Krishnasamy College of Science, Arts and Management for Women

Department of BBA

Principles of Management

- Discuss and communicate the management evolution and how it will affect future managers.
- Observe and evaluate the influence of historical forces on the current practice of management.
- Identify and evaluate social responsibility and ethical issues involved in business situations andlogically articulate own position on such issues.
- Explain how organizations adapt to an uncertain environment and identify techniques managersuse to influence and control the internal environment.
- Practice the process of management's four functions:Planning,

Organizing

,

Leading,

And

Controllin

g.

Business Organizations

All business entities are not the same. Some provide owners a lot of flexibility in management andcontrol and some do not.

Some provide owners a significant degree of protection from liability and some do not. And someare heavily regulated, and some are not.

On top of these differences is the fact that our tax code provides different tax treatments fordifferent business entities.

All of these factors should be considered when an entrepreneur is selecting the type of businessentity she or he wishes to use for her or his business.

Business Mathematics and Statistics

- Construct proofs using techniques from logic such as proof by contradiction and/orspecific techniques such as the principle of induction.
- Analyze and check correctness of mathematical arguments, and read mathematicaltext independently.
- Apply an advanced abstract mathematical idea to a concrete real-world problem (e.g., application of differential equations, or linear programming, or RSA or errorcorrection codes).
- Write effectively using language appropriate for mathematical discourse.

- Use calculus to analyze and evaluate properties of real valued functions.
- Interact effectively with fellow students and colleagues.

- Successfully complete four advanced courses in four different areas of mathematics,establishing breadth required for careers in fields such as teaching and industrial applications.

Financial Accounting

The syllabus includes: introduction to financial accounting; accounting concepts;double-entry bookkeeping; preparation of balance sheets and profit and loss accounts; principal sources of finance for companies; accounting ratios; limitations of conventionalfinancial statements.

Students should be able to:

- state the uses and users of accounting information;
- explain and apply accounting concepts, principles and conventions;
- record basic accounting transactions and prepare annual financial statements; and
- Analyses interpret and communicate the information contained in basic financialstatements and explain the limitations of such statements.

Business Communication

This course is designed to give students a comprehensive view of communication, its scope and importance in business, and the role of communication in establishing a favorable outside the firm environment, as well as an effective internal communications program. The various types of business communication media are covered. This course also develops an awareness of the importance of succinct written expression to modern business communication. Many of the assignments are to be keyboarded.

Production Management

Course Outline Operations Management is the systematic approach and control of the processes that transform inputs (e.g. human resources, facilities, materials, Informationsystems etc.) into finished goods and services. The operations function consists of the corewealth creation processes of a business and helps an organization to efficiently achieve itsmission while constantly increasing productivity and quality. This course focuses on the role of operations management as a strategic element of the total organization. We will cover classic and up-to-date tools and concepts used to support operational managerial decisions.

Management Accounting

Students develop the ability to collect, analyze, and communicate quantitative andnon-quantitative information to assist management in making more effective planning andcontrol decisions. Topics include the changing role of management accounting and basic concepts; product costing and cost accumulation; process costing and hybrid product costing systems; activity-based costing and activity-based management; activity analysis,cost behavior and cost estimation; cost-volume profit analysis; absorption and variable costing; profit planning and activity-based budgets; standard costing and flexible budgeting; cost management tools; and decision making.

Strategic Management

This course introduces the key concepts, tools, and principles of strategy formulationand competitive analysis. It is concerned with managerial decisions and actions that affect the performance and survival of business enterprises. The course is focused on the information, analyses, organizational processes, and skills and business judgment managers must use to devise strategies, position their businesses, define firm boundaries and maximize long-term profits in the face of uncertainty and competition.

Managerial Economics

Study the application of analytical tools and microeconomic concepts to corporateresource allocation, demand and cost determination, industry positioning, and pricing mechanisms.

Office Management

The objective of this course is to move students beyond the theories of contemporarymanagement principles to the practice of management skills in a highly participatory classroom environment. The course will help participants acquire practical management skills that are of immediate use in management or leadership positions.

Customer Relationship Management

Many firms recognize the importance of establishing and sustaining mutually beneficial relationships with customers, and have developed customer relationship management (CRM) strategies. In this course, we examine CRM as a business strategy thatintegrates internal processes and external networks to create and deliver value for targetedcustomers and for the organisation. We will take a broader view of 'marketing' than just designing a product, advertising, pricing and distributing it to consumers. It examines the

role that stakeholders, such as internal staff, suppliers and influence groups, play inshaping relationships with customers.

Management Concepts (NME-I)

To facilitate students' understanding of their own managerial skills. To improve communication skills. To learn from the management experience of others. To develop andlearn about goals specific to the students of this class. Have a lot of fun while learning a lotof stuff.

Materials Management

Materials management deals with the flow of goods and services throughout an organization's production process, from order placement to product delivery. Materialsmanagers seek to find the optimal processes to both satisfy customers and maximize company profits. Specific logistics management issues depend on the company or industry;however, programs that teach materials management skills usually also include courses in purchasing, inventory and production planning.

Business Environment

To provide knowledge of the environment in which businesses operate, the economic operational and financial framework with particular application to the transaction of insurancebusiness.

Operation Research

- Identify and develop operational research models from the verbal description of the realsystem.
- Understand the mathematical tools that are needed to solve optimisation problems.
- Use mathematical software to solve the proposed models.
- Develop a report that describes the model and the solving technique, analyse the results andpropose recommendations in language understandable to the decision-making processes in Management Engineering.

Organisational Behaviour

Human Resources Specialists need a fundamental understanding of the interactions that occur among people in the workplace. This Social Science courseprovides the student with the tools to understand and evaluate individual, group

and organizational processes. The student will also gain an appreciation of the relevance of the study of organizational behaviour to the practice of human resourcemanagement.

Total Quality Management

The aim of this course is to introduce undergraduate students to the philosophy andprinciples of Total Quality Management (TQM) in the health area as well as to provide them with the underlying principles and techniques of Total Quality Management (TQM)with emphasis on their application to organizations.

Training and Development (NME-II)

This course deals with the process of training and developing people in organisations. It covers a variety of approaches to instruction and learning and contrasts these with their practical application. It also includes the study of core functions of human resource development and the development of an understanding of workplace competencystandards. You will learn to design and conduct needs analyses and to plan, implement andevaluate training programs. You will also learn training techniques and the skills requiredto deliver a training program.

Marketing Management

- Identify core concepts of marketing and the role of marketing in business and society.
- Knowledge of social, legal, ethical and technological forces on marketing decision-making.
- Appreciation for the global nature of marketing and appropriate measures to operateeffectively in international settings.
- Ability to develop marketing strategies based on product, price, place and promotionobjectives.
- Ability to create an integrated marketing communications plan which includes promotionalstrategies and measures of effectiveness.

Business Law

This course is designed to provide the student with knowledge of the legal environment in which a consumer and businesses operates, and to provide the student withknowledge of legal principles.

Cost Accounting

To provide the students with an in-depth knowledge of Cost Accounting concepts,principles and methods to develop ability and skills to prepare and analyses Cost Accounting data to meet the requirements of different manufacturing concerns.

Computer Application In Business

Students will study computer terminology, hardware, and software related to the business environment. The focus of this course is on business productivity software applications and professional behavior in computing, including word processing (as needed), spreadsheets, databases, presentation graphics, and business-oriented utilization ofthe Internet.

HUMAN RESOURCE MANAGEMENT

Today's competitive business environment owes its success to effective management of its human resource. The quality of the organization's employees, their attitude, behavior and satisfaction with their jobs, and their behavior towards ethics and valuesand a sense of fair treatment all impact the firm's productivity, level of customer service, reputation, and survival. The students of human resources management must aware of basic aspects of human resource management to understand the functioning of human resource management in an organizational setting. Therefore, this introductory course on Human Resource Management is designed for engineering students who wants.

E-Business

The module is an introduction to the basic concepts of e-business and e-commerce,including presentation and discussion of the strategies and technologies involved. It discusses basic concepts of e-commerce, discusses and explains theoretical and practicalissues of conducting business over the internet and the Web, and presents methods for evaluating user needs. Topics covered include: E-business Infrastructure, Selling and Marketing on the Web, Web Server Hardware and Software, Business-to-Business strategies, Virtual Communities, Web Portals, E-commerce Software, Payment systems,Security and User Experience.

Industrial Relation and Labour Laws

This course focuses on institutional structures, policies and procedures in industrialrelations conflict resolution under arbitration and bargaining. The course covers topics andissues of importance in the employment and industrial law field. Others include the natureand purposes of the legal system and industrial law, the law concerning the contract of employment, Trade union law and industrial law powers of governments.

Entrepreneurial Development

Entrepreneurship and Innovation minors will be able to sell themselves and their ideas. Students master oral and visual presentation skills and establish a foundation of confidence in the skills necessary to cause others to act. Entrepreneurship and Innovation minors will be able to find problems worth solving. Students advance their skills in customer development, customer validation, competitive analysis, and iteration while utilizing design thinking and process tools to evaluate in real-world problems and projects.

Financial Management

Introduce students to financial management and its importance and its applications in business, their relationship with the business environment and the role and functions of chief financial officer. Introduce students to financial planning, and objectives, and its benefits, and the types of areas and stages of financial planning, and the factors that help the success of financial planning.

Marketing Research

Marketing research is the foundation for building knowledge about the market. It's an exciting and critical aspect of marketing. It covers a wide range of phenomena and it can help to answer many questions and reduce the uncertainty in decision making. This course is taught with a practice orientation. It is hoped that students will gain a practical and sound understanding of how marketing research is conducted in the real business environment. At the end of the course, you will become acquainted with SPSS, a statistical package commonly used by research houses, and you will be able to write research proposals, identify research problems, design survey questionnaires, analyze data and write a research report.

Creativity and Innovation Management

Creativity and innovation are integral to an organization's ability to survive and thrive in today's competitive marketplace. This course provides students with an understanding of how creativity and innovation can be facilitated and managed in a worksetting. Students will learn about theoretical conceptualizations of creativity and innovation as well as practical applications involved in fostering creativity and innovationin the workplace. Students will be expected to play an active role in learning through classexercises, class discussions, dialogue with guest speakers, and presentations about real (or planned) innovations in organizations.

Department of BCA

BCA 11 - Digital Logic & Programming in C:

- To learn the concepts of " C " Programming
- To learn how to use develop software programs for day-to- day applications.
- Basic knowledge about computers Objectives.
- To learn the fundamentals of digital system design.
- To learn combinational and sequential logic.
- To learn hardware fundamentals of computer design. Provide basic knowledge on digital electronics to understand the working principles of digital computer and to develop programming skill using C language.

BCA 21 - C++ & Data Structure:

- To learn about the fundamentals of computers.
- To learn to perform basic calculations, print text on the screen and create lists, andperform simple control flow operations using if statements and for loops.
- To learn how to reuse code with function.
- To acquaint students with data structures used when programming for the storage andmanipulation of data.
- The concept of data abstraction and the problem of building implementations of abstract,data types are emphasized.
- Data Structure Algorithms for stack, queues, linked list, trees, graphs, sorting andsearching.

BAMA 15B - Mathematical Foundations:

- To know about matrix operations, Symmetric Skew, Hermitian, Orthogonal.
- To learn about rank of matrix solutions of linear equations.
- To learn theorem and integration functions.

BCA 31 - Java Programming:

- On successful completion of the course the students should have understood the objectoriented programming in java.
- Students should have idea about GUI bases programming.
- Should have idea about database programming.

BCA 32 - E-Commerce:

- This course introduces students to various aspects and models for e-commerce. At the end of the course, students should have an understanding of the impacts which ecommerce is having on society, markets and commerce.
- Students should also become aware of the global nature of e-commerce and how traditional means of doing business will need to change in the electronic age.

BCA 33 - Resource Management Techniques:

- To enable students to learn and apply mathematics skills to a business setting.
- To learn how to handle situations involving more than one random variable and functionsof random variables.
- Ability to analyze the given data set using mathematical models.
- Ability to represent the dataset and solve using techniques such as linear programming.
- To improve the skills of solving very common problems which we come across invarious fields like transportation and industries with machines.
- To develop computational skill and logical thinking in formulating industry orientedproblems as a mathematical problem and finding solutions.

BSCA 34 - Design and Analysis of Algorithms:

- To build a solid foundation of the most important fundamental subject in computer science. Creative thinking is essential to algorithm design and mathematical acumen andprogramming skills.

BNCA 35 - Introduction to Information Technology:

- To enable the students to be proficient with information technology with a better knowledge of computer.

BACM 15C - Financial Accounting:

- Basic knowledge in mathematics and accounts.
- To understand the Indian financial systems and stock market.
- To understand the financial services and financial management.

UCA 52 - Visual Programming:

- Knowledge of any programming language.
- To introduce the students to Event Driven programming.
- To help the students in find solutions to real life problems using Visual Basic.
- Students will learn about connecting and accessing databases.
- To understand the various types of applications.
- To get expertise in visual programming.

BCA 41 - Database Management Systems:

- Knowledge of data structures and file-handling.
- To learn about the basics of database management systems (DBMS), with an emphasis on how to organize, maintain and retrieve efficiently, and effectively the information from aDBMS.
- To learn the fundamental concepts of the relational model, including relations, attributes,domains, keys, foreign keys, entity integrity and referential integrity.
- To learn how to normalize the data using 1st, 2^{nd} & 3rd normal forms.
- To define and manipulate the relational databases in SQL.

BCA 43 - Decision Support System:

- To study the concepts of Artificial Intelligence and Methods of solving problems usingArtificial Intelligence.
- To understand the basic techniques of knowledge representation and their use andcomponents of an intelligent agent.
- To be able to implement basic decision making algorithms, including search based andproblem solving techniques.
- To know the basic issues in machine learning.
- To study various expert and intelligen systems.

BSCA 44 - Computer Organization and Architecture:

- To enable the student to have a better understanding of architecture of computer andprepare the student for higher level of programming.
- Given an environment to learn more about control memory, registers and Peripheraldevices.
- To learn about auxiliary and virtual memory.

BNCA 45 - Internet and its Applications:

- Enable the students to get sufficient knowledge on various system resources.
- To equip students to basics of data communication and prepare them for better computernetworking.
- To know about e-marketing, CRM and HTML programs.

BCA 51 - Mobile Application Development:

- Knowledge in Wireless communication Technologies.
- Create a simple application that runs under the Android operating system.
- Access and work with the Android file system.
- Create an application that uses multimedia under the Android operating system.
- Access and work with databases under the Android operating system.
- This course aims to provide the students with a detailed knowledge on Mobile Application and Development and covers Android programming from fundamentals to buildings mobile applications for smart gadgets.

BCA 52 - Operating System:

- Knowledge of computers & computer organization.
- To learn Structure and functions of OS.
- To learn Processes and Threads, Scheduling algorithms.
- To learn Principles of concurrency and Memory management.
- To learn I/O management and File systems.

BCA 53 - Data Communication & Networks:

- Given an environment, after analyzing the channel characteristics, appropriate channelaccess mechanism and data link protocols are chosen to design a network.
- Given an environment, analyzing the network structure and limitations, appropriaterouting protocol is chosen to obtain better throughput.
- Given various load characteristics and network traffic conditions, decide the transportprotocols and timers to be used.

BECA 54A - Data Mining:

- Knowledge of database management system.
- To understand the concepts of Data Mining.
- To learn about Classification, prediction and cluster analysis techniques.
- To learn about applications of Data and knowledge mining.
- To learn the fundamentals of designing large-scale data warehouses using relationaltechnology.
- To study the design aspects, planning and development.

BECA 54C - Information Security:

- To provide an understanding of principal concepts, major issues, technologies and basicapproaches in information security.
- Develop an understanding of information assurance as practiced in computer operatingsystems, distributed systems, networks and representative applications.
- Gain familiarity with prevalent network and distributed system attacks, defenses againstthem and forensics to investigate the aftermath.

BSCA 55 - Software Engineering:

- Identify, formulate, and solve software engineering problems, including the specification,design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements.
- Elicit, analyze and specify software requirements through a productive working relationship with various stakeholders of a software project.
- Need to function effectively as a team member.
- Understanding professional, ethical and social responsibility of a software engineer.
- Participate in design, development, deployment and maintenance of a medium scale software development project.

BCA 61 - Cloud Computing:

- To enable the students to learn the basic functions, principles and concepts of cloudsystems.
- To equip students to basics of cloud computing for everyone and prepare them forcomputer modelling of events.
- To enable the student to understand various methodology available for securinginformation.

BCP 62 - Web Technology:

- To inculcate knowledge of web technological concepts and functioning of internet.
- To learn and program features of web programming languages.
- To understand the major components of internet and associated protocols.
- To design an innovative application for web.

USCA 54 - Cryptography:

- To learn about network security.
- To learn Computer Network Vulnerabilities.
- To learn how to deal with Network Security Challenges.
- Develop a basic understanding of cryptography, how it has evolved and some keyencryption techniques used today.
- Develop an understanding of security policies (such as authentication, integrity andconfidentiality).
- To learn about network security threats and countermeasures.

BECA 64C - Multimedia:

- This course presents the introduction to multimedia, images & animation and enables thestudents to learn the concepts of multimedia.
- Understanding the key principles of animation using FLASH.
- Understanding the concept of timing for animation and its application as a means ofcommunication.
- Ability to creatively manipulate frame time as a means of emphasizing and actualizingaction and expressing an idea.

BCP 12 - Accounting Software:

- To practically learn to use Microsoft word, excel and PowerPoint.
- To be able to work as an office assistant.
- To learn about basics entries in Tally.
- To work with Tally Accounting Software for maintaining accounts.

BCA 62 - Open Source Programming:

- To discuss techniques that can be effectively applied in practice about HTML 5, Javascript, PHP, CSS and Linux.
- To make the student more proficient with error free software development.

BECA 63A - Software Testing:

- To understand the Concepts of Software Testing.
- To learn quality assurance plans and how to apply quality assurance tools & techniques.
- To learn about standards and certifications.
- To learn how to describe procedures and work instructions in software organizations.
- Introducing the students to various Testing Strategies and Testing Tools.

BECA 63B - Mobile Computing:

- To impart good knowledge of wireless communication to students.
- To understand the concepts of Telecommunication Systems such as GSM, DECT,TETRA, UMTS and UTRAN.
- To understand the Mobile Network Layer and Transport Layer.

BECA 63C - Microprocessors and its Applications:

- To learn the architecture, programming, interfacing and rudiments of system design ofmicroprocessors.
- To prepare the student to learn about 8086 and various interfacing peripherals.

BECA 64A - Internet of Things:

- Vision and Introduction to IoT.
- Understand IoT Market perspective.
- Data and Knowledge Management and use of Devices in IoT Technology.
- Understand State of the Art – IoT Architecture.
- Real World IoT Design Constraints, Industrial Automation and Commercial Building.Automation in IoT.

Programme Name : BCA-COMPUTER APPLICATIONS

Programme Code : U09

Programme Outcome: BCA-COMPUTER APPLICATIONS

The objective is to motivate the students in emerging technologies and acquireknowledge in various domains.

- Career options after BCA the students can apply the optical & practical tools /techniques as Computer programmer ,Computer system analyst, System administrator, Computer support service specialist, higher studies like MCA, Projects in IT Companies.
- As software developers for designing, installing, testing & maintenance of software
- Technical writer/Developers
- Web Designer

Krishnasamy College of Science, Arts and Management for Women

Department of English

Programme Outcomes for Odd Semester

I – B.A. English

GENERAL ENGLISH

- To improve in all areas of the English language: Grammar Vocabulary, speaking,listening, pronunciation, reading and writing.
- To consider EGP (English for General Purpose) providing a broad foundation rather thana detailed and selection specification of goals like ESP (English for Specific Purpose).
- To improve the overall English level of participants in an interactive communicativeenvironment.
- To develop the high level of interaction and practice in real life contest with plenty ofopportunities for speaking.

INDIAN WRITING IN ENGLISH

- To acquaint students with a knowledge of Indian writers and their works.
- To help the students have a broad outlook on Indian literature and to make them tounderstand the Indian culture and multiculturalism.
- To enable the students to know the dynamic and analytical aspects of the use of language.
- To acquaint students with a knowledge of Indian writer and their works.

ADVANCE ENGLISH GRAMMAR

- To enable the students to acquire a proficiency in the use of English.
- To enable the students to know the dynamic and analytical aspects of the use of language.
- To enhance the basic knowledge of structure of English.
- To make inferences and predictions based on comprehension of a text.
- To produce academic vocabulary appropriately orally and in writing.

LITERARY FORMS AND TERMS

- To acquire the knowledge of the genres of fiction, poetry and drama.
- To identify and describe distinct literary terms like Simile, metaphor, oxymoron,soliloquy, climax, didacticism, fable, satire etc.
- To display the working knowledge of historical novel, psychological, stream ofconsciousness, realistic and science fiction.

II – B.A. English

GENERAL ENGLISH

- To learn how to use the correct pronunciation of vocabulary.
- To discuss about news and current affairs.
- To read and to understand language and description of topics from a variety of texts.
- To communicate with a greater understanding include grammar, reading skill, andwriting and conversations skills.

BRITISH LITERATURE - I

- To explore the students to the Neo-Classical tradition in literature.
- To enable them to explore the remarkable changes in literary forms.
- To train them to comprehend the trends in the literary expression of the period.
- To analyze literary or cultural problem in a way that reflect insight into the relevantdistinctive historical traditional and social content.

AMERICAN LITERATURE - II

- To read and interpret literary texts in American Literature.
- To Experience different writers sense of place, land and a sense of home.
- To develop an understanding of the major changes in literary genres and style.
- To understand oneself better as an American or a person living in American and as ahuman being.

HISTORY OF ENGLISH LITERATURE – I

- To understand texts in their cultural and historical contexts.
- To analyze literature using appropriate terminology and common rhetorical figures.
- To demonstrate awareness of different critical approaches.
- To perform competent close readings of texts.

LANGUAGE SKILLS AND COMMUNICATION

- To provide a student with a thorough grounding in basis of a subject.
- To enquire depth knowledge of a specialized topic where appropriate. This need notnecessary be through a lecture coursed. It should be a subject dealt with in supervisionsor by dissertation.

III – B.A. English

AMERICAN LITERATURE – II

- To read and interpret literary texts in American Literature.
- To experience different writers sense of home place, land and a sense of home.
- To develop an understanding of the major changes in literary genres and style.
- To understand oneself better as an America or a person living in American and as anhuman being.

ENGLISH PHONETICS

- The students shall be able to describe the structure of speech signals.
- To provide an account of basic phonological theory and the types of sound changes.
- To describe how the voice indicates age, sex, identity and feelings.
- To describe the vowel and constant phonemes.

20th CENTURY LITERATURE – I

- To read about the major literary movements in 20th century literature.
- To establish the exact beginning of some literary movements.
- To learn individual modules which trace the paradoxes of modernity within the intersecting, discourses of aesthetics, education, economics, ethnicity, nationalism,legality, science, sexuality and urbanization.
- To acquire the critical thinking and writing skills that give you the competitive edge,either as a future scholar or as a professional in areas.

INTRODUCTION TO LITERARY CRITICISM

- To demonstrate a comparative understanding of national literature and literary traditionwithin the context of world literature through close readings of primary texts.
- To situate texts within their cultural and historical contexts by integrating and analyzingsecondary scholarship and criticism.
- To develop analytical and critical thinking and research skills through close readings ofprimary literature and secondary scholarship and criticism.
- To distinguish and analyze literary forms in the context of major developments in literaryhistory.

JOURNALISM

- To write a variety of media products following accepted journalistic standards includingAssociated Press style.
- To create and design emerging media products including blogs, digital audio video, socialmedia, and multimedia.
- To apply relevant case law involving journalism the first amendment and other massmedia issues.
- To make effective business and professional presentations to internal and externalaudiences.

INDIAN LITERATURE IN ENGLISH TRANSLATION

- To discuss issues of resistance and representation with reference to Indian texts andEnglish translations.
- To argue that the contextualization, theorization and canonization of Indian literature inEnglish translation need attention in today's fast changing literary scenes.
- To lay out the role of translation on inter human space at various times and places in theworld.
- To characterize the increased activity in the field of translation.

I – M.A. English:

CHAUCER AND THE ELIZABETHAN LITERATURE

- To explore the literary tradition of the Elizabethan period that promoted the indigenization of the European forms such as the sonnet, allegory and the romance poemetc.
- To examine the cultural practices of the age which reflects in the writings and transitionfrom 11^{th} to the 17^{th} century.
- To recognize and understand figurative language such as allegory and metaphor andliterary techniques like irony, rhyme and allusion.
- To identify the unique qualities of the authors studied and compare and contrast them.

AMERICAN LITERATURE

- To enable the students to have an overview of major authors who have given significantcontributions to the development of American literature.

- The social and political events that have influenc4ed the literary movements can beunderstood by the study of representative authors.
- To advantage the critical knowledge of a specialized field through their independentresearch, which contributes to a broader on going intellectual dialogue.
- To employ discipline specific language in formal writing and oral presentations,including appropriate structures, form, rhetoric style and usage.

INDIAN LITERATURE IN ENGLISH

- To help the students appreciate the richness in Indian writing in English.
- To acquaint the students to the eminent Indian Writers in English.
- To write a literary or expository text using the conventions of Standard English asstylistically appropriate while showing a nuanced use of language.
- To demonstrate knowledge and comprehension of major texts and traditions of languageand literature written in English.

MODERN ENGLISH GRAMMAR

- To enable the students to acquire a high proficiency in the use of English.
- To enable the students to know the dynamic and analytical aspects of the use of language.
- To understand the differences between spoken and written English.
- To understand the factors that influence use of grammar and vocabulary in speech andwriting.
- To understand the different ways in which grammar has been described.

WOMEN'S WRITING

- To recognize and discuss the aspects of women's writing.
- To demonstrate the understanding of critical and theoretical debates surroundingwomen's writing at advance level.
- To create awareness of cultural and intercultural concerns relating to women's writing.

II – M.A. English:

SHAKESPEARE STUDIES

- To enable the students to read the plays in the light of the critical approaches that hasemerged prominent.

- To study the plays of Shakespeare in the critical, textual and theatrical contexts.
- To understand the nature of the dramatic genres in which Shakespeare play includingcomedy, romance, tragedy and history.
- To interpret particular Shakespearean works in literary critical essays of one's own.

THE VICTORIAN LITERATURE

- To study Victorian Literature in the background of the changing views, improvementsin technology and the poor conditions of the working class people.
- To analyse Victorian literature as an art that encouraged higher good as righteous andinstilled social consciousness.
- To analyse, discuss and write critically about the use of supernatural and gothic tropesand their significance in a range of Victorian texts.
- To understand range of Victorian literature in relation to a range of contexts includingVictorian anxieties about modernity, madness, sexual transgression and disease.

CONTEMPORARY LITERARY THEORY – I

- To help the students understand literary theory as a system to critically interpret literarytexts.
- To enable the students to understand the broad spectrum of thought that is covered byliterary theory and also to enhance their literary research.
- To possess an awareness of alternatively defined traditions and genres such as women'sliterature, Postcolonial list, World literature or Native American literature.
- To demonstrate coherent writing in multiple genres, as well as an awareness of criticaland interpretive methods.

RESEARCH METHODOLOGY

- To facilitate students to gain knowledge to pursue research.
- To enable students to present the research findings through the application of systematicand scientific methods.
- To assess critically the following methods : literature study, case study, structuredsurveys, interviews, focus groups, participatory approaches, narrative analysis, cost-benefit, analysis scenario methodology and technology foresight.
- To assess research methods pertinent to technology innovation research.

DEPARTMENT OF MATHEMATICS

Program outcomes

B.sc., Mathematics

Algebra:

Students are exposed to topics like series,number theory.

Trigonometry:

It aim to develops computational skills.

Calculus:

It increases the knowledge in the areas of differential and integral calculus.

Analytical Geometry:

To deepen the knowledge of the students in various concept of analytical solid geometry.

Mathematical Statistics:

To apply statistics methods for mathematical problem.

Differential Equations:

To expose to different technique of finds solution to these equations.

Vector Analysis & Fourier Analysis:

To develop deep understanding of key concept followed by problems of applied natural.This will lead to post graduate studies and research in par as well as applied maths.

Linear Programming:

To improve the skills of solving very common problems which we come across invarious field.

Numerical methods:

It deals with solution of numerical differentiation, Intrgration, Difference equationand algebraic equations.

Mathematics for competitive examinations:

To introduce the concept of mathematics with embasis on analytical ability and computational skill needed in competitive examinations.

Abstract Algebra:

These algebraic structure have applications in mathematical physics, chemistry and computer science.

Real Analysis:

To understand various limiting behaviour of sequence and series and to enhance themathematical maturity.

Complex Analysis:

To gain the knowledge about the complex number system, complex function and integration.

Statics:

To development of skills, information of suitable mathematical models and problemsolving technique.

Dynamics:

To provide models for some real life problems and it develops logical deduction andinterpretation.

Graph Theory:

To study and develop all the concept of graphs matching, covering and planer graph.

Linear Algebra:

To study the algebraic structure of vector space and linear transformation.

Programming in C - Language:

To develop programming skill in the computer language c.

Operations Research:

To develop computational skill and logical thinking in formulating industry orientedproblems.

Fuzzy Mathematics:

To know the fundamentals of fuzzy algebra and application of fuzzy technology.

M.sc., Mathematics

Algebra:

To introduce the concept and to develop working knowledge on class equationand real quadratic forms.

Real Analysis:

To work comfortably with functions of bounded variation of convergence and uniform convergence.

Ordinary Differential Equations:

To develop the strong back ground on finding solutions to linear differential equations.

Differential Geometry:

It introduces space curves and there intrinsic properties of surface and geodesin.

Discrete Mathematics:

It aims to explore the topics like lattices and their application and coding theory.

Graph Theory:

To study and develop the concepts of all graphs connectivity, cycling.

Partial Differential Equations:

To introduce to the students the various types of partial differential equations and howto solve the equations.

Mechanics:

To study the mechanical systems under generalise co-ordinate systems.

Complex Analysis:

To study the Cauchy integral formula, definite integral and harmonic functions.

Topology:

To study topological spaces connectedness and compactness.

Operations Research:

It aims to introduce decision theory, PERT,CPM and maintenance problems.

Probability Theory:

To introduce axiomatic approach to probability theory and basic limit theorems of probability.

Fluid Dynamics:

It aims to discuss kinematics of fluid, three dimensional flows and viscous flows.

Functional Analysis:

To study the details of Banach and Hilbert spaces and to introduce Banach Algebras.

Difference Equations:

To introduce the process of discretization, discrete version of differential equationsand solutions of difference equations.

Number Theory and Cryptography:

This aims to give elementary ideals from number theory which will have applicationsin cryptography.

COURSE OUTCOME

Students who successfully complete the UG mathematics major will be able to:

- Demonstrate an understanding of the foundations and history of mathematics
- Perform computations in higher mathematics
- Read and understand middle-level proofs, write and understand basic proofs
- Develop and maintain problem-solving skills
- Use mathematical ideas to model real-world problems
- Communicate mathematical ideas with others
- Utilize technology to address mathematical ideas

With that skill set, graduates are well prepared to begin rewarding careers in:

- education
- statistics
- actuarial science
- mathematics, both pure and applied

By the end of a degree program in Mathematics, a student will have the versatility to work effectively in a broad range of analytic, scientific, government,financial, health, technical and other positions.

Students who successfully complete the PG mathematics major will be able to:

- To cultivate a mathematical attitude and nurture the interests,
- To motivate for research in mathematical sciences,
- To train computational scientists who can work on real life challenging problems

Students who successfully complete the M.Phil mathematics major will be able to:

- Gain a knowledge of advanced models and methods of mathematics, including some from the research frontier of the field, and expert knowledge of a well-defined field of study, based on the highest international level of research in mathematics.
- The graduate has specific skills in independently comprehending, analysing, modelling, and solving given problems at a high level of abstraction based on logical and structured reasoning.

The graduate is able to carry out scientific investigations and develop new variants ofthe acquired methods, if required by the problem at hand.

DEPARTMENT OF

COMMERCEPROGRAM

OUTCOME

Program Outcomes of M.Com:

Students taking admission for program are required to imbue with following qualities

1. Enriched knowledge with new ideas and techniques essential for business and management.
2. Mastery over specific skills in business.
3. Capability to acquire and handle any position in business.
4. Develop analytical interpretative and presentation skill regarding research in commerce and management.
5. Creating awareness about the modern trends in the management and impact of globalization.
6. Familiarizing with the foundations of individual and group behavior and the concepts of organizational behavior.
7. Deep study of different concepts and methods to measure national income of economy managerial economics helps to understand role and function of central monetary authority in economy.
8. Acquaintance with important accounting standards.
9. Attainment of knowledge of various provisions of income tax act 1961 and its implication in computation of income relating to individual.
10. Training of computation of taxable income of different business entities.
11. Knowledge about the application of accounting techniques for management.
12. Acquaintance the standards cost accounting procedure and techniques. Making capable ofdecision making at various level of production.

Program Outcomes of B.Com:

1. Enriched knowledge with new ideas and techniques essential for business and management.
2. Capability to acquire and handle any position in business.
3. Attainment of knowledge of various provisions of income tax act 1961 and its implication in computation of income relating to individual.
4. Training of computation of taxable income of different business entities.
5. Students will demonstrate progressive affective domain development of values the role ofaccounting in society and business.

6. Learners will acquire the skills like effective communication, decision making, problemsolving in day to day business affairs.

7. Learners will be able to prove proficiency with the ability to engage in competitive examslike CA, CS, ICWA and other courses.
8. Learners will be able to do higher education and advance research in the field of commerce and finance.
9. Learners can also acquire practical skills to work as tax consultant, audit assistant andother financial supporting services.

Program Outcomes of B.Com CA:

1. They can go for higher degree programs in respective subjects as master degree(post Graduate).
2. They can find job opportunities in a variety of environments in university, private and public industries, government departments, business organizations and commercial organizations.
3. Degree holders can also work as programmers, web developers and E-Commerce specialists with industries that build or use computer based systems, such as tele-Communications, automotive etc.,
4. They have jobs in design and development company, computer networking company, software development company etc.,
5. Improve their computer literacy their basic understanding of operative systems and a working knowledge of software commonly used in academic and professional environments.
6. To build a strong foundation of knowledge in different areas of commerce.
7. Students will demonstrate progressive affective domain development of values, the roleof accounting in society and business.

DEGREE : B.Sc.,Computer Science
Semester - I

COURSE OUTCOME

DIGITAL LOGIC & PROGRAMMING IN C-(Course code:BCS11)

This course is designed to provide a introduction to digital logic & Programming in C language.

It leads to the ability to understand number system representations, binary codes, binary arithmetic and Boolean algebra, its axioms and theorems, and its relevance to digital logic design.It also analyze and design simple systems composed of programmable logic, such as ROMs and PLAs.

This emphasize more about C, which provide students with the means of writing efficient, maintainable, and portable code. The C language is explained with wide variety of example programs.

COURSE OUTCOME – Digital logic

After the successful completion of this course, students will be able to

1. Demonstrate knowledge of binary number theory, Boolean algebra and binary codes.

2. Analyze and design combinational systems using standard gates and minimization methods (suchas Karnaugh maps).

3. Analyze and design combinational systems composed of standard combinational modules, such asmultiplexers flip-flops, demultiplexer and decoders.

4. Demonstrate knowledge of simple synchronous sequential systems.

5. Analyze and design sequential systems composed of standard sequential modules, such as countersand registers,programmable logic, such as ROMs and PLAs.

6. Perform basic arithmetic operations with signed integers represented in binary.

COURSE OUTCOME – Programming in C

After the successful completion of this course, students will be able to

1. Understand the basics of C programming

2. Write, compile and debug programs in C language.

3. Use different data types in a computer program.

4. Design programs involving decision structures, loops and functions with call by value and call byreference

5. Illustrates the use of pointers and Structures.

6. To perform basic operations like create/update on basic data files.

COURSE OUTCOME

Programming in C lab-(Course code:BPCS13)

This course is designed to provide a practical knowledge of how to write, compile and debug programs in C language. Used to solve problems and implement algorithms in C.

After the successful completion of this lab Course, students will be able to

1. Understand the basic concept of C Programming, and its different modules.

2. Acquire knowledge about the basic concept of writing a program.

3. Explain the role of constants, variables, identifiers, operators, type conversion and other buildingblocks of C Language.

4. Use the conditional expressions and looping statements to solve problems associated withconditions and repetitions.

5. Demonstrate the role of Functions , arrays and pointers dealing with memory management.

6. Use the structures and unions through which derived data types can be formed.

7. Understand the basic file handling operations.

COURSE OUTCOME

Environmental studies-(Course code:BES10)

Creating awareness among the students about the importance of environment, the effect of technologyon the environment and ecological balance is the important aim of the course.

After the successful completion of this course, students will be able

1. Awareness about the importance of environmental studies and methods of conservation of naturalresources.
2. Explains the structure and function of an ecosystem.
3. Identify the values and conservation of bio-diversity.
4. Demonstrates the causes, effects and control measures of various types of pollutions.
5. Select the appropriate methods for waste management.
6. Acquire the knowledge about various disaster management methods

Semester - II

COURSE OUTCOME

C++ & Data structure-(Course code:BCS21)

This course is designed to provide more knowledge about C++ & Data structures.

This emphasize more about C++, which provide students a clear understanding of object-oriented concepts & its programming through C++. Also, it explains various data structures & operations performed using algorithm and examples.

COURSE OUTCOME – C++

After the successful completion of this course, students will be able to

1. Acquire the basic knowledge on Object Oriented concepts.

2. Build applications using Object Oriented Programming Concepts.

3. Demonstrate the differences between traditional imperative design and object oriented design.

4. Elloborate class structures as fundamental, modular building blocks .

5. Understand the role of inheritance, polymorphism, dynamic binding and generic structures inbuilding reusable code.

6. Write small/medium scale C++ programs with simple graphical user interface .

7. Understand the file handling and error handling machanisms in C++.

8. Get knowledge to use strings and Streams in C++ .

COURSE OUTCOME – Data structure

After the successful completion of this course, students will be able to

1. Demonstrate various data structures & its operations using algorithms.

2 . Demonstrate understanding of the abstract properties of various data structures such as stacks, queues, lists, trees and graphs and Use various data structures effectively in application programs.

3. Demonstrate understanding of various sorting algorithms, including bubble sort, insertion sort,selection sort, heap sort and quick sort.

4.Illustrates the various applications of data structures like infix to postfix

conversion.5.Demonstrates more about linked lists, doubly linked lists & its

operations.

6. Understand and apply fundamental algorithmic problems including Tree traversals, Graphtraversals, and shortest paths.

7. Gain knowledge about Hashing and Collisions and B- Trees.

COURSE OUTCOME

C++ & Data structure lab-(Course code:BPCS23)

This course is designed to provide a practical knowledge of how to write, compile and debug programs in C++ language. It is also used to solve problems and implement data structure algorithms in C++.

After the successful completion of this lab Course, students will be able to

1. Build applications using Object Oriented Programming Concepts

2. Acquire knowledge about the basic concept of writing a C++ program.

3 Understand the role of inheritance, polymorphism, dynamic binding and generic structures in building reusable code

4. Get practical knowledge about the application of data structures

5. Implement linked list data structure to solve various problems.

6. Apply graph and tree traverse technique to various applications.

7. Understand and apply various data structure such as stacks, queues, trees and graphs to solvevarious computing problems using C++-programming language.

8. Various sorting techniques can be implemented using C++ programs.

COURSE OUTCOME
Value Education-Course code:BGA20

This course is designed to provide moral values to the students. It also

inculcateAfter the successful completion of this lab Course, students will be

able to

1. Explains the concept of human values
2. Explains about the Components, structure & responsibility of family
3. Reveals about status of women in society
4. Reveals about ethics on family & society
5. Demonstrates about psychology of children and youth
6. Explains personality development & leadership qualities
7. Demonstrates about social values & its awareness

8. Explains about environmental issues

Semester - III

COURSE OUTCOME

Java Programming-(Course code:BCS31)

This course covers design, implementation and testing software using Java. It introduces how to write Java programs that solve practical, real world, business-oriented problems using object-oriented design techniques of the Java language, such as encapsulation, inheritance and polymorphism; It implements I/O functionality to read from and write to text files.

After the successful completion of this course, students will be able to

1. Understanding of the principles and practice of object oriented analysis and design in the construction of robust, maintainable programs which satisfy their requirements;

2. Implement, compile, test and run Java programs comprising more than one class, to address aparticular software problem.

3. Demonstrate the principles of object oriented programming;

4. Use simple data structures like arrays in a Java program.

5. Understand the concept of package, interface, multithreading and File handling in java.

6. Use members of classes found in the Java API (such as the Math class).

7. Employ various types of selection constructs in a Java program.

8. Employ a hierarchy of Java classes to provide a solution to a given set of requirements.

COURSE OUTCOME

Design & Analysis of Algorithm-SBS I-(Course code:BSCS33)

To study the techniques and approaches used to analyze and design algorithms and to appreciate the impact of algorithm design in practice. It also ensures that students who understand how the worst- case time complexity of an algorithm is defined, how asymptotic notation is used to provide a rough classification of algorithms.

After the successful completion of this course, students will be able to

1. Use different computational models (e.g., divide-and-conquer), order notation and various complexity measures (e.g., running time, disk space) to analyze the complexity/performance ofdifferent algorithms.
2. Understand the difference between the lower and upper bounds of various problems and theirimportance in deciding the optimality of an algorithm.
3. Use various techniques for efficient algorithm design (divide-and-conquer, greedy, and dynamicalgorithms) and be able to apply them while designing algorithms.
4. Understand and implement various algorithms on graph data structures, including finding theminimum spanning tree and shortest path.
5. Augment various data structures (trees and arrays) to support specific applications.
6. Know various advanced design and analysis techniques such as greedy algorithms, back tracking algorithm, dynamic programming & Know the concepts of Branch & Bound and Number Theoretic Algorithms
7. Understand Graph algorithms, strongly connected components and notion of NP completeness.

COURSE OUTCOME

Introduction to information technology-NME I-(Course code:BNCS34)

To enable the students to have a depth knowledge about information technology with a better knowledge of computer. This paper is specially designed for other major students to know the importance of information technology.

After the successful completion of this course, students will be able to

1. Demonstrates about characteristics, classifications, applications & uses of computer.
2. Explains about various input & output devices.
3. Clarifies various programming languages.
4. Demonstrates various types of networks & topologies.
5. Demonstrates about various communication media.
6. Explains about history & advantages of internet.
7. Explains about electronic mail transfer.
8. Demonstrates about various types of operating systems & its functions.

COURSE OUTCOME

Java Programming Lab-(Course code:BPCS35)

With this course students can able to successfully read and write Java computer programs. Acquire more experience in designing, implementing, testing, and debugging graphical user interfaces that respond to user events using Java.

After the successful completion of this course, students will be able to

1. Understand programming language concepts, particularly Java and object-oriented concepts.
2. Write, debug, and document well-structured Java applications
3. Implement Java classes from specifications and effectively create and use objects from predefinedclass libraries
4. Implement multi threading mechanism
5. Apply decision and iteration control structures to implement algorithms
6. Implement interfaces, inheritance, and polymorphism as programming techniques and applyexceptions handling programs
7. Implement layout managers, swings & applet applications.
8. Implement file streams & its operations.

Semester -
IV

COURSE OUTCOME

Database Management system-(Course code:BCS41)

To inculcate the students with basic concepts of Data Base Management System, Data Models,Different Data Base Languages.

After the successful completion of this course, students will be able to

1. Analyze Database design methodology.
2. Acquire knowledge in fundamentals of Data Base Management System.
3. Handle with different Data Base languages.
4. Draw various data models for Data Base and Write queries mathematically.
5. Design data base and normalize data using normalization techniques.
6. Concepts of online transactions and control Concurrency, types of Data Base failures andRecovery.
7. Understand how query are being processed and executed.

Computer organisation & Architecture- SBS II-(Course code:BSCS43)

This course is designed to provide a comprehensive introduction to computer architecture

After the successful completion of this course, students will be able to

1. Be familiar with the history and development of modern computers,

2. Understand the functional units of the processor such as the register file and arithmetic-logical unit,

3. Demonstrates the basics of systems topics: single-cycle (MIPS), multi-cycle (MIPS), parallel, pipelined, superscalar, and RISC/CISC architectures.

4. Explains the cost-performance issues and design trade-offs in designing and constructing a computer processor including memory.

5. Be familiar with the quantitative performance evaluation of computer systems,

6. Demonstrates the cache subsystem, assembly language programming, representation of data, addressing modes & instructions sets.

7. Be familiar with the basic knowledge the design of digital logic circuits and apply to computer organization.

COURSE OUTCOME

Internet & its applications - NME II-(Course code:BNCS44)

To inculcate the basic knowledge of internet and its usage among the

students.After the completion of this course the student can able to,

1. Apply intellectual property law principles (including copyright, patents, designs and trademarks) to real problems and analyse the social impact of intellectual property law and policy
2. Analyse ethical and professional issues which arise in the intellectual property law context
3. Implement audio video formats & files.
4. Explains about spams & viruses.
5. Demonstrates online chatting, IRC, Instant messaging & usenet news groups.
6. Demonstrates Internet explorer & its features
7. Demonstrates about intranet & its components
8. Explains about Electronic mail transfer, digital cash & smart card for E-marketing.

RDBMS Lab-(Course code:BPCS45)

To educate students with fundamental concepts of Data Base Design, Data Models, Different DataBase Languages (SQL/Oracle). To analyze Data Base design methodology and DB connectivity.

After the successful completion of this course, students will be able to

1. Gain knowledge about SQL Fundamentals.
2. Perform Unary & Binary table operations.
3. Handle with different Data Base languages.
4. Create Table View, Log & Triggers.
5. Handle online Transactions.
6. Create Database connectivity with front-end.
7. Write Embedded and Nested Queries.
8. Create index and views
9. Create procedures, Triggers and cursors

OLD SYLLABUS
Semester-V

COURSE OUTCOME
Database Management system-(Course code:UCS51)

To inculcate the students with basic concepts of Data Base Management System, Data Models,Different Data Base Languages.

After the successful completion of this course, students will be able to

1. Analyze Database design methodology.
2. Acquire knowledge in fundamentals of Data Base Management System.
3. Handle with different Data Base languages.
4. Draw various data models for Data Base and Write queries mathematically.
5. Design data base and normalize data using normalization techniques.
6. Concepts of online transactions and control Concurrency, types of Data Base failures andRecovery.
7. Understand how query are being processed and executed.

COURSE OUTCOME
(Database Management system Lab-Course code:UPCS55)

To educate students with fundamental concepts of Data Base Design, Data Models, Different DataBase Languages (SQL/Oracle). To analyze Data Base design methodology and DB connectivity.

After the successful completion of this course, students will be able to

1. Gain knowledge about SQL Fundamentals.
2. Perform Unary & Binary table operations.
3. Handle with different Data Base languages.
4. Create Table View, Log & Triggers.
5. Handle online Transactions.
6. Create Database connectivity with front-end.
7. Write Embedded and Nested Queries.
8. Create index and views
9. Create procedures, Triggers and cursors

COURSE OUTCOME
Operating System—(Course code:UCS 52)

The course reviews the student with basic knowledge of computer operating systems. The objectiveof the course is to provide basic knowledge of computer operating system structures and functioning.

After the successful completion of this course, students will be able to

1. Demonstrates different types of modern operating systems and their structure of implementationand applications.
2. Understand the difference between process & thread, issues of scheduling of user level processes /threads and their issues & use of locks, CPU schedulingand multithreaded systems.
3. Gain knowledge about the concepts of deadlock in operating systems and how they can be managed

/ avoided and implement them in multiprogramming system.

4. Demonstrate the design and management concepts along with issues and challenges of mainmemory, virtual memory and file system.
5. Understand the types of I/O management, disk scheduling, protection and security problems facedby operating systems and how to minimize these problems.

6. Illustrates the case study of Unix operating system.

COURSE OUTCOME
Datamining—(Course code:USCS53B)

To interpret the contribution of data mining to the decision support level of organizations and to evaluate different models used for OLAP and data pre-processing. Inorder to categorize and carefully differentiate between situations for applying different data mining techniques: mining frequent pattern, association, correlation, classification, prediction, and cluster analysis.

After the successful completion of this course, students will be able to

1. Understand the data extraction and transformation techniques.
2. List the association rule mining techniques and understand association mining to correlationanalysis, constraint based association mining.
3. Understand operational database, warehousing and multidimensional need of data base to meetindustrial needs.
4. Understand the components of warehousing, classification methods and clustering analysis.
5. Identify and understand the Business analysis, query tools and application, OLAP etc.

COURSE OUTCOME
Visual Programming-(Course code:USCS54)

This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.

After the successful completion of this lab Course, students will be able to

1. Design, create, build, and debug Visual Basic applications.
2. Explore Visual Basic's Integrated Development Environment (IDE).
3. Implement syntax rules in Visual Basic programs.
4. Explain variables and data types used in program development.
5. Apply arithmetic operations for displaying numeric output.
6. Write and apply decision structures for determining different operations.
7. Write and apply loop structures to perform repetitive tasks.
8. Write and apply procedures, sub-procedures, and functions to create manageable code
9. Create one and two dimensional arrays for sorting, calculating, and displaying of data.

10. Write Visual Basic programs using object-oriented programming techniques including classes, objects, methods, instance variables, composition, and inheritance, and polymorphism.
11. Write Windows applications using forms, controls, and events.

COURSE OUTCOME

Visual Programming Lab-(Course code:UPCS56)

This course introduces computer programming using the Visual BASIC programming language withobject-oriented programming principles. The objective of this course is to make the student to learn how to design, code, test and debug programs using VB.

After the successful completion of this lab course, students will be able to

1. Design, create, build, and debug Visual Basic applications.
2. Apply arithmetic operations for displaying numeric output.
3. Apply decision structures for determining different operations.
4. Write and apply loop structures to perform repetitive tasks.
5. Write and apply procedures, sub-procedures, and functions to create manageable code.
6. Create one and two dimensional arrays for sorting, calculating, and displaying of data.
7. Write Windows applications using forms, controls, and

event8.Implement ADODC control

9.Implement database connectivity

Semester-VI

COURSE OUTCOME

Open source Software-(Course code:UCS61)

The objective of this course is to make the students to gain experience using open source tools,languages and frameworks to prepare for careers in software development.

After the successful completion of this course, students will be able to

1. Demonstrates the Open source Principles and Free software
2. Acquire knowledge about the methodology and Languages used to develop open source products
3. Demonstrate the Infrastructure services
4. Ability to understand the concept of javascript, unix programming, PHP & ASP .net.

5. Acquire knowledge about open source desktop and different type of vendors.

COURSE OUTCOME
(Multimedia-Course code:UCS 62)

Students will be prepared for the profession of multimedia that is embedded in artistic expression and creativity that connects the environment of communication and business.

After the successful completion of this Course, students will be able to

1. Graduates will successfully identify and use the elements and principles of design in multimedia.
2. Students will be able to identify terminology associated with the concepts, techniques, andprocesses used throughout the multimedia environment.
3. Present, evaluate, and communicate, or receive, constructive feedback in response to an objectiveset of criteria for any given work of multimedia design.
4. Successful students will have knowledge of creating a compelling story.
5. Students will be aware of the rapid rate of change of technology and methodologies in themultimedia environment.
6. Successful students will be familiar with techniques and resources in order to obtain knowledgeand understanding of new developments in multimedia technology.
7. Students will demonstrate knowledge of the legalities involved in multimedia creation anddistribution.

COURSE OUTCOME
(Data & Communication Network-Course code:UECS63C)

This course is an introduction to the field of Telecommunications and Data Communications. The course focuses on the practical aspects of implementation, installation and maintenance of Local AreaNetworks and Wide Area Networks. Ethernet and a practical understanding of components, hardware requirements, cabling, software and security/management features needed to build and operate a LANwill be learned.

After the successful completion of this lab Course, students will be able to

1. Explain networking terminology and concepts of data communication to provide technical supportto non-technical network users.

2. Recommend networking devices to address networking challenges.

3. Identify how industry networking models provide standards of communication that allow networking professionals to communicate using a common terminology that is specific to networkdesign and diagnostics.

4. Build a Local Area Network using network cables and devices.

5. Configure network devices, protocols, workstations and servers to establish network connectivityand reliable resource access.

COURSE OUTCOME
(Mobile Computing-Course code:USCS65)

This course gives the clear overview of Mobile communication technologies. Various technologies,resources and networks needed for effective communication will be learned by the students.

After the successful completion of this lab Course, students will be able to

1. Determine solutions using problem solving principles, logic and systematic methodologies.
2. Evaluate the architecture and principles of operation of computer systems and networks.
3. Synthesize principles and theories of computer science and software engineering forapplication to different computing paradigms.
4. Design and develop software systems for various application domains.
5. Design and develop secure enterprise-grade information systems.
6. Manage the development of software systems through a variety of development processes andmethodologies.
7. Design effective user interfaces using human computer interaction principles.
8. Synthesize new knowledge in the field of computer science by using appropriate researchmethodologies.

COURSE OUTCOME
(Internet & its Applications-Course code:UECS64C)

To inculcate the basic knowledge of internet and its usage among the

students.After the completion of this course the student can able to,

1. Apply intellectual property law principles (including copyright, patents, designs and trademarks) to real problems and analyse the social impact of intellectual property law and policy

2. Work in teams, solve problems and manage time
3. Analyse ethical and professional issues which arise in the intellectual property law context
4. Write reports on project work and critical reflect on your own learning.
5. Implement audio video formats & files.
6. Explains about spams & viruses.
7. Demonstrates online chatting, IRC, Instant messaging & usenet news groups.
8. Demonstrates Internet explorer & its features
9. Demonstrates about intranet & its components

COURSE OUTCOME
(Open source Software Lab-Course code:UPCS66)

Open source laboratory helps students to develop technical solutions for problems using the open source software‟s readily available at free of cost. The objective of this course is to enhance the knowledge of students to address the IT requirements both from the operating system and application requirement perspective.

After the successful completion of this course, students will be able to

1. Select and install the various open source software as per the requirement.
2. Construct the development environment as per the requirement.
3. Identify the associated plug-in‟s as per the requirement.
4. Learn the languages like PHP, Perl, Python to develop an application as per requirement.
5. Create the virtualization environment.
6. Manage the versions of the software using VCS tools.

COURSE OUTCOME
(Multimedia Lab-Course code:UPCS67)

Students will be able to identify terminology associated with the concepts, techniques, and processes used throughout the multimedia environment and creativity that connects the environment of communication and business.

After the successful completion of this Course, students will be able to

1. Identify and use the elements and principles of design in multimedia.

2. Present, evaluate, and communicate, or receive, constructive feedback in response to anobjective set of criteria for any given work of multimedia design.
3. Students will have knowledge of creating a compelling story.
4. Students will be aware of the rapid rate of change of technology and methodologies in themultimedia environment.
5. Successful students will be familiar with techniques and resources in order to obtain knowledgeand understanding of new developments in multimedia technology.

Department of computer science

Program outcome
(Program Code UG-U18,PG-P15,M.Phil-M06)

❖ **KNOWLEDGE**

B.sc., & M.Sc.,Computer science degree holders possess the knowledge of

- New ideas and principles that have broad application to the field of Computer science.
- Understand the basic concepts of software systems used in various domains.
- Acquire the knowledge of software development fundamentals including data structures, algorithms & programming.
- System fundamentals including various operating systems, networking &communication architectures &organization parallel & districted computing and security.
- Understand the mathematics fundamentals including discrete structures ,statistics & calculus.
- Reveal the concept of software engineering fundamentals such as software analysis & design ,evolution & testing & various software engineering processes.
- Understand the information management concepts and its applications.

❖ **SKILLS**

B.sc., & M.Sc., Computer science degree holders can apply the methods & procedures as follows:

- Ability to apply the knowledge in mathematics, scientific projects & experiments tosolve many problems.
- Realize the possibility of multiple solutions to a given problems & have impact on realtime applications.

- Apply the knowledge they have gained through project experience.
- Ability to use programming languages in various application domains.

❖ COMPETENCES

B.sc., & M.Sc.,Computer science degree holders can compete as follows:

- Ability to communicate and interact effectively with people & physical world
- Capability to cope up with their own career development
- Effectively presenting concepts to the audience about technical problems & their solutions.
- Effectively work both as a individual & team member.
- Develops interpersonal skills.

Program outcome

M.Phil., Computer science degree holders possess the knowledge of

- This course is aimed at developing skilled professionals with excellence.
- The course has specialization areas in the field of computer science which the students canchoose for research depending upon their area of interest.
- After completing this course, students can able to tackle technical issues prevailing in thecompetitive world of computer science & information technology.
- Students pursuing this course show ability in the critical evaluation of research techniques andmethodologies.
- Moreover depth understanding of the trends going on in the computer science industry is alsothe objective of this course.

M.Phil., Computer Science
Semester - I

(Research Methodology-HMRM11Y)

At the end of this course, the students should be able to:

1. Understand some basic concepts of research and its methodologies
2. Identify appropriate research topics
3. Select and define appropriate research problem and parameters
4. Prepare a project proposal (to undertake a project)
5. Organize and conduct research (advanced project) in a more appropriate manner
6. Write a research report and thesis
7. Write a research proposal (grants)

(Artificial Neural network-HMCS12B)

At the end of this course, the students should be able to:

1. Know more about basic concepts of neural networks
2. Various models like classification, association optimization & self organization model
3. About supervised & unsupervised learning
4. About incremental learning & mathematical model
5. About heuristics, parallel & hybrid models
6. About control networks
7. About structures & sequences and knowledge based approaches
8. Spatio temporal neural network

Degree : M.Sc.,Computer Science
Semester - I

COURSE outcome
Database Management system-MCS14

To inculcate the students with basic concepts of Data Base Management System, Data Models,Different Data Base Languages.

After the successful completion of this course, students will be able to

1. Analyze Database design methodology.
2. Acquire knowledge in fundamentals of Data Base Management System.
3. Handle with different Data Base languages.
4. Draw various data models for Data Base and Write queries mathematically.
5. Design data base and normalize data using normalization techniques.
6. Concepts of online transactions and control Concurrency, types of Data Base failures andRecovery.
7. Understand how query are being processed and executed.

(DataBase Management System Lab-MCS18)

To educate students with fundamental concepts of Data Base Design, Data Models, Different DataBase Languages (SQL/Oracle). To analyze Data Base design methodology and DB connectivity.

After the successful completion of this course, students will be able to

1. Gain knowledge about SQL Fundamentals.
2. Perform Unary & Binary table operations.
3. Handle with different Data Base languages.
4. Create Table View, Log & Triggers.
5. Handle online Transactions.
6. Create Database connectivity with front-end.
7. Write Embedded and Nested Queries.
8. Create index and views
9. Create procedures, Triggers and cursors

(Formal Languages & Automata-MCS11)

The objective of this course is to give students a broad overview of the theoretical foundations of Computer Science, and to prepare students for the study of topics that depend upon an understanding of formal languages and automata.

After the successful completion of this course, students will be able to

1. Discuss formal language and their applications
2. Explain detailed knowledge of foundational results for regular languages and finite automata.
3. Identify foundational results for context-free languages and pushdown automata. .
4. Ability to apply the Pumping Lemma for context-free languages to show that a language is notcontext-free.
5. Ability to apply basic definitions related to Turing machines.
6. The ability to interact with the automaton theorem.

(Advanced Java Programming-MCS12)

After the successful completion of this course, students will be able to

1. Object-oriented, general-purpose programming language.
2. Enable to write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling, streams and file input/output, dynamic data structures, recursion and graphics.
3. The student will create sophisticated applications and applets.
4. Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, and JDeveloper.
5. Write, compile, execute Java programs that include GUIs and event driven programming.
6. Write a final project that may be selected from among the following: applets for inclusion in web pages; applets to access enterprise data bases in robust, enterprise three level applications; secure communications over the internet;

(Advanced Java Programming Lab-MCS16)

This course covers topics in various Java technologies. After completing this course, the student willbe able to develop distributed business applications, develop web pages using advanced server-side programming through servlets and Java server pages.

In addition, the student will be able to:

- Demonstrate approaches for performance and effective coding
- Develop Java client/server applications

Understand and write program instructions for the following:

1. Inner class interface
2. Reflection
3. Collection classes
4. Advanced swing
5. Multithreading
6. Networking (TCP/IP)
7. JDBC (architecture, drivers and API)
8. Servlets and JSP
9. Client/server using remote method invocation

(Web application using C#-MCS13)

This course enable students to develop web application with Asp.Net controls .Also, student can dosome projects for various application. Enable students to have a knowledge about . Net technology.

After the successful completion of this course, students will be able to perform applications like

1. Make students to learn net technology.
2. Able to learn benefits, technologies & new features of Asp.Net.
3. Enable students to to develop web application.
4. With the Asp.Net controls , student can do some projects for various application.
5. Enable students to access database with . Net technology through database connectivity.
6. Makes student to know Asp.Net web services

(Web application using C# lab-MCS17)

This course enable students to develop web application with Asp.Net controls .Also, student can do some projects for various application. Enable students to access database with . Net technology through database connectivity.

After the successful completion of this course, students will be able to perform

applications like1.Web configuration file.

2.HTML control classes &

events 3.HTTP Request &

Response class4.Validation &

Rich control 5.Data access

6.Custom & Users controls

(Object Oriented Analysis & Design-MCS15A)

This course was designed to understand the Object-based view of Systems and to develop robust object-based models for Systems.

After the successful completion of this course, students will be able to

1. Ability to analyze and model software specifications.
2. Ability to abstract object-based views for generic software systems.
3. Ability to deliver robust software components.
4. To inculcate necessary skills to handle complexity in software design

Semester – II

(Compiler Design-MCS21)

After the successful completion of this course, students will be able to

1. Specify and analyse the lexical, syntactic and semantic structures of advanced language features

2. Separate the lexical, syntactic and semantic analysis into meaningful phases for a compiler toundertake language translation

3. Write a scanner, parser, and semantic analyser without the aid of automatic generators

4. Turn fully processed source code for a novel language into machine code for a novel computer

5. Describe techniques for intermediate code and machine code optimisation

6. Design the structures and support required for compiling advanced language features.

(Enterprise Java Programming-MCS22)

After the successful completion of this course, students will be able to

This course covers design, implementation and testing software using Java. It introduces how to write Java programs that solve practical, real world, business-oriented problems using advanced object- oriented design techniques of the Java language, such as encapsulation, inheritance and polymorphism.

After the successful completion of this course, students will be able to

1. Understanding of the principles and practice of object oriented analysis and design in the construction of robust, maintainable programs which satisfy their requirements;

2. Implement, compile, test and run Java programs comprising more than one class, to address aparticular software problem.

3. Understand the concept of package, interface, multithreading and File handling in java.

4. Use members of classes found in the Java API (such as the Math class).

5. Employ various types of selection constructs in a Java program.

6. Employ a hierarchy of Java classes to provide a solution to a given set of requirements.

7. Identify advance concepts of java programming with database connectivity.

8. Design and develop platform independent applications using a variety of component basedframeworks

9. Able to implement the concepts of Hibernate, XML& EJB for building enterprise applications.

(Enterprise application using c#-MCS23)

After the successful completion of this course, students will be able to

1. Student can create simple component with properties.
2. Enable to create user control and integrated user control
3. Student can aware of caching.
4. They can aware of security & Authentication related information .
5. Students know about enterprise library & exception handling .

(Unix network programming-MCS24)

After the successful completion of this course, students will be able to

1. Enable to know more about file concepts in Unix OS
2. Demonstrates about process concepts in unix
3. Explains about semapores in Unix
4. Explains more about TCP/IP and UDP sockets.
5. Reveals about debugging techniques
6. Illustrates about client server applications

(Human Rights-MHR20)

After the successful completion of this course, students will be able to

1. To know more about definition, nature & scope of human rights
2. Reveals about theories on human rights
3. Enable to know more about Universal declaration of human rights
4. Make students to know about international covenant on Civil & Political rights
5. Enable students to know about international covenant on Economic, social & cultural rights
6. Enable to know about UN human commissioner
7. To know about African & European human right system
8. Discussion about Child labour & abusement
9. Discussion about women's rights, Dalit's rights, refugees & children's rights.

(Unix programming lab-MCS27)

After the successful completion of this course, students will be able to perform shell script program

1. To copy, rename and print
2. To display logged in users
3. List process based on CPU percentage and memory usage
4. Total used and free memory space
5. Using statements like switch, if then else, while loop, for loop and grep statements
6. List directories and sub directories
7. Using debugging option

(Enterprise Java Programming lab-MCS 26)

After the successful completion of this course, students will be able to do the following:

1. Create simple JSF application
2. HTML render kit/core render kit in JSF
3. Creating enterprise bean & web client
4. Performing strut action
5. Using session bean
6. Object relational mapping & collection mapping.

(Enterprise application using c# lab-MCS28)

After the successful completion of this course, students will be able to perform applications like1.Create simple component using database.

2.Creating custom control.

3.Output caching,data caching & fragment caching4.Implementing deployment rules

5.Implementing authentication mechanism.

Semester - III

(Distributed operating system-MCS31)

After the successful completion of this course, students will be able to

1. Enable to have a knowledge of synchronization, buffering & addressing
2. To know more about client server management
3. Enable to know more about transparency and security
4. To have a knowledge about deadlocks and threads
5. To know more about hadoop project
6. Configuring API & using remote debugger

(Mobile Computing)

This course gives the clear overview of Mobile communication technologies. Various technologies, resources and networks needed for effective communication will be learned by the students.

After the successful completion of this lab Course, students will be able to

1. Determine solutions using problem solving principles, logic and systematic methodologies.
2. Evaluate the architecture and principles of operation of computer systems and networks.
3. Synthesize principles and theories of computer science and software engineering forapplication to different computing paradigms.
4. Design and develop software systems for various application domains.
5. Design and develop secure enterprise-grade information systems.
6. Manage the development of software systems through a variety of development processes andmethodologies.
7. Design effective user interfaces using human computer interaction principles.
8. Synthesize new knowledge in the field of computer science by using appropriate researchmethodologies.

(Design & Analysis of Algorithm)

To study the techniques and approaches used to analyze and design algorithms and to appreciate the impact of algorithm design in practice. It also ensures that students who understand how the worst- case time complexity of an algorithm is defined, how asymptotic notation is used to provide a rough classification of algorithms.

After the successful completion of this course, students will be able to

1. Use different computational models (e.g., divide-and-conquer), order notation and various complexity measures (e.g., running time, disk space) to analyze the complexity/performance ofdifferent algorithms.
2. Understand the difference between the lower and upper bounds of various problems and theirimportance in deciding the optimality of an algorithm.
3. Use various techniques for efficient algorithm design (divide-and-conquer, greedy, and dynamicalgorithms) and be able to apply them while designing algorithms.
4. Understand and implement various algorithms on graph data structures, including finding theminimum spanning tree and shortest path.
5. Augment various data structures (trees and arrays) to support specific applications.
6. Know various advanced design and analysis techniques such as greedy algorithms, back tracking algorithm, dynamic programming & Know the concepts of Branch & Bound and Number Theoretic Algorithms
7. Understand Graph algorithms, strongly connected components and notion of NP completeness.

(Software Project Management)

At the end of this course, the students should be able to:

1. To know the basics of software project management
2. Enable to have knowledge of processes, creation and execution
3. Broad view of project planning
4. Time management and scheduling activities
5. About software project metrics
6. About benefits and technologies of ERP packages
7. About decision support system

(Software Quality Assurance)

At the end of this course, the students should be able to:

1. Know about role and plan of SQA
2. Enable to know more about software configuration management and SQA management
3. About Quality metric analysis
4. Explains about software ISO standards
5. Purpose and scope of SQA palnning

(Design & Analysis of Algorithm lab)

After the successful completion of this course, students will be able to program,

1. Linear & binary search, Quick sort, Merge sort, selection sort & maximum & minimum usingDivide & Conquer strategy
2. 0/1 Knapsack problem using dynamic programming
3. All pairs shortest path
4. Minimum cost spanning tree
5. N-Queens problem using backtracking
6. Sum of subsets of numbers

(Mobile Computing lab)

After the successful completion of this course, students will be able to

1. Create simple application using button, text view and edit text
2. Application using radio buttons & option group
3. Using Alert dialog box
4. Using Date picker widget
5. Using Spinner, Menus and intents
6. Using File I/O
7. Connect RDBMS & Phone services

(Mini Project)

This course is planned to make students to perform various applications & solve tidious problems using effective known programming languages like C, C++, Visual programming ,VB script, HTML,ASP .Net programming with appropriate database connectivity. Students can perform mini projects using above programming techniques.

Semester – IV

(Project work)

This course is planned to make students to perform projects & solve tidious problems using effective known programming languages like C, C++, Visual programming ,VB script, HTML,ASP .Net programming with appropriate database connectivity. Students can able to perform main projects

using above programming techniques. Students gained experience from the mini project and they can able to perform the main project well.This gives confidence to the students for compete with technology and outside world.

SEMESTER
IPAPER – 1

SUB: GENERAL CHEMISTRY– I SUB CODE: BCH11OBJECTIVES:

- To study Basic concepts regarding Atomic Structure, Periodic Properties, BondingConcepts.
- To study Ionic Bond, VSEPR and MO Theories, Nomenclature of OrganicCompounds, Hybridisation.
- To study Reaction Intermediates, States of Matter, Principle of VolumetricAnalysis, Related Problems and Applications.

SEMESTER
IIPAPER – 2

SUB: GENERAL CHEMISTRY– II SUBCODE: BCH21OBJECTIVES:

- Basic knowledge on s- and p- Block Elements, Group Study.
- Hydrocarbons, Cycloalkanes, Dienes,
- Quantum Chemistry, Thermochemistry, First Law of Thermodynamics,Derivation of Equations, Related Problems, Reaction Mechanism and Applications.

SEMESTER –
IIIPAPER – 3

SUB: GENERAL CHEMISTRY– III SUBCODE: BCH31OBJECTIVES:

- To study Basic concepts regarding the Principles of Inorganic Analysis andApplications of Qualitative Analysis.
- To study Types of Solvents, p- Block Elements, Group Study, Aromaticity, Electrophilic and Nucleophilic Substitution Reactions, Elimination Reactions,Reaction Mechanism.
- To study Second Law of Thermodynamics, Derivation of Equations, RelatedProblems and Applications

SKILL BASED SUBJECT

PAPER – 1

SUB: WATER TREATMENT AND ANALYSIS SUBCODE: BSCH32

OBJECTIVE:

- To impart knowledge about the various methods of Water Analysis and Treatment of Water.

SEMESTER – IV

PAPER – 4

SUB: GENERAL CHEMISTRY– IV SUBCODE: BCH41

OBJECTIVE:

- To study Noble gases, Carboxylic Acids, Amines, Alcohols, Phenols, Naphthols, Important Name Reactions, Mechanism.
- To study Thermodynamics, Derivation of Equations, Partial Molar Properties, Chemical Potential, Related Problems and Applications.

SKILL BASED SUBJECT PAPER – 2

SUB: FOOD CHEMISTRY SUBCODE: BSCH42

OBJECTIVE:

- To impart knowledge about Different Foods, Their Nutritive Values and Food Preservation.

SEMESTER – V

PAPER – 5

SUB: INORGANIC CHEMISTRY– I SUBCODE: BCH51

OBJECTIVES:

- To study about the Halogens and Related compounds.
- To give students a firm grounding in Co-ordination chemistry and Solid state Chemistry

PAPER – 6

SUB: ORGANIC CHEMISTRY– I SUBCODE: BCH52

OBJECTIVES:

- To effectively impart knowledge about Carbohydrates, Stereochemistry, Conformational Analysis, Nitroalkanes and Heterocyclic chemistry.
- To make the students more inquisitive in learning the Mechanistic details in Organic¬ Chemistry through the teaching of the named reactions.

PAPER- 7

SUB: PHYSICAL CHEMISTRY– I SUBCODE: BCH53 OBJECTIVES:

- To impart knowledge about the Solutions, Phase Rule and its Applications,
- To study Colligative properties, Chemical Equilibrium, Phase Rule and its Applications, Electrochemistry and its Applications.

ELECTIVE
PAPER – 1

SUB: ANALYTICAL CHEMISTRY– 1 SUBCODE: BECH54A OBJECTIVE:

- To impart knowledge about Data Analysis, Purification of organic compounds, Different Spectroscopic Techniques and their Application.

ELECTIVE
PAPER – 2

SUB: PHARMACEUTICAL CHEMISTRY SUBCODE: BECH55A OBJECTIVE:

- To effectively impart knowledge about Various Diseases and Their Treatment, Importance of Indian Medicinal Plants and Different Types of Drugs.
- Preparation, Synthesis and Structural Determination are not required for the Compounds mentioned.

SKILL BASED SUBJECT
PAPER – 3

SUB: APPLIED CHEMISTRY SUBCODE: BSCH56 OBJECTIVE:

- To impart Knowledge about Petrochemicals, Paper Technology, Sugar Industry, Explosives, Photography and Diary Chemistry.

SEMESTER – VI
PAPER – 8

SUB: INORGANIC CHEMISTRY– II SUBCODE: BCH61 OBJECTIVES:

- To impart knowledge about Nuclear chemistry, Radioactivity, Metallurgy, Chemistry of f- Block Elements, Organometallic Compounds and Bio- inorganic Chemistry.

PAPER – 9

SUB: ORGANIC CHEMISTRY– II SUBCODE: BCH62OBJECTIVES:

- To kindle interest in students in learning Bio-organic chemistry through the introduction of topics such as Proteins, Nucleic acids, Terpenes, Alkaloids etc.
- To generate Keen Interest and Thinking in Understanding the Mechanisms of¬ Molecular Rearrangements and Synthetic Applications of Acetoacetic Ester, Benzene Diazonium Chloride, Grignard Reagents and Diazomethane.

PAPER- 10

SUB: PHYSICAL CHEMISTRY– II SUBCODE: BCH63OBJECTIVE:

- To impart Knowledge about Electrochemistry, Surface Chemistry,Photochemistry, Chemical Kinetics and Theories of reaction rates.

ELECTIVE PAPER – 3

SUB: ANALYTICAL CHEMISTRY – II SUBCODE: BECH64AOBJECTIVE:

- To impart knowledge about Different Chromatographic and SpectroscopicTechniques.

SKILL BASED SUBJECT

PAPER – 4

SUB: AGRICULTURE AND LEATHER CHEMISTRY SUBCODE;

BSCH65OBJECTIVE:

- To learn about Soil fertility and Productivity, Soil Chemistry, Insecticides, Leather Industry and Treatment of Tannery Effluents.

SEMESTE

R I

PAPER –

I

SUB: ORGANIC CHEMISTRY SUB CODE:MCH11 OBJECTIVES:

- To make the students learn and understand the concept of stereochemistry, conformational analysis and their application in the determination of reactionmechanism.
- To understand the mechanism of nucleophilic and electrophilic substitutionreactions.

PAPER -2

SUB: INORGANICCHEMISTRY I SUB CODE:MCH12 OBJECTIVES:

- To learn about the inorganic polymers.
- To study the concept of coordination chemistry, stability of the complexes andstereochemistry of complexes.
- To know about the structure and bonding of inorganic compounds.

PAPER-3

SUB: PHYSICAL CHEMISTRY I SUB CODE:MCH13 OBJECTIVE:

- To study the partial molar property, fugacity and its significance.
- Theories and basic concepts of chemical kinetics - mechanism of acid, baseand enzyme catalysis reaction.
- To acquire knowledge on phase equilibria of three component system. Tostudy the basics of colloids.

ELECTI

VE

PAPER

-I

SUB: ADVANCEDPOLYMER CHEMISTRY SUB

CODE:MCH14A OBJECTIVE:

- To gain the knowledge in the preparation, properties, characterization and applications of polymers.

SEMESTER

IIPAPER -

4

SUB: ORGANIC CHEMISTRY II SUB CODE:MCH21 OBJECTIVES:

- To understand the nature of carbon-hetero atom multiple bond additions andthe mechanism of a chemical reactions.
- To understand the techniques involved in the rearrangements and theirsynthetic utility.
- To know the methods of synthetic strategies andapplications.
- To apply the knowledge of chemical reactions in organic synthesis.

PAPER – 5

SUB: INORGANICCHEMISTRY II SUB CODE:MCH22 OBJECTIVES:

- To make the students knowledgeable in solid statechemistry.
- To equip the students for their future career in nuclear industry.
- To learn the chemistry of lanthanides, to learn about nanotechnology and useof inorganic compounds in biological chemistry.

PAPER-6

SUB: PHYSICALCHEMISTRY II SUB CODE:MCH23 OBJECTIVES:

- To understand the behavior of kinetic reactions and fast reaction.
- To understand the behavior of electrolytes in solution.
- To know the structure of the electrode surface.
- To differentiate electrode kinetics from other types of kinetic studies.
- To know the applications of electrode process. To study the concept andapplications of group theory.

ELECTIVE PAPER -2

SUB: GREEN CHEMISTRY SUB CODE: MCH24A

OBJECTIVES:

- To know the principle and importance of green chemistry.
- To understand the student green chemistry strategies for designing thechemical synthesis.
- To know the solvent free synthesis.
- To make the students knowledgeable ultrasound and microwave assisted greensynthesis.

SEMESTER III PAPER - 7

SUB: ORGANIC CHEMISTRY III SUB CODE:MCH31 OBJECTIVE:

- To understand the concepts of spectral techniques and to apply these techniques for the quantitative and structural analysis of organic compounds.
- To learn the chemistry of terpenes, alkaloids and free radicals and theirimportance.

PAPER- 8

SUB: INORGANICCHEMISTRY III SUB CODE:MCH32 OBJECTIVE:

- To study about the Coordination complexes, Substitution in Coordination complexes and Inorganic Photochemistry.

PAPER-9

SUB: PHYSICALCHEMISTRY III SUB CODE:MCH33 OBJECTIVES:

- To study the electrochemical kinetics, over potential, corrosions and fuel cells.
- To know the solid state and its properties.
- To Study the principles and applications of spectroscopy.
- To study statistical thermodynamics.

ELECTIVE PAPER-2

SUB: SCIENTIFICRESEARCH METHODOLOGY SUB CODE:MCH34A OBJECTIVES:

- To study about the importance of research, literature survey, error analysis, statistical treatment.
- To study about the conventions of writing thesis.

SEMESTER IV

PAPER - 10

SUB: ORGANIC CHEMISTRY IV SUB CODE:MCH41 OBJECTIVE:

- To understand the concepts of Aromaticity, Photochemical Reactions, Antibiotics and proteins.
- Applications and Techniques of Dyeing.

PAPER-11

SUB: INORGANIC CHEMISTRY– IV SUB CODE:MCH42 OBJECTIVE:

- To study about the Inorganic Spectroscopy and Nuclear Chemistry.

PAPER-12

SUB: PHYSICAL CHEMISTRY-IV SUB CODE:MCH43 OBJECTIVE

- To study the principles of photochemical reactions.
- To study the Experimental methods and kinetics studies of photochemical reactions.
- To Study of electrode - electrolytic interface.
- To study the fundamental principles of quantum chemistry and its application to chemical bonding, Schrödinger wave equation and its applications.
- To study statistical thermodynamics, quantum statistics and irreversible thermodynamics.

ELECTIVE PAPER- 4

SUB: ENVIRONMENTAL CHEMISTRY SUB

CODE:MCH44A OBJECTIVES:

- To understand the concept of different types of pollution.
- To learn the various techniques involved in the analysis of pollutants.
- To know the methods for the control of pollution