying physical principles and measurement of meteorological variables and the operating principles and performance characteristics of instruments used to make those measurements.
Elective II Project and	CO 1	Develop the skill of identifying an area for Project work at micro level.
Viva-voce 517 PE3	CO 2	Choose appropriate equipment for their project
	CO 3	Acquire skill of handling equipments used for Project in an effective way
	<b>CO 4</b>	Analyse and interpret the results of their work
	CO 5	Write a report and present it with suitable figures, graphs, circuit diagrams, photos etc.
	CO 6	Work confidently and behave with high ethical standards, team spirit and integrity
Skill Enhancement Course	CO 1	Explain CRO for its design, operation and application
III – SEC III-Electronic	CO 2	Sketch A/D acquisition systems and discuss its applications
Instrumentation (517PS3)	ÇO 3	Describe data converters and computer-controlled instrumentation systems.
	CO 4	Handle the equipments CRO, AFO and test for its performance and to test ICs, diodes and resistors for its functioning
Core VIII-Electricity and Magnetism (617P08)	CO 1	Recollect the basic concepts in electricity, magnetism, circuit parameters
······	CO 2	Explain Coulombs law and Gauss law of electrostatics and its applications
	CO 3	Discuss the types of capacitor and energy stored in the capacitor
	CO 4	Explain the concept of magnetic field due to steady current
	CO 5	Demonstrate the principle of electromagnetic induction, measurement of inductance and its applications
	CO 6	Sketch the DC and AC circuits, explain its operation and solve problem related to it.
	CO 7	Use appropriate concepts and equations to solve problems in electricity and magnetism.
	CO 8	Develop an Understand of network theorems and apply the concepts of nodes, branches and network theorems to solve circuit problems.
Core IX Quantum Mechanics and Relativity (617P09)	CO 1	Explain the main aspects of the historical development of quantum mechanics and be able to interpret the experiments that reveal the wave properties of matter, as well as replacement of classical mechanics equation to a wave equation.
	CO 2	Express the central concepts and principles in quantum mechanics, such as the Schrödinger equation, the wave function and its interpretation.
	CO 3	Explain the uncertainty principle and the elementary concepts in statistics, such as expectation values and variance.
	CO 4	Solve the Schrödinger equation for simple systems and be able to use these solutions to calculate expectation values and uncertainties with



		their physical interpretations.
	CO 5	Apply quantum concepts in solving the problems in wave mechanics and operators.
	CO 6	Establish the non-existence of the hypothesized stationary ether through the results of Michelson-Morley experiment with interferometer.
	CO 7	Explain the true nature of Newtonian mechanics and Lorentz Transformation equations to understand the concept of constant relative motion of different bodies in different frames of references.
Core X Digital Electronics	CO 1	Develop a digital logic and apply it to solve real life problems.
and Microprocessors (617P10)	CO 2	Design, implement and analyse sequential logic circuits.
	ÇO 3	Explain step by step industrial method of IC Fabrication
	CO 4	Discuss the fundamentals and areas of applications for the integrated circuits.
	CO 5	distinguish Semiconductor Memories such as RAM, ROM and magnetic memories
	CO 6	Apply the fundamentals of assembly level Programming of Microprocessors
	CO 7	Demonstrate the ability to design practical circuits that perform the desired operations.
Core Practical IV (617PP4)	CO 1	Use optical sources and lasers to study the optical parameters, record the data and interpret the results.
	CO 2	Draw the electrical circuit, select the appropriate meters, perform the experiments, record and interpret the results
	CO 3	Determine the physical constants such as Stefan's constant, dielectric constant, e/m of an electron using appropriate devices and analyse the results
	ÇO 4	Construct the logic circuits using appropriate IC's to verify gates, Universal building block, flip flops, De-Morgans theorem, counters and verify the output.
	CO 5	Write assembly language program execute it for its output using microprocessor 8085.
Elective III – Computational	CO 1	Describe the basic features of C programming
Physics using C Programming (617PE4)	CO 2	Explain the format of the branching and looping structures in C programming.
	CO 3	Implement operations on arrays
	CO 4	Handle character arrays and strings in c
	CO 5	Write program using user-defined functions and arrays
	CO 6	Write C code for a given problem
Elective III –Computational	CO 1	Describe the main features of the MATLAB windows
Physics using MATLAB		
Physics using MATLAB Programming (617PE5)	CO 2	Explain operators, data types and other salient features of MATLAB.



	CO 4	Use conditional statements and loop structures of MATLAB for coding
	CO 5	Apply plot functions for formatting two dimensional plots
	CO 6	Write simple programs in MATLAB to solve scientific and
		mathematical problems
Elective Practical -	CO 1	Write algorithm and C code for Physics problems, execute it and
<b>Computational Physics</b>		analyze for its output
Practical using C	CO 2	Write C program for problem based on numerical analysis and
Programming(617PE6)	<u> </u>	mathematical concepts, execute it for its output.
	CO 3	Write C program by using characters, arrays and execute it for its output
Elective Practical –	CO 1	Write MATLAB code for physics problems involving physical,
Computational Physics Practical using MATLAB	CO 2	electrical and mechanical properties, execute it and analyze its output Write MATLAB code for the problems electricity and electronics,
Programming (617PE7)	02	execute it for its output
	ÇO 3	Write MATLAB code for problems using numerical methods, execute
	5	it for its output
Part IV – Skill	CO 1	Gain knowledge about the availability of testing methods and
Enhancement Course- IV -		calibration techniques.
Industrial Training	CO 2	familiarize about the equipments and will be able to handle them with
(617PS4)	<u> </u>	care during the programme as well as in future.
	CO 3	acquire an Understand about the parametric measurements and the need
	CO 4	to conduct the testing for the purpose. interpret on the results obtained by conducting the analysis in-depth
	0.04	and thus generating an awareness about validity and performance of the
		equipments
	CO 5	Write a Report and present it with suitable figures, graphs, tabulations etc
	CO 6	Work confidently and behave with high ethical standards, team spirit
		and integrity
Advanced Learners course	CO 1	Describe the environmental aspects of non-conventional energy
II Energy Physics (617ALP)		resources in comparison with various conventional energy systems,
	CO 2	their prospects and limitations. Discuss the need for renewable energy resources and the latest
		developments in the field.
	CO 3	Describe the use of solar energy and the various components used in
	300	the energy production with respect to applications like - heating,
		cooling, power generation etc.
	CO 4	Appreciate the need of Wind Energy and the various components used
		in energy generation and know the classifications and applications.
	CO 5	Understand the concept of Biomass energy resources and their
		classification, types of biogas Plants- applications
	CO 6	Acquire the knowledge of fuel cells, classification of batteries and advantages.
Allied I Physics I for	CO 1	Recollect the basic definitions in gravitation, elasticity, acceleration,
Mathematics & Chemistry		radioactivity and thermal physics.
(117AM1 / 117AC1)	CO 2	Explain the gravitational laws, 'g' at a place and super conductivity



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**CO 3** Discuss the parameters associated with elasticity and explain its determination. **CO 4** Explain the low temperature physics concepts, Particle accelerators, detectors and devices for low pressure production and measurement ÇO 5 Discuss the determination of the velocity of sound in different media. Outline the applications of ultrasonics, accelerators, detectors and CO 6 gauges Allied II - Physics-II for **CO1** Describe the lasers and optical fibers for its types, production and **Mathematics & Chemistry** applications. (217AM2/217AC2) **CO 2** Explain the constructional details and uses of transducers, microphones, loudspeaker, semiconductor electronic devices. **CO 3** Describe the principle and working of Carey Foster's bridge, potentiometer and ballistic galvanometer **CO 4** Explain the construction and working of logic gates and its applications **CO 5** Recognize the applications of Physics principles in different fields **Allied Physics Practicals** CO 1 Perform experiment with appropriate equipments and procedures for (217AMP / 217ACP) determination of particular physical property **CO 2** Use optical sources for the determination of optical parameters with appropriate procedures Calibrate the given electrical meters using appropriate circuit **CO 3** components, record the data, draw the calibration graph and interpret the results **CO 4** Draw the electrical circuit, select the appropriate meters, perform the experiments, record and interpret the results **CO 5** Draw the logic circuits choose appropriate IC's to verify gates, Universal building block, De-Morgans theorem, Adder, solving Boolean equations



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# **B.Sc.** Chemistry

	Programme Outcomes
PO1	An understanding of major concepts, theoretical principles and experimental findings and the ability to
	employ them for critical thinking and efficient problem solving skills in the basic areas of chemistry .
PO2	An ability to work with modern instrumentation, classical techniques, conduct experiments, analyze data,
	and interpret results effectively in diverse teams both in classroom and laboratory.
PO3	Social values, environmental consciousness, effective written and oral communication skills, especially
	the ability to communicate complex technical information in a clear and concise manner.
PO4	Familiarity and applications of safety and chemical hygiene regulations and practices.
PO5	An ability to gain entry into higher studies and job market with the knowledge of chemistry and other
	associated multidisciplinary subjects including physics and mathematics.
PO6	Fundamental foundations through activities such as subject interactions, Project and Internship and life
	long learning in the broadest context of technological change.

	Programme Specific Outcomes			
PSO1	Skillful in chemical synthesis, separation and analysis.			
PSO2	Competent in basic IT skills pertained to chemists			
PSO3	Able to review the literature, design experiments and develop solutions to chemical problems			

Course Outcomes			
Course Name	CO	Statement	
Part III Core I General Chemistry I, Course code 120C01	CO 1	Describe safe laboratory practices, laboratory hygiene, chemical waste management and principles & techniques in qualitative inorganic analysis	
	CO 2	Understand the fundamental concepts of atomic theory, atomic structure and periodicity of elements in the periodic table.	
	CO 3	Discuss and relate the types of chemical bonds and the forces that influence molecular shapes	
	CO 4	Explain the concept of hybridization and postulates of VBT, VSEPR theory, MOT and their application in structural diagnosis of simple molecules	
	CO 5	Predict the IUPAC nomenclature of organic compounds, explain the importance of reaction intermediates and organometallic compounds and demonstrate the organic reactions mechanism	
Part III Core II General	CO 1	Describe the preparation and reactions of aliphatic hydrocarbons, and	



Chemistry II , Course		relative acidity of acetylene, ethylene and ethane
code 120C02	CO 2	Discuss the basic idea regarding cyclo alkanes and chemistry of aromatic hydrocarbons
	CO 3	Learn the principles of titrimetry, redox equations and apply the concepts of pH and buffer in acid base equilibria
	CO 4	Understand the concepts in acid- base theory and non-aqueous solvents
	CO 5	Explain the behavior of gases and laws associated with them
Part III: Core Practical I	CO 1	Gain sound theoretical knowledge in inorganic qualitative analysis.
Inorganic Qualitative	CO 2	Handle chemicals, glass wares & apparatus,
Analysis, Course Code: 220CP1	CO 3	Apply qualitative principles i.e. express the physical & chemical processes, use the heating, decantation & centrifugation processes, examine precipitation & filtration processes
	CO 4	Analyze the anions in mixture.
	CO 5	Distinguish the cation groups and examine the given cation
	CO 6	Implement laboratory hygiene and safety methods.
Part III Allied I/III Chemistry I Course code	CO 1	Describe the basic ideas related to organic reactions, types of organic reactions and organic solvents
120AP1/320AM4	CO 2	Explain the preparation and properties of aromatic hydrocarbons
	CO 3	Predict the atomic structure and geometry of molecules based on Hybridization and VSEPR theory and demonstrate the types of chemical bonds
	CO 4	Discuss the various types of separation techniques
	CO 5	Discuss the theories of acids, bases, concentration terms and relate the buffer action and pH in biological systems
Part III Allied I Chemistry I Course Code: 120AZ1	CO 1	Interpret the IUPAC nomenclature of coordination compounds, explain the fundamental concepts of chemical bonding and co ordination chemistry.
	CO 2	Discuss the basic concepts of dye chemistry and industrial applications of Silicones and fertilizers.
	CO 3	Describe the reaction intermediates, types of polar effects, types of chemical reactions and electrophilic mono substitution reaction of benzene.
	CO 4	Comprehend the fundamentals of electrochemistry and importance of pH and buffer solution in biological systems.



	CO 5	Expound the different types of separation techniques and the applications of chromatography
Part III Allied II/IV	CO 1	Explain the basic concepts of phase rule, chemical equilibrium
Chemistry II Course Code: 220AP2/420AM6	CO 2	Illustrate the principles of surface chemistry and electrochemistry
Code: 220AP2/420AN16	CO 3	Reiterate the principles and process of metallurgy
	CO 4	Interpret the rate equations and explain the laws/applications of photochemistry
	CO 5	Discuss the basic concepts in nuclear chemistry and polymer Chemistry
Part III Allied II Chemistry II Course	CO 1	Explain the structure, composition and biological functions of carbohydrates and the role of vitamins
Code: 220AZ2	CO 2	Describe the basics of amino acid, Proteins and nucleic acids
	CO 3	Elaborate the concepts of renewable and non-renewable energy resources and its applications.
	CO 4	Discuss the theoretical basis of heterocyclic compounds and photochemistry.
	CO 5	Explicate the fundamentals of antipyretics, analgesics, antibiotics and antimalarial drugs.
Part III Allied Chemistry	CO 1	Gain sound theoretical knowledge in volumetric and organic analysis
Practical Course Code:	CO 2	Implement laboratory hygiene and safety methods.
220APP/220AZP/ 420AMP	CO 3	Analyze the given solution by Volumetric analysis and the unknown substance by Organic analysis
Part III, Core III General Chemistry III, Course	CO 1	Compare, distinguish and organize various properties of elements and compounds of zero group, alkali and alkaline earth metals
Code: 317C03	CO 2	Relate and account for different processes involved in metallurgy
	CO 3	Describe, discuss, apply and adopt different types of separation and purification techniques for experimental process
	CO 4	Apply standard methods to prepare alcohols, phenols, ethers and epoxides
	CO 5	Execute reactions involving the functional groups of alcohols, phenols, ethers and epoxides and predict their reaction products.
	CO 6	Comprehend, enumerate ,apply and interpret the basic laws and principles of kinetics, catalysis and photochemistry.
Part IV Non Major	CO 1	Review the chemistry of health care and beauty products.
Elective : Chemistry in	CO 2	Summarize the basics of classification of drugs and the chemical
<u>.</u>		



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Everyday Life Course		aspects of medicine.
Code: 317NCE	CO 3	Apply the knowledge of chemistry to understand the process of housekeeping products.
	CO 4	Specify and explain the chemistry of industrial process.
	CO 5	Relate the role of chemistry in Clinical Health and Biochemical Analysis
Part IV Skill	CO 1	Emerge as skilled one in chemdraw and origin software.
Enhancement Course I Applications of Computer	CO 2	Apply chemdraw to draw accurate chemical structures scheme, reactions and its mechanisms
in Chemistry Course Code: 317CS1	CO 3	Exploit origin to draw simple and advanced 2D and 3D plot charts, the absorption, emission and IR spectrum using Origin from the given data.
	CO 4	Gain basic knowledge in cheminformatics
Part III Core IV General Chemistry IV Course	CO 1	Relate the principle, physical attributes of the liquid state and the solid state
Code: 417C04	CO 2	Generalise Liquid State and Liquid Crystals .
	CO 3	Predict solutions in non-electrolytes, colligative properties and their uses in determining the characteristic of solutions.
	CO 4	Review the chemistry of nitrogen containing compounds like nitrobenzene, amines, amides and azo compounds
	CO 5	Apply and predict the reactivity of heterocyclic compounds
Part III Core Practical II Volumetric and Organic	CO 1	Gain sound theoretical knowledge in volumetric and organic analysis and implement laboratory hygiene and safety methods.
Analysis Course Code: 417CP2	CO 2	Perform accurate quantitative measurements, calculations and draw accurate conclusions and predict the outcome of qualitative organic reactions and prepare suitable derivatives.
	CO 3	Distinguish between qualitative and quantitative chemical analysis
Part IV Skill Enhancement Course II	CO 1	Design and develop a small business marketing plan using household products.
Chemistry for	CO 2	Utilize the appropriate laboratory equipment and instrumentation.
Exploration I Course Code: 417CS2	CO 3	Assess real-world experience through off-campus, laboratory-based work in a chemistry related field.
	CO 4	Generate scientific communication skills by writing a technical report and delivering an oral.
Advanced Learner's	CO 1	Explain the food groups & major nutrients and constituents of food
Course I: Food Science	CO 2	Acquire fundamental information about food additives.



Code: 417ALC	CO 3	Discuss the food adulterants and standards the theory of food adulteration and food safety & standards
	CO 4	Enumerate the principles involved in food preservation and the importance of food preservation and processing.
	CO 5	Make use of testing food quality and explicit its importance
Part III Core V Organic Chemistry I Course Code:	CO 1	Interpret the fundamental aspects of stereochemistry, optical activity in organic compounds, racemisation, resolution and geometrical isomerism
517C05	CO 2	Predict a logical and detailed mechanisms for rearrangement reactions
	CO 3	Draw Fisher, Sawhorse and Newmann projection formulas, perform energy calculations, illustrate the preparation and properties of cyclo paraffins
	CO 4	Analyse the preparation, properties of carbonyl compounds and execute organic conversions.
	CO 5	Investigate the chemistry of carboxylic acids and their derivatives.
Part III Core VI Inorganic Chemistry I	CO 1	Pertain the preparation, properties, structures and uses of some important compounds of p- block elements
Course Code: 517C06	CO 2	Make use of the principles involved in Gravimetric analysis and apply the ethics in the process of precipitation
	CO 3	Employ the principles of radioactivity and nuclear chemistry in various fields
Part III Core VII Physical	CO 1	Execute the basic concepts and laws of thermodynamics.
Chemistry I Course Code: 517C07	CO 2	Apply thermo chemistry principles and discuss the concepts of enthalpy and entropy
	CO 3	Develop a competent knowledge in thermodynamic principles and solve the problems in pertaining area of study.
	CO 4	Specify the Le-Chatelier principle and Law of mass action and apply them to any given equilibrium reaction.
	CO 5	Explain the fundamental concepts in colloidal chemistry and surface chemistry and apply knowledge of adsorption isotherm to interpret Langmuir and B.E.T theory of adsorption.
Part III Elective I Polymer and Dye Chemistry Code: 517CE1	CO 1	Account the general structure of polymers, differentiate between natural and man-made polymers, give examples for everyday and industrial application of polymers.
	CO 2	Execute the various polymerization methods, discuss the different polymerization mechanisms and the characterisation methods.
	CO 3	Demonstrate the polymer fractionation methods and Illustrate the



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		methods for the determination of the molecular weight
	CO 4	Analyze the fundamentals involved in the dye chemistry, and to classify the types of dyes on the basis of application
	CO 5	Predict the synthetic methods for some specific dyes and apply the knowledge of dye chemistry in various industry.
Part III Elective I Agro	CO 1	Demonstrate different water softening and treatment methods
Industrial Chemistry Course Code: 517CE2	CO 2	Evaluate different types of physico-chemical properties of water and soil
Course Coue: 517CE2	CO 3	Describe the components, classification of soil, factors controlling soil reactions and soil colloids
	CO 4	Discuss the manufacture, different types of plant nutrients, fertilizers, pesticides, insecticides and herbicides
	CO 5	Investigate the safe handling of fertilizers, pesticides, insecticides and herbicides
	CO 6	Critique the environmental impact of using fertilizers, pesticides, insecticides and herbicides
Part III Elective II Project	CO 1	Develop experimental skills and to apply these skills to the project task
Course Code: 517CE3	CO 2	Identify procedures to search for and read the latest chemical literature
	CO 3	Build the skills to communicate effectively and to present ideas clearly and coherently in both the written and oral forms.
	CO 4	Recognize the effective use of the library and other information resources in chemistry, including the primary literature, tabulated data, and secondary sources such as the internet.
Part IV Skill Enhancement Course III Chemistry for	CO 1	Collect, organize, apply, assess, analyze complex experimental data using statistical methods and account for different types of errors and rejection of data
Exploration II Course	CO 2	Execute and evaluate calibration curves and linear regressions
Code: 517CS3	CO 3	Compute statistical inference in the form of confidence intervals, t test, f-test, one-way analysis of variance and Chi-square test in chemical problems
	CO 4	Develop professional mannered data in an informative graphical representation
	CO 5	Review of literature data from print, web resources and summarize different types of intellectual property rights
Part III Core VIII Organic Chemistry II	CO 1	Analyse the structure, preparation, properties and vitality of carbohydrates, vitamins and problems related to deficiency of Vitamins.



Course Code: 617C08	CO 2	Assess the classification of proteins, amino acids and hormones and examine its structure, properties and functions.
	CO 3	Discover the biological importance of alkaloids, terpenoids and steroids and illustrate the structural interpretation of various alkaloids and terpenoids.
	CO 4	Interpret the terms used in drug chemistry, Investigate the causes and symptoms of various diseases, their preventive measures and mode of action of drugs(antipyretics, analgesics, antibiotics) synthesis and uses of some specific drugs
	CO 5	Report the drugs used as anesthetics, anti-septics, anti-oxidants, sulpha drugs and anti-diabetics.
Part III Core IX Inorganic Chemistry II	CO 1	Employ the d and f block elements to compare their characteristics and uses
Course Code: 617C09	CO 2	Discuss and apply the various theories and isomerism of coordination complexes in different fields and interpret the name, structure, magnetic properties of any coordination complexes.
	CO 3	Employ the role of alkali, alkaline and transition metals in biological systems
	CO 4	Enumerate and apply the Electrical properties and various types of magnetic properties of the compounds
Part III Core X Physical Chemistry II Code:	CO 1	Employ the basic knowledge of electrochemistry and related theories/Laws.
617C10	CO 2	Explain the difference between voltaic/galvanic and electrolytic cells, apply the Nernst equation to electrochemical systems and Develop electrodes for measurement of pH and predict the redox potentials.
	CO 3	Discuss salt hydrolysis, corrosion and relate the electrochemical concepts to justify the function of batteries, fuel cells.
	CO 4	Identify and account the most appropriate electroanalytical and thermoanalytical techniques for a specific analysis and Interpret them.
	CO 5	Specify the fundamentals and applications of Group theory and Phase Rule
Part III Core XI Spectroscopy Course	CO 1	Recognize the phenomenon of the interaction of light with matter in terms of the relationship with the molecular structure
Code: 617C11	CO 2	Describe the principle and instrumentation of rotational, IR, Raman, UV, NMR, ESR and mass spectrometric techniques
	CO 3	Summarize the applications of rotational, IR, UV, NMR and mass



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		spectrometric techniques
	CO 4	Select suitable molecular spectroscopy methods and solve the given scientific problem
	CO 5	Relate the factors affecting positions of absorption signals, solve and interpret basic spectroscopic data to predict and extract the structures at a preliminary level
Part III Elective III Industrial Chemistry	CO 1	Summarize preparation and uses of Explosives, propellants and toxic chemical weapons.
Course Code: 617CE4	CO 2	Generalise adhesive and lubricants.
	CO 3	Implement Rubber and Leather technology.
	CO 4	Design Paper Technology.
	CO 5	Develop Textile Technology.
Part III Elective III	CO 1	Execute the utilization of non-renewable energy sources.
Applied Chemistry	CO 2	Design instruments for renewable energy sources
Course Code: 617CE	CO 3	Demonstrate the manufacture of Glass and cement.
	CO 4	Formulate the principle and usage of oils and fats in different products
	CO 5	Execute Fermentation process in various industries.
Part III Core Practical III Gravimetric Analysis and Physical Chemistry Experiments Course	CO 1	Develop some understanding of the professional and safety responsibilities residing in working with chemical systems and to organise the glassware and other apparatus to conduct experiments in Gravimetry and Physical Chemistry.
Code: 617CP3	CO 2	Review and emphasize skills in stoichiometric calculations
	CO 3	Discuss and execute the steps involved in the gravimetric analysis of a given sample and to Interpret data from the physical chemistry experiments, including the construction of appropriate tables, and graphs
Part III Core Practical IV Applied Chemistry	CO 1	Explain the apparatus handling such as melting point, boiling point and Soxhlet extraction.
Practical Course Code: 617CP4	CO 2	Develop basic skills for the determination of physical parameters, estimations, multi-step synthesis of organic compounds and water analysis.
	CO 3	Apply basic techniques used in chemistry laboratory for preparation, purification and identification.
Part IV Skill Enhancement Course IV	CO 1	Know the history and future aspects of Nanoscience and nanotechnology.
Nanoscience Course	CO 2	Classify nanostructured materials.



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Code: 617CS4	CO 3	Apply various methods for synthesis of nanomaterials.		
	CO 4	Recognize some common characterization techniques of nanomaterial and apply them in various interdisciplinary fields.		
Advanced Learner's	CO 1	Recognize the composition and factors affecting the composition of milk		
Course II: Dairy Chemistry, Course Code: 617ALC	CO 2	Describe the processing of milk		
	CO 3	Explain the major milk products and standardization of milk.		
	CO 4	Summarize the methods of preparation of various milk products.		
	CO 5	Implement the methods for production of fermented milk products		

# **B.Sc Zoology**

	Programme Outcomes			
PO1	Will have sound knowledge in the basics in different disciplines of zoology.			
PO2	Will be able to gain the practical knowledge which will enable them to be self-reliant.			
PO3	Will be empowered to become an Entrepreneur.			
PO4	<sup>2</sup> O4 Will be able to pursue higher studies and research.			
PO5	Will become competent in core areas and possess attitudes and character for nation building			

	Programme Specific Outcomes
PSO1	Be an independent individual with excellent employability skills through skill based courses.
PSO2	Be able to communicate effectively utilizing multiple media
PSO3	Be able to apply practical and project experience in the related fields to facilitate them to become an
	entrepreneur.
PSO4	Be able to gain adequate knowledge in zoology which would enable them to undergo higher education
	and seek placement.

Course Outcomes		
Course Name	CO	Statement
PART III – CORE I – NON CHORDATES-I		Discuss the taxonomy of protozoa, type study of Paramecium, protozoan diseases with pathogenicity, prevention and control.
		Describe the classification of Porifera, type study of sponges and their economic importance.
		Recognise the taxonomy of Coelenterates, type study of Obelia and significance of corals and coral reefs.
		Discuss the classification of Platyhelminthes, type study of Taenia solium and parasitic adaptations of helminth worms.



	CO 5	Describe the terror of Assistantia theory terror to be of Associated
	05	Describe the taxonomy of Aschelminthes, type study of Ascaris and common nematodes.
PART III–CORE II – NON CHORDATES-II	CO 1	Discuss the taxonomy of Annelida, type study of Megascolex mauritii, free swimming polychaetes and vermiculture.
	CO 2	Describe the classification of Periplaneta Americana, its type study, and peripatus.
	CO 3	Recognise the taxonomy of mollusca, type study of Pila globosa and economic importance of mollusca
	CO 4	Discuss the classification of Echinodermata and type study of Asterias rubens
	CO 5	Describe the taxonomy of ctenophore, type study of pleurobranchia and affinities of ctenophora.
PART III – Core III – CHORDATES	CO 1	Discuss the taxonomy of Prochordata and Pisces, type study of Balanoglossus and shark and migration in fishes.
	CO 2	Describe the classification of Amphibia, its type study of frog, neoteny and parental care in Amphibia.
	CO 3	Recognise the taxonomy of Reptiles, type study of of Calotes and Sphenodon and indian poisonous snakes.
	CO 4	Discuss the classification of Aves and type study of Pigeon and Ratitae
	CO 5	Describe the taxonomy of mammals, type study of rabbit, monotremes and aquatic mammals.
PART III – CORE PRACTICAL	CO 1	identify the Nonchordates and Chordates
I (Based on Core I, II and III)	CO 2	recognise the taxonomy of Nonchordates and Chordates
	CO 3	gain knowledge about biodiversity of organisms
	CO 4	interpret the significance of specific structure and function
	CO 5	implement the biological significance of Nonchordates and Chordates
	CO 6	evaluate the conservation awareness of the biosphere by field visit
PART III–CORE IV – CELL BIOLOGY AND BIOCHEMISTRY	CO 1	describe the cell structure and their types and demonstrate different microscopes and cytological techniques and structure of plasma membrane and protoplasm.
	CO 2	relate the structure of ER, Golgi complex, mitochondria, lysosome and ribosomes with their functions
	CO 3	explain structure and functions of centrosome, nucleus, chromosomes, structure of DNA and RNAs.
	CO 4	describe the structure of chromatin and define cell division, cancer cells, stem cells and cell aging.



	CO 5 explain the structure and biological significance of carbohydrates lipids, proteins, DNA and vitamins
PART IV- Non Major Elective – Sericulture	CO 1 discuss history, economic importance of sericulture and architectur and types of pruning of mulberry plants.
	CO 2 explain harvesting of mulberry leaves and varieties of silk worn life cycle and structure of silk gland in Bombyx mori
	CO 3 describe rearing facilities in silk worm.
	CO 4 discuss rearing of young age and late age silkworms, and mounting stifling and deflossing of cocoons.
	CO 5 explain reeling and marketing of silk and also pest management i silkworm
Skill Enhancement Course I – Professional English for Zoology	CO 1 Understand their own ability to improve their own competence in using the language
	CO 2 Use language for speaking with confidence in an intelligible an acceptable manner
	CO 3 Understand the importance of reading for life and real independently unfamiliar texts with comprehension
	CO 4 Understand the importance of writing in academic life
	CO 5 Write effective projects proposal and research papers
PART III - CORE V – ENVIRONMENTAL BIOLOGY	CO 1 Describe the characteristics of fresh water ecosystem, marine wate ecosystem, soil, light and temperature.
AND EVOLUTION	CO 2 Describe the characteristics of commensalisms, mutualism parasitism, predation, competition, various chemical cycles and wil life management.
	CO 3 Discuss the various laws available to protect the wild life. Analyz and discuss the various types of pollution, Renewable and Non Renewable resources.
	CO 4 Describe the physiological, biochemical and structural evidences of evolution, fossils and dating of fossils and theories of evolution.
	CO 5 Expound the types and sources of variation, speciation and adaptiv radiation in mammals.
Part IV - Skill Enhancement	CO 1 identify the different species and caste of honey bees with their lifecycle
Course II – Apiculture	CO 2 understand the social life, selection of bees for apiculture wit structure of hive and methods of bee keeping.
	CO 3 discuss the communication and memory of honeybees wit collection of pollen and nectar from flowering plants, Inspection of bee hives, pesticidal poisoning by agriculture.
	CO 4 understand the seasonal management of honeybee colonies an transportation of bee hives, catching the swarm, natural enemies of



		honeybee and diseases of honeybee with their control.
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	CO 5	discuss the chemical composition , nutritive and medicinal values of honey with equipment used for honey extraction.
PART III – CORE PRACTICAL II (Based on Core III and IV)	CO 1	Describe the structure and function of cell and cell organells, basic concepts of cell division and the special types of chromosomes.
	CO 2	Analyse the qualitative and quantitative detection of carbohydrates, proteins and lipids.
	CO 3	Analyse the Physicochemical properties of water
	CO 4	Explain the characteristics of symbiosis and antagonism.
	CO 5	Relate the structure and functions of homologous and analogous organs, evolutionary evidences of man and significance of fossils.
Advanced Learners Course I – Wild life Management and	CO 1	explain the habitat of wild life, role of wet land in biodiversity conservation and management of wet land
Conservation	CO 2	describe the management and conservation of wildlife
	CO 3	discuss problems of wildlife management, Endangered and threatened species and current threats to biodiversity
	CO 4	discuss general behaviours and altruistic behaviours of wildlife.
	CO 5	describe animal population and explain Wildlife Tools and census techniques and explain the importance of Wildlife Legislation in wildlife conservation
PART III - CORE VI -	CO 1	explain the physiology of digestion in man.
PHYSIOLOGY	CO 2	discuss respiration and circulation in man.
	CO3	describe the process of excretion in man and also about dialysis
	CO 4	explain muscle and nerve physiology in man.
	CO 5	discuss receptors and endocrine glands of man.
PART III - CORE VII - BIOTECHNOLOGY	CO 1	describe the types and importance of IPR, concepts and applications of genetic engineering and organisms, enzymes and vectors important in Biotechnology.
	CO 2	explain the methods and applications of gene cloning, genomic Library, gene therapy and DNA finger printing, importance of biosensors, bio chips, genomics and proteomics.
	CO 3	describe the production and application of monoclonal antibodies, fermentation, SCP, methods and application of blotting techniques, Principles and techniques of plant and animal tissue culture and cell line culture.
	CO 4	explain the methods and applications of protoplast technology, cryopreservation, Human genome project, transgenic organisms and Risks of releasing genetically engineered organisms



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	CO 5 explain the importance of drug delivery systems, applications of protein microarray, quantum dot technology, biosynthesis of nanoparticles, methods and applications of drug designing.
PART III - CORE VIII -BIO STATISTICS, BIOINFORMATICS AND COMPUTER APPLICATIONS	<ul> <li>CO 1 explain the process of data, classification, tabulation and organization.</li> <li>CO 2 explain diagramatical and graphical representation of data.</li> <li>CO 3 solve problems in mean, median and mode and also standard deviation and correlation</li> </ul>
	CO 4 explain the software effectively to extract information from large databases and to develop information in the genomic study, phylogenetic analysis and sequence analysis.
	CO 5 discuss the common threats today in computer network
PART III - Elective I – CLINICAL LABORATORY TECHNIQUES	CO 1 understand the collection and disposal of specimens with reporting pattern and safety measures in clinical lab. First aid for lab accident and test for typhoid and tuberculosis.
	CO 2 analyze the collection of blood, RBC, WBC count, erythrocyte sedimentation rate, Hb estimation, bleeding time, clotting time and types of anticoagulants.
	CO 3 understand the VDRL test, Blood – Urea – Nitrogen estimation of Serum cholesterol ,Blood sugar and Testing the blood donor
	CO 4 discuss the physico- chemical properties and microscopical examination of urine and stool, identification of intestinal parasite and diagnosis of chronic disease leprosy.
	CO 5 analyze the Fractional test meal, CSF examination, Semen analysis, Pregnancy test investigation of throat swab for Diphtheria and Corona virus infection.
PART III - Elective I – BIOINSTRUMENTATION	CO 1 state the principle and functioning of Laminar airflow, Autoclave, Haemocytometer and employ it in research.
	CO 2 Study the operative method of the pH meter, colorimeter and Centrifuge.
	CO 3 Study the operative method of the working of spectrophotometer and their types, flow cytometry for measurement of cells.
	CO 4 Study the operative method , principle, technique, application of paper chromatography, RIA, ELISA
	CO 5 Study the operative method of the principle, technique, application, advantages and disadvantages of SDS,PAGE and PCR
PART IV- SKILL	CO 1 distinguish the species of ornamental fishes.
ENHANCEMENT COURSE II - ORNAMENTAL FISHES	CO 2 explain the water quality management
	CO 3 examine the feed of ornamental fishes.



	CO 4	specify the brood stock, diseases and transport.
	CO 5	apply breeding methods of ornamental fishes.
	CO 6	operate the packing and transportation of live fishes.
PART III - CORE X -	CO 1	state the basic concepts in genetics.
GENETICS	CO 2	enumerate linkage, crossing over and sex determination.
	CO 3	analyse the different blood groups.
	CO 4	discuss cause, symptoms and precautions of genetic disorder.
	CO 5	explain Inborn errors of metabolism
	CO 6	analyze mutagens -physical and chemical mutagens and gene mutation
PART III - CORE XI – DEVELOPMENTAL BIOLOGY	CO 1	Understand the historical review of developmental biology theories and gametogenesis.
	CO 2	Describe the theories of fertilization, cleavage, features, planes and patterns in amphioxus, frog and chick.
	CO 3	Explain morula, blastula, gastrulation, describe fate map in frog and chick and organogenesis development of brain and heart in frog
	CO 4	Describe the organiser concept, chick embryo development stage (24hrs, 48hrs and 72hrs) Extra embryonic membrane and define in mammals.
	CO 5	Describe sexual cycles, infertility, test tube, parthenogenesis, report on teratogenesis and regeneration.
PART III Core XII– MICROBIOLOGY	CO 1	describe the history and scope of microbiology and structure of Bacteria and their reproduction.
	CO 2	define techniques in culturing, isolation and staining.
	CO 3	explain food microorganisms and preservation of food
	CO 4	explain diary microbiology and describe the diseases of cattle and their control
	CO 5	discuss bacterial, viral and fungal diseases and their control
PART III - Elective II – SERICULTURE	CO 1	discuss history, economic importance of sericulture architecture, propagation and irrigation of mulberry plants.
	CO 2	explain types of pruning, harvesting of mulberry leaves and varieties of silk worm, life cycle
	CO 3	describe the morphology and structure of silk gland in Bombyx mor and also rearing facilities in silk worm.
	CO 4	discuss rearing of young age and late age silkworms, mounting stifling and marketing of cocoons.
	CO 5	explain deflossing, reeling, re-reeling of cocoons and pest management in silkworm



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PART III - Elective IV – PESTS AND THEIR CONTROL	CO 1 explain the types of pest, types of demage to plants, causes for pest statu pest surveillance, assessment of insect population
	CO 2 discuss bionomics and control of pest of rice, sugarcane, coconu groundnut, cotton and brinjal.
	CO 3 explain the pests of stored products and bionomics and control of household pests.
	CO 4 explain the methods and principles of pest control
	CO 5 discuss organic and inorganic pesticides, methods of pesticid applications and first aid precautions
PART III – Core Practical III Based on Core VI, VII, VIII, X, XI & XII	CO 1 estimate oxygen consumption in fish, qualitative detection of excretory products and preparation of haemin crystal in huma blood and physiological functions
	CO 2 apply techniques in sterilization, staining and isolation of DNA an separation of proteins by electrophoresis and biotechnologica applications
	CO 3 explain Mendelian character and blood grouping and Rh factors i man and observe the frog and chick embryo stages.
	CO 4 Calculate central measures of tendency , computer components an study of genomic sequences
	CO 5 apply culture techniques in hanging drop, bread mould, culture an identification of yeast, Distribution of microbes in soil and wate and methylene blue reductase test for milk.
PART III – Elective Practical (Based on Elective I &III)	CO 1 develop skill in hematological practicals of RBC and WBC coun Hb estimation, Bleeding, Clotting time and measurement of BP an heart beat.
	CO 2 develop skill in urine analysis practicals of Specific gravity Albumen, Sugar, Blood, Bile salt and Bile pigment,
	CO 3 Recognize the Clinical laboratory techniques spotters
	CO 4 Recognize the Sericulture spotters
	CO 5 The practical work done in laboratory must be drawn and submitter as record note.
PART III – Elective Practical	CO 1 Do clinical techniques practicals of RBC and WBC count done
(Based on Elective I & III)	CO 2 Do clinical techniques practicals of Hb estimation and measuremen of BP.
	CO 3 Recognize the Clinical laboratory techniques spotters
	CO 4 Recognize the Pest and their control spotters
	CO 5 The practical work done in laboratory must be submitted as recornote for the practical examination.



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ADVANCED LEARNERS	CO 1	discuss the general features of insects and their feeding habits
COURSE –II INSECT, VECTORS AND DISEASES	CO 2	discuss carrier and vector, vectorial capacity, and their adaptations
	CO 3	explain important dipteran vectors and their control
	CO 4	discuss important siphonaptera vectors and their control
	CO 5	discuss bugs as vectors and their control

# B.Com, B.Com (SF)

	Programme Outcomes			
PO1	Understand and Apply commerce and related inter disciplinary knowledge and skills.			
PO2	Work in digitalised environment.			
PO3	Get motivated to involve in entrepreneurial activities.			
PO4	Exercise critical thinking and reasoning in problem solving activities.			
PO5	Pursue higher education / get ready for employment.			
PO6	Develop self-confidence and attitude for lifelong learning.			

Programme Specific Outcomes				
PSO1	Take jobs applying conceptual knowledge in real business environment.			
PSO2	Work in ICT environment.			
PSO3	Competent to pursue higher education.			
PSO4	Be better consumers.			

Course Outcomes			
Course Name	CO	Statement	
Core I Financial Accounting I	CO1	Recognise the fundamentals of accounting concepts and conventions	
	CO2	Generate final accounts of a sole trader	
	CO3	Prepare accounts under incomplete system of record keeping.	
	CO4	Reconcile cash book and passbook	
	CO5	Discuss the different methods of depreciation	
	CO6	Prepare Final accounts for non-trading organisation	
Core II Business Organisation	CO1	Comprehend the fundamentals of business.	
	CO2	Discuss the different forms of business organisation.	
	CO3	Discuss rationale behind privatisation.	



	CO4	Assess optimum size and suitable location for the business.
	CO5	Explain business combinations and concentration of economic power
	CO6	Implement the ethical and social issues in business.
Allied II – Business	CO1	Summarise the basics of business economics.
Economics	CO2	Explain demand and supply function.
	ÇO3	Discuss production function.
	CO4	Relate cost-output analysis.
	CO5	Utilise cost concepts and break-even analysis.
	CO6	Apply principles of economics in business.
Core III- Financial Accounting II	CO1	Describe the fundamental concepts of hire purchase and installment accounting.
	CO2	Assess the profit under branch accounts.
	ÇO3	Compile accounts for departmental form of organization.
	CO4	Discuss the fundamentals of partnership accounts.
	CO5	Prepare the accounts on admission of partner.
	CO6	Prepare accounts on retirement and death of partner.
Core IV- Principles of	CO1	Comprehend core concepts of marketing.
Marketing	CO2	Discuss the various functions of marketing
	ÇO3	Evaluate the different stages of product life-cycle
	CO4	Explain the kinds of pricing
	CO5	Examine the promotional techniques used in marketing.
	CO6	Analyse the various methods of channels of distribution.
Allied II – Indian Economy	CO1	Describe the basic strcture of Indian Economy.
	CO2	Explain the need for capital formation and the role of human capital for economic development.
	ÇO3	Examine the reasons for industrial sickness and the remedial measures
	CO4	Relate and justify the growth rate of the economy, fiscal deficit and contribution of different sectors.
	CO5	Deduce the knowledge of the growth of service sector.
	CO6	Apply the concpts and information in competitive exams.
Core V - Corporate	CO1	Comprehend the fundamentals of Corporate Accounting.
Accounting	CO2	Explain the various methods of issue of shares and debentures
	CO3	Evaluate the methods of valuation of shares and goodwill.
	CO4	Apply the concepts for the preparation of final accounts.
	CO5	Compute the managerial remuneration as per Companies Act
	CO6	Analyse the accounting procedures for amalgamation and merger
	CO7	Design the reconstructed balance sheet of companies after
		reduction of share capital.



	CO2	Discuss the fundamentals of general contract
	ÇO3	Discuss the knowledge on capacity of parties entering into contract
	çou	Summarise the legality of objects involved in contract.
	CO5	Identify the various modes of discharge of contract.
	CO6	Use different remedies for breach of contract.
	CO7	Demonstrate knowledge relating to Sale of Goods Act.
Core VII–Principles of	CO1	Comprehend the conceptual knowledge of management.
Management	CO2	Recognise the principles of management practices.
	ÇO3	Describe the process of planning and decision making.
	çou	Discuss the functions of staffing.
	CO5	Explain the different types of leadership style.
	C06	Discuss motivational techniques in business.
	CO7	Assess the various methods of coordination and techniques of control
Core VIII – Entrepreneurial Development	CO1	Identify the concepts of entrepreneurship and skills expected from an entrepreneur.
	CO2	Examine the various business opportunities.
	ÇO3	Analyzethe uses of the Entrepreneurial Development Programmes.
	CO4	Identify the opportunities available for women entrepreneurs.
	CO5	Examine the complete framework of project identification and project preparation
	CO6	Apply the knowledge on starting MSMEs
Part IV - Non Major Elective - Entrepreneurial	CON1	Comprehend the concepts of entrepreneurship and skills expected from an entrepreneur.
Development	CON2	Examine the various opportunities and challenges of entrepreneurs.
	ÇON3	Assess the various phases of EDP.
	CON4	Identify the scope and opportunities for women entrepreneurs.
	CON5	Apply knowledge on starting MSMEs.
Part IV -Skill Enhancement	COS1	Create embedded images in a document and perform tasks relating to images
Course I-Business	COS2	Develop skills in drawing and painting images with digital colour
Application Tools: Image	COS3	Prepare image designing process.
Editor - Practicals	COS4	Apply graphical effects in images
Core IX – Company Law	CO1	Comprehend the knowledge on promotion and formation of the company
	CO2	Summarise the various clauses of Memorandum of Association and alteration.
	ÇO3	Explain the contents of Articles of Association.
	CO4	Characterise the prospectus of the company.
	CO5	Generate knowledge on company management and administration.
	CO6	Discuss the duties and liabilities of directors under Indian Companies Act.
1	1	Companies Act.



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Core X – Cost Accounting	CO1	Comprehend the basic concepts and various tools used in Cost Accounting.
	CO2	Apply the methods of Cost Accounting in ascertaining cost.
	ÇO3	Discuss the various techniques of material control.
	CO4	Implement the methods of valuing material issue.
	CO5	Assess the Labour cost and overhead cost.
	CO6	Apply the steps involved in process costing.
	CO7	Analyse cost and profit under operating and contract costing
Core XI – Banking Law and	CO1	Describe the basics of banking.
Practice	CO2	Comprehend knowledge on the financial instruments of banking sector
	ÇO3	Explain the usage of core banking operations.
	CO4	Discuss the banker's duties and responsibility
	CO5	Apply knowledge on usage of modern banking products and services in India
	CO6	Develop the ways and means of ensuring safety and security of banking operation.
Core XII – Auditing	CO1	Describe the fundamental concepts of auditing.
	CO2	Summarize the audit procedure.
	ÇO3	Analyse audit evidence
	CO4	Explain verification and valuation of assets and liabilities.
	CO5	Recognize the powers, duties and liabilities of an auditor.
	CO6	Apply the knowledge of auditing in business.
Allied IV – Statistics	COA1	Comprehend the basic concepts of statistics.
	COA2	Discuss the methods of sampling.
	ÇOA3	Create, read and interpret graphs, charts, histograms and diagrams.
	COA4	Use basic measures of central tendency and variation.
	COA5	Interpret the relationship between two variables in statistical terms.
	COA6	Apply knowledge of statistical tools in business data analysis.
Part IV- Skill Enhancement	COS1	Apply practical knowledge on application of excel.
Course II-Business Application Tools: Business	COS2	Utilise excel functions.
Data Analysis using EXCEL –	COS3	Utilise pivot table for data manipulation
Practicals	COS4	Diagrammatic representation of numerical data.
Part IV-Advanced Learners	COL1	Recognize the personal and risk due to marine, fire and miscellaneous
Course I –Principles of Insurance		insurance
	COL2	Explain the elements of contracts of insurance.
	ÇOL3	Characterize the concept of life insurance.
	COL4	Comprehend the concept of marine insurance. Discuss the basics of fire and miscellaneous insurance
	COL5	
	COL6	Apply the knowledge of insurance in risk mitigation.



Part IV–Advanced Learners	CO1	Implement the gap between theory and real business environment.
Course I - Industrial Training	CO2	Analyse the challenges in the dynamic business environment.
	CO2	Create and motivated to become entrepreneurs.
	CO3	·
		Built positive attitude and self-dependency for life-long learning.
	CO5	Design the function of business activities.
	CO6	Assess the globalization in current business environment
Core XIII E- Accounting - Practicals	CO1	Apply knowledge on basics and importance of e-accounting in computerized environment.
	CO2	Apply knowledge of computerized accounting in creating account heads
	ÇO3	Application of knowledge in preparing stock summary.
	CO4	Create cost centres and tax masters.
	CO5	Prepare payroll of a company.
	CO6	Prepare final accounts in computerized accounting along with
~ ~ ~ ~ ~ ~		statements and statutory reports.
Core XIV Income Tax	CO1	Comprehend the fundamental concept of income tax.
	CO2	Calculate the Salary income.
	CO3	Implement the provisions relating to house property.
	CO4	Calculate the income from other sources.
	CO5	Compute business or professional income.
	CO6	Assess capital gain and identify ways of saving Capital Gains Tax.
	CO7	Discuss and apply provisions regarding deduction from GTI.
<b>Core XV Business Finance</b>	CO1	Define and identify the concepts of Business Finance.
	CO2	Explain the role of finance in an organisation.
	CO3	Interpret the functions of business finance.
	CO4	Discuss the significance of financial planning.
	CO5	Summarise the sources of business finance.
	CO6	Account the components of the basic concepts of business finance.
Core XVI Business	CO1	Comprehend the knowledge on basic concepts of communication.
Communication	CO2	Discuss the principles of effective business letters.
	CO3	Design and develop credit and status enquiry letters.
	CO4	Identify the techniques of writing collection, sales and circular letters
	CO5	Explain the various types of reports.
	CO6	Design application letter.
Elective I - Investment	CO1	Comprehend the fundamentals of investment management.
Management	CO2	Comprehend the benefits and demerits of each avenue of investment.
	CO3	Identify risk and returns of each investment avenue.
	CO4	Analyze the difference in investing in equity and fixed income securities
	CO5	Discuss the components of fundamental analysis.



	CO6	Interpret chart pattern of technical analysis.
Elective I – Retail Marketing	CO1	Comprehend the conceptual aspects of the retail sector.
	CO2	Examine the retail location and layout in retail market sector.
	CO3	Analyse individual and family brands.
	CO4	Recognise the buyer beware for protecting consumer.
	CO5	Discuss the ethical aspects of trade, commerce and industry.
	CO6	Able to apply the functions of Supply Chain Management.
	CO7	Able to understand Information Technology tools in retail marketing
	CO8	Identify the reason for growth of e-tail market.
Part IV Skill Enhancement	COS1	Use the fundamentals of SQL.
Course III –Business	COS2	Solve simple and complex SQL queries.
Application Tools :SQL – Practicals	COS3	Execute SQL operation by using variables and functions.
Tucucuus	COS4	Customise database preparation using SQL
	COS5	Manipulate database using SQL.
Core XVII Management	CO1	Identify the role of management accounting in decision-making.
Accounting	CO2	Explain the contribution of management accounting to financial reporting.
	CO3	Discuss the role of quantitative and qualitative information in decision making.
	CO4	Apply tools and techniques to plan, control and make decisions.
	CO5	Utilize cost-volume-profit techniques for effective managerial decisions
	CO6	Analyze the ideas and practices of budgeting in business decision making.
Core XVIII Export	CO1	Comprehend the framework of export trade.
Management	CO2	Recognize the foreign trade policy of India.
	CO3	Analyse the export promotion measures available for Indian Exporters
	CO4	Discuss export procedures and formalities.
	CO5	Explain the various methods of export pricing
	CO6	Assess the financial support available for the exporters.
Core XIX Goods and	CO1	Comprehend basics of GST
Services Tax	CO2	Define the key elements of GST
	CO3	Explain knowledge on GST mechanism
	CO4	Discuss registration procedure.
	CO5	Recognise Returns under GST law
	CO6	Describe the practical aspects of GST.
Elective II Capital Markets	CO1	Comprehend the financial system in Indian context.
	CO2	Explain the characteristics of different financial assets.
	CO3	Characterise New Issue Market.
	CO3 CO4 CO5	Characterise New Issue Market.         Summarise the role of SEBI in capital market regulation.         Discuss the depository system in India



	CO6	Apply online share trading.
<b>Elective II Services</b>	CO1	Recognise the concepts and strategies of services marketing.
Marketing	CO2	Apply the knowledge on consumer behaviour in purchase decision.
	CO3	Summarise the basic service packages.
	CO4	Explain the strategies for service distribution system.
	CO5	Design the Customer Relationship Management
	CO6	Discuss the Service Quality Management.
<b>Elective III Financial Services</b>	CO1	Identify the role of financial services.
	CO2	Develop the ability to utilize the services of merchant banker.
	CO3	Utilize the venture capital for Business.
	CO4	Demonstrate factoring technique
	CO5	Develop the skills to invest in mutual fund.
	CO6	Apply the skill to assess the selection of investment.
Elective III – Digital	CO1	Describe the concept of e-marketing.
Marketing	CO2	Discuss marketing mix and segmentation
	CO3	Examine process of online purchases
	CO4	Characterize online consumer behaviour in digital marketing.
	CO5	Demonstrate the concept of social media.
	CO6	Formulate the models of web business.
Skill Enhancement Course	COS1	Identify, understand and interpret communication concepts.
IV: Business Application	COS2	Use of communication platform to promote the enterprise.
Tools-Business Skills – Practicals	COS3	Implement interpersonal, communication and management skills.
Fracticals	COS4	Generate skills in reading and writing.
	COS5	Interpret personality traits and effective communication
Part IV–Advanced Learners	CO1	Comprehend basics of e-commerce.
<b>Course II - E-Commerce</b>	CO2	Describe e- business transaction.
	CO3	Explain knowledge on online shopping.
	CO4	Demonstrate electronic fund transfers.
	CO5	Discuss the applications of E-Customer Relationship Management.
	CO6	Apply e-marketing and e-advertising in business environment.
Part IV–Advanced Learners	CO1	Implement the gap between theory and real business environment.
Course II - Industrial	CO2	Analyse the challenges in the dynamic business environment.
Training	CO3	Create and motivate to become entrepreneurs.
	CO4	Built positive attitude and self-dependency for lifelong learning.
	CO5	Frame the function of business activities.
	CO6	Assess the globalization in current business environment



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# **B. Sc (COMPUTER SCIENCE)**

	Programme Outcomes			
PO1	A sound knowledge on the fundamentals of computer science to enable them to pursue higher studies at any on the leading institutions of the world			
PO2	Ability to analyze real world/ scientific problems and convert them to computable algorithms and various approaches to solve such algorithms with available technological alternatives like client server, cloud, mobile, stand-alone etc.,			
PO3	Ability to communicate effectively with stake holders			
PO4	Willingness to remain bounded by ethical and moral constraints while making the choices			
PO5	Ability to ensure safety of systems/ transactions from malicious attacks from outside as well as from within the organization			

	Programme Specific Outcomes				
PSO1	Provide the ability to employ modern computing environments and its platforms in creating innovative career paths and higher studies.				
PSO2	Ensure the ability to use knowledge in various domains to identify research gaps and hence to provide solution to new ideas and innovations				
PSO3	Facilitate to apply the knowledge of ethical and management principles required to work in a team as well as to lead a team.				
PSO4	Develop an understanding of the structure and development methodologies of software systems to solve the computational tasks and to model the real world problems by suitable algorithms.				

Course Outcomes		
Course Name	CO	Statement
Core I C Programming	CO1	Discuss the fundamentals of C programming.
	CO2	Choose the loops and decision making statements to solve the problem.
	CO3	Use functions and Operations on arrays to solve the given problem.
	CO4	Extrapolate pointers, structures and unions.
	CO5	Implement file Operations in C programming for a given application.
	CO6	Design, implement, test and debug programs in C.
Part III - Core II Computer Fundamentals and Digital Logic		Identify the generic principles that underlie the design of digital computer, including data representation, digital logic and process simulation
	CO2	Design and simulate logic circuits using software tools.
	CO3	Associate and synthesize networks of combinatorial, digital logic elements.



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	CO4	Interpret knowledge about the number representations used in digital systems, arithmetic properties and conversion techniques.
	CO5	Draw knowledge about assembling a simple computer with its hardware design.
	CO6	Examine the basic electronics of logic circuits and be able to use integrated circuit packages.
Core Practical I C	CO1	Compile and trace the execution of programs written in C language.
Programming	CO2	Enumerate knowledge about the loops and decision making statements to solve the problem.
	CO3	Analyse the role of use functions and Operations on arrays to solve the given problem.
	CO4	Apply pointers, structures and unions.
	CO5	Implement file Operations.
	CO6	Develop programs that use strings and string functions.
Core III C++	CO1	Interpret in-depth knowledge on Object Oriented concepts.
Programming	CO2	Associate a generic programming foundation through the concept of templates
	CO3	Organize with group of related objects in uniform way.
	CO4	Draw the knowledge for handling error through Exception handling concepts.
	CO5	Recognize knowledge about storage mechanism by file concepts.
	CO6	Specify the issues related to software design
Core IV Data Structures	CO1	Classify the problem and determine the appropriate data structure for the problem.
	CO2	Define and implement elementary algorithms and design techniques to solve the problem.
	CO3	Describe operations like searching, insertion, deletion, and traversing mechanism etc. on various data structures.
	CO4	Examine the concepts learned in various domains like DBMS, compiler construction etc.
	CO5	Implement linear and non-linear data structures like stacks, queues, linked list etc.
	CO6	Design and implementation of various basic and advanced data structures.
Core Practical II C++	CO1	Recognize Object Oriented concepts.
Programming	CO2	Implement reusability of classes and function through inheritance.
	CO3	Apply a generic programming foundation through the concept of templates.
	CO4	Interpret the knowledge and operate on memory address through pointer.



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	CO5	Utilize memory organizations using constructor and destructor.
	CO6	Apply data structure concepts.
Core V Operating	CO1	Report the general architecture of computers.
System	CO2	Demonstrate various process management concepts including scheduling, synchronization and deadlocks.
	CO3	Explain basic concepts related to prevention, avoidance and detection of deadlocks.
	CO4	Specify the concepts of memory management including virtual memory.
	CO5	State the knowledge with protection and security mechanisms.
	CO6	Draw and analyze the memory management and its allocation policies.
Core VI Visual Programming	CO1	Recognize knowledge about the fundamental skills in utilizing the tools of a visual environment in terms of the set of available command menus and toolbars and Explore Visual Basics Integrated Development Environment (IDE).
	CO2	Interpret the concept of one and two dimensional arrays for sorting, calculating and displaying of data.
	CO3	Implement syntax rules in Visual Basic programs
	CO4	Create Visual Basic programs using object-oriented programming techniques including classes, objects, constructors, inheritance and structures.
	CO5	Develop Windows applications using forms, controls and events
	CO6	Relate with Error handling and Database Connectivity.
Core VII Relational Database Management	CO1	Recognize knowledge in fundamentals of Relational Data Base Management System.
System	CO2	Operate and query a database using SQL DML/DDL commands.
	CO3	Record knowledge about tables and functions.
	CO4	Demonstrate how query are being processed and executed and analyze database design methodology.
	CO5	Implement PL/SQL including stored procedures, stored functions, cursors and packages.
	CO6	Design different views of tables for different users and to apply embedded and nested queries.
Core Practical III Visual Programming	CO1	Apply visual programming to software development by designing projects with menus and submenus.
	CO2	Create Database connectivity with front-end.
	CO3	Develop web applications and Handle online Transactions.
	CO4	Design, Design, implement, maintain and prepare reports using PL/SQL.



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Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

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	CO5	Recognize data Base design methodology and DB connectivity.
	CO6	Demonstrate the use of structured query language and its syntax, transactions, database recovery and techniques for query optimization.
Non Major Elective -	CO1	Draw competence in creating artwork for digital medium.
Desktop Publishing	CO2	Examine competence in the basic creative and technical aspects of image editing and manipulation.
	CO3	Develop proficiency in using graphic arts and desktop publishing software to create a variety of business publications such as flyers, brochures, newsletters, etc.
	CO4	Design professionally looking material using industry leading software
	CO5	Review proficiency in a range of computer graphics technology, including bitmap, image editing and effects, vector graphics, page layout and web design.
	CO6	Design and Implement formatted text and graphics.
Skill Enhancement Course I: Web	CO1	Create and manipulate web media objects and medium through communication.
Technology - Web Development	CO2	Develop the webpage using HTML and CSS.
Development	CO3	State a logical sequence of the web development skills.
	CO4	Associate social media strategies for business use and build pages in a way that promote brand.
	CO5	Develop ability to adapt the changes in Web development and design skills based on the high end design trends.
	CO6	Design a Web Page using various Style Sheets.
Core VIII Java Programming	CO1	Demonstrate the model of object oriented programming and Fundamental features like object classes and interfaces, exceptions and libraries of object collections
	CO2	Gain basic knowledge about input/output methods and its usage.
	CO3	Implement, compile, test and run Java programs comprising more than one class, to address a particular software problem.
	CO4	Discuss simple data structures like arrays and understand the concept of package and interface.
	CO5	Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements.
	CO6	Examine the concept of Files and Graphics in Java.
Core IX Computer Graphics with	CO1	Provide comprehensive introduction about computer graphics system, design algorithms and two dimensional transformations.
Multimedia	CO2	Gain the knowledge on familiar techniques of clipping, three dimensional graphics and three dimensional transformations.



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	CO3	Involve in design, development and testing of modelling, rendering, shading and animation
	CO4	Extrapolate various latest interactive multimedia devices, the basic concepts about images and image formats.
	CO5	Gain the knowledge about data compression techniques, image compression techniques like JPEG, video compression techniques like MPEG, and the basic concepts about animation.
	CO6	Implement various methods and models for surface detection and Colors.
Core X Software	CO1	Design and conduct experiments, as well as to analyze and interpret data.
Engineering	CO2	Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
	CO3	Work in one or more significant application domains.
	CO4	Gain knowledge on various testing strategies
	CO5	Apply the testing techniques and skills on various software testing projects.
	CO6	The ability to analyze, design, verify, validate, implement, apply, and maintain software systems.
Core Practical IV Java Programming and	CO1	Gain Knowledge of the structure and model of the Java programming language.
Computer Graphics	CO2	Create packages and interfaces in a Java program.
	CO3	Implement the various graphics drawing algorithms, 2D-3D transformations and clipping techniques.
	CO4	Compile computational development of graphics with mathematics and to provide in-depth knowledge of display systems, image synthesis, shape modeling of 3D images.
	CO5	Provide the knowledge about the basic concepts related to Multimedia including data standards, algorithms and application software.
	CO6	Construct a Java class based on a UML class diagram and Perform a test plan to validate a Java program.
Skill Enhancement Course II Web Technology - Web Graphics	CO1	Implement front-end web coding languages to add dynamic content, animation and effects to websites.
	CO2	Adapt the changing Web development and design skills.
	CO3	Employ multimedia and animation strategies for business use and build pages in a way that promote brand.
	CO4	Develop proficiency in various techniques and methods in creative media.
	CO5	Interpret the terminology used in the graphic design industry.
	CO6	Design brochure, certificates, advertisement etc.
	CO1	Describe the hardware and software implementation in client/server computing.

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Advanced Learners Course I – Client Server Technologies	CO2	Differentiate between client and server hardware technology.
	CO3	Implement the uses of client/server productivity software.
	CO4	Gain knowledge about the techniques for managing "redundancy" and distributed data in the client/server environments.
	CO5	Get familiar with Distributed computing environment, RMI and DCOM architecture.
	CO6	Gain Exposure on most common used servers.
Core XI Computer	CO1	Express the terminology and basic concepts of the network protocols.
Networks	CO2	Analyze the Transport Protocol and its performance with QoS Issues.
	CO3	Assess with contemporary issues in networking technologies and the concepts of protocols and network interfaces.
	CO4	Identify the knowledge of protocols and the architecture for transmitting data over the network with routing mechanisms.
	CO5	Summarize network industry standards such as Routing Protocols, Address Resolution and Reverse Address Resolution Protocols, IP Addresses and Subnetting.
	CO6	Examine the different types of network devices and their functions within a network.
Core XII PHP with	CO1	Acquire Knowledge in basics of PHP and MySQL.
MySQL	CO2	Summarize the Control Structures, Functions and String Operations in PHP.
	CO3	Use Cookies and Sessions in website development.
	CO4	Demonstrate the features of Exception handling, Java Scripting and Graphics
	CO5	Design and implement simple web page in PHP, and MySQL Connectivity.
	CO6	Test, debug, and deploy web pages containing PHP and MySQL.
Core XIII Data Mining	CO1	Demonstrate an understanding of the importance of data mining and the principles of business intelligence.
	CO2	Determine the different steps followed in pre-processing and Data Mining.
	CO3	Analyze large amount of data, extract patterns to solve problems and make predictions.
	CO4	Develop the ability to design various algorithms based on data mining tools.
	CO5	Apply the techniques of clustering, classification, association finding, feature selection and visualisation on real world data.
	CO6	Draw the knowledge in Web Mining.
	CO1	Classify the PHP scripts to handle HTML forms.



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CO2	Demonstrate regular expressions including String, modifiers and operators.
CO3	State the knowledge about PHP programs that use various PHP library functions, manipulating files and directories.
CO4	Analyze and solve various database tasks using the PHP and MySQL.
CO5	Design, implement, maintain and prepare reports using MySQL.
CO6	Analyze and solve common Web application tasks by writing PHP programs.
CO1	Describe the functions to build data center networking for switch network.
CO2	Implement different types of RAID and their benefits.
CO3	Discuss about the importance of fiber channel protocols and how to communicate with each other.
CO4	Examine the benefits of different network storage options for different application environments.
CO5	Analyze different role in providing disaster recovery and business continuity capabilities.
CO6	Interpret the storage infrastructure and management activities.
CO1	Acquire the concept areas of language translation and compiler design
CO2	Gain the knowledge of lexical analysis.
CO3	Extend the knowledge of parser by parsing LR parser
CO4	Define the syntax, translator and use symbol table
CO5	Learn the code optimization techniques to improve the performance of a program in terms of speed & space.
CO6	Acquire the knowledge of compiler & its features
CO1	Explore and develop new innovative ideas in visualization of texts and content.
	Examine the learners and make them stay tuned and focused on the web based learning.
CO3	Apply the forms of videos on the internet using animation tool.
CO4	Familiar with several animation tools learned throughout the course to produce an interactive animated website.
	Recognize the utilization of the timeline and motion tween effects to produce animation in effective manner.
CO6	Incorporate technology effectively in the development of animation projects.
CO1	Articulate main concepts, key technologies, strength and limitations of clouds computing.
CO2	Specify the knowledge of primary technology components and threats common to cloud environment.
	<ul> <li>CO3</li> <li>CO4</li> <li>CO5</li> <li>CO6</li> <li>CO1</li> <li>CO3</li> <li>CO4</li> <li>CO5</li> <li>CO6</li> <li>CO1</li> <li>CO3</li> <li>CO4</li> <li>CO5</li> <li>CO6</li> <li>CO1</li> <li>CO6</li> <li>CO1</li> <li>CO5</li> <li>CO5</li></ul>



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	CO3	Compile the building blocks of cloud environment along with the security measures.
	CO4	Analyze various fundamental and advanced cloud architectures.
	CO5	Apply cloud delivery models, cost management strategies and service level agreement for cloud services.
	CO6	Broadly apply the impact of engineering on legal and societal issues involved in addressing the security issues of cloud computing.
Core XV - Linux and	CO1	Interpret the basic concepts of Linux.
Shell Programming	CO2	Draw a detailed knowledge on Shell command and File directories.
	CO3	Analyze the Shell type and Linux environment variables with GUI programming.
	CO4	Examine the security policies behind the Linux.
	CO5	Enumerate the script file.
	CO6	Identify and process build in Commands.
Core Practical VI	CO1	State the concept of Shell and the different usage of the commands in shell.
Linux and Shell Programming	CO2	Apply the Linux command line interface for file processing and system maintenance operations.
	CO3	Identify the essentials of System configuration and CPU information
	CO4	Recognize with the concepts of filter parameters, pipes and redirection in shell scripts.
	CO5	Design and apply the commands for working with numbers and tables.
	CO6	Apply shell scripts to perform repetitive tasks using loops.
Elective II Basics of IoT	CO1	Comprehend the core concepts, background technologies and sub-domains of IoT.
	CO2	Explain IoT devices using sensors, micro controllers and communications interface.
	CO3	Discuss various application layer protocol and web services architecture for combining various components of IoT ecosystems.
	CO4	Interpret API and commercial architectures, industrial platforms and services.
	CO5	Utilize IoT technologies, design and tools.
	CO6	Built knowledge in industrial automation and real world design constraints.
Elective II Mobile Computing	CO1	Express the concepts and features of mobile computing technologies and its applications with cellular networks design.
	CO2	Recognize the capabilities of next-generation networks and the role of wireless technologies in network design and operation.



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	CO3	Evaluate wireless network topologies, wireless connectivity and characteristics, with the impact of wireless networks on security and Internet communications.
	CO4	Explain the structure and components for Mobile IP and Mobility Management
	CO5	Create an awareness of professional and ethical issues, in particular those relating to security and privacy of user data and user behavior.
	CO6	Predict the important issues of developing mobile computing systems and applications.
Project & Viva Voce	CO1	Draw practical knowledge within the chosen area of technology for project development.
	CO2	Discuss, analyze, formulate and handle programming projects with a comprehensive and systematic approach.
	CO3	Evaluate as an individual or in a team in development of technical projects.
	CO4	Develop effective communication skills for presentation of project related activities.
	CO5	Assess solution within the context of legal framework addressing the societal and environmental concerns and upholding ethical issues.
	CO6	Apply design and development principles in the construction of software systems of varying complexity.
Skill Enhancement Course IV: Web	CO1	Demonstrate the working of the web and web applications using JavaScript language.
Technology - Java Script Programming	CO2	Draw knowledge about the loops and decision making statements to solve the problem.
	CO3	Characterize with the usage of functions and operations on arrays to solve the given problem.
	CO4	Analyze a webpage and identify its elements and attributes.
	CO5	Comprehend the knowledge about Dynamic web pages using JavaScript.
	CO6	Apply a structured approach to identifying needs, interests, and functionality of a website.
Advanced Learners Course II: Web	CO1	Apply the use functions and objects of Java Script to create animation on webpage
Services	CO2	Associate the basic understanding of XML programming and publishing models.
	CO3	Characterize the schema for the given XML documents in both DTD and XML Schema languages.
	CO4	Parse XML documents by using DOM, SAX.
	CO5	Comprehend the knowledge on various service oriented analysis techniques and the technology underlying the service design.
	CO6	Design well-formed XML documents.
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# **B.Sc (INFORMATION TECHNOLOGY)**

	Programme Outcomes
PO1	Be able to apply the knowledge of mathematics, science and computing in the core Information technologies. (Mathematical and Computational skills)
PO2	Will acquire an Ability to prepare for a career in an information technology oriented business or industry, or for post graduate study in computer science or other business or industry, or for post graduate study in computer science or other scientific or technical fields.(Job Skills)
PO3	Be able to cultivate an ability to analyze a problem, and identify, formulate and use the appropriate computing and engineering requirements for obtaining its solution. (Problem solving skills).
PO4	Be able to contribute to an Understanding of professional, ethical, legal, security and social issues and responsibilities (Professional integrity)
PO5	Be able to broaden the education necessary to analyze the local and global impact of computing and engineering solutions on individuals, organizations, and society. (Impact assessment skills).
PO6	Will gain an ability to apply design and development principles in the construction of software and hardware systems of varying complexity (Software hardware interface).

	Programme Specific Outcomes
PSO1	Be able to implement the skills in the areas like programming, graphical user interface, website design and database to innovate in applications.
PSO2	Will provide knowledge and also motivate students for improving entrepreneur skills in Building IT application
PSO3	Will facilitate the students to survive in the society with values and responsibility.

Course Outcomes			
Course Name	СО	Statement	
Part III - Core I Computer Fundamentals and Digital Principles	CO1	Classify the architecture of computer and secondary storage devices	
		Analyze the Data Processing, Problem Solving Programming and different types of programming languages and tools.	
	CO3	Gain knowledge about networks and internet.	
	CO4	Demonstrate the basic concepts of E-Commerce.	
		Recognize the different types of number system, storage and Boolean function with mapping.	



	CO6	Examine the digital combinational logic circuits like adder, subtractor, decoder and multiplexer
Part III - Core Practical I	CO1	Work on Open Source Office package (Libre Office 5).
Internet and Open Source Office	CO2	Demonstrate about the components of computer packages (Writer, Spreadsheet, and Impress) and networking concepts.
Automation Tools	CO3	Organize and work with files and folders
	CO4	Examine the basic features of internet(sending and reading E-Mails, sending letters through attachments etc.,)
	CO5	Effectively analyze data using Spreadsheet.
	CO6	Identify categories of programs, system software and applications.
Part III - Core II C	CO1	Recognize the basic terminology used in computer programming.
Programming	CO2	Write, compile and debug programs in C language.
	CO3	Use different data types in a computer programming.
	CO4	Design programs involving decision structures, loops and functions.
	CO5	Use the structures and unions through which derived data types can be formed
	CO6	Do modular programming with functions
Part III - Core Practical II C Programming and	CO1	Acquire knowledge about the basic concept of writing a program in C Language.
Web designing	CO2	Understands the role of constants, variables, identifiers, operators, type conversion and other building blocks of C Language.
	CO3	Use the conditional expressions and looping statements to solve problems associated with conditions and repetitions.
	CO4	Demonstrate the role of Functions involving the idea of modularity.
	CO5	Understand the concept of Array and pointers dealing with memory management
	CO6	Work with HTML and CSS and design rules in constructing web pages and sites
Part III - Core III Operating System	CO1	Enumerate the difference between types of operating systems, virtual machines and their structure of implementation and applications.
	CO2	Extrapolate monitors for synchronizing multiprogramming with multithreaded systems and implement them in multithreaded programs.
	CO3	Manipulate deadlock in operating systems and how they can be managed / avoided and implement them in multiprogramming system.
	CO4	Implement the design and management concepts along with issues and challenges of main memory, virtual memory and file system.
	CO5	Formulate the types of I/O management, disk scheduling, and protection.
	CO6	Report the use of locks, semaphores, and monitors for synchronizing multiprogramming.



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Part III – Core IV C++ Programming	CO1	Enumerate the basic Object Oriented concepts like class structures as fundamental, modular building blocks
	CO2	Develop applications using Object Oriented Programming Concepts.
	CO3	Demonstrate the differences between traditional imperative design and object-oriented design
	CO4	Analyze the role of inheritance, polymorphism, dynamic binding and generic structures in building reusable code
	CO5	Apply small/medium scale C++ programs with simple graphical user interface.
	CO6	Analyze the file handling and error handling mechanisms and get knowledge to use strings and Streams in C++.
Part III- Core V Data Structures and	CO1	Analyze performance of algorithms and choose the appropriate data structure and algorithm design method for a specified application.
Algorithms	CO2	Distinguish which algorithm or data structure to use in different scenarios and be familiar with writing recursive methods.
	CO3	Demonstrate the abstract properties of various data structures such as stacks, queues, lists, trees and graphs and use various data structures effectively in application programs.
	CO4	Demonstrate various sorting algorithms, including bubble sort, insertion sort, selection sort, heap sort and quick sort.
	CO5	Generalize the fundamental algorithmic problems including Tree traversals, Graph traversals, and shortest paths.
	CO6	Develop knowledge about file structures and storages.
Part III - Core Practical III C++ Programming	CO1	Analyze and apply object-oriented programming features to program design and implementation
	CO2	Analyze, use, and create functions, classes, to overload operators
	CO3	Apply inheritance and Pointers when creating or using classes and create templates
	CO4	Solve Exception handling and file handling mechanism
	CO5	Apply the programs that make appropriate use of advanced object- oriented facilities common to many object-oriented features such as classes, message passing, overloading and inheritance.
	CO6	Relate knowledge on the application of data structures(Stack, Queue, Linked list and various sorting techniques)
Part IV – Non Major	CO1	Label the creativity in image editing and animation.
Elective Animation	CO2	Design layouts for web pages, Paper Adverts, Brouchers
	CO3	Summarize the editing tools and create movies.
	CO4	Produce Paintings, Drawing using various shapes.
	CO5	Developing a movie with bitmap images and sounds.

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	CO6	Access the knowledge in different morphing technology
Part IV- Skill Enhancement Course I: Multimedia Image	CO1	Draw and import different types of images.
	CO2	Apply different styles and format for text.
Designing and Graphics	CO3	Discuss the different type of frames.
Tool	CO4	Analyze the animation speed, portion of the view, the geometric relationship of the object.
	CO5	Formulate innovative sceneries using graphics tools
	CO6	Design an creative advertisement, invitation, Brouchers etc.
Course: Part III - Core	CO1	Relate the web application or distributed application very quickly.
VI .NET Programming	CO2	Analyze the in-built stand-alone applications in the Visual basic and .NET framework
	CO3	Create distributed data-driven applications using the .NET Framework
	CO4	Use DirectX libraries in the .NET environment to implement graphic displays and audio.
	CO5	Utilize XML in the .NET environment to create Web Service-based applications and components
	CO6	Use appropriate data sources and data bindings in ASP.NET web applications
Part III -Core VII	CO1	Identify the Database design methodology.
Database Management Systems	CO2	Define the fundamentals of Data Base Management System.
•	CO3	Compute PL/SQL exceptions.
	CO4	Manipulate the various queries and concepts in Oracle 9i (RDBMS).
	CO5	Design data base and normalize data and understand how queries are being processed and executed
	CO6	Manipulate the various database information.
Part III - Core VIII Computer Networks	CO1	Define, use and implement Computer Networks and the basic components of a Network system.
	CO2	Distinguish the various types of network configurations
	CO3	Examine the layers of OSI and TCP and gain knowledge about congestion control and network security
	CO4	Generate the different protocols, software and network architectures.
	CO5	Prepare the concept of local area networks, their topologies, protocols and applications.
	CO6	Analyze why networks need security and control anticipated errors to avoid network errors.
	CO1	Tabulate good programming skills in .Net platform



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	CO2	Develop applications for various devices and platforms like windows application web applications windows services and web services.
Part III – Core Practical IV .Net Programming	CO3	Use all types of data types provided by .Net Framework.
	CO4	Design web applications using ASP.NET
	CO5	Organize the features of database management systems and Relational database
	CO6	Use SQL- the standard language of relational databases.
Allied IV- Microprocessors	CO1	Recognize the various microprocessor and manufacturer name, year, versions, bit-size.
	CO2	Demonstrate the basic instructions in the Assembly Language Programs.
	ÇO3	Recognize the system using memory chips and peripheral chips for 16 bit 8085 microprocessor.
	CO4	Summarize the device techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors
	CO5	Identify the different types of microprocessor design and interface I/O circuits
	CO6	Examine the various products of processors and controllers.
Part IV- Skill	CO1	Draw scenery and apply different effects.
Enhancement Course II: Multimedia image	CO2	Apply different styles and format for 3D text.
Editing Tool	CO3	Create different type of advertisements.
	CO4	Design college prospectus with relevant tools
	CO5	Design page using different layers.
	CO6	Create a page using healing brush tool.
Part IV-Advanced Learners Course I Enterprise Resource Planning	C01	Define the systematic planning mechanisms in an enterprise, and identify all components in an ERP system and the relationships among the components;
	CO2	Express the production planning in an ERP system, and systematically develop plans for an enterprise;
	CO3	Translate the concept of CRM and CRM software
	ÇO4	Use methods to determine the correct purchasing quantity and right time to buy an item, and apply these methods to material management;
	CO5	Interpret the difficulties of a manufacturing execution system, select a suitable performance measure for different objectives, and apply priority rules to shop floor control.
	CO6	Review and assess an organization's readiness for enterprise system implementation with a professional approach in written form.
Part III - Core IX JAVA Programming	CO1	Enumerate the OOPs concepts such as class, methods, inheritance, encapsulation and polymorphism etc.,



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	CO2	Extrapolate knowledge about how to use java for internet applications.
	ÇO3	Manipulate the differences between application programs, applets, applet lifecycle and graphics programming.
	CO4	Implement programs using Thread, Applet and AWT controls like Text Fields, Buttons, Checkboxes, Radio Buttons and Layouts.
	CO5	Formulate the java programs using stream classes and files.
	CO6	Report the differences between application programs and applet Programming.
Part III - Core X	CO1	Discuss the need of software Engineering and its Quality Factors
Software Engineering	CO2	Identify the key activities in planning of a software project
	ÇO3	Discuss different Cost Estimation Techniques
	CO4	Analyze the concepts of requirements engineering and Analysis Modeling
	CO5	Apply systematic procedure for software design and deployment.
	CO6	Compare and contrast the various testing and maintenance
Part III - Core XI Data	CO1	Identify the basic concepts of data mining
Mining	CO2	Analyze the concepts and algorithms of clustering
	ÇO3	Enumerate the concepts and algorithms of association
	CO4	Discuss the knowledge with the concepts and algorithms of classification
	CO5	Demonstrate the concepts and algorithms of web mining and spatial mining
	CO6	Ability to apply acquired knowledge for understanding data and select suitable methods for data analysis
Core Practical V – JAVA Programming	CO1	Identify the basic concepts of Java such as class, methods, constructors, arrays and interfaces to solve the problems.
	CO2	Examine the usage of packages, exceptions, thread, OOPs concepts in program
	ÇO3	Compute the programs using method overloading, method overriding, packages and threads.
	CO4	Utilize the working of applications using frames and applet.
	CO5	Investigate the programs using event handling, applets, AWT controls and files.
	CO6	Review the knowledge about how to use java for internet applications
Part III – Elective I Information Storage and	CO1	Describe the functions to build data center networking for switch network.
Management	CO2	Implement different types of RAID and their benefits.
	ÇO3	Discuss about the importance of fiber channel protocols and how to communicate with each other.



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	CO4	Examine the benefits of different network storage options for different application environments.
	CO5	Analyze different role in providing disaster recovery and business continuity capabilities.
	CO6	Interpret the storage infrastructure and management activities.
Part III - Elective I	CO1	To acquire the concept areas of language translation and compiler design
Compiler Design	CO2	To gain the knowledge of lexical analysis.
	ÇO3	To extend the knowledge of parser by parsing LR parser
	CO4	To define the syntax, translator and use symbol table
	CO5	To learn the code optimization techniques to improve the performance of a program in terms of speed & space.
	CO6	To acquire the knowledge of compiler & its features
Part IV-Skill	CO1	Develop their creativity in image editing and animation
Enhancement Course III	CO2	Design layouts for web pages, Paper Adverts, Brouchers.
Multimedia Animation Tool	ÇO3	Operate the editing tools and create movies.
	CO4	Design Paintings, Drawing using various shapes andCreate innovative sceneries using graphics tools
	CO5	Develop a movie with bitmap images and sounds
	CO6	Operate the different animation speed, portion of the view, the geometric relationship of the object
Core XII PHP and	CO1	Enumerate the basic knowledge of PHP Syntax and Variables.
MySQL	CO2	Demonstrate the control structures and functions.
	ÇO3	Discuss the String handling function, Array handling and Mathematical operators.
	CO4	Tabulate the knowledge in databases and MySQL
	CO5	Generalize the File System, Table and to manipulate the database.
	CO6	Implement code- rich case studies of PHP/MySQL interactions and to implement Cookies and Sessions.
Part III - Core XIII Cloud Computing	CO1	State the concepts of storage virtualization, network virtualization and its management
	CO2	Apply the concept of virtualization in the cloud computing.
	ÇO3	Classify the architecture, infrastructure and delivery models of cloud computing.
	CO4	Identify the services using Cloud computing.
	CO5	Apply the security models in the cloud environment.
	CO6	Apply the risks and benefits of implementing cloud computing
	CO1	Enumerate the knowledge about the basic concepts.
	CO2	Discuss the role of constants, variables, identifiers, and operators.
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	ÇO3	Use the conditional expressions and looping statements to solve problems associated with conditions and repetitions
	CO4	Demonstrate the role GET and POST method.
Part III – Core Practical	CO5	Execute the concept of Array.
VI PHP and MySQL Programming	CO6	Implement the String function.
Part III – Elective II Basics of IoT	CO1	Comprehend the core concepts, background technologies and sub- domains of IoT.
	CO2	Explain IoT devices using sensors, micro controllers and communications interface.
	ÇO3	Discuss various application layer protocol and web services architecture for combining various components of IoT ecosystems.
	CO4	Interpret API and commercial architectures, industrial platforms and services.
	CO5	Utilize IoT technologies, design and tools.
	CO6	Built knowledge in industrial automation and real world design constraints.
Part III - Elective II Mobile Computing	CO1	Express the concepts and features of mobile computing technologies and its applications with cellular networks design.
	CO2	Recognize the capabilities of next-generation networks and the role of wireless technologies in network design and operation.
	ÇO3	Evaluate wireless network topologies, wireless connectivity and characteristics, with the impact of wireless networks on security and Internet communications.
	CO4	Explain the structure and components for Mobile IP and Mobility Management
	CO5	Create an awareness of professional and ethical issues, in particular those relating to security and privacy of user data and user behavior.
	CO6	Predict the important issues of developing mobile computing systems and applications.
Advanced Learners	CO1	Utilize the basic knowledge of robots.
Course II Introduction to Robotics	CO2	Demonstrate the analysis of the kinematics, dynamics and trajectory planning of robots.
	ÇO3	Define the various characteristics of Actuating systems.
	CO4	Compare the different types of sensors.
	CO5	Summarize the concept of fuzzy control, fuzzification and defuzzification
	CO6	Apply the Morphology Operations.



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**Bachelor of Computer Applications** 

	Programme Outcomes
PO 1	Able to apply computer based technical knowledge in all domains and to solve real time problems effectively with logical thinking.
PO 2	Be able to analyze, design, implement and evaluate software systems with assured quality and Efficiency.
PO 3	Will develop an ability to apply appropriate techniques, resources and modern computer tools for developing software with an understanding of the limitations in multidisciplinary environments.
PO 4	Be capable to create efficient reports and design documentation with effective presentations.
PO 5	Be adaptive to technological advancements by engaging in lifelong learning with leadership qualities, professional ethics and soft skills.

	Programme Specific Outcomes
PSO 1	Graduates will be able to understand, analyze and develop computer programs in the areas related to algorithms, web design, and networking for efficient design of computer-based systems of varying complexity.
PSO 2	Graduates will be able to use the techniques, skills and software tools necessary for innovative software solutions.
PSO 3	Graduates will have the ability to understand and analyze a given real-world problem and purpose feasible computing solutions.
PSO 4	Graduates will be able to assess the gap for innovation and initiate the process through entrepreneurship or otherwise.

Course Outcomes		
Course Name	CO	Statement
Core I Programming in C	CO1	Identify the concepts of keywords, operators and expressions.
with Data	CO2	Apply different formatted techniques to print the data and solve the given problem by applying decision making methods.
	ÇO3	Interpret the best use of memory allocation process and functions.
	CO4	Examine the basic concepts of Data structures and to know the different types of Linked list.
	CO5	Apply the ideas of sorting process and know the scheduling process with the help of binary trees.



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	CO 6	Use different kind's stacks, queue and their applications and implementations in day to day problem solving.
Core Practical I	CO1	State the looping controls for improving their logical thinking.
Programming in C	CO2	Solve the given problems using C functions and strings.
	ÇO3	Develop simple applications using array and its concepts.
	CO4	Implement the learned algorithm for problem solving.
	CO5	Relate the appropriate data structure to develop real time applications.
	CO6	Built the data structure concepts of stack and queue.
Core II Object Oriented	CO1	Express the key structure, concepts, data types, functions of C++.
Programming	CO2	List the C++ classes and programming constructs.
	ÇO3	Associate the concepts like overloading, conversion, inheritance.
	CO4	Operate on pointer and references, polymorphism, strings.
	CO5	Execute various exceptions in the C++.
	CO6	Manipulate the Preprocessor directives.
Core III Digital	CO1	Examine the structure of various number systems.
Fundamentals and Computer Architecture	CO2	Relate Boolean Algebra, Gates, Karnaugh's Map and its applications in digital designing.
	ÇO3	Draw various combinational and sequential circuits.
	CO4	Solve various hazards and timing problems in digital design and circuits.
	CO5	Apply the basic requirements for design applications and purpose for a cost effective solution.
	CO6	Specify the micro computing environment, functions and processor architecture.
Core Practical II Object	CO1	Implement Object Oriented Concepts to solve problems.
Oriented Programming	CO2	Solve applications using basic arithmetical concepts.
	ÇO3	Apply the concepts of functions and pointers.
	CO4	Implement various concepts like inheritance, overloading in real time applications.
	CO5	Design applications using graphical techniques.
	CO6	Execute an effective application.
Core IV Programming in	CO1	Demonstrate the basic object oriented programming concepts.
Java	CO2	Identify concepts like control statements, constructors, inheritance and polymorphism.



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	ÇO3	Apply the concepts of interface, packages and applets to handle various exceptions.
	CO4	Express the ideas of threads and its life cycle.
	CO5	Interpret the concepts of remote method invocation.
	CO6	Design, develop and identify complex GUI using java swing classes.
Core V Computer Graphics	CO1	Identify the core concepts of computer graphics.
and Multimedia	CO2	Summarise the working and usage of Input output and video display devices.
	ÇO3	Compute the concepts of geometrical transformations and conversion techniques.
	CO4	Execute the ideas by employing principles of animation techniques in all aspects of drawing.
	CO5	Extrapolate the usage of tools such as authoring tools, hypermedia and GUI.
	CO6	Deduce the facility with relevant mathematics of computer graphics.
Core VI Principles of	CO1	Recognise the fundamentals of Operating Systems.
Operating System	CO2	Summarise the various device and resource management techniques for timesharing and distributed systems.
	ÇO3	Classify the mechanisms involved in Deadlock and memory management.
	CO4	Analyze the mechanisms adopted for file sharing in distributed Applications.
	CO5	Estimate the storage management policies with respect to different storage management technologies.
	CO6	Analyze the disk scheduling algorithms, file system, mass storage and garbage collection in a modern computer system.
Core Practical III Programming in Java	CO1	Apply an object-oriented approach to developing applications of varying complexities
	CO2	Implement GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles.
	ÇO3	Operate source code using various Java tools.
	CO4	Generate the Critical thinking and stimulate them towards Technology Usage.
	CO5	Apply Graphics, Animations and Multithreading for designing simulation and real time applications.
	CO6	Implement the client server processing using RMI.
Non Major Elective: Basics	CO1	Generate communication using internet through mails.
of Internet	CO2	Operate on various applications and update their knowledge.
	ÇO3	Apply and search for various jobs based on their needs.
	CO4	Create blog, post and review the ideas of other members.



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	CO5	Assess through world-wide information.
	CO6	Implement format conversion via online.
Skill Enhancement Course I:	CO1	Generate communication using internet through mails.
Interactive Media – Surfing	CO2	Operate on various applications and update their knowledge.
Techniques	ÇO3	Apply and search for various jobs based on their needs.
	CO4	Review various commercial websites.
	CO5	Utilize resources through world-wide information.
	CO6	Use online for purchasing products.
Core VII Visual Programming	CO1	Comprehend about Visual Basic's Integrated Development Environment (IDE) and tools.
	CO2	Discuss the usage of variables and data types and its syntax rules, conditional statements and loops for program development.
	ÇO3	Apply the procedures, sub-procedures and functions, arrays to create manageable codes.
	CO4	Develop windows applications using forms, controls and events.
	CO5	Operate on data from a database using windows applications.
	CO6	Use different classes for binding data.
Core VIII Relational	CO1	Identify the basic database design and appreciate its applications.
Database Management System	CO2	Examine the concept of relational algebra expressions using queries.
System	ÇO3	Summarise the basics of SQL and query a database using SQL commands.
	CO4	Apply a database schema for any commercial problem domain using E-R method.
	CO5	Implement the normalization theory in a database.
	CO6	Utilize the concepts of Functional dependencies.
Core IX Software Engineering and Testing	CO1	Express the principles of large scale software systems, and the processes that are used to build them
	CO2	Design applicable solutions in one or more application domains using software engineering approaches.
	Ç03	Describe the ideas about software system solutions.
	CO4	Apply written, oral, and graphical communication in both technical and non-technical environments.
	CO5	Solve engineering problems and ability to engage in life-long learning.
	CO6	Compute software testing techniques in commercial environment.
Core Practical IV Visual	CO1	Create simple application using window controls.
Programming and RDBMS	CO2	Built arithmetic operations, manipulation of text using controls.
	ÇO3	Implement the ADO and DAO controls in application that is accessing database.



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II: Interactive Media – Web Designing	CO5 CO6 CO 1	Design and implement a database schema. Use DDL/DML Commands to design and query a database. Apply knowledge in managing transactions using TCL commands. Design and host a user friendly website using HTML.
II: Interactive Media – Web Designing	CO6 CO 1	Apply knowledge in managing transactions using TCL commands.
II: Interactive Media – Web Designing	CO 1	
II: Interactive Media – Web Designing		Design and host a user friendly website using HTML
Designing	$CO_2$	
	002	Apply graphics and tables in web pages.
	CO 3	Create dynamic web page using DHTML and CSS.
E Contraction of the second	CO 4	Develop a static and dynamic web page using Java Script.
	CO 5	Prepare a Web page to give a links between frames.
		Assess a web page for a Text fields.
Advanced Learners Course I	CO1	Describe the basic concepts of cloud computing and its types.
Cloud Computing		Generalise the core issues of cloud computing such as security, privacy, and interoperability.
	ÇO3	Analyze the benefits of cloud computing storage and data security.
	CO4	Examine the appropriate cloud computing solutions and applications used.
	CO5	Interpret the data privacy factors used in business applications.
-	CO6	Examine different cloud computing services.
Core X VB.Net	CO1	State Dot Net's integrated development environment (IDE), implement the concept of object oriented programming and usage of operators.
-	CO2	Use conditional statements, loops for program development and arrays to create manageable codes.
	ÇO3	Apply the procedures and structures, working with multiple document interfaces (MDI) forms.
	CO4	Built and update data from database in windows application via ADO.Net.
	CO5	Utilize library functions and develop windows applications using advanced controls.
	CO6	Explain Security in the .NET framework and Deployment in the .NET
Core XI Data	CO1	Describe the basic concepts of computer network and internet.
Communication Network		Deduce the basic types of signals, error detection and correction including parity.
	ÇO3	Discuss about routing and packet switching, Ethernet and other physical technologies.
	CO4	Analyse various types of networks and protocols.
-	CO5	Distinguish the concepts of network security and network operations.
_	001	Recognise the protection of internet access and firewall.

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	_	Identify the concepts of data mining and understand the Data Cleaning, integration, reduction and transformation methods.
	CO2	Summarise the concepts of Pattern Mining.
	ÇO3	Explain the basic concepts of Classification.
	CO4	Examine the basic concepts and methods of Cluster Analysis.
	CO5	Apply the concepts of Data Warehousing and Data Mining.
	CO6	Prepare the design and model of Data Warehousing.
Core Practical V VB.Net	CO1	Design and develop programs with GUI interface.
	CO2	Implement list and loops with VB.Net controls.
	ÇO3	Built multiple forms, modules and menus into working VB.Net solutions.
	CO4	Analyse the concept of file management.
	CO5	Implement and connect with data source.
	CO6	Demonstrate Component services.
Elective I Information	CO1	Describe the functions to build data center networking for switch network.
Storage and Management	CO2	Implement different types of RAID and their benefits.
	ÇO3	Discuss about the importance of fiber channel protocols and how to communicate with each other.
	CO4	Examine the benefits of different network storage options for different application environments.
	CO5	Analyze different role in providing disaster recovery and business continuity capabilities.
	CO6	Interpret the storage infrastructure and management activities.
Elective I Compiler Design	CO1	To acquire the concept areas of language translation and compiler design
	CO2	To gain the knowledge of lexical analysis.
	ÇO3	To extend the knowledge of parser by parsing LR parser
	CO4	To define the syntax, translator and use symbol table
	CO5	To learn the code optimization techniques to improve the performance of a program in terms of speed & space.
	CO6	To acquire the knowledge of compiler & its features
Skill Enhancement Course III: Interactive Media –	CO1	Recognise animated digital multimedia content using tools and techniques.
Animation Techniques	CO2	Design layers, backgrounds that incorporates principles of speed, color and accuracy.
	ÇO3	Create the knowledge of manipulating, morphing, editing, graphics and text etc.,
	CO4	Utilize tween and motion to morph shapes.
	CO5	Develop the idea of creating symbols using action scripts and libraries.
	CO6	Use various tools and tactics to produce an interactive animation.

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Core XIII ASP.Net	CO1	Specify the ASP.Net environment and languages for programming development.
	CO2	Built dynamic website application.
	ÇO3	Demonstrate ASP.Net objects and their interactivity
	CO4	Interpret the ideas of scope and session in ASP.Net.
	CO5	Apply the concepts of SQL and its commands for query building.
	CO6	Utilize session and controls to relate information for user in multi- user web applications.
Core -XIV Programming in	CO1	Identify the server side scripting methods and basics of PHP.
РНР	CO2	Characterize different types of string handling functions and working of arrays.
	ÇO3	Implement object oriented concepts, cookies & sessions.
	CO4	Associate the exception handling concepts in hypertext preprocessor.
	CO5	Develop knowledge in integrating database with scripting language.
	CO6	Compute database to fetch, store and update persistent information.
Core Practical VI ASP.Net	CO1	Create simple application using standard .Net Controls
and PHP	CO2	Develop a data driven web application
	ÇO3	Implement and connect data using data source
	CO4	Built interactive web page using PHP
	CO5	Analyze and solve various database tasks using PHP
	CO6	Execute database activities in dynamic web pages
Elective II Basics of IoT	CO1	Comprehend the core concepts, background technologies and sub- domains of IoT.
	CO2	Explain IoT devices using sensors, micro controllers and communications interface.
	ÇO3	Discuss various application layer protocol and web services architecture for combining various components of IoT ecosystems.
	CO4	Interpret API and commercial architectures, industrial platforms and services.
	CO5	Utilize IoT technologies, design and tools.
	CO6	Built knowledge in industrial automation and real world design constraints.
Elective II Mobile Computing	CO1	Express the concepts and features of mobile computing technologies and its applications with cellular networks design.



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CO2       Apply advanced programming techniques.         ÇO3       Define solutions for framed problem statement by reviewing the literature         CO4       Implement hardware and software techniques for identified problems         CO5       Analyze and test the modules of planned project.         CO6       Develop technical reports and deliver presentation.         Skill Enhancement Course       CO1         IV Interactive Media -       CO2         CO2       Create different textural effects and weaves in the designing.		-	
Advanced Learners Course II Big Data Analytics with Big Data Analytics CO3 Course Advanced Learners CO4 Extrapolate the data analytics of R and Hadoop. CO5 Compute data on distributed file system in database. CO5 Compute data on distributed file system in database.		CO2	
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CO5 Compute data on distributed file system in database.		ÇO3	Apply the concepts of Hadoop system components.
		CO4	Extrapolate the data analytics of R and Hadoop.
CO6 Apply machine learning techniques using R.		CO5	Compute data on distributed file system in database.
		CO6	Apply machine learning techniques using R.



# **Bachelor of Business Administration (CA)**

	Programme Outcomes
	Be able to take up higher education to become business scientists, researchers, consultants and teachers, with core competencies.
	Be able to assess management's application of risk-management techniques to specific business situations.
	Will develop an appreciation of the concepts and values required to enhance the quality of life for self and others in the home, workplace and the local and global community.
	Be able to Apply the knowledge, skills, attitudes and behaviors gained through the program in Co- operative work terms.
PO5	Be able to bloom as ethical managers with inter disciplinary knowledge
	Be able to progress as business philosophers with a focus on social responsibility and ecological sustainability.

	Programme Specific Outcomes
PSO1	Be able to establish a strong foundation of knowledge in different areas of Management.
PSO2	Be able to imbibe and demonstrate leadership, teamwork, and social skills
	Will develop a systematic understanding of global perspective and its impact on people, businesses and the economy.
	Be able to analyze human resource practices to support management objectives and the organization's goals.
	Be able to implant knowledge on professional development by pursuing postgraduate studies or face competitive examinations that offer challenging and rewarding careers in management.

Course Outcomes		
Course Name	CO	Statement
Part III - Core I–	CO1	Integrate management principles into management practices.
Principles of Management	CO2	Apply managerial tasks of planning, organizing and controlling in variety of circumstances.
		Determine the most effective action to take in specific situations by assessing new developments in management.
	CO4	Determine the most effective action to take in specific situation
	CO5	Assess managerial practices and choices related to ethical principles and standards
	CO6	Evaluate approaches to addressing issues of diversity



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Part III – Core II –	CO1	Improve interpersonal skills in relation to their working environment.
Managerial Skills	CO2	Gain knowledge to manage self to work with moral and ethical values.
		Devise and apply relationship building strategies to establish constructive relationship with the team.
		Use management thought to develop a better understanding of motivation
	CO5	Associate themselves to several models of leadership
	CO6	Develop an ability to make decisions using critical thinking
Part III - Allied I – Office Automation		Understand the usage of Word Processor, Create, Edit and Format documents, Work with Tables, Save and print documents using MS-Word.
Tools- Practical	CO2	gain knowledge on Spreadsheet, Create, Edit and Format of Worksheet, Work with Charts, Performing Calculations and Print Spreadsheet using Ms-Excel.
		Create effective presentations by applying custom animations and inbuilt designs to enhance the looks of the Presentation and Print a Presentation using MS-Power point.
	CO4	Enumerate functions of PowerPoint to create and manipulate simple slide shows with outlines and notes
	CO5	Identify the elements of good database design and create tables, queries, reports and forms
	CO6	Examine the database concept and explore MS-Access environment
Part III - Core III –	CO1	Be able to understand the fundamentals of C programming.
Programming in C	CO2	Choose the loops and decision making statements to solve the problem.
	CO3	Use functions and Operations on arrays to solve the given problem.
	CO4	Be able to understand pointers, structures and unions.
	CO5	Implement file Operations in C programming for a given application.
	CO1	Understand and trace the execution of programs written in C language.
I – Programming in C	CO2	Acquire knowledge about the loops and decision making statements to solve the problem.
	CO3	Demonstrate the role of use functions and Operations on arrays to solve the given problem.
	CO4	Understand pointers and structures.
	CO5	Implement file Operations program in C for a given application
Core IV- Principles of	CO1	Comprehend core concepts of marketing.
Marketing	CO2	Discuss the various functions of marketing
	CO3	Evaluate the different stages of product life-cycle



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	CO4	Explain the kinds of pricing
	CO5	Examine the promotional techniques used in marketing.
	CO6	Analyse the various methods of channels of distribution.
Allied II – Principles of Accountancy	CO1	Develop ability to apply accounting concepts, principles, and accounting framework.
	CO2	Develop and understand the nature and purpose of financial statements
	CO3	Develop ability to use accounting information to solve a variety of business problems related to banking transactions and understand the difference between trading and non-trading concerns
	CO4	Identify the accounting rules required for business enterprises
	CO5	Compare the specificity of different accounts within the accounting policies to prepare financial statements
	CO6	Apply appropriate knowledge of accounting theory to financial analysis and decision making
Core V – Business	CO1	Understand the forms of business
Organization and Production	CO2	Identify size of business in a global environment
Management	CO3	Develop an integrated framework for strategic thinking and decision making to analyze the enterprise as a whole
	CO4	Understand the principles underlying materials management
		Explain the various parts of the production management processes and their interaction with other business functions like finance, marketing, HRM etc.
	CO6	Gain knowledge on production system to assist in decision making on production management and strategy.
	CO1	Demonstrate an understanding of the Legal Environment of Business
of Business	CO2	Possess a basic knowledge of the legal system and legal doctrine in fundamental topics.
	CO3	Interpret and form contractual relationships in business.
	CO4	To impart the information of fundamentals of Company Act.
	CO5	Analyze the facts related to incorporation of company, Memorandum of Association and Article of Association
	CO6	Demonstrate knowledge relating to Consumer Protection Act, 1986 & Intellectual Property Rights
Part III - Core VII -	CO1	Able to Gain the in-depth knowledge on Object Oriented concepts.
Programming in C++	CO2	Provide a generic programming foundation through the concept of templates
	CO3	Understand the idea to work with group of related objects in uniform way.



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	CO4	Be able to gain the knowledge for handling error through Exception handling concepts.
	CO5	Have the knowledge about storage mechanism by file concepts.
Part III - Core Practical	CO1	Able to gain the in-depth knowledge on Object Oriented concepts.
II – Programming in C++	CO2	Gain the knowledge for reusability of classes and function through inheritance.
	CO3	Provide a generic programming foundation through the concept of templates.
	CO4	Able to gain the knowledge and operate on memory address through pointer.
	CO5	Impart the knowledge of memory organizations using constructor and destructor.
Part III – Core VIII– Human Resource	CO1	Apply critical thinking and problem solving skills to the analysis and resolution of human resource problems
Management	CO2	Able to get knowledge on human resource systems for employment, labour relations, compensation and benefits, training and development and performance assessment
	CO3	Manage their own professional development and provide leadership to others in the achievement of on-going competence in HR practice
	CO4	Develop, implement and evaluate employee orientation related to training programs
	CO5	Organize and communicate the human resources component of organisation's business plan
	CO6	Examine and contribute to the design for evaluating the performance of employees
Part III - Allied III–	CO1	Familiarize with the nature of business environment and its components.
Business Environment	CO2	Develop conceptual framework of global environment and generate interest in global business
	CO3	Analyze the environment of a business from the legal, regulatory, economic, cultural, political, technological and natural perspectives
	CO4	Apply an understanding of the nature of the multi-national firm as an institutional structure for conduct of cross-border trade
	CO5	Describe the difference between the public and private sectors of an economy and identify their differing objective
	CO6	Apply system concepts to analyse and understand interactions between social, cultural and environmental processes
Part IV-Non Major Elective – Principles of	CO1	Gain knowledge on principles of advertising in order to create an effective advertising campaign
Advertising	CO2	Create and conduct ethically sound and socially responsible advertising strategies to appreciate the importance of advertising in business.
	CO3	Understand the structure of the advertising industry



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	CO4	Recognize the importance of placing the message in conventional and new media
	CO5	Discuss to identify, analyze, understand the advertising environment
	CO6	Design and integrate the advertisement in creative process
Part IV- Skill Enhancement Course I –	CO1	Recognise their own ability to improve their own competence in using the language
Professional English for Mangement	CO2	Use language for speaking with confidence in an intelligible and acceptable manner
	CO3	Understand the importance of reading for life
	CO4	Read independently unfamiliar texts with comprehension
	CO5	Understand the importance of writing in academic life
Part III- Core IX -Cost and Management		Able to identify the critical role of cost allocation in the analysis of business profitability and sales variances
Accounting	CO2	Able to analyze the application of cost and management accounting techniques
	CO3	Assess ideas and develop problem solving ability required for managerial decision making
	CO4	Evaluate the cost and benefits of different conventional and contemporary costing systems
		Explain the role of management accounting information in assisting management in undertaking planning, performance measurement, controlling and decision making
	CO6	Use standard cost to prepare budgets for planning and control purpose
Part III- Core X - Organizational	CO1	Able to understand apply motivation theories to team and organization scenarios
Behaviour	CO2	Analyze and relate leadership theories and better understanding of their own leadership style
	CO3	Identify and relate tactics for resolving conflicts and handling interpersonal relationships
	CO4	Assess the potential effects of organizational-level factors on organizational behaviour
	CO5	Evaluate the potential effects of important developments in the external environment
		Recognize organizational issues in the context of organizational behavior theories, models and concepts.
Part III- Core XI -	CO1	Explore Visual Basics Integrated Development Environment (IDE).
Visual Programming	CO2	Implement syntax rules in Visual Basic programs.
	CO3	Explain variables and data types used in program development.



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	CO4	Gain knowledge about dialogs and menus in visual programming.
	CO5	Design, create, build, and debug Visual Basic applications.
Part III - Core Practical	CO1	Design, create, build, and debug Visual Basic applications.
III - Visual Programming	CO2	Apply arithmetic operations for displaying numeric output.
	CO3	Write and apply loop structures to perform repetitive tasks.
	CO4	Create arrays for displaying of data.
	CO5	Write Windows applications using forms, controls, and events.
Core XII – Management Information System		Apply modern tools, techniques and technology in a functional and productive manner in their professional activities
	CO2	Analyze, design, manipulate, and implement relational databases on which most IS are built upon.
	CO3	Study and evaluate existing manual and automated business processes and identify opportunities for re-engineering and/or automation.
	CO4	Coordinate IS requirements analysis/design activities and provide guidance and technical support to end user computing activities
	CO5	Appreciate the use of IS for effective management using electronic devices
	CO6	Function effectively on teams to accomplish a common goal.
Part IV- Skill	CO1	Describe the Relationship between a Banker and Customer
Enhancement Course II- Modern Banking	CO2	Explain different types of Deposits and Negotiable Instruments
	CO3	Apply the concept of bank lending advances and its security
	CO4	Demonstrate the role of banking institutions in different sectors and developing the society.
	CO5	Utilize different E-Banking transactions & Products offered by banks
Advanced Learners Course I - Management	CO1	Replete with the words of wisdom and contains profound messages about management.
thoughts in Thirukkural		Explore the dimensions of business ethics from ancient Indian times and its contemporary relevance for business leadership.
	CO3	Recognize on self-leadership and to live & Practice with ethical principles
	CO4	Develop the sense of oneness of mankind and to work for a fair and just world
		Organize an environment to provide, inspiration and facilities for the exercise and development of five aspects of personality –physical, vital, mental, psychic and spiritual
	CO6	Discuss the importance of solving their problems according to the democratic practices
Part III Core XIII- E- Accounting - Practical	CO1	Apply knowledge on basics and importance of e-accounting in computerized environment.



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	CO2	Apply knowledge of computerized accounting in creating account heads.
		Application of knowledge in preparing stock summary.
		Create cost centres and tax masters.
		Prepare payroll of a company.
		Prepare final accounts in computerized accounting along with statements
	000	and statutory reports.
Core XIV – Taxation	CO1	Able to understand direct tax assessment.
Law & Practice	CO2	Able to understand amendments made from time to time in Income Tax Act.
	CO3	Understand the basic principles underlying the Indirect Taxation Statutes.
	CO4	Ability to define the basic tax concepts in the area of indirect taxes.
	CO5	Understand the Functions, powers and structure of GST Council
	CO6	Able to understand basic concepts and terms IGST Act
Core XV – Financial	CO1	Comprehend various concepts and principles of financial management.
Management	CO2	Recognize the tools and techniques used in financial management.
	CO3	Implement the financial decisions with the consideration of financial results.
		Use financial statements to evaluate the firm's performance.
		Demonstrate their critical thinking skills by interpreting financial data and taking decisions.
Core XVI- Business	CO1	Comprehend the knowledge on basic concepts of communication.
Communication	CO2	Discuss the principles of effective business letters.
	CO3	Design and develop credit and status enquiry letters.
	CO4	Identify the techniques of writing collection, sales and circular letters.
	-	Explain the various types of reports.
	CO6	Design application letter.
Elective I- Research Methodology for	CO1	To remember fundamentals of research concept and its implications.
Management/Digital Marketing	CO2	Develop and understanding various kinds 'of research process and research designs.
	CO3	Knowledge on primary characteristics of quantitative research and qualitative research
	CO4	Apply suitable sampling technique and also analyze the collection of data
	CO5	Identify, explain, compare and prepare the key elements of a research report
		Apply the understanding of feasibility and practicality of research methodology for a proposed project.
Part IV-Skill		Define and identify the concepts of business ethics
Enhancement Course	CO2	Explain the legal aspects of ethics and Ethical Leadership

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III- Professional Ethics	CO3	Describe the Indian Ethos in management
For Managers	CO4	Explain the Ethics in functional areas of management
	CO5	Apply ethical thoughts to corporate governance.
Part III Core XVII – Strategic Management	CO1	To analyze industry factors and identify their impact on profitability and strategic positioning
		Critically analyze the internal and external environment in which business operate and assess the significance for strategic management
		Individually and collaboratively evaluate the synthesis information with existing knowledge from numerous sources and experiences.
		Apply understanding for the concepts and tools that support strategic management in organisation
		Analyze the competitive situation and strategic dilemma in dealing with dynamic global business environment
		Evaluate the challenges faced by managers in implementing and evaluating strategies based on nature of business, industry and cultural differences
Core XVIII – RDBMS and Oracle	CO1	Acquire knowledge in fundamentals of Relational Data Base Management System.
Programming	CO2	Deduce the terminology, features, classifications, and characteristics embodied in database systems.
	CO3	Gain knowledge about tables and functions.
	CO4	Populate and query a database using SQL DML/DDL commands.
	CO5	Relate how query are being processed and executed and analyze database design methodology.
	CO6	Program PL/SQL including stored procedures, stored functions, cursors and packages
- Core Practical IV	CO1	Demonstrate the functional dependencies and design of the database.
RDBMS and Oracle Programming	CO2	Design and implement a database schema for a given problem-domain.
		Program using DDL and DML commands.
	CO4	Relate the various types of keys used in relational databases.
	CO5	Create and maintain tables using PL/SQL.
	CO6	Implement exception handling mechanism.
Core XIX - Project	CO1	Identify the overall process of designing a research study
Work and Viva Voce		Demonstrate a greater understanding about how academic theories and principles apply to the field
	CO3	Extrapolate with identification and selection of tools and techniques to use in the research.
	CO4	Demonstrate the understanding of inquiry and critical thinking.



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	CO5	Develop professional interaction through interpersonal skills with stakeholders
	CO6	Demonstrate a sound technical knowledge of their selected project topic
Elective II- Entrepreneurship and	CO1	Recognize the important role of entrepreneurship and its value within economic environment
Project Management/ E- Retailing		Discuss key motivating factors for setting up of a business and aware of reasons of new venture failures
	CO3	Analyze and reflect the process to identify workable business ideas for successful implementation
		Evaluate the key differences and applications between skills such as entrepreneurial, project management, managerial skills in strategies of a new establishment
	CO5	Define the essential operating elements of business is launched in operating environment
		Reflect the choice of business structure in particular cross functional programme managed with aim of optimizing and improving the performance of organization value and supply chain.
Elective III- Consumer	CO1	Identify the major influences in consumer behaviour
<b>Behavior / E-Business</b>	CO2	Establish the relevance of consumer behaviour theories and concepts to marketing decisions
	CO3	Implement appropriate combination of theories and concepts
	CO4	Recognize social and ethical implications of marketing action on consumer behaviour
	CO5	Apply most appropriate technique to market solutions
	CO6	Distinguish between consumer behaviour influences and their relationships
Part IV- Skill	CO1	To recall the various conceptions of service marketing
Enhancement Course	CO2	To comprehend the strategies for service marketing
IV- Services Marketing	CO3	To analyze various service marketing concepts in business sector
	CO4	To discuss the marketing strategies in liberalized business environment
	CO5	Identify and discuss characteristics and challenges of managing service firms in the modern world.
Advanced Learners	CO1	Demonstrate an understanding of the foundations and importance of E-commerce
Course II- E-Commerce	CO2	Analyze the impact of E-commerce on business models and strategy
		Describe Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational.
		Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other
	CO5	Discuss legal issues and privacy in E-Commerce
	CO6	Assess electronic payment systems



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www.gvgvc.ac.in. gvgprincipal@gmail.com Ph.04252-223019, Fax:04252-2233111

# **B COM (CA)**

	Programme Outcomes				
PO1	PO1: Graduates will be able to develop strong understanding of core Commerce and Commerce based Computer Application courses.				
PO2	PO2: Be able to take up challenging career options in Commerce and IT sector.				
PO3	PO3: Be motivated to pursue higher education.				
PO4	PO4: Will gain updated knowledge to take up employment.				
PO5	PO5: Will become ethically and socially responsible commerce graduates with computer application knowledge.				

	Programme Specific Outcomes
	PSO1: Graduates will gain a strong foundation of knowledge in different areas of Commerce and Commerce oriented Computer Application courses.
	PSO2: Graduates will be able to do pursue higher education and take-up jobs in the field of Commerce with Computer Applications
PSO3	PSO3: Will develop an attitude for working effectively and efficiently in a business environment.

Course Outcomes		
Course Name	CO	Statement
Core I Financial	CO1	Recognise the fundamentals of accounting concepts and conventions
Accounting I	CO2	Generate final accounts of a sole trader
	CO3	Prepare accounts under incomplete system of record keeping.
	CO4	Reconcile cash book and passbook
	CO5	Discuss the different methods of depreciation
	CO6	Prepare Final accounts for non-trading organisation
Core II Business	CO1	Comprehend the fundamentals of business.
Organisation	CO2	Discuss the different forms of business organisation.
	CO3	Discuss rationale behind privatisation.
	CO4	Assess optimum size and suitable location for the business.
	CO5	Explain business combinations and concentration of economic power.
	CO6	Implement the ethical and social issues in business.
	CO1	Create, edit and format word document.

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Allied I Computer	CO2	Use formulas to perform basic calculations in Excel.
Application Tools – Practical I	CO3	Design and layout charts and graphs.
	CO4	Develop effective presentations using designs and animation effects.
	CO5	Design and develop database.
	CO6	Develop the skills to computerize the office documents.
Core III- Financial Accounting II	CO1	Describe the fundamental concepts of hire purchase and installment accounting.
	CO2	Assess the profit under branch accounts.
	CO3	Compile accounts for departmental form of organization.
	CO4	Discuss the fundamentals of partnership accounts.
	CO5	Prepare the accounts on admission of partner.
	CO6	Prepare accounts on retirement and death of partner.
Core IV- Principles of	CO1	Comprehend core concepts of marketing.
Marketing	CO2	Discuss the various functions of marketing
	CO3	Evaluate the different stages of product life-cycle
	CO4	Explain the kinds of pricing
	CO5	Examine the promotional techniques used in marketing.
	CO6	Analyse the various methods of channels of distribution.
Allied II C Programming	CO1	Interpret C programming concepts.
and Web Designing – Practical II	CO2	Develop programs using pointers, arrays, structures, and functions.
	CO3	Create C programs using operators.
	CO4	Comprehend the principles of creating a web page.
	CO5	Apply graphics into web pages as embedded images, links and backgrounds.
	CO6	Create and develop a webpage.
Core V - Corporate	CO1	Comprehend the fundamentals of Corporate Accounting.
Accounting	CO2	Explain the various methods of issue of shares and debentures
	CO3	Evaluate the methods of valuation of shares and goodwill.
	CO4	Apply the concepts for the preparation of final accounts.
	CO5	Compute the managerial remuneration as per Companies Act.
	CO6	Analyse the accounting procedures for amalgamation and merger.
	CO7	Design the reconstructed balance sheet of companies after reduction of share capital.



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Core VI - Object Oriented Programming with C++COI COICOICOICOICOICOICOICOICOICore VII C++COIProgramming - PracticalCOIIIICOI <td< th=""><th><ul> <li>Deduce exception handling in object-oriented programs.</li> <li>Explain copy constructors and class member functions.</li> <li>Execute data structure concepts.</li> <li>Develop programs using C++ features.</li> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul></th></td<>	<ul> <li>Deduce exception handling in object-oriented programs.</li> <li>Explain copy constructors and class member functions.</li> <li>Execute data structure concepts.</li> <li>Develop programs using C++ features.</li> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Core VII C++ Programming - Practical III CO2 Core VII C++ Programming - Practical CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2	<ul> <li>Explain copy constructors and class member functions.</li> <li>Execute data structure concepts.</li> <li>Develop programs using C++ features.</li> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Core VII C++ Programming - Practical III CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2	<ul> <li>Execute data structure concepts.</li> <li>Execute data structure concepts.</li> <li>Develop programs using C++ features.</li> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Core VII C++ Programming - Practical III CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2	<ul> <li>Develop programs using C++ features.</li> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Core VII C++ Programming - Practical III CO2 CO3 CO4 CO4 CO4 CO4 CO4 CO4 CO4 CO4	<ul> <li>Demonstrate C++ programming structure.</li> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Programming - Practical III CO2 CO3 CO4 CO4 CO4 CO4 CO4 CO4 CO4 CO4	<ul> <li>Analyse the characteristics of Object Oriented Programming.</li> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
III CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2 CO2	<ul> <li>Apply OOPS Concepts in Programming.</li> <li>Develop and implement programs using OOPS.</li> <li>Able to use streams for input and output operations.</li> </ul>
Core VIII Enterprise Resource Planning CO2 CO3 CO4 CO4 CO4 CO4	Develop and implement programs using OOPS.         Able to use streams for input and output operations.
Core VIII Enterprise Resource Planning CO2 CO3 CO4 CO4 CO4	Able to use streams for input and output operations.
Core VIII Enterprise Resource Planning CO2 CO3 CO4 CO4 CO4 CO5	
Core VIII Enterprise Resource Planning CO2 CO3 CO4 CO4	Understand User Defined alonger concentrally and any 1- 11
Resource Planning CO2 CO3 CO4 CO4	Understand User-Defined classes conceptually and apply them in C++ programs.
CO2 CO3 CO4 CO5	Define and identify the concepts of ERP.
CO4 CO5	Deduce ERP and its techniques.
COS	Recognise different perspectives of ERP Modules.
	Analyse the concepts of reengineering and to relate with ERP implementation.
COA	Examine the steps involved in ERP Life cycle.
COU	Apply ERP techniques in a business environment.
Part IV - Non Major COl	Recognise the basic concepts related to Materials Management.
Elective Materials Management	Examine key areas of Materials management.
CO3	Apply the techniques used in Materials Management.
CO4	Deduce Stores Management and Stores Control.
COS	Evaluate the importance of Materials Management in a business.
Part IV- Skill COl	Explain the concepts of insurance sector.
Enhancement Course I Principles of Insurance	Summarise the knowledge on different types of insurance.
CO3	Analyse the role of IRDA.
CO4	Identify the methods of handling risks.
COS	Assess the role of intermediaries in Insurance Sector.
<b>Core IX – Relational</b> CO1	Identify the structure and model of the relational database system.
Database Management CO2	Evaluin the relational model and scheme in DDDMS
CO3	Explain the relational model and schema in RDBMS.



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	CO4	Summarise the knowledge on functional dependencies.
	CO5	Develop database applications using normalization
	CO6	Built database queries using SQL and PL/SQL.
Core X – Cost Accounting	CO1	Comprehend the basic concepts and various tools used in Cost Accounting.
	CO2	Apply the methods of Cost Accounting in ascertaining cost.
	CO3	Discuss the various techniques of material control.
	CO4	Implement the methods of valuing material issue.
	CO5	Assess the Labour cost and overhead cost.
	CO6	Apply the steps involved in process costing.
	CO7	Analyse cost and profit under operating and contract costing.
Part III - Core XI –	CO1	Describe the basics of banking.
Banking Law and Practice	CO2	Comprehend knowledge on the financial instruments of banking sector.
	CO3	Explain the usage of core banking operations.
	CO4	Discuss the banker's duties and responsibility
	CO5	Apply knowledge on usage of modern banking products and services in India.
	CO6	Develop the ways and means of ensuring safety and security of banking operation.
Core XII MySQL Programming – Practical	CO1	Discuss fundamental elements of Relational Database Management System.
IV	CO2	Graph ER diagram for database.
	CO3	Design and implement database schemas for a given domain.
	CO4	Develop programs using DDL and DML commands.
	CO5	Construct queries using PL/SQL.
	CO6	Retrieve any type of information from a database.
Allied IV – Statistics	CO1	Comprehend the basic concepts of statistics.
	CO2	Discuss the methods of sampling.
	CO3	Create, read and interpret graphs, charts, histograms and diagrams.
	CO4	Use basic measures of central tendency and variation.
	CO5	Interpret the relationship between two variables in statistical terms.
	CO6	Apply knowledge of statistical tools in business data analysis.
	CO1	State the concepts of life insurance business.
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Part IV- Skill	CO2	Explain the provisions of life insurance contract.
Enhancement Course II Life Insurance	CO3	Identify the various types of schemes available in life insurance.
	CO4	Create a plan to buy life insurance
	CO5	Assess the role of Information Technology in life insurance
Part IV Advanced	CO1	Comprehend the basic concepts and technologies used in MIS.
Learner's Course I- Management Information	CO2	Discuss the current issues of Information Technology in business.
System	CO3	Utilise MIS tools to facilitate decision making.
	CO4	Examine the processes of developing and implementing information systems.
	CO5	Develop the skills necessary to design a secured system.
	CO6	Interpret how to use information technology to solve business problems.
Part III – Core XIII E- Accounting - Practicals	CO1	Apply knowledge on basics and importance of e-accounting in computerized environment.
	CO2	Apply knowledge of computerized accounting in creating account heads
	CO3	Application of knowledge in preparing stock summary.
	CO4	Create cost centres and tax masters.
	CO5	Prepare payroll of a company.
	CO6	Prepare final accounts in computerized accounting along with statements and statutory reports.
Part III - Core XIV Income	CO1	Comprehend the fundamental concept of income tax.
Tax	CO2	Calculate the Salary income.
	CO3	Implement the provisions relating to house property.
	CO4	Calculate the income from other sources.
	CO5	Compute business or professional income.
	CO6	Assess capital gain and identify ways of saving Capital Gains Tax.
	CO7	Discuss and apply provisions regarding deduction from GTI.
Part III - Core XV	CO1	Define and identify the concepts of Business Finance.
<b>Business Finance</b>	CO2	Explain the role of finance in an organisation.
	CO3	Interpret the functions of business finance.
	CO4	Discuss the significance of financial planning.
	CO5	Summarise the sources of business finance.
	CO6	Account the components of the basic concepts of business finance.
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Core XVI Business	CO1	Comprehend the knowledge on basic concepts of communication.
Communication	CO2	Discuss the principles of effective business letters.
	CO3	Design and develop credit and status enquiry letters.
	CO4	Identify the techniques of writing collection, sales and circular letters.
	CO5	Explain the various types of reports.
	CO6	Design application letter.
Part III - Elective I -	CO1	Comprehend the fundamentals of investment management.
Investment Management	CO2	Comprehend the benefits and demerits of each avenue of investment.
	CO3	Identify risk and returns of each investment avenue.
	CO4	Analyze the difference in investing in equity and fixed income securities.
	CO5	Discuss the components of fundamental analysis.
	CO6	Interpret chart pattern of technical analysis.
Part III – Elective I –	CO1	Comprehend the conceptual aspects of the retail sector.
Retail Marketing	CO2	Examine the retail location and layout in retail market sector.
	CO3	Analyse individual and family brands.
	CO4	Recognise the buyer beware for protecting consumer.
	CO5	Discuss the ethical aspects of trade, commerce and industry.
	CO6	Able to apply the functions of Supply Chain Management.
	CO7	Able to understand Information Technology tools in retail marketing.
	CO8	Identify the reason for growth of e-tail market.
Part IV Skill Enhancement	CO1	Recognise the concepts of General Insurance business.
Course III – General Insurance	CO2	Discuss the various types of schemes available in General Insurance.
	CO3	Summarise the knowledge on marine insurance.
	CO4	Analyse the various concepts of fire and miscellaneous insurance.
	CO5	Assess the role of general insurance in day to day life.
Part III- Core XVII	CO1	Identify the role of management accounting in decision-making.
Management Accounting	CO2	Explain the contribution of management accounting to financial reporting.
	CO3	Discuss the role of quantitative and qualitative information in decision making.



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	CO4	Apply tools and techniques to plan, control and make decisions.
	CO5	Utilize cost-volume-profit techniques for effective managerial decisions.
	CO6	Analyze the ideas and practices of budgeting in business decision- making.
Part III – Core XVIII	CO1	Recognise the fundamental concepts of Visual programming.
Software Development with Visual Programming	CO2	Demonstrate a new project in Visual programming and use various controls.
8 8	CO3	Explain functions, procedures, arrays, list and records.
	CO4	Create applications with MDI forms
	CO5	Develop a Graphical User Interface (GUI) based on problem description.
	CO6	Develop a front end tool for customer interaction in business.
Part III - Core XIX Visual	CO1	Design, create, build, and debug Visual Basic applications.
Programming- Practical VI	CO2	Apply arithmetic operations for displaying numeric output.
	CO3	Apply decision structures for determining different operations.
	CO4	Use loop structures to perform repetitive tasks.
	CO5	Create one and two dimensional arrays for sorting, calculating, and displaying of data.
	CO6	Design 2D and 3D charts in visual programming.
Part III - Elective II	CO1	Comprehend the financial system in Indian context.
Capital Markets	CO2	Explain the characteristics of different financial assets.
	CO3	Characterise New Issue Market.
	CO4	Summarise the role of SEBI in capital market regulation.
	CO5	Discuss the depository system in India
	CO6	Apply online share trading.
Part III – Elective II	CO1	Recognise the concepts and strategies of services marketing.
Services Marketing	CO2	Apply the knowledge on consumer behaviour in purchase decision
	CO3	Summarise the basic service packages.
	CO4	Explain the strategies for service distribution system.
	CO5	Design the Customer Relationship Management
	CO6	Discuss the Service Quality Management.
Part III- Elective III	CO1	Identify the role of financial services.
Financial Services	CO2	Develop the ability to utilize the services of merchant banker.
	CO3	Utilize the venture capital for Business.



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	CO4	Demonstrate factoring technique
	CO5	Develop the skills to invest in mutual fund.
	CO6	Apply the skill to assess the selection of investment.
Part III – Elective III –	CO1	Describe the concept of e-marketing.
Digital Marketing	CO2	Discuss marketing mix and segmentation
	CO3	Examine process of online purchases
	CO4	Characterize online consumer behaviour in digital marketing.
	CO5	Demonstrate the concept of social media.
	CO6	Formulate the models of web business.
Part IV- Skill	CO1	Identify, understand and interpret communication concepts.
Enhancement Course IV - Business Application Tools	CO2	Use of communication platform to promote the enterprise.
: Business Skills –	CO3	Implement interpersonal, communication and management skills.
Practicals	CO4	Generate skills in reading and writing.
	CO5	Interpret personality traits and effective communication
Part IV- Advanced	CO1	Explain the important concepts of human resource management
Learner's Course II - Human Resource Management	CO2	Analyse the role of Recruitment and Selection process.
	ÇO3	Develop the knowledge on employee training methods.
	CO4	Identify the methods of performance appraisal and job evaluation.
	CO5	Utilise the knowledge on employee health and safety measures.
	CO6	Demonstrate the knowledge on Human Resource accounting.
Advance Learners Course	CO1	Identify and finalise the problem statement.
II - Project and Viva Voce	CO2	Define the problem statement and carryout design for it.
	ÇO3	Analyze, Design, Implement and process the information collected using Statistical tools and softwares.
	CO4	Draft the final report and deliver presentation.
	CO5	Apply commerce and computer application principles to achieve project goals.
Part III - Allied IV -	CO1	Comprehend the fundamentals of accounting.
Principles of Accountancy	CO2	Apply accounting concepts and principles in recording transactions
	ÇO3	Prepare journal, ledger and trial Balance.
	CO4	Prepare Final Accounts of a Sole Trader.
	CO5	Compute accounts of non-trading concern.
	CO6	Describe and apply accounting concepts and principles in preparing financial statements.



# **B.COM (E-COMMERCE)**

	Programme Outcomes				
PO1	Enhance commerce and e-commerce knowledge.				
PO2	PO2 Development of e-Commerce skills				
PO3	PO3 Competent to work in Virtual environment				
PO4	PO4 Expertise on e-Commerce technology and accounting applications.				
PO5	Develop Employability skills to be successful in the virtual business environment.				

	Programme Specific Outcomes
PSO1	Students will gain knowledge in different areas of Commerce and e-Commerce.
PSO2	Students will be able to adapt themselves to the changing scenario of Virtual Environment.
	Students will be able to work coherently with the changing phases of the business environment.

	Course Outcomes		
Course Name	CO	Statement	
Core I Financial Accounting I	CO1	Recognise the fundamentals of accounting concepts and conventions	
	CO2	Generate final accounts of a sole trader	
	CO3	Prepare accounts under incomplete system of record keeping.	
	CO4	Reconcile cash book and passbook	
	CO5	Discuss the different methods of depreciation	
	CO6	Prepare Final accounts for non-trading organisation	
Core II - Fundamentals of e-	CO1	Specify basic concepts of Computer.	
Commerce	CO2	Discuss constituents of electronic commerce.	
	CO3	Classify e-Commerce applications in business.	
	CO4	Utilize networking and Internet basics.	
	CO5	Apply the concept of EDI in business environment.	
	CO6	Justify vital tools and services of the internet in the development of	
		a virtual e-commerce site	
Allied I - Office Automation	CO1	Identify the terminology related to word, access and power point	
Tools - Practicals	CO2	Formulate computerisation of documentation work.	



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		Apply computers in database management.
	CO4	Prepare presentation materials with animation and hyperlinks.
	CO5	Create techniques and presentation styles.
	CO6	Utilize computer in office automation.
Core III- Financial Accounting II	CO1	Describe the fundamental concepts of hire purchase and installment accounting.
	CO2	Assess the profit under branch accounts.
	Ç03	Compile accounts for departmental form of organization.
	CO4	Discuss the fundamentals of partnership accounts.
	CO5	Prepare the accounts on admission of partner.
	CO6	Prepare accounts on retirement and death of partner.
Core IV - Mobile Commerce	CO1	Recognize the concepts of mobile commerce.
	CO2	Explain the framework of m-commerce.
	CO3	Express business opportunities of mobile commerce
	CO4	Discuss mobile commerce technology.
	CO5	Report mobile communication system like 2G, 3G, 4G.
	CO6	Summarize information on mobile payments.
Allied II – Oracle and MySQL	CO1	Tabulate the fundamentals of SQL.
– Practicals	CO2	Develop skills in developing SQL Blocks.
	CO3	Comprehend simple and complex queries.
	CO4	Execute PL/SQL operations by using variables and functions.
	CO5	Develop a basic understanding of the analysis and design of a database.
	CO6	Design and Implement basic database using PL/SQL.
Core V - Corporate	CO1	Comprehend the fundamentals of Corporate Accounting.
Accounting	CO2	Explain the various methods of issue of shares and debentures
	CO3	Evaluate the methods of valuation of shares and goodwill.
	CO4	Apply the concepts for the preparation of final accounts.
	CO5	Compute the managerial remuneration as per Companies Act
	CO6	Analyse the accounting procedures for amalgamation and merger.
	CO7	Design the reconstructed balance sheet of companies after reduction of share capital.
Core VI – Visual	CO1	Apply fundamental concepts of Visual Basic.
Programming	CO2	Comprehend forms and projects in Visual Basic.
	CO3	Identify employability skills.
		Compute the steps necessary to convert Visual Basic programs to executable files.



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	CO5	Create applications with MDI forms
	-	Develop a Graphical User Interface (GUI) based on problem description
Core VII–Principles of		Comprehend the conceptual knowledge of management.
Management		Recognise the principles of management practices.
		Describe the process of planning and decision making.
		Discuss the functions of staffing.
		Explain the different types of leadership style.
		Discuss motivational techniques in business.
	-	Assess the various methods of coordination and techniques of control.
Core VIII Applications in	CO1	Specify the usage of essential tools in Visual Programming.
Visual Programming	CO2	Develop knowledge on programming skills.
	CO3	Apply sub procedures and functions using Visual Basic.
	CO4	Implement knowledge on database application.
	CO5	Implement front end and back office operations.
	CO6	Use additional Visual Basic controls.
Part IV – Non Major Elective	CO1	Recognize the concepts of mobile commerce.
Mobile Commerce	CO2	Explain the framework of m-commerce.
	CO3	Express business opportunities of mobile commerce.
	CO4	Discuss mobile commerce technology.
	CO5	Report mobile communication system like 2G,3G,4G.
	CO6	Summarize information on mobile payments.
Part IV -Skill Enhancement Course I-Business Application	CO1	Create embedded images in a document and perform tasks relating to images.
Tools: Image Editor -	CO2	Develop skills in drawing and painting images with digital colour
Practicals	CO3	Prepare image designing process.
	CO4	Apply graphical effects in images
Core IX – Company Law	CO1	Comprehend the knowledge on promotion and formation of the company.
	CO2	Summarise the various clauses of Memorandum of Association and alteration.
	ÇO3	Explain the contents of Articles of Association.
	-	Characterise the prospectus of the company.
	CO5	Generate knowledge on company management and administration.
	CO6	Discuss the duties and liabilities of directors under Indian Companies Act.
Core X – Cost Accounting	CO1	Comprehend the basic concepts and various tools used in Cost Accounting.



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	CO2	Apply the methods of Cost Accounting in ascertaining cost.
	ÇO3	Discuss the various techniques of material control.
	CO4	Implement the methods of valuing material issue.
	CO5	Assess the Labour cost and overhead cost.
	CO6	Apply the steps involved in process costing.
	CO7	Analyse cost and profit under operating and contract costing.
Core XI – Web Designing	CO1	Recognize the concepts of Internet.
	CO2	Specify the conceptual knowledge of HTML.
	CO3	Discuss the principles to design websites.
	CO4	Use of HTML linking techniques.
	CO5	Generate lists, use tables to structure the presentation of text
		and images and create simple framed pages.
	CO6	Utilize JavaScript to perform basic tasks on a web page.
Core XII – Applications in Webpage Designing –Practical	CO1	Recognize and apply HTML tags and attributes for basic Web page design.
	CO2	Design web pages using standard HTML tags and cascading style sheets.
	CO3	Implement skills on usage of HTML.
	CO4	Convert graphics into web pages as embedded images, links and backgrounds.
	CO5	Apply Web publishing techniques.
	CO6	Develop skills in analysing the usability of a web site.
Allied IV – Statistics	CO1	Comprehend the basic concepts of statistics.
	CO2	Discuss the methods of sampling.
	ÇO3	Create, read and interpret graphs, charts, histograms and diagrams.
	CO4	Use basic measures of central tendency and variation.
	CO5	Interpret the relationship between two variables in statistical terms.
	CO6	Apply knowledge of statistical tools in business data analysis.
Part IV- Skill Enhancement	CO1	Apply practical knowledge on application of excel.
Course II-Business Application Tools: Business Data Applysic using EXCEL	CO2	Utilise excel functions.
	CO3	Utilise pivot table for data manipulation
Data Analysis using EXCEL– Practicals	CO4	Diagrammatic representation of numerical data.
Advanced Learners Course I – Management Information	CO1	Comprehend the basic concepts of management information system.
	CO2	Discuss the knowledge on business automation.
System		Evaluate and develop management information processes.
		Build corporate goals and strategies.
		Explain evaluation and management of business activities.
		Utilise the applications of telecommunication networks.
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Core XIII E- Accounting -	CO1	Apply knowledge on basics and importance of e-accounting in
Practicals		computerized environment.
	CO2	Apply knowledge of computerized accounting in creating account heads.
	ÇO3	Application of knowledge in preparing stock summary.
	CO4	Create cost centres and tax masters.
	CO5	Prepare payroll of a company.
	CO6	Prepare final accounts in computerized accounting along with statements and statutory reports.
Core XIV Income Tax	CO1	Comprehend the fundamental concept of income tax.
	CO2	Calculate the Salary income.
	CO3	Implement the provisions relating to house property.
	CO4	Calculate the income from other sources.
	CO5	Compute business or professional income.
	CO6	Assess capital gain and identify ways of saving Capital Gains Tax.
	CO7	Discuss and apply provisions regarding deduction from GTI.
Core XV- Logistics Management	CO1	Discuss the problems and critically evaluates the logistics and supply chain management practices.
	CO2	Explain the multi-modal transport systems such as road transport, maritime transport and air transport.
	CO3	Express information relating to packaging and material handling.
	CO4	Comprehend the role of warehouses and physical inventory holdings within the supply chain.
	CO5	Summarise major logistics functions and differentiate logistics and supply chain management.
	CO6	Summarize the problems encountered in Logistics and Supply Chain Management.
Core XVI Business		Comprehend the knowledge on basic concepts of communication.
Communication	CO2	Discuss the principles of effective business letters.
	CO3	Design and develop credit and status enquiry letters.
	CO4	Identify the techniques of writing collection, sales and circular letters
	CO5	Explain the various types of reports.
	CO6	Design application letter.
Elective I - e-Banking	CO1	Comprehend emergence of e-banking.
	000	
	CO2	Discuss the overview of various mobile services.
		Characterize Telephone banking/mobile banking infrastructure and components.



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	CO5	Describe the concept of Electronic Fund Transfer.
	CO6	Classify Electronic Payment System.
Elective I – Retail Marketing	CO1	Comprehend the conceptual aspects of the retail sector.
	CO2	Examine the retail location and layout in retail market sector.
	CO3	Analyse individual and family brands.
	CO4	Recognise the buyer beware for protecting consumer.
	CO5	Discuss the ethical aspects of trade, commerce and industry.
	CO6	Able to apply the functions of Supply Chain Management.
	CO7	Able to understand Information Technology tools in retail marketing.
	CO8	Identify the reason for growth of e-tail market.
Skill Enhancement Course IV:	CO1	Apply skills of transforming text and object
Business Application Tools –	CO2	Develop knowledge on various image effects
Image Designing -Practicals	CO3	Utilize the skills of applying drawing tools and frames
	CO4	Apply graphic ideas verbally, visually and digitally.
	CO5	Understand the basics of image designing
Core XVII Management	CO1	Identify the role of management accounting in decision- making.
Accounting	CO2	Explain the contribution of management accounting to financial reporting.
	CO3	Discuss the role of quantitative and qualitative information in decision making.
	CO4	Apply tools and techniques to plan, control and make decisions.
	CO5	Utilize cost-volume-profit techniques for effective managerial decisions.
	CO6	Analyze the ideas and practices of budgeting in business decision-making.
Core XVIII-e-Commerce Technology	CO1	Comprehend the conceptual knowledge of Electronic Commerce Framework and its applications.
	CO2	Describe Information Distribution and Messaging.
	CO3	Explain Multimedia and Digital video, Broadband Telecommunication.
	CO4	Generalise Network Security and Firewalls.
	CO5	Summarise EDI Implementation.
	CO6	Associate the Legal and Ethical Issues, e-Commerce Laws and Taxation Issues.
Core XIX- Basic	CO1	Apply the structure and model of the Java programming language.
Programming in JAVA- Practicals	CO2	Utilize the Java programming language for various programming technologies.
	CO3	Demonstrate programs on exceptions, multithreading and applets.



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	CO5	Comprehend the concept of exception handling and I/O operations.
	CO6	Execute medium-sized object-oriented programs.
Elective III- e-Retailing	CO1	Evaluate the scope for e-Retailing.
	CO2	Analyse the pros and Cons of e-Retailing.
	CO3	Specify the current trend in e-retailing.
	CO4	Describe competitive strategy for e-retailing business.
	CO5	Generalise Logistics and Supply chain Management.
	CO6	Comprehend the role of CRM in e-retailing business.
Elective II Services Marketing	CO1	Recognise the concepts and strategies of services marketing.
	CO2	Apply the knowledge on consumer behaviour in purchase decision
	CO3	Summarise the basic service packages.
	CO4	Explain the strategies for service distribution system.
	CO5	Design the Customer Relationship Management
	CO6	Discuss the Service Quality Management.
Elective V – e-Business	CO1	Recognize role of e-Business and e-commerce.
	CO2	Relate e-Business Strategies with other organization strategies.
	CO3	Characterize the concept of e-Business relationship.
	CO4	Explain e-business technological infrastructure.
	CO5	List the challenges of e-Business.
	CO6	Classify issues in e-Business environment.
Elective III – Digital	CO1	Describe the concept of e-marketing.
Marketing	CO2	Discuss marketing mix and segmentation
	CO3	Examine process of online purchases
	CO4	Characterize online consumer behaviour in digital marketing.
	CO5	Demonstrate the concept of social media.
	CO6	Formulate the models of web business.
Skill Enhancement Course IV:	CO1	Identify, understand and interpret communication concepts.
Business Application Tools- Business Skills – Practicals	CO2	Use of communication platform to promote the enterprise.
	CO3	Implement interpersonal, communication and management skills.
	CO4	Generate skills in reading and writing.
	CO5	Interpret personality traits and effective communication
Advanced Learners Course II	CO1	Comprehend the basic concepts of ERP.
– Enterprise Resource	CO2	Define the technical aspects of ERP systems.
Planning	CO3	Discuss technology related to ERP.
	CO4	Describe working of different modules in ERP.
	CO5	Specify ERP implementation and its challenges.
	CO6	Explain the steps and activities in ERP implementation Life cycle.



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### **BA (TAMIL Literature)**

	Programme Outcomes
PO1	இலக்கியங்கள் மீதான ஆழ்ந்த அறிவும், சிந்திக்கும் திறனும் பல்வேறு போட்டித்தேர்வுகள் மற்றும் சவால்களை எதிர்கொள்ளும் திறனும்,சமூகம் குறித்த விழிப்புணர்வும், ஆட்சிமொழி, மொழி சார்ந்த புலமையும் ,பிறகலைகள் சார்ந்த புலமையும, பிற கலைகள் சார்ந்த புலமையும் பெற்றிருத்தல்.
PO2	பக்தி இலக்கியங்கள் மூலம் வாழ்வியல் தத்துவங்கள். வழிபாட்டுமுறைகள், சடங்குகள், பண்பாடுகள், மத நல்லிணக்கம், சமகால சான்றோர்களையும் கடவுளராக மதித்து படைப்புகளை உருவாக்கும் திறன்,தல வரலாறு குறித்த அறிவு. உயிர்கள் மீது பற்று இறைநம்பிக்கை போன்றவற்றை பெற்றிருத்தல்.
PO3	இலக்கணங்கள் மூலம் படைப்பாக்கத்திறனை மேம்படுத்துதல்இ சமூக அவலங்கள் குறித்த விழிப்புணர்வும் பிறநாட்டு வாணிகத் தொடர்புகள்மற்றும்நாகரிகம்-பண்பாடுகள்-புதைப்பொருள் ஆய்வுகள் பயண இலக்கியங்கள் ஆகியவற்றை அறிந்து கொள்ளல்.
PO4	சங்க மக்களின் வாழ்வியல் விழுமியங்கள் அதனிடமிருந்து கடைபிடிக்க வேண்டிய கூறுகள்,நெறிதவறாத வாழ்வு, இயற்கையை மதித்தல;, பெண்மையைப் போற்றல்,இலக்கியங்கள் உருவான வரலாறுகள்,பிறசமய இலக்கியங்கள் இக்கால இலக்கியங்களை அறிந்து கொள்ளல்
PO5	பிழையில்லாமல் பேச எழுதப் பயன்படும் அடிப்படை இலக்கண விதிகள்,எழுத்து, சொல் குறித்த அறிவினைப் பெருக்குதல், ஊடகங்கள் மூலம் கூட்டு உழைப்பு,பல உயர் பண்புகள்,நாட்டு மருத்துவம், உணவை மருந்தாகப் பயன்படுத்தும் கலையை அறிதல்

	Programme Specific Outcomes						
PSO1	இலக்கியத்தின் விழுமியங்களை நடைமுறை வாழ்வியலோடு ஒப்பிட்டுப் பார்ப்பதன் மூலம் வாழ்க்கைக் கல்வியை மேம்படுத்துதல்.						
PSO2	2 இலக்கணங்கள் வாயிலாகப் பிழையின்றி மொழியைக் கையாளக் கற்றுக் கொண்டு சிறந்த படைப்பாளர்களாக உருவாதல்.						
	பக்தி இலக்கியங்கள் மூலம் மனதை ஒருமுகப்படுத்தி சகிப்புத் தன்மையையும் பக்குவப்பட்ட நிலையையும் மதநல்லிணத்தையும் ஏற்படுத்திக் கொள்ளுதல்.						



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PSO4	நீதி இலக்கியங்கள் மூலம் அறச் சிந்தனைகளை மேம்படுத்தி, சமுதாயத்தில் மாசற்ற மானிடராக நன்னெறியுடன் வாழக் கற்றுக் கொள்ளுதல்.
PSO5	இக்கால இலக்கியங்கள் மூலம் சமகாலச் சிக்கல்களை இனம்கண்டு அதைத் தீர்க்கும் வழிமுறைகளைக் கண்டறியவும் அநீதிகளுக்கு எதிராகப் போராடும் திறனையும் பெற்றிருத்தல்.

Course Outcomes		
Course Name	CO	Statement
பகுதி-III- முதன்மைப்பாடம்- I	CO1	நாட்டு;ப்பற்று, மொழிப்பற்று குறித்த படைப்புகளை உருவாக்குதல்.
கவிதை இலக்கியம்	CO2	சமகாலத்தில் நடைபெறும் சிக்கல்களை ஆய்ந்து கொண்டு தீர்வுகாணும் திறனைப் பெற்றிருத்தல்.
	CO3	இயற்கையைப் பாதுகாக்க வேண்டும் என்ற எண்ணம் மேலோங்குதல்.
	CO4	பெண்ணியம் மேம்படவும்இ பெண்மை ஓங்கவும் குரல் கொடுக்கும் திறன் பெறல்.
	CO5	பிறநாட்டார் படைப்புக்களின் வழி தமது சமுதாயத்திற்காகப் போராடும் உணர்வை ஏற்படுத்துதல்.
	CO6	கவிதைகளின் மூலம் சமூகத்தில் ஏற்படும் அவலங்களை அறிந்து கொள்ளல்
பகுதி III-	CO1	நாட்டுப்புறக்கதைகள் குறித்து அறிந்து கொள்ளல்.
முதன்மைப்பாடம்- II நாட்டுப்புறவியல்	CO2	கைத்தொழில்,பக்க விளைவுகள் இல்லாத மருத்துவ முறைகள், நம்பிக்கைகள், வழிபாட்டு முறைகளை அறிந்து கொள்ளுதல்.
	CO3	விடுகதைகள்,பழமொழிகள் மூலம் சிந்திக்கும் திறனை வளர்த்துக் கொள்ளல்
	CO4	நாட்டுப்புறப் பாடல்கள் மூலம் பண்பாட்டுக் கூறுகளைக் கற்றுக் கொள்ளல்
	CO5	கொங்கு நாட்டை சார்ந்த தெய்வங்கள் கல்வெட்டுகள்,பண்பாடுகளை அறிந்து கொள்ளல்.
	CO6	நாட்டுப்புறப்பாடல்கள் வழி மக்களின் வாழ்வியல் முறைகள் குறித்தும். பழக்கவழக்கள் குறித்தும் அறியச் செய்தல்.

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CO1 நிகழ்காலத்தில் கிடைக்கும் புதைப்பொருட்களைக் பகுதி- III-துணைப்பாடம்- I கொண்டு நாட்டின் புராதனச் சிறப்பை அறிதல் தமிழக வரலாறும் CO2 பிறநாட்டு வாணிகத்தொடர்பு மூலம் நாகரிகம் பண்பாடும்-I பண்பாடு, வாணிகம் போன்றவற்றை மேம்படுத்த, வழிவகை செய்தல் CO3 வாழ்க்கையில் மறைந்து போன உணவுமுறை, பழக்க வழக்கம், திருமணமுறை, அணிகலன்கள் ஆகியவற்றை அறிந்து நடைமுறையில் பின்பற்ற உதவுதல் CO4 பண்டைய தமிழர்களின் ஆட்சித்திறம், வீரம். வாழ்வியல் முறைகளை அறிந்து கொள்வதன் வாயிலாகக் கன்னலமின்றியும் நாட்டுபற்றுடனும் வாழ்தல். CO5 பண்டைய மக்களின் வாழ்வியலை அறிவதன் மூலம் வாழ்கை மேம்பாட்டு நிலையை வளர்த்தல். CO6 தமிழக வரலாற்றுக்கான சான்றாதாரங்களையும், வாணிகக் அயல்நாட்டு தொடர்புகளையும் இலக்கியங்களையும் கலைப் பண்பாடுகளையும் அரசியல் நிர்வாகங்களையும் அறியச் செய்தல். CO1 சமீபத்திய தமிழ்ச் சிறுகதைகளை கற்பதன் மூலம் பகுதி-III-முதன்மைப்பாடம்- III தற்கால சமூக நிகழ்வுகளை உணர்ந்து கொள்வதால் மாணவர்களின் நடைமுறைச் சிக்கல்களுக்குத் தீர்வு உரைநடை இலக்கியம் கிடைக்கும். CO2 துப்பரவுப் பணியாளர்களின் பணிச்சுமையும், அவர்கள் பிறரால் இகழப்படும் மனச்சுமையும், நிலையையும் மாணவியர் உணர்ந்து கொள்வதினால் எதிர்காலத்தில் போன்ற இது இன்னல்கள் பிறருக்கு ஏற்பாடாத நிலை ஏற்படும். CO3 மக்களின் வாழ்க்கையை பிரதிபலிப்பவை கொண்ட நாடகங்கள். கருத்தாக்கங்கள், நாடகங்களைக் கற்பதனால் மாணவர்கள் தங்களைப் பாதுகாத்துக் கொள்ளும் திறனும் பெற்றவர்களாக உருமாறுவர். CO<sub>4</sub> பல நாடுகளுக்குச் சென்று வந்த அனுபவங்களைக் குறித்த நூல்களைக் கற்பதால் அந்தந்த நாட்டுப் பழக்கவழக்கங்கள், மக்களின் நிலைப்பாடுகள், சிறந்த மனிதர்கள்,உணவு முறைகள் போன்றவற்றை மாணவியர் அறிந்து கொள்வர்.

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	CO5	கடிதம் உணர்வுகளின் வெளிப்பாடு. அழிந்து வரும் கடிதக்கலையை மாணவியர் அறிந்து கொள்ள வழிவகுக்கிறது.
	CO6	உரைநடை இலக்கிய வடிவத்தின் மூலம் படைப்புத்திறனை மேம்படுத்துதல்.:சமீபத்திய தமிழ்ச் சிறுகதைகளை கற்பதன் மூலம் தற்கால சமூக
பகுதி-III- முதன்மைப்பாடம்- IV இலக்கணம்-நன்னுல்- எழுத்து	CO1	நூலின் வரலாற்றையும்,நூல் படைத்தவனுடைய வரலாற்றையும் அறிந்து கொண்டு நூலைப் படிப்பதுதான் முழுமையான பயனைத் தரும். பாயிரத்தைக் கற்பதால் அந்த நூலின் உட்கருத்துக்களை மாணவியர் அறிந்திருத்தல்.
	CO2	எழுத்துக்களின் எண்ணிக்கை, அவற்றின் பெயர்கள்,அவை பிறக்கும் விதம்,வடிவம்,உச்சரிக்கும் முறை போன்றவற்றைக் கற்பதன் மூலம் பிழையில்லாமல் எழுதி உச்சரிக்கும் திறன் பெற்றிருத்தல்.
	CO3	சொல் எவ்வாறு அமைப்பது என்ற விதிகளை இலக்கண முறைப்படிக் கற்பதனால் தவறில்லாத வாக்கிய அமைப்பை உருவாக்கும் பயிற்சி பெற்றிருத்தல்.
	CO4	சொற்களைச் சரியாக எழுதவும் அதைப்பற்றிய விதிமுறைகளையும் கற்றுக் கொள்வதால் சரியான புணர்ச்சி விதிகளை அறிந்து கொள்ளல். சொற்களின் சேர்க்கை முறையில்மெய்யெழுத்துக்களோடு பிற சொற்கள் இணையும் விதத்தினை மெய்யீற்றுப்புணரியல் மூலம் அறிந்து கொள்ளல்.
	CO5	சொற்களின் சேர்க்கை முறையில் மெய்யெழுத்துக்களோடு பிற சொற்கள் இணையும் விதத்தினை மெய்யீற்றுப்புணரியல் மூலம் அறிந்து கொள்ளல்.
	CO6	இலக்கண விதிகளை அறியச் செய்து மொழித்திறனை வளர்த்தல்.
பகுதி III- துணைப்பாடம்- II தமிழக வரலாறும்	CO1	தமிழகத்தை ஆண்ட மன்னர்களின் படைத்திறன், நிர்வாகத்திறன், கோயில்களின் தொன்மைச்சிறப்பு ஆகியவற்றை அறிந்து கொள்ளல்.
பண்பாடும்	CO2	கலைகளின் வளர்ச்சி மற்றும் பழக்கவழக்கங்களை அறிந்திருத்தல்.



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	CO3	வேற்றுநாட்டவர் படையெடுப்பால் தமிழகத்தில் ஏற்பட்ட பூசல்களையும் மாறுதல்களையும் அறிந்து கொள்ளுதல்.
	CO4	:இந்தியாவிற்குள் அந்நியர் வருகையால் ஏற்பட்ட நன்மைகளைத் தீமைகளைத் தெரிந்து கொள்ளுதல்.
	CO5	இந்தியாவில் விடுதலைக்கு முன்னரும் பின்னரும் தமிழகத்தின் நிலைப்பாடு குறித்து அறிந்திருத்தல்.
	CO6	தமிழர்களுடை அரசியல் பொருளாதார சமூக மாற்றங்களை அறிந்து கொள்ளல்.
பகுதி-III- முதன்மைப்பாடம்- V	CO1	சோதனைகளைக் கடந்து இறைசக்தியால் வெற்றிபெறும் திறனை வளர்த்துக் கொள்ளல்.
பக்தி இலக்கியமும் சிற்றிலக்கியமும்	CO2	பிறஉயிர்களுக்கு இரங்குதல்இதொடர்பக்தி முயற்சியால் நினைத்ததை அடையும் திறன் பெறுதல்.
	CO3	: மத நல்லிணக்கத்தை ஏற்படுத்துதல்.
	CO4	சமகாலச் சான்றோர்களைப் பிள்ளைத்தமிழ் வடிவில் படித்துக் காட்டல்;.
	CO5	சமகால நிகழ்வுகளை அந்தாதி இதூது முறையில் படைத்துக் கொணர்தல்
	CO6	அனைத்து மத இறையாண்மையை வெளிக் கொணர்தல்.
பகுதி-III-	CO1	சொல்லை பாகுபடுத்தி அறிந்து கொள்ளல்.
முதன்மைப்பாடம்- VI	CO2	வேற்றுமையின் வகைகளை அறிந்து கொள்ளல்.
இலக்கணம்-நன்னூல்- சொல்	CO3	வினைச்சொல்இவினையெச்சம்இவினைமுற்று குறித்து உணர்ந்து கொள்ளல்.
	CO4	வழுவமைதிஇவழாநிலைஇபொருள்கோள்இதொ கைநிலை பற்றி அறிந்து கொள்ளல். :
	CO5	உரிச்சொல் குறித்த விளக்கங்கள் உயிர்பொருட்கள் உயிரல்லாத பொருட்களை அறிந்திருத்தல்.
	CO6	சொல் இலக்கணத்தை முழுமையாக அறிந்து கொள்ளல்.
பகுதி III- தனைப்பாடம்- III	CO1	கால வாரியாக இலக்கியத்தின் வளர்ச்சிக் கூறுகளை அறிந்து கொள்ளல்.
தமிழக இலக்கிய வரலாறு-I	CO2	சங்க இலக்கியத்தின் மூலம் இல்லற அறம் இஉயர் ஒழுக்கம் இவாழ்வியல் நெறிமுறைகளைக் கற்றிருத்தல்.



Autonomous & Affiliated to Bharathiar University, Coimbatore

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	CO3	சமகாலச் சான்றோரின் படைப்புக்களை முன்வைத்து புதிய படைப்புகளை உருவாக்குதல்.
	CO4	பக்தி இலக்கியம் தோன்றிய வரலாற்றினையும் தமிழுக்குப் பிற மதங்கள் செய்த தொண்டுகளையும் நாயன்மார்கள் ஆழ்வார்களின் வாழ்வியலையும் அறிந்து கொள்ளுதல்.
	CO5	பிற சமயம் சார்ந்த இலக்கியங்களின் வரலாறு சமீபகாலம் வரையான இலக்கியப் படைப்பாசிரியர்கள் குறித்து அறிந்து கொள்ளல்.
	CO6	இலக்கியத்தின் செழுமையினை உணர்ந்து கொள்ளல்.
துறைசாரா மாணவியருக்கான	CO1	நோய்க்கான காரணிகளைக் கண்டறிந்து மருந்தைத் தவிர்த்து உணவை மருந்தாகப் பயன்படுத்துதல்.
சிறப்பு இலக்கியம்-I- NMEC – – உணவே	CO2	நோயை ஆராய்ந்து உணவின் மூலம் நீக்கும் வழியைக் கண்டறிதல்.
மருந்து	CO3	நோயின் தன்மை அறிந்து மருத்துவத்தை மேற்கொள்ளல்.
	CO4	கீரைகள், காய்கள், பழங்கள், பூக்களில் உள்ள மருத்துவ குணங்களை அறிதல்.
	CO5	:கடைச்சரக்குகளில் உள்ள மருத்துவ குணங்களைஅறிந்திருத்தல்.
	CO6	இயற்கை மருத்துவத்தின் முக்கியத்துவத்தை உணர்த்துதல்.
பகுதி-IV-Skill Enhancement course-I	CO1	திரைப்பாடல்கள் மூலம் சமுதாயத்தில் நிலவும் மகளிர்நிலைஇஇலக்கியக் கூறுகளை அறிதல்.
திரைத்தமிழ்	CO2	திரையிசைகள் மூலம் இயற்கையைப் பாதுகாக்கும் எண்ணம் மேலோங்குதல்.
	CO3	திரையிசையில் உயர் பண்புகள் இ;டம்பெற்றுள்ள விதத்தினை அறிதல்.
	CO4	திரைப்பாடல்கள் மூலம் மெய்ப்பாடுகளின் தன்மையை அறிந்து உணர்தல்.
	CO5	திரைப்பாடல்கள் மூலம் உறவுகளின் சிறப்பினை உணர்ந்து கொள்ளல்.
	CO6	சமுதாயத்தில் திரைத்துறையின் பங்களிப்பினை அறிந்து கொள்ளல்.



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பகுதி-III- முதன்மைப்பாடம்- VII காப்பியங்கள்	CO1	வாழ்வில் ஏற்படும் அநீதிகளுக்கு எதிராகப் போராட வேண்டும் என்ற போர்க்குணத்தை வளர்த்துக் கொள்கின்றனர்.
	CO2	வாழ்க்கை நிலையாமை பற்றிய தத்துவ அறநெறிக் கருத்துக்களை அறிந்து கொள்கின்றனர்.
	CO3	பழமையான இசைக்கருவி யாழின் நட்பங்களையும், சிறப்புக்களையும் அறிந்து கொள்கின்றனர்.
	CO4	திருமணச் சடங்குகளை அறிந்துகொள்கின்றனர்.
	CO5	இன்பமயமாக வாழும் வாழ்க்கையை இன்பமயமாகவும், நகைச்சுவை உணர்வோடும் வாழ கற்றுக் கொள்கின்றனர்.
	CO6	பண்டையமக்களின் கலாச்சாரத்தையும், பண்பாட்டையும் அறிந்து கொள்கின்றனர்.
பகுதி-III- முதன்மைப்பாடம்-	CO1	செய்யுளின் அடிப்படை இலக்கணத்தை அறிந்து கொள்கின்றனர்.
VIII-இலக்கணம்- III- யாப்பருங்கலக்காரி கை (ஒழிப்பியல் நீங்கலாக)தண்டியல ங்காரம்	CO2	வெண்பா, ஆசிரியப்பாவின் இலக்கணம், இனம், ஒசை மற்றும் வகைகளைத் தெரிந்து கொள்கின்றனர்.
	CO3	கலிப்பா வஞ்சிப்பாவின் இலக்கணம், இனம், ஒசை மற்றும் வகைகளைத் தெரிந்து கொள்கின்றனர்.
	CO4	அணிகளைப் பயன்படுத்திக் கவிதை உருவாக்கும் படைப்பாளுமை உடையவராகப் பரிமாணம் அடைகின்றனர்.
	CO5	அணிகளைப் பயன்படுத்திக் கவிதை உருவாக்கும் படைப்பாளுமை உடையவராகப் பரிமாணம் அடைகின்றனர்.
	CO6	செய்யுள் இலக்கணத்தின் முக்கியத்துவத்தை அறிந்து கொள்ளல்.
பகுதி III- துணைப்பாடம்- VI தமிழக இலக்கிய வரலாறு-II	CO1	தமிழ்மொழியில் உள்ள இலக்கண நூல்களின் வகைகளை அறிந்து கொள்கின்றனர்.
	CO2	:தமிழ்மொழியில் ஏற்பட்ட மாற்றம் மற்றும் வளர்ச்சிக் கூறுகளை உணர்ந்து கொள்கின்றனர்.
	CO3	:தமிழ்மொழியின் வளர்ச்சியில் ஈடுபட்ட அறிஞர்களின் பணிகளைத் தெரிந்து கொள்கின்றனர்.
	CO4	:கதை இலக்கியங்களில் கையாளப்பட்ட உத்திகள், வளர்ச்சிகளை இனங் காண்கின்றனர்.



Autonomous & Affiliated to Bharathiar University, Coimbatore

Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

An ISO 9001-2015 Certified Institution

	CO5	இலக்கிய இயக்கங்கள், கோட்பாடுகள், வளர்ந்துள்ள நிலையை அறிந்து கொள்கின்றனர்.
	CO6	இலக்கியங்களின் கால வரையறை அறிந்து கொள்கின்றனர்.
பகுதி III-பகுதி-IV-Skill Enhancement course-II	CO1	தமிழ் ஆட்சிமொழிக்கான விழிப்புணர்வை அடைகின்றனர்.
ஆட்சித்தமிழ்	CO2	:தமிழ் வளர்ச்சிக்குத் துணை புரியும் நூல்களை அறிகின்றனர்.
	CO3	:மொழிபெயர்ப்பு அகராதிகள் உருவாக்கும் திறன் உடையவராகின்றனர்.
	CO4	:கலைச்சொல்லாக்க அகராதிகளை உருவாக்கும் ஆற்றல் உடையவராகின்றனர்.
	CO5	மொழிபெயர்ப்புத் திறன் உடையவர்கள் ஆதல்.
	CO6	ஆட்சிமொழியின் இன்றியமையாமையும், பயனையும் அறிந்து கொள்ளல்.
Advanced Learner Course I	CO1	சிறந்த பேச்சாளாராக வழி வகை செய்தல்.
வாய்மொழித்தேர்வு பேசும் கலை	CO2	பேச்சுக் கலை மூலம் தகுதிகளை வளர்த்துக் கொள்ளல்.
	CO3	:பட்டி மன்றங்கள் சொல்லரங்கள் போன்ற பல் துறைகளில் திறமைகளை வளர்த்தல்
	CO4	நகைச் சுவை தன்மையோடு மேடையில் பேசச் செய்தல்
	CO5	:இலக்கிய நடையில் பேச வழி வகை செய்தல்.
	CO6	படைப்பாக்கத் திறனை வளர்த்து தன்னம்பிக்கையைஏற்படுத்துதல்.
-பகுதி III முதன்மைப்பாடம் IX அற இலக்கியம்	CO1	வாழ்வில் பின்பற்ற வேண்டிய அறநெறியை பற்றிஅறிந்து கொள்ளல்.
	CO2	:வாழ்வில் பின்பற்ற வேண்டிய நன்னடத்தை நிலையைத் தெரிந்து கொள்கின்றனர்.
	CO3	வாழ்வில் பின்பற்ற வேண்டிய இனிய கருத்துக்களை அறிந்து கொள்கின்றனர்.
	CO4	:இல்லறத்தார்இதுறவறத்தார் பின்பற்ற வேண்டிய நெறிமுறைகளை வெளிக்கொணர்தல்.
	CO5	மனிதன் வாழ்வில் செய்யக்கூடாத செயல்களை வலியுறுத்துதல்.



Autonomous & Affiliated to Bharathiar University, Coimbatore

Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

An ISO 9001-2015 Certified Institution

	CO6	வாழ்வை மேம்படுத்திக் கொள்வதற்கான வழிமுறைகளை தெரிந்து கொள்கின்றனர்.
பகுதி III- முதன்மைப்பாடம்X	CO1	:சங்க கால இல்லற வாழ்வின் அன்பினை அறிந்து கொள்ளல்.
சங்க இலக்கியம் - அகம்	CO2	சங்க இலக்கியத்தின் மூலம் இல்வாழ்க்கை பேணும் முறையை அறிந்து கொள்ளல்.
	CO3	ஐவகை நிலத்து மக்களின் வாழ்வினை புரிந்து கொள்ளல்.
	CO4	சங்க காலத்தில் இல்லற வாழ்விற்குள் புகும் தலைவன்இதலைவின் மாண்பினை அறிந்து கொள்ளல்.
	CO5	சங்க கால தமிழகத்தின் நீர் வளம் இநில வளம்,தமிழர்களின் வீரம் ஆகியவற்றை அறிந்து கொள்ளல்.
	CO6	:சங்க கால மக்களின் மாண்பினை தெரிந்து கொள்ளல்.
பகுதி III- முதன்மைப்பாடம்	CO1	தமிழர்களின் அகவாழ்வியல் கூறுகளை அறிந்து கொள்ளல்.
XIஇலக்கணம் - IV நம்பியகப்பொருள்	CO2	சங்ககால வாழ்வியலின் சிறப்பினைத் தெரிந்து கொள்ளுதல்.
புறப்பொருள் வெண்பாமாலை	CO3	:இல்லற வாழ்வின் மாண்பினை அறிந்து கொள்கின்றனர்.
	CO4	சங்ககால மக்களின் புறவாழ்க்கை கூறுகளைத் தெரிந்து கொள்ளல்.
	CO5	சங்ககால மக்களின் வெற்றிச் சிறப்பை அறிந்து கொள்ளல்.
	CO6	சங்ககால மக்களின் ஆளுமை திறனை உணர்ந்து கொள்ளல்
பகுதி III	CO1	படைப்பிலக்கியம் பற்றி அறிந்து கொள்ளல்.
முதன்மைப்பாடம் XII படைப்புக்கலை	CO2	மரபு கவிதை உருவாக்கம் பற்றி தெரிந்து கொள்ளல்
	CO3	புதுக்கவிதைப் பற்றி உணர்ந்து கொள்ளல்
	CO4	சிறுகதை உருவாக்கம் பற்றி தெரிந்து கொள்ளல்;.
	CO5	நாடகம் எழுதும் விதத்தினை அறிந்துகொள்ளல்;.
	CO6	படைப்பாக்கக் கலை முழுமையும் அறிந்து கொள்ளல்.



Autonomous & Affiliated to Bharathiar University, Coimbatore Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

An ISO 9001-2015 Certified Institution

பகுதி III சிறப்புப்பாடம் I	CO1	வளர்ந்து வரும் துறைகளில் இதழியல் இன்றியமையாது என்பதனை உணர்த்துதல்.
இதழியல்	CO2	செய்தித்தாளின் தோற்றம்இ இதழியல் பங்கு குறித்தும் அறியச் செய்தல்.
	CO3	:செய்தித்தாளின் வகைகள் குறித்தும்இ செய்தியாளர்கள்இ செய்தி சேகரிப்பு முறைகள் குறித்தும் அறிந்து கொள்ளச் செய்தல்.
	CO4	இதழியல் சட்டங்கள்இ நிர்வாக அமைப்பு பற்றியும் தெரிந்து கொள்ளுதல்.
	CO5	இதழ்களின் பகுப்பு முறை மற்றும் இதழ்களின் வகைகள் குறித்து அறிந்து அதன் பயனை பெறுதல்.
	CO6	இதழ்கள் பற்றிய விரிவான தகவல்களோடு பிறமக்கள் தொடர்பு சாதனங்கள் பற்றியும் அறியச் செய்தல்
பகுதி-III சிறப்புப்;பாடம் I -	CO1	கோயில்களின் தோற்றம் மற்றும் சங்ககால வழிபாடு முறைகள் பற்றிய சிறப்பினை அறியச் செய்தல்.
கோயிற்கலை	CO2	இந்திய கட்டடக்கலையின் தொடக்கம் குறித்தும் கட்டிட அமைப்பு முறை குறித்தும் அறியச் செய்தல்
	CO3	சிற்பங்கள் மற்றும் ரதங்களின் அமைப்பு முறைகளை தெரிந்து கொள்ளல்.
	CO4	குடைவரை கோயில்களில் தொன்மை குறித்து அறிந்திருத்தல்.
	CO5	மூவேந்தர் கால கோயில்களின் பொது கூறுகள் பற்றியும் ஓவியக்கலை பற்றியும் அறிந்து கொள்ளுதல்.
	CO6	:சமயங்களின் புராணச் சிற்பங்கள் குறித்தும் மூவேந்தர் கால செப்புத் திருமேனிகள் குறித்தும் அறியச் செய்தல்.
பகுதி-IV Skilled Enhancement CourseIII-	CO1	இயற்கை உணவே இன்றியமையாத உணவு முறை என அறிந்து கொள்ளல்.
இயற்கை மருத்துவம்	CO2	:ஐம்பூத மருத்துவ முறைகளையும் நோயை குணப்படுத்துவதற்கான சிகிச்சை முறைகளையும் தெரிந்து கொள்ளல்.
	CO3	:கீரைகள்இ காய்கறிகள் மற்றும் பழங்களில் அடங்கியுள்ள அனைத்து விதமான சத்துக்கள் பற்உணரச் செய்தல்.



Autonomous & Affiliated to Bharathiar University, Coimbatore Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

An ISO 9001-2015 Certified Institution

	CO4	தானியங்கள்இ மலர்கள் போன்றவற்றில் உள்ள மருத்துவ குணங்களை உணர்ந்து கொள்ளுதல்.
	CO5	ஆரோக்கியமான உணவு முறை குறித்தும் நோயை விடுவிக்கும் உணவுமுறைகள் குறித்தும் அறிதல். மருத்துவ பழமொழிகளை தெரிந்து கொள்ளல்.
	CO6	:இயற்கை உணவு முறையில் இடம் பெறக்கூடிய மூலிகைகளின் தன்மையை அறியச்செய்தல்
பகுதி III முதன்மைப்பாடம் XIII	CO1	பண்டைய மக்களின்இ போர் மரபுஇ அறநெறிகளை அறியச் செய்தல்.
சங்க இலக்கியம் - புறம்	CO2	சேர மன்னர்களின் வெற்றிச் சிறப்பையும் கொடைச் சிறப்பையும் அறிந்து கொள்ளச் செய்தல்.
	CO3	இறைவழிபாட்டின் வாயிலாக நிலையாமையை உணர்த்தி வீடுபேற்றை அடைய வழி வகை செய்தல்.
	CO4	முருகப்பெருமானின் சிறப்புகளைக் கூறி அறுபடை வீடுகளை அறியச் செய்தல்.
	CO5	கடையெழுவரின் வள்ளல் தன்மையை தெரிந்து கொள்ளல்.
	CO6	யானைப்போர் பற்றிய வீரக் கற்பனைகளை உணர்த்துதல். சங்ககால அரசியல் மற்றும் சமூக வரலாற்றுத் தொகுப்புகளை அறியச்செய்தல்.
பகுதி III முதன்மைப்பாடம் XIV தமிழ்மொழி வரலாறு	CO1	மொழியின் சிறப்பியல்புகளைக் கூறி, அதற்கு ஆவணமாக அமையும் கல்வெட்டுக்களை அறியச் செய்தல்.
	CO2	தமிழ்மொழியில் உள்ள இலக்கணக் கூறுகளை அறியச் செய்தல்.
	CO3	பல்லவர், சோழர், நாயக்கர், மராட்டியர் காலத்தில் தமிழ்மொழியில் ஏற்பட்ட பல்வேறு வகை மாற்றங்களை அறியச் செய்தல்.
	CO4	
	CO5	கிளைமொழிகளின் வரலாறுகளை உணர்த்தச் செய்தல்.
	CO6	தமிழ்மொழியின் வரலாறு மற்றும் இலக்கணங்களை அறியச்செய்தல்.
பகுதி III முதன்மைப்பாடம் XV	CO1	செம்மொழிக்குரிய பண்புகள்இ தகுதிகள்இ அறிஞர்களின் கூற்றுக்களை அறியச் செய்தல்.



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தமிழின் செம்மொழி பான்காக	CO2	உலகச் செம்மொழி இலக்கியங்களின் – சிச் – ச் கால கால கால் – சி
பண்புகள்		தனித்தன்மையை உணர்த்துதல்.
	CO3	உலகச் செம்மொழிகளின்
		தொகையாக்கங்களையும், அறசிந்தனையையும்,
		வாழ்வியல் விழுமியங்களையும் அறிந்து கொள்ள
		வழிவகை செய்தல்.
	CO4	உலகச் செம்மொழி இலக்கியப் பாடுபொருள்இ
		இறைநெறி போன்ற விழுமியங்களை அறியச் செய்தல்.
	CO5	 செம்மொழிகளின் பொதுப்பண்புகள் மற்றும்
	000	புராணங்கள் இவற்றை ஒப்பீட்டு நோக்கில்
		உணர்த்தல்.
	CO6	தமிழ்மொழியின் சிறப்புத் தன்மைகள் மற்றும்
		இலக்கியங்களை அறியச் செய்தல்.
	CO1	பழந்தமிழ் இலக்கியத் திறனாய்வின் வரலாறு பற்அறிந்து கொள்ளல்.
	CO2	படைப்பாளி மற்றும் உரையாசிரியர்களின் திறனாய்வினை அறிந்து கொள்ளல்.
	CO3	கல்வியாளர் மற்றும் நெறியாளரின் திறனாய்வுகளை அறிந்து கொள்ளல்.
	CO4	அழகியல் வாதத்திறனாய்வுகளின் சிறப்புக்களை அறிதல்.
	CO5	பல்வேறுபட்ட திறனாய்வுகளைப் பற்றித் தெரிந்து கொள்ளல்.
	CO6	திறனாய்வு குறித்த ஆர்வத்தை ஏற்படுத்துதல்.
பகுதி III சிறப்புப்பாடம் II		திராவிட மொழிகளின் தன்மை குறித்து அறிந்து கொள்ளல்.
கால்டுவெல்	CO2	மெய் எழுத்துக்களில்; உள்ள பல்வேறு
ஒப்பிலக்கணம்		வகைப்பாடுகள் மற்றும் வேர்ச்சொற்களை அறிந்து
		கொள்ளல்.
	CO3	வேற்றுமையின் வகைகள் மற்றும் இனத்
		தோடர்புகள் குறித்து அறிந்து கொள்ளல்
	CO4	மூவிடப்பெயர், சுட்டுப்பெயர், வினைப்பெயர்களை அறிந்து கொள்ளல்.
	CO5	மொழிகளின் ஒருமைப்பாடுகளை தெரிந்து கொள்ளல்.



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	CO6	எழுத்துக்களின் பிறப்பிடத்தை பிறமொழிகளோடு தொடர்புள்ளதை அறியச் செய்தல்
பகுதி III சிறப்புப்பாடம் III	CO1	பல்வேறு உலக நாடுகளில் உள்ள சுற்றுலாத் தலங்களை அறிந்து கொள்ளல்.
சுற்றுலாவியல்	CO2	தமிழ்நாட்டில் சுற்றுலா வளர்ச்சியும் அதனால் ஏற்படும் பொருளாதார விளைவுகளைத் தெரிந்து கொள்ளுதல்.
	CO3	சுற்றுலாப் பயணிகள் குறித்த புள்ளி விவரங்களையும், அதனை திட்டமிட்டு மேம்படுத்தும் முறையினை அறிந்து கொள்ளல்.
	CO4	சுற்றுலா போக்குவரத்துக் கழங்கள் மற்றும் பயண முகவர்கள் குறித்து அறிந்து கொள்ளுதல்.
	CO5	சுற்றுலா வணிகச் சந்தைகள், வழிகாட்டிகள் மற்றும் பயணநூல்கள் பற்றிய இலக்கண நெறிகளைத் தெரிந்து கொள்ளுதல்.
	CO6	சுற்றுலாவின் மூலம் நாட்டின் பொருளாதாரத்தை மேம்படுத்துதல்.
பகுதி III சிறப்புப்பாடம் III	CO1	மொழிபெயர்ப்பின் தோற்றம் மற்றும் வளர்ச்சி குறித்து அறிந்து கொள்ளல்.
மொழிபெயர்ப்பியல்	CO2	மொழிபெயர்ப்பின் வகைகள், தேவைகள், பாகுபாடுகள் குறித்து அறிந்து கொள்ளல்
	CO3	மொழிபெயர்ப்பில் ஏற்படும் சிக்கல்கள் மற்றும் சொல்லாக்கத்தினை அறிந்து கொள்ளல்.
	CO4	மொழிபெயர்ப்பின் பயன்கள் மற்றும் அறிவியல் தொழில் நுட்ப முன்னேற்றம் குறித்து அறியச் செய்தல்.
	CO5	இலக்கியங்களில் உள்ள பல்வேறு மொழிபெயர்ப்புகள் குறித்து அறிந்து கொள்ளல்.
	CO6	மொழிபெயர்ப்பு குறித்த விழிப்புணர்வை ஏற்படுத்தச் செய்தல்.
பகுதி IV Skill Enhancement Course IV அரசுத் தேர்வில் தமிழ்	CO1	இந்திய மொழிக் குடும்பங்களின் வரலாறுகளை அறியச் செய்தல்.
	CO2	தமிழ் எழுத்துக்களின் தோற்றம் மற்றும் வளர்ச்சியினை உணர்த்துதல்.
	CO3	தமிழ்மொழியின் வரலாறு மற்றும் வளர்ச்சியினை தெரிந்து கொள்ளுதல்.



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www.gvgvc.ac.in. gvgprincipal@gmail.com Ph.04252-223019, Fax:04252-2233111

	CO4	தமிழில் உள்ள உருபனியல் மற்றும் தொடரியலை அறிந்து கொள்ள வகை செய்தல்
	CO5	தமிழில் உள்ள பெயர்த் தொடர் அமைப்பு முறைகளை அறிந்து கொள்ளுதல்.
	CO6	மொழியின் பெருமையை உணர்த்துதல்.
Advanced Learner Course II வாய்மொழித்தேர்வு /	CO1	சங்ககாலப் பெண்களின் உரிமைகள் மற்றும் அதிகாரங்களை அறியச் செய்தல்.
பெண் இயல் கல்வி	CO2	இந்திய சுதந்திரப் போராட்டப் பெண்கள் பற்றி அறிந்து கொள்ளல்.
	CO3	தமிழக அரசின் திட்டங்கள் குறித்து அறிந்து கொள்ளல்.
		பெண்களுக்கு சமூக அவலங்கள் குறித்த விழிப்புணர்வை ஏற்படுத்துதுல்.
		பெண்கள் குறித்த அரசியல் சாசன சட்டத்தை அறிய வழி வகை செய்தல்.
		சமூக சீர்திருத்தங்கள் குறித்த விழிப்புணர்வை ஏற்படுத்துதல்.

## **BSC(STATISTICS)**

	Programme Outcomes				
PO1	Able to identify, formulate and solve statistical problems.				
PO2	Able to apply the knowledge of statistics in various fields				
PO3	Able to develop statistical models.				
PO4	Self learners and efficient in communication.				
PO5	Able to possess professional and social responsibility.				

	Programme Specific Outcomes			
	Develop the ability to work effectively in broad range of scientific, government, financial, health, technical and other positions.			
	Recognize the importance and value of statistical thinking, training and approach to problem solving in various disciplines.			
PSO3	Accomplish the ability to use various statistical techniques interpret accordingly.			



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		Course Outcomes
Course Name	CO	Statement
Core I Descriptive Statistics - I	CO1	Demonstrate the ability to apply fundamental concepts in exploratory data analysis.
	CO2	Classify and present the data
	CO3	Interpret examples of methods for summarizing data set which are most appropriate to highlight interesting features of the data.
	CO4	Construct and interpret graphical summaries of data.
	CO5	Compute the descriptive measures and its dispersion
	CO6	Fit curves transformable to the form of least square.
Core II Descriptive Statistics	CO1	Associate the data and find its measure.
- II	CO2	Fit the line of best fit and its coefficient.
	CO3	Measure the dependence and independence of data by method of attributes.
	CO4	Recognize the degree of uncertainty that is involved before making important decisions.
	CO5	Interpret the success or failure in terms of probability conditions.
	CO6	Use an appropriate statistical tool for data summary and exploratory data analysis
Allied I Mathematics for	CO1	know the basic operations on set
Statistics I	CO2	classify the types of matrices
	CO3	solve linear equations by using determinants
	CO4	check the consistency of a linear system of equations
	CO5	compute the derivates of functions
	CO6	compute successive derivates
Core III Applied Statistics	CO1	Formulate methods for using time series analysis for addressing business problems.
	CO2	Define price and quality indices and construct price, quantity and value indexes.
	CO3	Predict future values for the present data by various techniques of time series analysis.
	CO4	Identify and compare the advantages and disadvantages of the different sources of Demographic data.
	CO5	Describe the distribution of a population using various demographic characteristics.
	CO6	Present appropriate techniques to ensure comparability of the measures across the birth population
Core Practical I Statistical Practical I	CO1	Apply the fundamental concepts in exploratory data analysis using MS Excel.

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		Construct the types of charts using MS Excel.
	CO3	Calculate various measures of Descriptive Statistics using MS Excel.
	CO4	Fit curves using MS Excel.
	CO5	Apply the appropriate forecasting techniques to a given data.
	CO6	Predict the price index for a real time data.
Allied II Mathematics for	CO1	Evaluate intergrals
Statistics II	CO2	know about the laplace transforms of various function
	CO3	obtain Fourier series of various function
	CO4	test the concepts of convergency and divergency of serious
	CO5	compute the summation of binomial, exponential and logarithmic series
	CO6	derive mathematical formulas using various mathematical techniques.
Core IV Demographic	CO1	Construct and analyze simple and abridged life tables.
methods	CO2	Project a population using appropriate equations and assumptions.
	CO3	Recognize and analyze typical demographic patterns arising from the data.
	CO4	Describe basic demographic indicators and elaborate on their computation and interpretation
	CO5	Interpret the data base on which are built population projections and work force projections.
	CO6	Estimate the rate of change in a population.
Core V Probability	CO1	Identify and predict types of variables.
Distribution I	CO2	Find the probabilities associated with a discrete probability distribution.
	CO3	Compute the joint, marginal and continuous distribution functions for random variables.
	CO4	Interpret the mean of a random variable in terms of the law of large number
	CO5	Calculate the probabilities of mass and density function of random variables.
	CO6	Apply central limit theorem to problems involving sums and averages from probability distributions.
Allied III Computer programming for Statistical	CO1	Develop simple programs using the basic elements like control statements, arrays and strings.
Analysis I	CO2	Apply the concept of arrays to represent statistical data.
	CO3	Illustrate the code reusability with the help of user defined functions.
	-	Use string handling functions to address string oriented problems
	CO5	Utilize the structures to represent statistical problems and manipulate the data efficiently.
		Develop programs for simple applications in an ethical manner.
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Part IV – Non Major	CO1	Identify the history and applications of statistics in various fields.
Elective Statistical Analysis	CO2	Demonstrate the ability to apply various statistical tools in data analysis.
	CO3	Interpret the data using various kinds of charts and diagrams.
		Evaluate and analyze methods for examining central tendencies and dispersion.
	CO5	Measure the degree of relationship between the variables.
	CO6	Predict and forecast the relationship among the variables.
Part IV- Skill Enhancement Course I Professional	CO1	Develop listening skills and comprehend the keywords specific to statistics thereby improving their aural competence.
English for Statistics	CO2	Exhibit correct usage of words in oral presentations with confidence.
	CO3	Read and interpret unfamiliar texts and explain/write summary with clarity.
	CO4	Write reports for simple case studies and data analysis.
Core VI Probability	CO1	Compute the probabilities associated with discrete distributions.
Distribution II	CO2	Find probabilities associated with a normal probability distribution.
	CO3	Approximate the binomial probabilities using a normal distribution and other discrete distributions.
		Evaluate the expected value and variance of discrete and continuous probability distributions.
		Decide the normal random variable leading to chi square, t and F distributions
		Interpret and communicate probabilities obtained from probability distributions.
Core Practical II Statistical	CO1	Construct a life table used in mortality.
Practical II	CO2	Illustrate various demographic techniques.
	CO3	Determine the growth of population.
	CO4	Fit binomial distribution to a data suitable for binomial distribution.
	CO5	Fit Poisson distribution appropriately.
	CO6	Fit Normal distribution using different methods.
Allied IV Computer	CO1	Describe the significance of object oriented programming.
programming for Statistical Analysis II		Illustrate the use of various data types and decision making and looping structures.
	CO3	Demonstrate the use overloading concepts.
		Program using constructors.
	CO5	Build programs classes using appropriate encapsulation and design principles.
	CO6	Simulate problem in computer networks and real world problems.
Allied Practical C& C++	CO1	Demonstrate frequency distributions.
programming		Compute the various basic measures of descriptive statistics.

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	CO3	Sketch straight line using the least square method.
		Fit Binomial and Poison distributions.
		Perform various matrix operations.
		Sort an array of numbers in a specified order.
Part IV- Skill Enhancement	-	Explain the involved in Insurance business
Course - II		*
Actuarial Statistics		Use discrete and continuous distributions in actuarial statistics.
		Identify various risk models for short term.
		Determine survival functions, median future life time and force of mortality
		Find expected number of survivals, construct life tables.
Core VII Statistical Inference I	CO1	Construct contingency tables to test independence and homogeneity of the samples
	CO2	Demonstrate approaches to include a measure of accuracy for estimation procedures.
	CO3	Formulate estimators and test procedures based on point estimation.
	CO4	Find the Cramer-Rao lower bound for the variances of unbiased estimators.
	CO5	Compute confidence interval and confidence limit for a population parameter.
	CO6	Analyze and interpret real time empirical data.
Core VIII Sampling theory	CO1	Estimate the sample size for a research or a study.
	CO2	Demonstrate the optimum results with the available sources at the disposal by studying the sample values.
	CO3	Develop an understanding about different sampling methods based on probability and non-probability sampling
	CO4	Obtain best possible estimates of the population parameters.
	CO5	Increase the level of efficiency and cost reduction of sampling.
	CO6	Evaluate mean and variance of the parameter based on different sampling methods.
Core IX Design of Experiments	CO1	Demonstrate the variation of information under conditions that are hypothesized to reflect the variation
	CO2	Explain the partitioning of the total sum of squares into the 'within' and 'between' group components
	CO3	Predict the outcome by introducing a change of pre-conditions, represented by one or more independent variables.
	CO4	Study the effect of each factor on the response variable and the effects of interactions between factors on response variable
	CO5	Increase statistical power by reducing the within-group error variance
		Improve the robustness of the design or process.
		Describe the purpose and function of Quality control.



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		Demonstrate to control material reception, internal rejections, clients, claims and evaluation of the same corrective actions related to their follow-up.
	CO3	Examine the difference between attributes and variables.
	CO4	Measure and control the quality by monitoring the
		manufacturing process using various charts in quality system.
		Develop and use the quality indicators to customer
Core X Statistical Quality		requirements and satisfaction and to the management.
Control I	CO6	Take decisions to accept or reject a lot using various sampling plans.
Elective I Numerical	CO1	Apply forward and backward interpolation in the correct context.
Methods	CO2	Demonstrate the application of central difference formula
		Recognize the situations where interpolation with unequal intervals can be applied and apply the same.
	CO4	Derive various numerical formulae
	CO5	Compute derivatives of functions using interpolation methods
	CO6	Compute integrals of functions using interpolation methods
Elective I Biostatistics	CO1	Compare the means of two or more than two samples simultaneously.
		Evaluate the multiple regression coefficients and the suitability of the regression model.
	CO3	Determining the association of variables used in the research.
		Calculate and interpret the data using a wide variety of distribution free tests.
	CO5	Develop and use survival curves to make conclusions of researchwork
	CO6	Interpreting the biological studies using various statistical tools.
Skill Enhancement Course –	CO1	Describe the basic principles of specification of econometric models
III Elements of Econometrics		Demonstrate an understanding of variations and generalizations of the basic regression models
		Predict the relationship of the variables based on the value of two or more variables
		Find the occurrence of high-inter correlations among independent variable in a multi-regression model
	CO5	Express consequences of using OLS in the presence of autocorrelation
		Explain, interpret, forecast and take policy actions relative to the economic phenomenon of interest
Core XI Statistical Inference II		Demonstrate the plausibility of pre-specified ideas about the parameters of the model by examining the area of hypothesis testing.
		Identify the components of a classical hypothesis test including two types of errors, null and alternative hypothesis.
	CO3	Demonstrate the theory of likelihood ratio test to test the significance of samples



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	CO4	Critically examine sequential procedures for appropriate statistical analysis.
		Demonstrate the use of non-parametric statistical methods and to interpret and analyze the results.
	CO6	Use the learnt statistical methods to analyze certain real life data
Core XII Statistical Quality	CO1	Apply and evaluate best practices for the attainment of total quality.
Control II		Develop various operating cost components and applications of JIT for operations management.
	CO3	Elucidate the functioning and application of six-sigma in process control
	CO4	Explain how ISO 9000 series is used in attaining quality standards
		Demonstrate the fundamental concepts and methodologies used in reliability analysis.
	CO6	Follow ethics while implementing the tools of TQM
Core Practical III Statistical	CO1	Interpret results using various types of charts.
Practical III – Using SPSS	CO2	Carryout inferential statistical analysis using SPSS.
		Test the significant relationship between the variables and interpret the result
	CO4	Independently use the various tools to analyze real time data.
Core Practical IV Statistical	CO1	Estimate the parameters by using different methods practically.
PracticalIV	CO2	Estimate sample size, mean and variance for different probability sampling methods practically
		Test the significance between the variables using various linear model designs and interpret them statistically.
	CO4	Fit the hypothesis to test the given samples using various statistical tools
	CO5	Check whether the product can be accepted or rejected using various quality control methods.
	CO6	Utilize the tools to interpret and analyze a real time data with an ethical insight
Elective II operations Research		Formulate and solve linear programming problems using appropriate techniques and interpret the results obtained.
	CO2	Build and solve transportation models and assignment models.
	CO3	Propose good strategies in two person zero sum games.
	CO4	Optimize the outputs in terms of time, cost or profit
	CO5	Predict the profit and cost expenses in a simple inventory system
	CO6	Compute the necessary parameters in a network
Elective II Matrices	CO1	Perform common matrix operations such as addition, multiplication and transposition.
	CO2	Solve a system of linear equations and find out the feasible solution.



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		Establish a sufficient condition for invertibility in terms of elementary matrices.
		Apply elementary transformations to reduce the matrix to Echelon and normal form and determine its rank.
		Finding powers of a matrix and determining matrix inverse using Cayley-Hamilton Theorem.
	CO6	Interpret existence and uniqueness of solutions geometrically.
Elective III Psychological Statistics		Measure the degree of similarity between the variables by using different ranking techniques.
		Determine an ordinal relationship between rankings of different ordinal variable or different rankings of same variable.
	CO3	Identify the consistency of a measure using reliability techniques.
		Examines the issues involved in developing and validating multi-item self report scales of latent constructs.
		Predict the relationship between the variables in psychological research
		Classify the research methods used in psychology and apply the statistical techniques used in psychological research.
Part IV- Skill Enhancement	CO1	Develop, practice and improve technical skills
Course - IV Project		Apply basic statistical concepts and analytical tools appropriately.
	CO3	Demonstrate the analyzing skills in exploratory data analysis.
	CO4	Predict results for a current scenario.
	CO5	Compare two different sets of samples and interpret the result
	CO6	Propose the scope of research



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## **B.A. ECONOMICS WITH LOGISTICS AND FREIGHT MANAGEMENT**

	Programme Outcomes				
PO1	Understand the concepts and application of logistical operations.				
PO2	Ability to indulge themselves in industry related logistics services.				
PO3	Pursuer higher education and research.				
PO4	Adopt the business environment ethics.				
PO5	Provide consultancy services regarding cost effectiveness in logistics to public.				
PO6	Gain knowledge on new emerging issues in international trade.				
PO7	Define fiscal and monetary policies and how these policies promote the economy.				

	Programme Specific Outcomes				
PSO1	Apply the concept of logistics operations.				
PSO2	Evaluate and compare different modes of transportation problems				
	Manage shipping operations such as ocean shipping freight forwarding and documentation department.				
PSO4	Manage supply chain process at the regional, national and international Level.				

Course Outcomes		
Course Name	CO	Statement
Part III – Core I Managerial Economics I	CO1	Recognize the conceptual framework of managerial economics and responsibilities of managerial economist.
	CO2	Classify the types, measurement and its application in laws of demand.
	CO3	Express the gained knowledge on consumption and utility analysis by way of Marginal Rate of Substitution and consumer's surplus.
	CO4	Identify the different laws of production and to apply the use of production function in decision making.
	CO5	Evaluate the application of demand forecasting techniques for the purpose of forecasting.
	CO6	Analyse the cost output relationship and make use of break even analysis in business decision making.



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Part III – Core II Logistics Management	CO1	Extrapolate the nature and concepts, mission and objectives, components and functions of integrated logistics system.
	CO2	Recognize the functions and types of warehousing design and strategies with the advancement of technology which facilitates both export and import.
	CO3	Apply the different models of inventory like DRP and VMI in the field of logistics.
	CO4	Compile the new emerging packaging systems designed for cost effectiveness.
	CO5	Choose to face the new challenges in utilization of material handling equipments.
	CO6	Evaluate elements of transportation cost involved in multi-modal transportation and the role of logistics service providers.
Part III - Allied I	CO1	Equip with the basic knowledge of managing a business unit.
Principles of	CO2	UnderdIInculcate managerial skills.
Management	CO3	Provide the capacity to apply theoretical knowledge in stimulated and real-life settings.
	CO4	Identify and analyze both qualitative and quantitative information to solve the issues and formulate best control methods.
	CO5	Comprehend the corporate strategic planning techniques.
	CO6	Describe the techniques of controlling and co-ordination.
Part III – Core III	CO1	Creates knowledge on different features of pricing.
Managerial Economics II	CO2	Characterise different market conditions under pricing.
	ÇO3	Identify the advanced topics in various kinds of pricing
	CO4	Recognise the significance of the concept of profit, intricacies of the different theories of profit, forecasting and policies for profit management.
	CO5	Estimate the cost of capital, capital budgeting and feasibility of business project.
	CO6	Distinguishes the risk and types of uncertainties and analyses the decisions making process.
Part III – Core IV Logistics Information	CO1	Estimate the need and principles of designing logistics information applications in transaction system.
System	CO2	Comprehend the significant characteristics of forecast component, approaches, techniques and error.
	CO3	Formulate the information technologies of logistics like bar coding, electronic data, etc.,
	CO4	Recognise the importance of quality customer service and order cycle systems
	CO5	Express the informational issues in integrated logistics like E –Commerce
	CO6	Report the logistics accounting activities.



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Part III - Allied II	CO1	Acquire skills on 'firm', optimum and representative firm
Industrial Economics	CO2	Describe the nature and various theories of industrial location.
	CO3	Examine the importance of term finance, short term, Medium term and Long term.
	CO4	Analyze the role of state in Industrial development.
	CO5	Assess the new industry policy if India.
	CO6	Elucidate the economic reforms of industries.
	CO7	Prepare and implement the various aspects of rationalization and Automation benefits.
Part III – Core V Macro	CO1	Have a knowledge of macroeconomic variables
Economics	CO2	Assess the basic concepts and basics of national income accounting.
	CO3	Gain knowledge about the theories.
	CO4	Distinguish the working of the free market economy.
	CO5	Interpret theories of consumption in real life situation.
	CO 6	Build knowledge about economic policies
Part III – Core VI Supply Chain Management	CO1	Identify the objectives, importance and decisions phases of supply chains of various industries.
	CO2	Estimate the supply chain performance with knowledge on achieving strategic fit to face the challenges in Indian scenario.
	CO3	Create the structuring drivers of supply chain performance role of inventory, components of inventory decision in supply chain.
	CO4	Analyze the role of safety inventory, impact of supply uncertainty on safety inventory and impact of replenishment policies on safety inventory
	CO5	Apply the knowledge of information technology in supply chain management and thereby gain the foundation future of IT in supply chain
	CO 6	Generalise the knowledge of supply chain management
Part III – Allied III Mathematical Methods	CO1	Understand the mathematical tools of algebra and derivatives in a variety of economic models.
	CO2	Replicate the formal mathematical structures using matrix algebra.
	ÇO3	Gain knowledge in the application of cost, revenue, profit maximization and cost minimization concepts in economic theories.
	CO4	Undertake research and higher studies.
	CO5	Apply the mathematical techniques in economic theories.
	CO6	Develop a set of problem-solving and analytical skills to solve problems in the fields of finance.
Part IV - Non-Major Elective I Introduction to	CO1	Recognize the concept, objectives, elements, activities and importance of work of logistics and its interface with marketing
Logistics Management	CO2	Gain knowledge in logistics management process
	CO3	Summarise the reason for and role of outsourcing logistics.



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		Create the strategic role of managers in strategic decisions, lean strategy and agile strategies
	CO5	Apply the order cycle system in designing distribution channels.
Part IV – Skill	CO1	Gain knowledge on concepts and principles of communication
Enhancement Course I	CO2	Understand the skills in development communication
Communication Skills for Business	CO3	Construct various communication letters for business activities
DUSIIICSS	CO4	Acquire skills on correspondence with banking, insurance and other agencies
	CO5	Inculcate the skills on different kinds of report writing.
	CO6	Acknowledge the media planning and advocacy
Part III – Core VII Monetary Economics	CO1	Recognize the meaning and significance of how money performs its functions to capitalize the economy.
	CO2	Classify the different approaches of theories of money on demand for and supply of money
	CO3	Compare and contrast the different views on theories of money.
	CO4	Analyze the causes and consequences of inflation and how deflation affects the entire economic life of the country.
	CO5	Describe the role of central banks and commercial banks in India.
	CO6	Build the concepts related to monetary policy
Part III – Core VIII Materials Management	CO1	Recognize the need, functions and cost of materials including inspection of material management.
	CO2	Recognize the significance of classification and codification systems
	CO3	Analyse the importance of techniques in material requirement planning and categorize the different type of budgeting.
	CO4	Summarise the objectives, features, functions and benefits and marking of successful store keeping.
	CO5	Compile the application of the principles of the material handling equipments and selective inventory control analysis.
	CO6	Draw the layout for store organization
Part III – Allied IV	CO1	Comprehend the concept of statistics and the ways to mobilizing data
<b>Business Statistics</b>	CO2	Apply various statistical tools in economic theories
	CO3	Recognize the strengths and shortcomings of statistical problems.
	CO4	Assess the ways of measuring the inter-relationship among variables
	CO5	Acquire skills in calculating basic statistical parameters independently
	CO6	interpret the calculated statistical indicators based on the acquired knowledge
Part IV– Skill	CO1	Create account heads.
Enhancement Course II –	CO2	Create and manage inventory.
	CO3	Apply tax concepts in business accounting.



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Tally Accounting	CO4	Prepare final accounts in accordance with generally accepted
Programme –Practical	04	accounting principles.
	CO5	Acquaint to prepare bill
	CO6	Learn to extract financial and inventory reports.
Part III – Core IX Fiscal	CO1	Describe the nature and working of public finance and its theories.
Economics	CO2	Analyse the key economic issues in analysis of taxation, public expenditure and the relationship between public and private provision.
	CO3	Examine the revenue and expenditure administration at national and regional levels.
	CO4	Discuss the causes and effects of Public Debt; the role and fiscal policies of Central and State governments
	CO5	Analyse the Central and State Budgets.
	CO6	Assess arguments appearing in the policy debate
Part III – Core X Production and	CO1	Recognise the basics and trends of production and operations management
<b>Operations Management</b>	CO2	Describe the Manufacturing and Service operations.
	CO3	Implement the product and product design.
	CO4	Prepare Enterprise Resource Planning and MRPsystems.
	CO5	Compute project planning, controlling, schedulingand evaluation techniques.
	CO6	Convert product design into work systems.
Part III-Core XI Freight Management	CO1	Comprehend and recognize the types of tariff rates and freight rebates.
	CO2	List the different types of ship and shipping formalities.
	CO3	Explain the role of custom brokers in foreign trade.
	CO4	Discuss about air cargo and air cargo association.
	CO5	Assess sea routes, air routes and kinds of aircraft
	CO6	Evaluate shipping services in India.
Part III – Core XII	CO1	Describe the concept of foreign trade
Foreign Trade Procedures and Documentation	CO2	Explain the foreign trade policy of India
	CO3	Analyse the export procedures and identify the export documents.
	CO4	Specify the Legal Documents for Foreign Trade
	CO5	Demonstrate Import Procedures of foreign trade
	CO6	Execute the different Import Documentation
	CO7	Draw Master Documents for Foreign Trade
Part III- Elective I E-	CO1	Recognize the foundations and importance of E-commerce
Commerce	CO2	Describe the infrastructure models for E-commerce
	CO3	Analyze the impact of E-commerce on business models and strategy
	CO4	Execute Mass Customization



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I Transport Economics       economics for effective decision making.         CO2       Explain the various modes of transport.         CO3       Examine the modernization in transport system.         CO4       Analyse the benefits of privatization of transport sector for domestic and international trade.         CO5       Expose the knowledge of air transportation services for international trade.         CO6       Recognise the government regulations in transport sectors.         CO1       Apply computer resources for use in business and academic documents         CO3       CO4         CO4       Analyse the benefits of privatization of transport sectors.         CO3       Expose the knowledge of air transportations services for international trade.         CO4       Apply computer resources for use in business and academic documents         CO3       CO4       Poply computer resources for use in business and academic documents         CO4       Develop presentations containing animation and graphics using Microsoft Excel         CO4       Develop presentations containing animation and graphics using Microsoft PowerPoint.         CO5       Generate and manage databases.         CO6       Prepare and manipulate different programs and functions.         CO4       Have a good conceptual understanding of Global Marketing.         Global Marketing       CO2       CO3		CO5	Assess electronic payment systems
I Transport Economics       economics for effective decision making.         CO2       Explain the various modes of transport.         CO3       Examine the modernization in transport system.         CO4       Analyse the benefits of privatization of transport sector for domestic and international trade.         CO5       Expose the knowledge of air transportation services for international trade.         CO6       Recognise the government regulations in transport sectors.         CO1       Apply computer resources for use in business and academic documents         CO3       CO4         CO4       Analyse the benefits of privatization of transport sectors.         CO3       Expose the knowledge of air transportations services for international trade.         CO4       Apply computer resources for use in business and academic documents         CO3       CO4       Poply computer resources for use in business and academic documents         CO4       Develop presentations containing animation and graphics using Microsoft Excel         CO4       Develop presentations containing animation and graphics using Microsoft PowerPoint.         CO5       Generate and manage databases.         CO6       Prepare and manipulate different programs and functions.         CO4       Have a good conceptual understanding of Global Marketing.         Global Marketing       CO2       CO3		CO6	Convert the ways of secure electronic transaction
CO3         Examine the modernization in transport system.           CO4         Analyse the benefits of privatization of transport sector for domestic and international trade.           CO5         Expose the knowledge of air transportation services for international trade.           CO6         Recognise the government regulations in transport sectors.           CO1         Apply computer resources for use in business and academics           CO3         Create spreadsheets with formulas and graphs using Microsoft Excel           CO4         Develop presentations containing animation and graphics using Microsoft PowerPoint.           CO5         Generate and manage databases.           CO6         Prepare and manipulate different programs and functions.           Part III – Core XIII Global Marketing         CO1           CO4         Built new product strategies and product development           CO5         Deduce the global market pricing           CO4         Built new product strategies and product development           CO5         Deduce the global opportunities and initiatives in India           CO6         Relate the case studies to apply concepts relating to Global Marketing           Part III – Elective II Total Quality Management         CO1         Demostrate knowledge of quality and quality costs           CO4         Evaluate the customer issues         CO5         Analyse the tools of TQM.<	Course: Part III- Elective I Transport Economics	CO1	Discuss the concepts, principles and procedures of transport economics for effective decision making.
CO4Analyse the benefits of privatization of transport sector for domestic and international trade.CO5Expose the knowledge of air transportation services for international trade.CO6Recognise the government regulations in transport sectors.Part IV- SkillCO1Apply computer resources for use in business and academicsComputer Application Techniques - PracticalCO2Use Microsoft Word to Construct business and academic documentsCO3Create spreadsheets with formulas and graphs using Microsoft ExcelCO4Develop presentations containing animation and graphics using Microsoft PowerPoint.CO5Generate and manage databases.CO6Prepare and manipulate different programs and functions.Part III - Core XIII Global MarketingCO1CO4Built new product strategies and product developmentCO5Deduce the global opportunities and initiatives in IndiaCO6Relate the case studies to apply concepts relating to Global MarketingPart III - Elective II ManagementCO1CO4Deixus Principles of TQM and Leadership concept.CO5Analyse the tools of TQM.CO6Assess the quality systems.Part III - Elective II Strategic ManagementCO1CO5Analyse the strategic macro environmental issuesCO5Co6CO6Sesses the quality systems.CO7Estimate the industry factors , and identify their impact on		CO2	Explain the various modes of transport.
and international trade.       and international trade.         CO5       Expose the knowledge of air transportation services for international trade         CO6       Recognise the government regulations in transport sectors.         Part IV- Skill       CO1       Apply computer resources for use in business and academics         Computer Application       CO2       Use Microsoft Word to Construct business and academic documents         CO3       Create spreadsheets with formulas and graphs using Microsoft Excel         CO4       Develop presentations containing animation and graphics using Microsoft PowerPoint.         CO5       Generate and manage databases.         CO6       Prepare and manipulate different programs and functions.         Part III - Core XIII       CO1       Have a good conceptual understanding of Global Marketing.         CO2       Compile selection of marker by the buyer       CO3         CO3       Justify the global market pricing       CO4         Built new product strategies and product development       CO5       Deduce the global opportunities and initiatives in India         CO5       Deduce the global opportunities and unality costs       CO2       Identify the strategies for top management         CO5       Declause Principles of TQM and Leadership concept.       CO4       Evaluate the customer issues         CO5       Analyse the tools o		CO3	Examine the modernization in transport system.
CO6         Recognise the government regulations in transport sectors.           Part IV- Skill Enhancement Course III - Computer Application Techniques - Practical         CO1         Apply computer resources for use in business and academic documents CO2         Use Microsoft Word to Construct business and academic documents CO3           Computer Application Techniques - Practical         CO3         Create spreadsheets with formulas and graphs using Microsoft Excel CO4         Develop presentations containing animation and graphics using Microsoft PowerPoint.           CO5         Generate and manage databases.         CO6         Prepare and manipulate different programs and functions.           Part III - Core XIII Global Marketing         CO1         Have a good conceptual understanding of Global Marketing.           CO2         Compile selection of marker by the buyer         CO3         Justify the global market pricing           CO4         Built new product strategies and product development         CO5         Deduce the global opportunities and initiatives in India           CO4         Relate the case studies to apply concepts relating to Global Marketing         Demonstrate knowledge of quality and quality costs           CO2         Identify the strategies for top management         CO3         Discuss Principles of TQM and Leadership concept.           CO5         Analyse the tools of TQM.         CO6         Assess the quality systems.         CO2         Analyse the strategic macro environment		CO4	Analyse the benefits of privatization of transport sector for domestic and international trade.
Part IV- Skill       CO1       Apply computer resources for use in business and academics         Computer Application       CO2       Use Microsoft Word to Construct business and academic documents         CO3       Create spreadsheets with formulas and graphs using Microsoft Excel         CO4       Develop presentations containing animation and graphics using Microsoft PowerPoint.         CO5       Generate and manage databases.         CO6       Prepare and manipulate different programs and functions.         Part III - Core XIII       CO1         Global Marketing       CO3         CO4       Built new product strategies and product development         CO5       Deduce the global opportunities and initiatives in India         CO6       Relate the case studies to apply concepts relating to Global Marketing         Part III - Elective II       CO1       Demonstrate knowledge of quality and quality costs         Management       CO3       Discuss Principles of TQM and Leadership concept.         CO5       Analyse the tools of TQM.       CO6         CO6       Assess the quality systems.       CO3         CO5       Analyse the strategic macro environmental issues       CO3         CO4       Evaluate the industry factors , and identify their impact on		CO5	Expose the knowledge of air transportation services for international trade
Enhancement Course III - Computer Application Techniques - PracticalCO2Use Microsoft Word to Construct business and academic documentsCO3Create spreadsheets with formulas and graphs using Microsoft ExcelCO4Develop presentations containing animation and graphics using Microsoft PowerPoint.CO5Generate and manage databases.CO6Prepare and manipulate different programs and functions.Part III - Core XIII Global MarketingCO1Have a good conceptual understanding of Global Marketing.CO2Compile selection of marker by the buyerCO3Justify the global market pricingCO4Built new product strategies and product developmentCO5Deduce the global opportunities and initiatives in IndiaCO6Relate the case studies to apply concepts relating to Global MarketingPart III - Elective II ManagementCO1Part III - Elective II Strategic ManagementCO1Analyse the tools of TQM. CO2Estimate the customer issuesCO5Analyse the strategic macro environmental issuesCO4Evaluate the customer issuesCO5Analyse the strategic macro environmental issues		CO6	Recognise the government regulations in transport sectors.
- Computer Application Techniques - PracticalCO2Ose Microsoft Word to Construct Justices and academic documentsCO3Create spreadsheets with formulas and graphs using Microsoft Excel CO4Develop presentations containing animation and graphics using Microsoft PowerPoint.CO5Generate and manage databases. CO6Prepare and manipulate different programs and functions.Part III - Core XIII Global MarketingCO1Have a good conceptual understanding of Global Marketing. CO2CO2Compile selection of marker by the buyerCO3Justify the global market pricing CO4CO4Built new product strategies and product development CO5CO5Deduce the global opportunities and initiatives in IndiaCO6Relate the case studies to apply concepts relating to Global MarketingPart III - Elective II 	Part IV- Skill	CO1	Apply computer resources for use in business and academics
Techniques - PracticalCO3Create spreadsheets with formulas and graphs using Microsoft ExcelCO4Develop presentations containing animation and graphics using Microsoft PowerPoint.CO5Generate and manage databases.CO6Prepare and manipulate different programs and functions.Part III - Core XIII Global MarketingCO1Global MarketingCO2CO3Justify the global market pricingCO4Built new product strategies and product developmentCO5Deduce the global opportunities and initiatives in IndiaCO6Relate the case studies to apply concepts relating to Global MarketingPart III - Elective II Total Quality ManagementCO1CO4Demonstrate knowledge of quality and quality costsCO3Discuss Principles of TQM and Leadership concept.CO4Evaluate the cost of TQM.CO5Analyse the tools of TQM.CO6Assess the quality systems.Part III - Elective II Strategic ManagementCO1CO3Estimate the industry factors , and identify their impact on	Enhancement Course III	CO2	Use Microsoft Word to Construct business and academic documents.
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CO6       Assess the quality systems.         Part III – Elective II       CO1       Analyse the strategic macro environmental issues         Strategic Management       CO2       Estimate the industry factors , and identify their impact on		CO4	Evaluate the customer issues
Part III – Elective IICO1Analyse the strategic macro environmental issuesStrategic ManagementCO2Estimate the industry factors , and identify their impact on		CO5	Analyse the tools of TQM.
Strategic Management CO2 Estimate the industry factors , and identify their impact on		CO6	Assess the quality systems.
202 Estimate the matshy fuetors, and facility then impact of	Part III – Elective II	CO1	Analyse the strategic macro environmental issues
profitability and strategic positioning.	Strategic Management	CO2	Estimate the industry factors , and identify their impact on profitability and strategic positioning.
CO3 Predict organisational performance		CO3	Predict organisational performance
CO4 Identify strategic capabilities and gaps		CO4	Identify strategic capabilities and gaps
CO5 Compare and implement strategy at the single business unit level		CO5	
CO6 Assess strategic evaluation and control		CO6	
CO1 Describe the different kinds of marketing information system		CO1	

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Accredited at A<sup>+</sup> Grade by NAAC (4<sup>th</sup> Cycle)

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	CO2	Explain new product development
	CO3	Examine the price objectives
	CO4	Analyse the functions of stock exchange
Part III – Elective III	CO5	Evaluate the marketing control
Marketing Management	CO6	Discuss the consumer protection methods and needs
Part III – Elective III Brand Management	CO1	Understand the key principles of branding and explain branding concepts and ideas
	CO2	Practically develop a brand including positioning and communications
	CO3	Measure brand strength for any particular market offering
	CO4	Apply branding principles and marketing communication concepts and frameworks to achieve brand management goal and improve marketing performance
	CO5	Identify important issues related to planning and implementing brans strategies for a divorce market
	CO6	Understand and conduct the measurement of brand equity and brand performance
Part III - Human rights and Humanitarian Law-	CO1	Identify the complete course which made the students to work their own pace.
Online course	CO2	Develop an individualized program of study for them self's
	CO3	Implement the ideas on the value of life-long learning and opportunity
	CO4	Develop student personal satisfaction
	CO5	Built a body of knowledge in a specific discipline
Part IV- Skill Enhancement Course IV Creative and Innovative Management	CO1	Develop creative thinking for managers and work teams
	CO2	Build up creativity and promote generation of innovative ideas.
	CO3	Creative thinking methods, tools and techniques to generate ideas and solve problems.
	CO4	Identify and critique organizational models of innovation management.
	CO5	Evaluate the characteristics that make innovative organization is successful
	CO6	Discuss how a business might emulate the successful traits.