Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF COMMERCE

PROGRAMME OUTCOME

PO- 1: The program after the completion of three years the students can develop a thorough knowledge of Commerce.

PO –2: This program will provide an external knowledge Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies and Warehousing etc., well trained professionals to meet the requirements**.**

PO – 3: The programme focuses the important of the curriculum and the various specializations to face the future challenges.

PO - 4: To enrich the knowledge of the students to a develop progressive and effective
ideas for the betterment of doing business and also for the society.

PO - 5: To inculcate the knowledge in Accounting, costing, banking
and finance.

Program Specific Outcome (PSO)

PSO – 1: To enrich the knowledge and better understanding about various tax issues and tax forms related to the individuals.

PSO – 2: To determine progressive affective province development of values, the role of accounting in society and business.

PSO – 3: To learn relevant financial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.

PSO – 4: To make the students to acquire thorough systematic subject skills in
various disciplines of commerce, business, accounting, economics,
finance, auditing and marketing.

PSO–5: To inculcate the learners to recognise features and roles of businessmen, entrepreneur, managers, consultant and decision making.

PSO–6: The students will be able to develop proficiency with the ability to use in competitive exams like CA, CS, ICWA and other courses.

PSO – 7: The student will acquire the different skills like effective communication, decision making, problem solving in day to day business affairs.

PSO – 8: The students can also acquire practical knowledge to act as tax consultant, audit assistant and other financial supporting services.

PSO -9: The students will be able to do higher education and research in the field
of commerce.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF COMMERCE

COURSE OUTCOMES

SEMESTER I

Core I: ADVANCED ACCOUNTANCY -I (7BCO1C1)

CO1: To make them to understand accounting principles, conventions and process.

CO2: To learn the various techniques of rectification of errors and bank reconciliation statement.

CO3: To know the various types of depreciation of accounting.

CO4: To gain the knowledge of final accounts, sole trading concerns and non trading concerns.

CO5: To learn the average due date and account current.

Core II: BUSINESS ORGANISATION (7BCO1C2)

CO1: To acquire the knowledge of the Nature of business and evaluation of business.

CO2: To study the ownership of business firms.

CO3: To under should the differentiation of the business firms.

CO4: To develop the basic knowledge of students to understand the Organization of the management

CO5: To inculcate the students about the role of Government in business.

Allied I: INDUSTRIAL ECONOMICS: (7BAEA1)

CO1: To the students to understand the basic concepts of the behaviour of firms and industrial organization.

CO2: To acquire the knowledge of the students to understand the role of Public, private corporate sector and MNCs

CO3: To understand the Industrial productivity, industrial sickness and its consequences.

CO4: To discuss and analyse LPG and issues relating to disinvestment policy.

CO5: To make the students to understand the Industrial developments in India.

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SEMESTER II

Core III: ADVANCED ACCOUNTANCY – II (7BCO2C1)
CO1: To acquire the knowledge between the principles of Bills of Exchange and Promissory notes.

CO2: To develop the ideas and methodologies of claiming fire insurance.

CO3: To make the students to learn the principles and methodologies about consignment account.

CO4: To understand Joint venture accounts, methods, Distinction between joint venture

and consignment.

CO5: To make the students study the Single entry system and Conversion of single entry into double entry.

Core IV: MARKETING (7BCO2C2)

CO1: To develop the knowledge about Marketing Concepts and Market Segmentation.

CO2: To make them to understand the difference between Product Policy and Product life cycle.

CO3: To know the Function of Marketing.

CO4: To gain the knowledge of Pricing policy and factors influencing price decisions.

CO5: To study the Promotion policy and Qualities of a successful salesman.

Allied 2: INDIAN ECONOMIC ISSUES (7BAEA2)

CO1: To make the students to learn Indian Economy as a Trend in the Post-Independence Period and the policy of Government and to measures.

CO2: To understand the Place of Agriculture in Indian Economy and Indian Agriculture and WTO – Recent Initiatives in Indian Agriculture.
CO3: To Study the Role of Industrialization – Industrial Policy and Impact of WTO on

Indian Industry.

CO4: To learn the growth of India and the various policies of the Government and Foreign

Trade.

CO5: To make the students to study the Reasons for the Growth of MNC's – Impact of MNC's on Indian Economy.

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DEPARTMENT OF COMMERCE

SEMESTER III

CORE V: PRINCIPLES OF INSURANCE (7BCO3C1)

CO1: To develop the knowledge of students about the different types of insurance organization.

CO2: To learn the fundamental principles of life insurance.

CO3: To improve the knowledge of about the procedure for taking a life policy.

CO4: To learn the conditions of insurance policy.

CO5: To understand the nature of contract about the marine insurance

.

CORE VI: BANKING THEORY (7BCO3C2)

CO1: To understand the Origin of banking and Classification on the basis of functions.

CO2: To acquire knowledge about the commercial Bank and their functions in economic and social development.

CO3: To inculcate the students to understand about the credit creation and the investment policy of the banks.

CO4: To develop the knowledge about the State Banks of India, the Reserve Bank of India and their functions and Regulations. .

CO5: To learn Recent developments in banking, Banking Ombudsman Scheme and E-banking.

CORE VII: BUSINESS STATISTICS (17BCO3C3)

CO1: To understand collection of data, classification of data, tabulation.

CO2: To learn the measures of central tendency, mean, median, and mode.

CO3: To know the rank correlation and Karl Pearson's co efficient of correlation.

CO4: To gain the knowledge of techniques and concept of different types of index numbers

CO5: To learn measurement of seasonal variation, simple average, Ratio method and Link relative method.

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DEPARTMENT OF COMMERCE

CORE VIII: ADVANCED ACCOUNTING -III (7BCO34)

CO1: To enable the students to learn the basic concepts of Partnership Accounting.

CO2: To know partnership types and deeds.

CO3: To understand admission of partner and calculation of various ratios.

CO4: To learn about the retirement of partners and related ratios.

CO5: To Study death and insolvency of partners.

CO6: To understand dissolution of the partnership firm and Piece meal distribution.

Allied III: Advertising and sales promotion (7BBAA3)

CO1: To learn the important objectives of advertising and sales promotions

CO2: To study basics of advertising agencies

CO3: To understand the concepts on advertising layout

CO4: To gain knowledge on sales force managements

CO5: To develop knowledge on sales promotions

SEMESTER IV

Core IX: PRINCIPLES OF MANAGEMENT (7BCO4C1)

CO1**:** To know the nature, scope and Functions of management

CO2: To explain nature, importance, methods and types of planning and decision making process.

CO3: To improve the Organizing and Staffing of the managements,

CO4: To understand direction and motivation theories in the Managements.

CO5: To improve the knowledge of Controlling techniques of organisation.

CORE X: BANKING LAW AND PRACTICE (7BCO4C2)

CO1: To enlighten the students' knowledge on Banking Regulation Acts

CO2: To teach the Bankers as borrowers and Special types of customers.

CO3: To know the Cheque and types of cheque, meaning of Crossing and types of crossing

CO4: To understand Endorsement, Kinds of endorsements and Paying Banker functions

CO5: To explain Collecting Banker function and Knowledge of various forms used in day to day banking transactions

Core XI: BUSINESS MATHEMATICS (7BCO4C3)

CO1: To define common arithmetic and types of interest and discounting bills.

CO2: To understand and calculation of various types of Logarithms.

CO3: To Know the elements of Set Theory, difference of two sets, Venn diagrams and Demerger's law.

CO4: To explain theory of Probability,Theorems, conditions of probability and Mathematical expectations.

CO5: To learn Theoretical distribution – Binomial, Poisson and Normal distributions.

Core XII: ADVANCED ACCOUNTANCY – IV (7BCO4C4}

CO1: To explain Contract accounts, calculation of Profit from incomplete contract, and Preparation of balance sheets to contractors.

CO2: To learn Royalties accounts and Accounting treatment of Lessor and Lessee.

CO3: To make clear about Hire purchase and Installment system.

CO4: To know Insolvency accounts and preferential creditors and Non-preferential creditors.

CO5: To understand Departmental accounts and Branch accounts.

Allied IV: CUSTOMER

RELATIONSHIMANAGEMENT(7BBAA4)

CO1: To understand the history and scope of CRM

CO2: To study strategy and organization of CRM

CO3: To learn about analytical CRM

CO4: To understand the CRM subsystems

CO5: To improve the knowledge on operational CRM

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Syed Ammal Arts and Science College

DEPARTMENT OF COMMERCE

SEMESTER V

Core XIII: CORPORATE ACCOUNTING (7BCO5C1)

CO1: Enabling the students to understand the features of Shares and Debentures
and understanding about redemption of Shares and Debenture.

CO2: To give an experience to the company final accounts

CO3: To provide knowledge on Goodwill calculation and calculation of share value

CO4: The students can get an idea about internal reconstruction

CO5: Understand the treatment regarding issue of bonus shares and treatment of prior
period Profits.

Core XIV: COSTING (7BCO5C2)

CO1: To understand the preparation of cost sheet.

CO2: To study the recording and controlling of materials.

CO3: To know the different methods of remunerating labour.

CO4: To learn the various types of accounting overheads.

CO5: To improve the knowledge of job and process costing

Core XV: COMMERCIAL LAW (7BCO5C3)

CO1: To know the different types of Contract Act (Sec 1 to 75)

CO2: To learn the Contract of indemnity and guarantee (Sec 124 to 129)

CO3: To improve the knowledge of Bailment and pledge (Sec 148 to 181).

CO4: To learn the Law of Agency (sec 182 to 238).

CO5: To understand the Sale of goods Act.

Elective I: INCOME TAX – I (7BCOE1A)

CO1: To understand the basic concepts, definition and terms related to income taxation.

CO2: To make the students understand the concept of residential status and scope of total income for an assesse with different kinds of residential status.

CO3: To learn the various heads of income can be earned in India.

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CO4: To explain the procedure for computation of income under the heads namely income from salaries, house property, business/professional.

CO5: To know the procedure for computation of income under the heads namely income capital gain and income from other sources.

SEMESTER VI

Core XVI: SPECIAL ACCOUNTS (7BCO6C1)

CO1: Enable the students to understand about amalgamation, absorption and

external reconstruction

CO2: To make them aware about accounts of banking companies.

CO3: To know the aware about accounts of insurance companies.

CO4: To enable the students to gain an idea of liquidation of companies.

CO5: To introduce and develop knowledge of holding companies accounts.

Core XVII: MANAGEMENT ACCOUNTING (7BCO6C2)

CO1: To apply management accounting and its objectives in facilitating decision making.

CO2: To Financial Statements Analysis and Interpretation – Accounting Ratios

CO3: To prepare Cash Flow and Funds Flow statements this helps in planning

for intermediate and long-term finances

CO4: To prepare a master budget and demonstrate an understanding of the

relationship between the components.

CO5: To Perform cost variance analysis and demonstrate the use of standard costs.

Core XVIII: INDUSTRIAL LAW (7BCO6C3)

CO1: The students able to understand the Factory Act of industrial relation.

CO2: To learn the roll of Trade Unions in the in the industrial sector.

CO3: The students should able to outline the important causes and impact of

Industrial   Disputes.

CO4: To learn important provisions of wages legislation in The Workmen's

Compensation Act, 1923.

CO5: To understand the important provisions of social security

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Elective II: INCOME TAX- II (7BCOE2A)

CO1:   To learn the various deductions under the income tax Act 1961.

CO2: To make the students determine the net total taxable income of an assesse

after deducting the deductions from gross total income earned from all or either of the heads of income and also to compute tax based on slab rates.

CO3: To know the computation of income and tax for the individual and partnership firm

CO4: To understand the income tax various authorities and its collection of taxes

CO5: To apple an understanding of the common penalties in income tax cases.

Elective III: AUDITING (7BCOE3A)

CO1: Understand the environment and types relating to the auditing function.

CO2: Identify the steps needed to prepare for an audit.

CO3: Plan an audit taking into account concepts of evidence, risk and materiality
CO4: Know how to prepare and use working papers, such as checklists Know how to report results of audit
CO5:To understand of Liabilities of an auditor

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Syed Ammal Arts and Science College

BUSINESS ADMINISTRATION

COURSE OUTCOMES

SEMESTER-I

ENGLISH LANGUAGE COURSE-I BUSINESS ENGLISH

COURSE CODE: 7BBA121

EL1: To write down the Construction of Paragraph and Essay writing

EL2: To impart the Essential of and offer effective business letter

EL3: To practice the Job of application Letter

EL4: To write down the Bio-data

EL5: To write down the format of office circular

CORE PAPER-I   MANAGERIAL ECONOMICS
COURSE CODE: 7BBA1C1

CO1: To enhance the knowledge about meaning, nature and scope of managerial economics

CO2: To create the awareness about demand

CO3: To update the knowledge of breakeven point

CO4: To create awareness about the marketing competition

CO5: To enhance the knowledge about RBI

CORE PAPER-II   FINANCIAL ACCOUNTING
COURSE CODE: 7BBA1C2

CO1: To understand different accounting concepts and conventions.

CO2: To analyze the knowledge about how to prepare different types of cash book

CO3: To give the practice to prepare final accounts for profit and non-profit organizations

CO4: To discover and prevent errors and frauds in business students.

CO5: To instill the knowledge about depreciation

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

BUSINESS ADMINISTRATION

ALLIED PAPER-I   BANKING THEORY
COURSE CODE: 7BCCA1

AL1: To expand the knowledge about origin of banking

AL2: To create the knowledge about primary and secondary functions of banking

AL3: To create the awareness about E-banking

AL4: To instill the knowledge about various types of savings

AL5: To enhance the knowledge about various types of bank

ENGLISH LANGUAGE COURSE-II BUSINESS REPORT WRITING
COURSE CODE: 7BBA221

EL1: To empower the kinds of barriers reports.

EL2: To enhance the steps in drafting formal business reports.

EL3: To write down the reports on problem opportunities in business.

EL4: To prepare the essentials in writing minutes of meeting.

EL5: To classify the writing simple market reports.

CORE PAPER-III   PRINCIPLES OF MANAGEMENT
COURSE CODE: 7BBA2C1

CO1: To help the better management of resources and activities of an organization.

CO2: To impart the importance and steps in decision is making and decision making techniques.

CO3: To describe the Effective plans co-ordinate the organizational work and eliminate unproductive effort.

CO4: To handling the job assigned to employees such as recruitment, selection, training of staff

CO5: To find out good control system and follow the good control techniques

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

BUSINESS ADMINISTRATION

CORE PAPER-IV   COST ACCOUNTING

COURSE CODE: 7BBA2C2

CO1: To identity the difference financial accounting and its advantage

CO2: To identity the preparation of cost sheet using by single or output cost

CO3: To impart the material control and to prepare different types of stores ledger

CO4: To classify and practice the methods of wage payments and incentive plans.

CO5: To classify and practice the different types of overheads.

ALLIED PAPER-II   BANKING LAW AND PRACTICE

COURSE CODE: 7BCCA2

AL1: To create the knowledge about different types of accounts

AL2: To empower the knowledge about bank charges

AL3: To instill the knowledge about cheque, letter of credit, promissory notes etc

AL4: To enhance the comprehensive knowledge about various types of deposit

AL5: To impart the Statutory protection under Sec. 85 of the NI Act

CORE COURSE - V - ORGANIZATIONAL BEHAVIOUR
COURSE CODE: 7BBA3C1

CO1: To plan, design, and operations of Individual behaviour and Group behaviour.

CO2: To facilitate awareness about techniques of Group Decision Making.

CO3: To instill the knowledge about functions and process of Communication

CO4: To build the skills about Effects of job stress.

CO5:To understand how to develop organization

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BUSINESS ADMINISTRATION

CORE PAPER-VI   BUSINESS STATISTICS
COURSE CODE: 7BBA3C2

CO1: To instill the knowledge about statistic analysis and methods.

CO2: To identify the objectives and types of Average.

CO3: To describe the arithmetic Mean, Median, Mode.

CO4: To classify the methods of studying Correlation Analysis and rank correlation.

CO5: To describe the construction of Index numbers.

CORE PAPER - VII COMPUTER APPLICATION IN BUSINESS-I

COURSE CODE: 7BBA3C3

CO1: To understand the basic knowledge about computer

CO2: To update awareness about internet Vs intranet

CO3: To impart the Ms-Word, Ms-power point and Ms-Excel

CO4: To create awareness about system software

CO5: To create awareness about system hardware

ALLIED PAPER-III   LAWS FOR COMMON MAN
COURSE CODE: 7BCSA3

AL1: To expand the knowledge about constitution of India

AL2: To understand the approaches between the law, rights and justice

AL3: To understand the workings of courts in India

AL4: To make the students to understand the knowledge about Right to Information Act-2005

AL5: To expose awareness about consumer protection act-1986, environment protection act-1986

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BUSINESS ADMINISTRATION

CORE PAPER-VIII

PRODUCTION AND OPERATION MANAGEMENT

COURSE CODE: 7BBA4C1

CO1: To plan, design, and operations of manufacturing firms.

CO2: To facilitate awareness about handling materials and equipment

CO3: To instill the knowledge about quality control

CO4: To build the skills about "portfolio" of useful analytical tools for operations tasks.

CO5:To understand how Enterprise Resource Planning and managing operations.

CORE PAPER-IX   MARKETING MANAGEMENT

COURSE CODE: 7BBA4C2

CO1: To make the students to understand the distinction between marketing and market

CO2: To give basic knowledge about marketing mix

CO3: To create awareness about how to buy and sell the product

CO4: To update the awareness about sales promotion

CO5: To describe the complex qualitative and quantitative data to support strategic and operational decisions.

CORE PAPER - X COMPUTER APPLICATION IN BUSINESS-II
COURSE CODE: 7BBA4C3

CO1: To enable the students to develop skills for accounting with Tally

CO2: Input the knowledge to prepare accounting books and statements by using the gateway of Tally

CO3: To give comprehensive knowledge about different types of voucher

CO4: To identify the types of printing configuration options.

CO5: To give the basic knowledge about Exchange and Merge data

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BUSINESS ADMINISTRATION

CORE PAPER-XI   BUSINESS MATHAMATICS
COURSE CODE: 7BBA4C4

CO1: To know the basics of analytical geometry.

CO2: To describe the difference and complements of set theory.

CO3: To identify the differential calculus.

CO4: To identify the total and average cost functions.

CO5: To create the basic knowledge about the types of matrix.

ALLIED PAPER-IV   HUMAN RIGHTS
COURSE CODE: 7BCSA4

AL1: To develop the knowledge about historical perspective of human rights

AL2: To instill the knowledge about international convention of human rights

AL3: To create awareness about child labour

AL4: To create and update awareness about Human Rights Commission

AL5: To impart the essential rights about women, disabled persons etc

CORE PAPER-XII   RESEARCH METHODOLOGY
COURSE CODE: 7BBA5C1

CO1: To identify the position of Marketing Research in India.

CO2: To Write down the Scientific methods in Marketing Research.

CO3: To classify the methods of research design such as descriptive Research and experimental research.

CO4: To classify the types of sampling.

CO5: To write down the measurements of scaling techniques.

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BUSINESS ADMINISTRATION

CORE PAPER-XIII   MANAGEMENT ACCOUNTING
COURSE CODE: 7BBA5C2

CO1: To Write down distinguish between financial accounting and management accounting.

CO2: To classify the ratios and its merits.

CO3: To classify the preparation of fun flow and cash flow statement.

CO4: To identity the concept of marginal costing and cost volume analysis.

CO5: To classify the different types of variance.

CORE PAPER-XIV HUMAN RESOURCE MANAGEMENT
COURSE CODE: 7BBA5C3

CO1: To know the difference between Human Resource Management

CO2: To describe the recruitment process

CO3: To instill the knowledge about Methods of executive development.

CO4: To impart knowledge about the methods of performance appraisal

CO5: To know the role of collective bargaining

ELECTIVE COURSE-I   TOURISM MANAGEMENT
COURSE CODE: 7BBAE1A

EL1: To enhance knowledge about history of tourism

EL2: To describe the importance about international tourism

EL3: To instill the knowledge about State and National Tourism Development Corporations.

EL4: To impart knowledge about the International Air Transport Association

EL5: To update the knowledge of Tourism promotion

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BUSINESS ADMINISTRATION

ELECTIVE COURSE -II   SERVICE MARKETING
COURSE CODE: 7BBAE2A

EL1: To enhance the knowledge about meaning, evolution and growth of service sector.

EL2: To create the awareness about Service layout

EL3: To update the knowledge of Branding

EL4: To create awareness about the marketing competition

EL5: To enhance the knowledge about sales promotion

SEMESTER-VI

CORE PAPER-XV   INVESTMENT MANAGEMENT
COURSE CODE: 7BBA6C1

CO1: To write down and its classification of Investment.

CO2: To write town the point to the current market conditions.

CO3: Identify the problems of security exchange board of India (SEBI)

CO4: To increase the awareness of the investors investing the securities of shares, bond and debentures.

CO5 : To evaluate the market condition and using formula plan, and financial tools.

CORE COURSE - XVI FINANCIAL MANAGEMENT
COURSE CODE: 7BBA6C2

CO1: To identity the principles of capital structure

CO2: To describe the concept of cost of capital and its classifications

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CO3: To write down the characteristics of budgetary control

CO4: Identity the preparation of production, sales, cash budget, flexible budget

CO5: Describe the different factors affecting in capital investment proposal

CORE COURSE - XVII - BUSINESS LAW
COURSE CODE: 7BBA6C3

CO1: To describe the law and commercial law rules and regulation.

CO2: To enhance the knowledge about contract and its classification of contract.

CO3: To impart the capacity of parties and incapacity of parties in contract.

CO4: To enhance the knowledge about sale of good act.

CO5: To update the awareness about transfer of property.

CORE COURSE – XVIII- PROJECT REPORT & VIVA-VOCE
COURSE CODE: 7BBA6C4

CO1: To develop a thorough understanding of the chosen subject area.

CO2: To demonstrate the ability to collate and critically assess/interpret data.

CO3: To develop an ability to effectively communicate knowledge in a scientific manner.

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CO4: To provide recommendations based on research findings.

ELECTIVE COURSE – I INTERNATIONAL MARKETING
COURSE CODE: 7BBAE3B

EL1: To identify the problems is International marketing.

EL2: To give the comprehensive knowledge about Export policy and procedures.

EL3: To describe the methods of payments or modes of payment.

EL4: To classify the distribution channel.

EL5: To identify the globalization and foreign trade.

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DEPARTMENT OF BCA

COURSE OUTCOMES
I SEMESTER

CORE PAPER I -   C AND DATA STRUCTURE

CO1:

Introduction to c –structure of c program-constant-operators and expression-decision making –branching –looping.

CO2:

One Dimensional and Two Dimensional Arrays-Initailizing String and Variabls-Arithmetic Operations on characters.

CO3:

Introduction to user defined function -Return Values a

nd Their Types-structure –unions.

CO4:

Introduction to pointes-accessing the address of a variable-defining and opening a file-error handling during i/o operation.

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CO5:

Classification of data structures-stack-queue- linked list-tree.

CORE PAPER II - FUNDAMENTALS OF COMPUTER

CO1:

Characterstics of computers-basic applications of computer-generations of computers-central processing unit-input/output devices-memory.

CO2:

Concepts of data processing-definition of information and data-basic data types-storage of information and data as files**.**

CO3:

Introduction to operating system-definitions and functions-basic components of windows-copying and moving files and folders.

CO4:

An introduction to word processing and ms-word-working with documents, using tables, pictures and charts-macros.

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CO5:

Creating and enhancing a presentation-creating and publishing a web presentation-working with visual elements.

CORE PAPER –C AND DATA STRUCTURE LAB

C program

- Write a program to perform the arithmetic operation
- Write a program to find whether the given number is palindrome or not
- Write a program to count the number of positive, negative and zero
- Write a program to sort the array in an ascending order
- Write a program to add two matrices
- Write a program to perform the string operation[length, compare, copy, concat , reverse]
- Write a program to find sum of digits of a number using function
- Write a program to find sum of digits of a number using function
- Write a program for call by value and call by reference
- Write a program to use structure with in union, display the contents of structure elements
- Write a program for declaring and initializing pointers
- Write a program add two numbers using pointer
- Write a program to read, write the text file using file handling method

Data structure program

- Write a program to implement on stack operation
- Write a program to implement on queue operation
- Write a program to create and display single linked list

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II SEMESTER

CORE PAPER II - C++ PROGRAMMING

CO1:

Introduction to c++ -tokens-expressions-control structure-function in c++.

CO2:

Defining a member function-nesting of member functions-static data members-static member function-friendly function.

CO3:

Introduction to inheritance-defining derived classes-single inheritance-multiple Inheritance – multilevel inheritance-hierarchical inheritance-virtual functions-pure virtual function-formatted and unformatted i/o operations.

CO4:

Classes for file stream operations-opening and closing a file -random access-error handling during file operations-command line arguments.

CO5:

Introduction to templates-function templates-overloaded function templates-user defined templates-error handling-exception handling model-exceptions in constructor and destructors.

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Syed Ammal Arts and Science College
DEPARTMENT OF BCA

CORE PAPER II - DESKTOP PUBLISHING

CO1:

Introduction To Corel draw-features of corel draw-moving from adobe illustrator to corel draw-common tasks-creating basic shapes-reshaping objects

.CO2:

Introduction to text tool-artistic and paragraph text-formatting text-envelopes-lens effects-transparency-power clips.

CO3:

Introduction to bitmaps-working with bitmaps-3d effect –art effect-blur effect-color transformation effect-distort effect.

CO4:

Exploring the toolbox-exploring panels & menus-working with images-making selection-resizing and cropping images.

CO5:

Getting started with layers-layers palette-working with layers painting in photoshop-creating paragraph type-lighting effects-difference clouds-sketch filters.

CORE PAPER PROGRAMMING IN C++ LAB

- Write a program to find the simple and compound interest
- Write a program to check whether the given number is Armstrong or not.
- Write a program to find factorial using recursion
- Write a program to find whether the given number is odd or even using class

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- Write a program to find the multiplication values and the cubic values using inline function
- Write a program to count the objective value using the storage keyword static
- Write a program to display the employee details with using array of object
- Write a program to print student details with using array of object
- Write a program to find out the payroll system using single inheritance
- Write a program to find out the student details using multiple inheritance
- Write a program to calculate the area of circle ,rectangle and triangle using function overloading
- Write a program to print details with using virtual function
- Write a program to perform the write operation within a file
- Write a program to read the content of a file
- Write a program to perform the file stream operation
- Write a program for command line arguments
- Write a program for to swap the numbers using the concept of function template
- Write a program to perform exception handling for divide by zero exception.
- Write a program for try, catch, throw and throws

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF BCA

III SEMESTER

CORE PAPER I - DATABASE MANAGEMENT SYSTEM

CO1:

Introduction to database system applications-purpose of database systems-view of data-database users and administrators-database architecture-E-R model-E-R diagrams-E-R design.

CO2:

Features Of good Relational Designs-Decomposition using functional dependencies-decomposition using multi valued functional dependencies-modeling temporal data.

CO3:

Centralized and client server architecture-server system architecture-network types-parallel database-distributed database -distributed transactions.

CO4:

Data integrity -creating and maintaining tables- indexes -sequences -views- synonyms.

CO5:

Introduction to PL/SQL- triggers- stored procedure and functions -package- cursors and – transactions.

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CORE PAPERII - ADVERTISINGAND SALES PROMOTION

CO1:

Advertisement – meaning – definition – trade journals - magazines-banners - radio and televisions – exhibition - trade fair - transportation advertising.

CO2:

Advertising budget-advertising appeals-objectives-essentials-types-elements of copy writing: headlines-body copy.

CO3:

Advertising layout-functions-designs of layout-process of lithography-printing olates and reproduction paper and cloth-repeat advertising.

CO4:

Sales force management-importance—sales force decision-sales force size-recruitment & selection –training-methods-motivating salesman-controlling-compensation&incentives-salezsmanship-process of personal selling –types of salesman.

CO5:

Sales promotion: meaning-methods-marketing communication and persuasion-after sales service-packing-guarantee

Programme Outcomes and Course Outcomes

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CORE PAPER -ORACLE LAB

- Creating, modifying and dropping tables
- Creating tables with referential and check constraints
- Inserting, modifying, deleting rows
- Dropping, disabling/enabling constraints
- Retrieving rows with character functions
- Retrieving rows with number and date functions
- Retrieving rows with group functions and HAVING
- Joining tables inner and outer
- Retrieving rows with sub queries
- Simple PL/SQL programs
- PL/SQL programs with control structure
- PL/SQL programs with cursors
- PL/SQL programs with exception handling
- Creating and calling procedures
- Creating and calling functions
- Creating and calling packages
- Overloading packages
- Working with triggers

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
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IV SEMESTER

CORE PAPER I - JAVA PROGRAMMING

CO1:

Introduction to java programming-object oriented paradigm-benefits of OOP-applications of OOP-java history-java features-java program structure-tokens –java statement-type casting.

CO2:

Operators and expression-decision making branching-decision making looping

CO3:

Defining class-adding variables-methods accessing class members-method overloading –static members-abstract methods and classes-visibility control-arrays-string-vectors-interface.

CO4:

Java API package-creating packages-Accessing A Package- Adding A Class a package-hiding classes-life cycle of a thread-exception handling.

CO5:

Introduction to applet programming-how applets differ from applications-building applet code-applet life cycle-introduction to graphics programming: drawing ellipse-drawing arcs-drawing polygons.

Programme Outcomes and Course Outcomes

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CORE PAPER II - CUSTOMER RELATIONSHIP MANAGEMENT

CO1:

Overview of relationship marketing –defition of CRM-elements and history of CRM-consuemr attitudes-customer life cycle.

CO2:

CRM processes and systems-CRM strategy- the relationship oriented organization –customer knowledge-relationship policy.

CO3:

Introduction to analytical CRM-relationship data management-data analysis-data warehouse and data mining-segmentation and selection-reporting results.

CO4:

Introduction to CRM subsystems-contact management-campaign management-sales force-integration business process management-culture change-customer eco system.

Programme Outcomes and Course Outcomes

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CO5:

Introduction to operational CRM-CRM planning-infrastructure-quality systems-customer privacy-call centre management-banking hospitality and telecom sectors-indian Scenario.

CORE PAPER -JAVA PROGRAMMING LAB

- write a program to sort the given numbers

- write a program to reverse the given number

- write a program for convert double to long using type casting

- write a program to perform arithmetic operation

- write a program to find out square root of a given number using mathematical function

- write a program to implement stack operation using arrays

- write a program to implement queue operation using arrays

- write a program to calculate area of square and rectangle using ,method overloading

- write a program to perform the string operations(reverse ,copy, concatenate, compare

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF BCA

V SEMESTER

CORE PAPER I - .NET PROGRAMMING

CO1: Overview Of .Net Framework-the .NET framework components-the common language runtime environment-set up work environment-start page-the menu system-toolbars-the new project dialog box-graphical designers-the server explorer- the class view window-the properties window-arrays.

CO2:

Working with form-properties- apperaence- behaviour- layout-windows style-methods and events-checkbox-radio button –group box.

CO3:

Working with other controls of toolbox date-date time picker-list box-combo box-text box-link label -checked list box.

CO4:

Inbuilt functions –mathematical functions-string manipulation-exception handling-mulitiple document interface.

CO5:

ADO .NET object model –data provider-dataset-browsingrecords-datagridview-editing-saving-addingand deleting records using bounded and unbounded.

CORE PAPER II - COMPUTER SYSTEM ARCHITECTURE

CO1:

Data representation: data types-complements-register transfer language-arithmetic ,logic shift unit-instruction codes-computer registers computer instructions-timing and control-instruction cycle.

CO2:

Memory reference instruction input and output interrupt-machine language-assembly language-the assembler-program loops-subroutines.

CO3:

Introduction to central processing unit-general register organization-stack organization-instruction formats-addressing modes-data transfer and manipulation –RISC.

CO4:

Introduction to arithmetic,addition-subtraction-multiplicationalgorithms-division algorithms-priority interrupt-direct memory access.

CO5:

Memory hierarchy-main memory-auxiliary memory-associative memory- cache memory-cache memory-virtual memory- characterstics of multiprocessors.

Programme Outcomes and Course Outcomes

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CORE PAPER III - WEB DESIGN TECHNOLOGY

CO1:

Introduction to HTML-markup languages-editing HTML-common tags—header-formatting text-ordered and unordered list-forms-linking –frames.

CO2:

Introduction to scripting language-memory concept-java script arrays-passing arrays to function-multi scripted array.

CO3:

Java script control structure-introduction to java scrip t functions-program modules in java script programmer defined functions.

CO4:

Duration of identifiers-scope rules-recursion-java script global functions-thinking about objects-math-strings-date- boolean and number objects.

CO5:

Introduction to VB script-operators-data type and control structures-string manipulation-classes and objects- the MsgBox functions-input boxes-controlling the flow of code

Programme Outcomes and Course Outcomes

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CORE PAPER IV - COMPUTER GRAPHICS

CO1:

Introduction to graphics-application of computer graphics-video display generation-input devices-output devices-line drawing algorithms-DDA- Bresenham's algorithm-circle generation algorithm-drawing ellipse.

CO2:

Two dimensional transformation-basic transformations-matrix representation-composite transformataions.

CO3:

Viewing transformations-windows and viewpoints-aspect ratio-point clipping-line segment clipping- convex polygon- sitherland hodgman algorithms.

CO4:

Three dimensional transformation-concepts-translation-scaling-rotation and mirror refelction- composite transformation.

CO5:

Components of user interface -the user's model-the command language-styles of command language-Information Display-Feedback

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CORE PAPER-.NET PROGRAMMING LAB

- Observe and draw visual .net IDE layout and hands on practice to create, save and open the project.

Programme Outcomes and Course Outcomes

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- Write a program to accept any character from keyboard and display whether it is vowel or not.
- Write, test and debug program to test input box, message box.
- Write, test and debug program to use textbox, label, and button.
- Write, test and debug program to use radio button, checkbox, numeric up down and group box controls.
- Write, test and debug application using date time picker, list box, combo box, picture box.
- Write, test and debug application using rich text box, progress bar, masked text box, link label.
- Write, test and debug application using checked list box, scroll bars, timer.
- Write, test and debug application using menu.
- Write, test and debug application using dialog boxes.
- Write, test and debug application using sub procedure and functions.
- Write, test and debug application using MDI.
- Write, test and debug applications using math and string manipulations functions.
- Create and test connection using ado.net to view SQL express server/Microsoft Access/oracle/other database data in textbox etc controls.
- Create connections view controls like data-grid view controls.
- Write, test and debug small application to add, edit, search and delete record in database in bounded mode.
- Write, test and debug small application to add , edit , search, and delete record in database in unbounded mode i.e. through coding .

Programme Outcomes and Course Outcomes

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VI SEMESTER

CORE PAPER I - COMPUTER NETWORKS

CO1:

Introduction to computer networks-uses of computer networks-network hardware and software-reference models-transaction media-telephone system-ISDN-communication satellites.

CO2:

Data link layer design issues-error detection and correction codes-HDLC-SLIP-PPPmulti access protocol-ALOHA.

CO3:

Network layer design issues-routing algorithms-congestion control algorithms-fragmentation -firewalls-IP.

CO4:

Transport service-elements of transport protocols-multiplexing-TCP-UDP.

CO5:

Network security-cryptography-DNS-SNMP _electronic mail-JPEG-MPEG.

Programme Outcomes and Course Outcomes

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CORE PAPER II - SOFTWARE ENGINEERING

CO1:

Software engineering some size factors-planning an organizational structure

CO2:

Software cost estimation techniques-software requirements specifications

CO3:

Software design fundamentals-walkthroughs and inspections-design guidelines

CO4:

A strategic approach to software testing –enhancing maintainability during development

CO5:

Software quality assurance –the ISO 9000 quality standards.

Programme Outcomes and Course Outcomes

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CORE PAPER II - DATA MINING AND WAREHOUSING

CO1:

Data mining applications-data mining techniques-data mining software-apriori algorithm-mining frequent pattern without candidate generation (FP growth).

CO2:

Decision tree- DT rules- navie bayes method-classification software.

CO3:

Cluster analysis-types of data-types of cluster analysis methods-density based methods-dealing with large databases.

CO4:

Introduction to web mining-web terminology and characterstics-web content mining-web usage mining- web structure mining.

CO5:

Introduction to data warehousing-data warehousing design-OLAP-multidimensional view and data cube-data cube implementation.

Programme Outcomes and Course Outcomes

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CORE PAPER -OPEN SOURCE LAB

- Kernel configuration, compilation and installation

- Install various software on Linux

- Install and configure XAMP

- Create a MYSQL database and table

- Write a MYSQL statement to insert a record into the table

- Write a MYSQL statement to update the values

- Write a PHP program to generate 10 random numbers using loop
- Write a PHP program adding numbers using functions
- Connect to a MYSQL database with PHP, PERL and python.

PROGRAMME OUTCOMES

PO1:

- To include the knowledge of computer programming and the impact a declaring variables, control statements and loops concepts, arrays and so on.
- Learn how to build by the algorithms for problems
- Learn how to apply logic for problems.
- Enhance their programming skills.

PO2:

- To enhance the knowledge about the object oriented programming languages
- Design and build object –oriented software using good coding practices and techniques.

PO3:

- To impact the ideas of database management systems and structures.
- Understanding the objectives of data and information management.
- Understand data modeling and database development process.
- Construct and normalize conceptual data models.

PO4:

Programme Outcomes and Course Outcomes

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- To develop knowledge about the java programming and its importance in producing applets to web knowledge and so on.
- Identify advance concepts of java programming with database connectivity.
- Design and develop platform independent applications using a variety of component based frameworks.

PO5:

- Students will able to recognize & create the role of GUI application using visual studio application.
- To develop knowledge about backend and how to fetch the information's from the Database.
- Students will able to understand, analyze and develop computer programs in the areas related to algorithms, flowchart.
- To prepare students in web designing using various web tools

PO6:

- Able to apply data mining techniques in various application and its case studies.
- To develop the knowledge about how to extract the data and also aggregate the data using various algorithms.
- To prepare students with basic networking concepts and OSI concepts.
- To introduce the students to the network of networks – internet.
- To enable the students to use various services offered by internet.
- To gain knowledge about the protocols used in various services of internet.
- To understand the working and applications of intranet and extranet.
- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science and mathematics.
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. CHEMISTRY

COURSE OUTCOMES

I YEAR - I SEMESTER
COURSE CODE: 7BCH1C1

CORE COURSE – I - FUNDAMENTALS OF CHEMISTRY

Unit I   **Atomic and molecular composition of matter:**

To make students to have clear ideas about atomic structure, composition of matter based on quantum mechanics

Unit II   **Periodic table:**

To develop the knowledge of arrangement of various atoms in simple form

Unit III   **Organic compounds:**

To impart basic ideas about sources of organic compounds, naming the compounds, giving formulae, basing standard rules

Unit IV   **Physical properties and chemical constitution:**

To make them to understand the physical properties and their calculations using basic methods

Unit V   **Introduction to computers:**

To understand the fundamental principles of computer applications to solve basic chemistry equations

I YEAR – I SEMESTER
COURSE CODE: 7BCH1P1

CORE COURSE II - INORGANIC AND ORGANIC VOLUMETRIC ANALYSIS PRACTICAL - I

Inorganic and Organic Volumetric Estimation:

To develop the students to have clear practical ideas about the inorganic and organic estimations using volumetric principles

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. CHEMISTRY

ALLIED PHYSICS (offered to departments of chemistry)

SEMESTER I

Course Code	Course Name	Course Outcome (COs)
7BPHA1	**PROPERTIES OF MATTER, THERMAL PHYSICS AND OPTICS (THEORY)**	**CO1:** Acquire the knowledge of elastic behavior of materials. **CO2:** Understand the concepts of viscous properties of liquids and its determination. **CO3:** Gain the knowledge on specific heat capacity of different solids and liquids through various methods. **CO4:** Understand the concept of thermodynamics and its laws. **CO5**: study the theory and experiment of interference diffraction using Newton's rings air wedge methods

I YEAR - II SEMESTER
COURSE CODE: 7BCH2C1

CORE COURSE - III - PHYSICAL CHEMISTRY- I

Unit I　　　**Gaseous state – 1**

To know about the basic ideas on general behaviour of gases

Unit II　　　**Behaviour of real gases:**

To get a clear ideas about the deviations from ideal gas behaviour

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Unit III　　　**Liquid state & Surface chemistry**

To get an extensive knowledge about liquid state, various properties associated with liquid state and surface level

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. CHEMISTRY

Unit IV   **Colloidal state:**

To know the colloidal nature of matter and their industrial applications

Unit V   **Chemical equilibrium:**

To develop the knowledge about chemical equilibrium and their synthetic applications in industries

I YEAR - II SEMESTER
COURSE CODE: 7BCH2C2

CORE COURSE - IV - INORGANIC CHEMISTRY – I

Unit I   **Chemical Bonding – I**

To develop them to have clear ideas on bonding in molecules

Unit II   **Solid State**

- To explain the basic laws about solids
- To develop an extensive knowledge about various types of crystals
- To make understand about various chemical forces

Unit III   **Aqueous and non – aqueous medium**

To get knowledge about reactions take place in aqueous and non – aqueous medium and their importance

Unit IV   **Nuclear chemistry**

To impart them nuclear structure, stability, reactions and applications of nuclear reaction in various fields including archaeology

Unit V   **Metallurgy**

To impart basic ideas about the extraction of metals from their ore using different techniques

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. CHEMISTRY
ALLIED PHYSICS (offered to departments of chemistry)
SEMESTER - II

7BPHA2	ELECTRICITY, ELECTRONICS, ATOMIC AND NUCLEAR PHYSICS	**CO1:** Understand the basic laws and concepts of Electricity **CO2:** To impart the Knowledge of electromagnetism **CO3:** Study the fundamentals governing the structure of atom and nucleus and its uses **CO4**: Provide the better understanding of basic Electronics **CO5:** Develop the skills on number system and its conversions as well as analyze the fundamentals of Logic gates

II YEAR - III SEMESTER
COURSE CODE: 7BCH3C1

CORE COURSE - V - ORGANIC CHEMISTRY – I

Unit I   **Isomerism:**

To get clear knowledge about different isomerism and their importance in identification of compounds

Unit II   **Reaction intermediates:**

To know about the various reaction intermediates involved in chemical reactions

Unit III   **Aliphatic hydrocarbons:**

To know about the applications of aliphatic hydrocarbons for making energy sources like LPG, LNG and MAPP gas

Unit IV   **Aromatic hydrocarbons:**

To understand about aromaticity, study of various aromatic compounds and their importance

Unit V   **Alcohols, Phenols and Ethers:**

To get an extensive knowledge about alcohols, phenols and ethers, their reactivity and their applications in industrial processes

II YEAR - III SEMESTER
COURSE CODE: 7BCH3P1

CORE COURSE - VI -INORGANIC & ORGANIC QUALITATIVE ANALYSIS
PRACTICAL - II

Inorganic and Organic Qualitative Analysis:

To develop practical skills in analysing a mixture of inorganic and organic substances

ALLIED COURSE III-ANCILLARY MATHEMATICS III
COURSE CODE: 7BMAA3

Unit 1   **To learn about partial differential equation and its applications**

Unit II   **To get the knowledge of solving Lagrange's linear equation**

Unit III   **To learn about laplace transformation**

Unit IV   **To compute maxima and minima by using numerical differentiation method**

Uint V   **To demonstrate to understand about beta and gamma function**

Allied Zoology – I (General And Applied Zoology)
COURSE CODE: 7BZOA1

Unit 1   To understand basic classification of animal kingdom

Unit II   To learn about endoparasite

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Unit III   To know insects and their importance

Unit IV   To study about snakes and their biting mechanisms

Uint V   To learn poultry, animal husbandry and their importance

II YEAR - IV SEMESTER
COURSE CODE: 7BCH4C1

CORE COURSE - VII - PHYSICAL CHEMISTRY – II

Unit I   **Thermodynamics – 1**

- To know about the basic concepts of thermodynamics
- To understand about various energy terms and their interrelations

Unit II   **Thermodynamics – 2**

To get an extensive knowledge about the applications of thermodynamics

Unit III   **Electro chemistry – 1**

To learn about the influence of electricity on chemicals

Unit IV   **Electro chemistry – 2 – Ionic Equilibria**

- To know about the nature of substances based on electrochemistry
- To get the knowledge of various of types of indicators
- To know about the industrial applications

Unit V   **Electro chemistry – 3:**

- To know about electrical energy production
- To understand about the reason for corrosion based on electrochemistry and its prevention

II YEAR – IV SEMESTER
COURSE CODE: 7BCH4C2

CORE COURSE - VIII - INORGANIC CHEMISTRY - II

Unit I   **XIV & XV – Group (nitrogen and carbon groups):**

To get a thorough knowledge of nitrogen and carbon group elements and the uses of various compounds belonging to this group

Programme Outcomes and Course Outcomes

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Unit II **Group XVI to XVIII**

- To know about the importance of 16, 17 and 18 group elements, their properties and their uses
- To know about the importance of inert gases

Unit III **Alkaline and alkaline earth metals**

To develop a thorough knowledge on alkaline and alkaline earth metals, their extraction and various applications

Unit IV **Transition elements, Lanthanides and actinides**

- To get knowledge about sources of transition elements, their extractions and uses
- To make them understand lanthanide and actinide contraction and the consequences
- To know about the sources of lanthanide and actinide and their extraction from the ores

Unit V **Inorganic materials and industrial importance**

To make them to know about industrially important materials like inorganic polymers, glass, ceramics and fertilizers and their importance in modern world

ALLIED COURSE IV –ANCILLARY MATHEMETICS - IV
OPTIMATION TECHNIQUE
COURSE CODE: 7BMAA4

Unit I To learn about the features and nature of operation research

Unit II To know the simplex methods using slack and surplus variables

Unit III To understand the concept of transportation problems

Unit IV To realized the assignment problems, finding optimal solution by using Hungarian method

Programme Outcomes and Course Outcomes

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Uint V   To gain knowledge of sequencing problems

ALLIED ZOOLOGY – II (CONCEPTUAL ZOOLOGY)

COURSE CODE: 7BZOA2

Unit I   To learn cell division DNA structure

Unit II   To study cancer and their effects

Unit III   To know basic genetical studies

Unit IV   To study the blood group and their physiology

Uint V   To learn the biotechnological approaches

ALLIED PRACTICAL (GENERAL AND APPLIED ZOOLOGY & CONCEPTUAL ZOOLOGY)
COURSE CODE: 7BZOAP1

- ✓ To learn cell division stages
- ✓ To know the blood sugar level
- ✓ To study pedigree analysis for human
- ✓ Microscopic observation of specimens

III YEAR -V SEMESTER
COURSE CODE: 7BCH5C1

CORE COURSE - IX - ORGANIC CHEMISTRY – II

Unit I   **Organic halogen compounds:**

- To get a clear knowledge about the mechanism of reactions of halogen compounds

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- To know about the applications of halogen compounds to preparing pesticides and other materials
- To learn about the synthesis of new organic compounds using organometallic compounds

Unit II   **Carbonyl Compounds:**

- To have an extensive knowledge about the general characters and their industrially important applications
- To know about the detailed mechanism of reactions

Unit III   **Aliphatic and aromatic carboxylic acids and their derivatives:**

- To understand the various reactions of aliphatic and aromatic carboxylic acids and their derivatives
- To know about industrial uses

Unit IV   **Organic Nitrogen derivatives**

To understand a thorough knowledge of organic nitrogen compounds and their uses

Unit V   **Colourants**

- To know about the principles involved in colouring various substances in industrial products
- To know about the advisory effect of using colourants

III YEAR - V SEMESTER
COURSE CODE: 7BCH5C2

CORE COURSE - X - PHYSICAL CHEMISTRY – III

Unit I   **Spectroscopy**

- To get a detailed knowledge of spectroscopic techniques and their applications in elucidating the structure of organic compounds
- To know about the applications of spectroscopy to human diagnosis

Unit II   **Phase rule**

- To learn about the phase diagram of various systems and their applications in metallurgical processes
- To learn about the nature of substances in different solvents

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Unit III **Chemical Kinetics**

- To get a clear knowledge about the speed of chemical reactions, a various factors affecting the speed of reactions
- To understand the modern theories of reaction rates

Unit IV **Photochemistry**

To learn about photochemical processes and their applications

Unit V **Group theory**

To get basic ideas of mathematical group theory and its applications in ascertaining the structure and behaviour of various kind of molecules

III YEAR – V SEMESTER
COURSE CODE: 7BCH5P1

CORE COURSE - XI - GRAVIMETRIC ESTIMATION AND ORGANIC PREPARATION PRACTICAL – III

- To develop them to estimate the amount of substances present in various system
- To develop them to prepare organic compounds

III YEAR - V & VI SEMESTER
COURSE CODE: BCH6P1

CORE COURSE – XII - PHYSICAL CHEMISTRY PRACTICAL – IV
(University Examination will be held in the sixth semester only)

- To apply the knowledge of the principles of phase diagram in the study of simple two component system
- To develop them to get practical skills in the determination of molecular weight of substances by measuring freezing temperature and transition temperature with the help of simple equipments
- To learn about the miscibility of liquids and finding out the concentration of the impurity present in substances
- To develop the ability of finding out the reaction rate constants and their applications in estimating various substances
- To get the knowledge of measuring heat of solution of different salts
- To learn about the estimation of acids and bases and any other substances by making use of electrical instruments

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B.Sc. CHEMISTRY
III YEAR - V SEMESTER
COURSE CODE: 7BCHE1A

ELECTIVE COURSE - I (A) – ANALYTICAL CHEMISTRY

Unit I   **Analytical data analysis and Laboratory hygiene**

To create awareness about laboratory hygiene and the safety methods of handling lab equipments

Unit II   **Separation purification and Chromatographic and Electrophoretic methods:**

To develop them to know the latest techniques like chromatographic and electrophoresis in the separation and purification of substances

Unit III   **Colorimetry and spectrophotometry**

To know the advanced techniques like colrimetry and spectrophotometry in the estimation of substances

Unit IV   **Gravimetry**

To develop gravimetric methods in the estimation of salts present in a solution

Unit V   **Electro-analytical techniques**

To know the principles of advanced techniques of electro analytical chemistry in the estimation of substances

III YEAR – V SEMESTER
COURSE CODE: 7BCHE2A

ELECTIVE COURSE II (A) – INDUSTRIAL CHEMISTRY

Unit I   **Paints, Pigments and Varnishes**

To develop them to know the constituents of paints, pigments and varnishes, method of manufacturing and their uses

Unit II `   **Ceramics, Glass and Cement**

To know about the domestic and industrial applications of ceramic, glass and cement

Unit III   **Soap, Detergents and Refractories**

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To develop them to know the methods of making soaps, detergents and refractories for self employment

Unit IV   **Fertilizers, Sugar Industry and Match industries**

- o   To develop them to know about the importance of fertilizer which are vital materials for developing agriculture
- o   To know about the methods of manufacturing sugars in rural areas as well as in industrial side
- o   To know about the process of making matches

Unit V   **Adhesives, Enamels and Explosives**

To develop them to learn the methods of preparing adhesives, enamels and explosives and their applications

III YEAR - VI SEMESTER
COURSE CODE: 7BCH6C1

CORE COURSE – XIII - INORGANIC CHEMISTRY - III

Unit I   **Coordination chemistry – I**
To learn about the coordination chemistry, nomelclature of coordination compounds, isomerism and various theories related to coordination compouds

Unit II   **Coordination chemistry– II – Reactions of complexes**
To know about the advanced topics of coordination chemistry like the substitution reactions of coordination compounds having different arrangements

Unit III   **Organo metallic compounds of d – block elements**
To learn about the importance of organo metallic compounds of d – block elements and their applications

Unit IV   **Bioinorganic Chemistry**
To learn about the importance of bioinorganic substances and their applications in biochemical field

Unit V   **Material Chemistry:**
To learn about the recently developed nanotechnology, various nanosized materials, their preparation and their importance

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B.Sc. CHEMISTRY
III YEAR – VI SEMESTER
COURSE CODE: 7 BCH6C2

CORE COURSE – XIV – ORGANIC CHEMISTRY - III

Unit I   Carbohydrates
To develop them to get a detailed knowledge of carbohydrates

Unit II   Natural Products and Biochemistry:
- To know about the techniques of isolation of natural products, the study of their physiological properties and determining the structure of naturally available herbal materials
- To get a thorough knowledge on proteins

Unit III   Dyes, organic photochemistry
To learn about the various type of dyes, their preparations and uses
To know about the recently developed photochemical reactions in organic compounds

Unit IV   Rearrangement reactions
To understand about the conversion of organic substances

Unit V   Applications of spectroscopy
To get advanced knowledge of spectroscopic techniques in elucidating the structural behaviour of organic substances

III YEAR – VI SEMESTER
COURSE CODE: 7BCH6P2

CORE COURSE – XV – APPLIED CHEMISTRY PRACTICAL -V

- To develop advanced practical skills in estimation of hardness of water by EDTA method
- To learn about the estimation of metals present in ores
- To know about the quantitative analysis of commercially available bleaching powder
- To make them to estimate the water sample collected from rural areas by Biological oxygen demand (BOD) method
- To learn about the determination of adulteration of oils by measuring iodine value and saponification value
- To learn about the methods of finding adulterations in food materials
- To know about the measurement of voltage of various electrochemical cells

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B.Sc. CHEMISTRY

III YEAR – VI SEMESTER
COURSE CODE: 7BCHE3A

ELECTIVE COURSE - III (A) – POLYMER CHEMISTRY

Unit I   **Introduction of Monomer and Polymer and their Mechanism**
To know about the basic concepts in polymers and their formation by different methods

Unit II   **Polymer structure, Properties**
To study about the various structural arrangement of polymers and their characteristics

Unit III   **Copolymerisation:**
To know about copolymerization and their industrial importance

Unit IV   **Polyolefins, Rubber**
To know about the usage of polyolefins and rubber in industries

Unit V   **Plastics and Resins and Textile Fibres:**
To learn about the methods of preparing plastics, resins and textile fibres and their uses in textile industries

B.Sc. CHEMISTRY COURSE OUTCOMES

I YEAR - I SEMESTER
COURSE CODE: 7BCH1C1

CORE COURSE – I - FUNDAMENTALS OF CHEMISTRY

Unit I   **Atomic and molecular composition of matter:**

To make students to have clear ideas about atomic structure, composition of matter based on quantum mechanics

Unit II   **Periodic table:**

To develop the knowledge of arrangement of various atoms in simple form

Unit III   **Organic compounds:**

To impart basic ideas about sources of organic compounds, naming the compounds, giving formulae, basing standard rules

Programme Outcomes and Course Outcomes

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Unit IV   **Physical properties and chemical constitution:**

To make them to understand the physical properties and their calculations using basic methods

Unit V   **Introduction to computers:**

To understand the fundamental principles of computer applications to solve basic chemistry equations

I YEAR – I SEMESTER
COURSE CODE: 7BCH1P1

CORE COURSE II - INORGANIC AND ORGANIC VOLUMETRIC ANALYSIS
PRACTICAL - I

Inorganic and Organic Volumetric Estimation:

To develop the students to have clear practical ideas about the inorganic and organic estimations using volumetric principles

ALLIED PHYSICS (offered to departments of chemistry)

SEMESTER I

Course Code	Course Name	Course Outcome (COs)
7BPHA1	**PROPERTIES OF MATTER, THERMAL PHYSICS AND OPTICS (THEORY)**	**CO1:** Acquire the knowledge of elastic behavior of materials. **CO2:** Understand the concepts of viscous properties of liquids and its determination. **CO3:** Gain the knowledge on specific heat capacity of different solids and liquids through various methods. **CO4:** Understand the concept of thermodynamics and its laws. **CO5**: study the theory and experiment of interference diffraction using Newton's rings air wedge methods

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

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I YEAR - II SEMESTER
COURSE CODE: 7BCH2C1

CORE COURSE - III - PHYSICAL CHEMISTRY- I

Unit I   **Gaseous state – 1**

To know about the basic ideas on general behaviour of gases

Unit II   **Behaviour of real gases:**

To get a clear ideas about the deviations from ideal gas behaviour

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Unit III   **Liquid state & Surface chemistry**

To get an extensive knowledge about liquid state, various properties associated with liquid state and surface level

Unit IV   **Colloidal state:**

To know the colloidal nature of matter and their industrial applications

Unit V   **Chemical equilibrium:**

To develop the knowledge about chemical equilibrium and their synthetic applications in industries

I YEAR - II SEMESTER
COURSE CODE: 7BCH2C2

CORE COURSE - IV - INORGANIC CHEMISTRY – I

Unit I   **Chemical Bonding – I**

To develop them to have clear ideas on bonding in molecules

Unit II   **Solid State**

- To explain the basic laws about solids
- To develop an extensive knowledge about various types of crystals
- To make understand about various chemical forces

Programme Outcomes and Course Outcomes

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Unit III   **Aqueous and non – aqueous medium**

To get knowledge about reactions take place in aqueous and non – aqueous medium and their importance

Unit IV   **Nuclear chemistry**

To impart them nuclear structure, stability, reactions and applications of nuclear reaction in various fields including archaeology

Unit V   **Metallurgy**

To impart basic ideas about the extraction of metals from their ore using different techniques

ALLIED PHYSICS (offered to departments of chemistry)

SEMESTER - II

7BPHA2	ELECTRICITY, ELECTRONICS, ATOMIC AND NUCLEAR PHYSICS	**CO1:** Understand the basic laws and concepts of Electricity **CO2:** To impart the Knowledge of electromagnetism **CO3:** Study the fundamentals governing the structure of atom and nucleus and its uses **CO4**: Provide the better understanding of basic Electronics **CO5:** Develop the skills on number system and its conversions as well as analyze the fundamentals of Logic gates

Programme Outcomes and Course Outcomes

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B.Sc. CHEMISTRY

II YEAR - III SEMESTER
COURSE CODE: 7BCH3C1

CORE COURSE - V - ORGANIC CHEMISTRY – I

Unit I **Isomerism:**

To get clear knowledge about different isomerism and their importance in identification of compounds

Unit II **Reaction intermediates:**

To know about the various reaction intermediates involved in chemical reactions

Unit III **Aliphatic hydrocarbons:**

To know about the applications of aliphatic hydrocarbons for making energy sources like LPG, LNG and MAPP gas

Unit IV **Aromatic hydrocarbons:**

To understand about aromaticity, study of various aromatic compounds and their importance

Unit V **Alcohols, Phenols and Ethers:**

To get an extensive knowledge about alcohols, phenols and ethers, their reactivity and their applications in industrial processes

II YEAR - III SEMESTER
COURSE CODE: 7BCH3P1

CORE COURSE - VI -INORGANIC & ORGANIC QUALITATIVE ANALYSIS PRACTICAL - II

Inorganic and Organic Qualitative Analysis:

To develop practical skills in analysing a mixture of inorganic and organic substances

ALLIED COURSE III-ANCILLARY MATHEMATICS III
COURSE CODE: 7BMAA3

Unit 1 **To learn about partial differential equation and its applications**

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Unit II   To get the knowledge of solving Lagrange's linear equation

Unit III   To learn about laplace transformation

Unit IV   To compute maxima and minima by using numerical differentiation method

Uint V   To demonstrate to understand about beta and gamma function

Allied Zoology – I (General And Applied Zoology)
COURSE CODE: 7BZOA1

Unit 1   To understand basic classification of animal kingdom

Unit II   To learn about endoparasite

Unit III   To know insects and their importance

Unit IV   To study about snakes and their biting mechanisms

Uint V   To learn poultry, animal husbandry and their importance

II YEAR - IV SEMESTER
COURSE CODE: 7BCH4C1

CORE COURSE - VII - PHYSICAL CHEMISTRY – II

Unit I   **Thermodynamics – 1**

- To know about the basic concepts of thermodynamics
- To understand about various energy terms and their interrelations

Unit II   **Thermodynamics – 2**

To get an extensive knowledge about the applications of thermodynamics

Unit III   **Electro chemistry – 1**

To learn about the influence of electricity on chemicals

Unit IV   **Electro chemistry – 2 – Ionic Equilibria**

- To know about the nature of substances based on electrochemistry

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- To get the knowledge of various of types of indicators
- To know about the industrial applications

Unit V   Electro chemistry – 3:

- To know about electrical energy production
- To understand about the reason for corrosion based on electrochemistry and its prevention

II YEAR – IV SEMESTER
COURSE CODE: 7BCH4C2

CORE COURSE - VIII - INORGANIC CHEMISTRY - II

Unit I   XIV & XV – Group (nitrogen and carbon groups):

To get a thorough knowledge of nitrogen and carbon group elements and the uses of various compounds belonging to this group

Unit II   Group XVI to XVIII

- To know about the importance of 16, 17 and 18 group elements, their properties and their uses
- To know about the importance of inert gases

Unit III   Alkaline and alkaline earth metals

To develop a thorough knowledge on alkaline and alkaline earth metals, their extraction and various applications

Unit IV   Transition elements, Lanthanides and actinides

- To get knowledge about sources of transition elements, their extractions and uses
- To make them understand lanthanide and actinide contraction and the consequences
- To know about the sources of lanthanide and actinide and their extraction from the ores

Unit V   Inorganic materials and industrial importance

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To make them to know about industrially important materials like inorganic polymers, glass, ceramics and fertilizers and their importance in modern world

ALLIED COURSE IV –ANCILLARY MATHEMETICS - IV
OPTIMATION TECHNIQUE
COURSE CODE: 7BMAA4

Unit I   To learn about the features and nature of operation research

Unit II   To know the simplex methods using slack and surplus variables

Unit III   To understand the concept of transportation problems

Unit IV   To realized the assignment problems, finding optimal solution by using Hungarian method

Uint V   To gain knowledge of sequencing problems

ALLIED ZOOLOGY – II (CONCEPTUAL ZOOLOGY)

COURSE CODE: 7BZOA2

Unit I   To learn cell division DNA structure

Unit II   To study cancer and their effects

Unit III   To know basic genetical studies

Unit IV   To study the blood group and their physiology

Uint V   To learn the biotechnological approaches

ALLIED PRACTICAL (GENERAL AND APPLIED ZOOLOGY & CONCEPTUAL ZOOLOGY)
COURSE CODE: 7BZOAP1

- ✓ To learn cell division stages
- ✓ To know the blood sugar level

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- ✓ To study pedigree analysis for human

- ✓ Microscopic observation of specimens

III YEAR -V SEMESTER
COURSE CODE: 7BCH5C1

CORE COURSE - IX - ORGANIC CHEMISTRY – II

Unit I   Organic halogen compounds:

- To get a clear knowledge about the mechanism of reactions of halogen compounds
- To know about the applications of halogen compounds to preparing pesticides and other materials
- To learn about the synthesis of new organic compounds using organometallic compounds

Unit II   Carbonyl Compounds:

- To have an extensive knowledge about the general characters and their industrially important applications
- To know about the detailed mechanism of reactions

Unit III   Aliphatic and aromatic carboxylic acids and their derivatives:

- To understand the various reactions of aliphatic and aromatic carboxylic acids and their derivatives
- To know about industrial uses

Unit IV   Organic Nitrogen derivatives

To understand a thorough knowledge of organic nitrogen compounds and their uses

Unit V   Colourants

- To know about the principles involved in colouring various substances in industrial products
- To know about the advisory effect of using colourants

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III YEAR - V SEMESTER
COURSE CODE: 7BCH5C2

CORE COURSE - X - PHYSICAL CHEMISTRY – III

Unit I   **Spectroscopy**

- To get a detailed knowledge of spectroscopic techniques and their applications in elucidating the structure of organic compounds
- To know about the applications of spectroscopy to human diagnosis

Unit II   **Phase rule**

- To learn about the phase diagram of various systems and their applications in metallurgical processes
- To learn about the nature of substances in different solvents

Unit III   **Chemical Kinetics**

- To get a clear knowledge about the speed of chemical reactions, a various factors affecting the speed of reactions
- To understand the modern theories of reaction rates

Unit IV   **Photochemistry**

To learn about photochemical processes and their applications

Unit V   **Group theory**

To get basic ideas of mathematical group theory and its applications in ascertaining the structure and behaviour of various kind of molecules

III YEAR – V SEMESTER
COURSE CODE: 7BCH5P1

CORE COURSE - XI - GRAVIMETRIC ESTIMATION AND ORGANIC PREPARATION PRACTICAL – III

- To develop them to estimate the amount of substances present in various system
- To develop them to prepare organic compounds

Programme Outcomes and Course Outcomes

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III YEAR - V & VI SEMESTER
COURSE CODE: BCH6P1

CORE COURSE – XII - PHYSICAL CHEMISTRY PRACTICAL – IV
(University Examination will be held in the sixth semester only)

- To apply the knowledge of the principles of phase diagram in the study of simple two component system
- To develop them to get practical skills in the determination of molecular weight of substances by measuring freezing temperature and transition temperature with the help of simple equipments
- To learn about the miscibility of liquids and finding out the concentration of the impurity present in substances
- To develop the ability of finding out the reaction rate constants and their applications in estimating various substances
- To get the knowledge of measuring heat of solution of different salts
- To learn about the estimation of acids and bases and any other substances by making use of electrical instruments

III YEAR - V SEMESTER
COURSE CODE: 7BCHE1A

ELECTIVE COURSE - I (A) – ANALYTICAL CHEMISTRY

Unit I   **Analytical data analysis and Laboratory hygiene**

To create awareness about laboratory hygiene and the safety methods of handling lab equipments

Unit II   **Separation purification and Chromatographic and Electrophoretic methods:**

To develop them to know the latest techniques like chromatographic and electrophoresis in the separation and purification of substances

Unit III   **Colorimetry and spectrophotometry**

To know the advanced techniques like colrimetry and spectrophotometry in the estimation of substances

Unit IV   **Gravimetry**

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To develop gravimetric methods in the estimation of salts present in a solution

Unit V   **Electro-analytical techniques**

To know the principles of advanced techniques of electro analytical chemistry in the estimation of substances

III YEAR – V SEMESTER
COURSE CODE: 7BCHE2A

ELECTIVE COURSE II (A) – INDUSTRIAL CHEMISTRY

Unit I   **Paints, Pigments and Varnishes**

To develop them to know the constituents of paints, pigments and varnishes, method of manufacturing and their uses

Unit II `   **Ceramics, Glass and Cement**

To know about the domestic and industrial applications of ceramic, glass and cement

Unit III   **Soap, Detergents and Refractories**

To develop them to know the methods of making soaps, detergents and refractories for self employment

Unit IV   **Fertilizers, Sugar Industry and Match industries**

- o To develop them to know about the importance of fertilizer which are vital materials for developing agriculture
- o To know about the methods of manufacturing sugars in rural areas as well as in industrial side
- o To know about the process of making matches

Unit V   **Adhesives, Enamels and Explosives**

To develop them to learn the methods of preparing adhesives, enamels and explosives and their applications

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III YEAR - VI SEMESTER
COURSE CODE: 7BCH6C1

CORE COURSE – XIII - INORGANIC CHEMISTRY - III

Unit I   **Coordination chemistry – I**
To learn about the coordination chemistry, nomelclature of coordination compounds, isomerism and various theories related to coordination compouds

Unit II   **Coordination chemistry– II – Reactions of complexes**
To know about the advanced topics of coordination chemistry like the substitution reactions of coordination compounds having different arrangements

Unit III   **Organo metallic compounds of d – block elements**
To learn about the importance of organo metallic compounds of d – block elements and their applications

Unit IV   **Bioinorganic Chemistry**
To learn about the importance of bioinorganic substances and their applications in biochemical field

Unit V   **Material Chemistry:**
To learn about the recently developed nanotechnology, various nanosized materials, their preparation and their importance

III YEAR – VI SEMESTER
COURSE CODE: 7 BCH6C2

CORE COURSE – XIV – ORGANIC CHEMISTRY - III

Unit I   **Carbohydrates**
To develop them to get a detailed knowledge of carbohydrates

Unit II   **Natural Products and Biochemistry:**
- To know about the techniques of isolation of natural products, the study of their physiological properties and determining the structure of naturally available herbal materials
- To get a thorough knowledge on proteins

Unit III   **Dyes, organic photochemistry**
To learn about the various type of dyes, their preparations and uses
To know about the recently developed photochemical reactions in organic

compounds

Unit IV   **Rearrangement reactions**
To understand about the conversion of organic substances

Unit V   **Applications of spectroscopy**
To get advanced knowledge of spectroscopic techniques in elucidating the structural behaviour of organic substances

III YEAR – VI SEMESTER
COURSE CODE: 7BCH6P2

CORE COURSE – XV – APPLIED CHEMISTRY PRACTICAL -V

- To develop advanced practical skills in estimation of hardness of water by EDTA method
- To learn about the estimation of metals present in ores
- To know about the quantitative analysis of commercially available bleaching powder
- To make them to estimate the water sample collected from rural areas by Biological oxygen demand (BOD) method
- To learn about the determination of adulteration of oils by measuring iodine value and saponification value
- To learn about the methods of finding adulterations in food materials
- To know about the measurement of voltage of various electrochemical cells

III YEAR – VI SEMESTER
COURSE CODE: 7BCHE3A

ELECTIVE COURSE - III (A) – POLYMER CHEMISTRY

Unit I   **Introduction of Monomer and Polymer and their Mechanism**
To know about the basic concepts in polymers and their formation by different methods
Unit II   **Polymer structure, Properties**
To study about the various structural arrangement of polymers and their characteristics
Unit III   **Copolymerisation:**
To know about copolymerization and their industrial importance
Unit IV   **Polyolefins, Rubber**
To know about the usage of polyolefins and rubber in industries
Unit V   **Plastics and Resins and Textile Fibres:**
To learn about the methods of preparing plastics, resins and textile fibres and their uses in textile industries.

Programme Outcomes and Course Outcomes

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I. Programme Outcomes

Programme Outcomes
PO1. Scientific knowledge: Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.
PO2. Problem analysis: Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences.
PO3. Design/development of solutions: Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5. Modern tools usage: Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations.
PO6. The software engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.
PO7. Environment and sustainability: Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.
PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10. Communication: Communicate effectively on complex activities with the scientific community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11. Project management: Demonstrate knowledge understanding of the scientific and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF COMPUTER SCIENCE

II Programme Specific Outcomes

Programme	Programme Specific Outcomes

BSc Computer Science	A graduate with a B.Sc. in Computer Science will have the ability to
	
	PSO1. Demonstrate mastery of Computer Science in the following core knowledge areas
	    o Data Structures and Programming Languages
	    o Databases, Software Engineering and Development
	    o Computer Hardware and Architecture
	PSO2. Apply problem-solving skills and the knowledge of computer science to solve real world problems.
	PSO3. Develop technical project reports and present them orally among the users

MSc Computer Science	A graduate with a M.Sc. in Computer Science will have the ability to **PSO1.** Communicate computer science concepts, designs, and solutions effectively and professionally **PSO2.** Apply knowledge of computing to produce effective designs and solutions for specific problems **PSO3.** Use software development tools, software systems, and modern computing platforms

COURSE OUTCOME

BSc Computer Science

I Semester

Core-I: Programming in C(7BCE 1C1)

CO1: To learn the Basic concepts of C programming.

CO2: To Understand the concepts of managing I/O operation and Conditional Statements.

CO3: To study Concepts of Arrays.

CO4: To understand the concepts of user-defined functions, Structure and Union.

CO5: To learn the concepts of Pointers and files.

Core -II : Programming in C Lab(&BCE1P1)

CO1: To Develop the program using Conditional Statements.

CO2: To develop the program using string handling functions.

CO3: To develop the program using array of structure

CO4: To develop the program using arrays

CO5: To develop the program using files.

Allied-I: Fundamentals of Computer(7BSOA1)

CO1: To study the basic concepts of computer.

CO2: To improve the knowledge on Data processing technique.

CO3: To learn Windows Operating System.

CO4: To improve the knowledge on Microsoft Word.

CO5: To improve the knowledge on Microsoft PowerPoint

II Semester

Core-III : Object Oriented Programming with C++(7BCE2C1)

CO1: To understand the basic concepts of OOPs, Datatypes and Operators.

CO2: To understand the concepts of class, Function and Constructors.

CO3: To learn the concept of Operator Overloading, Friend function and Inheritance.

CO4: To provide knowledge of pointers, I/O operators ,and virtual function.

CO5: To impart the knowledge of various file operations and templates.

Core-IV: Object Oriented Programming with C++ Lab(7BCE2P1)

CO1: To develop the programs using Conditional Statements.

CO2: To develop the programs using Function overloading, Inline and Friend Function.

CO3: To develop the programs using Inheritance and Templates.

CO4: To develop the program using Virtual functions.

CO5: To develop the program using Files and Command line Arguments.

Allied-II: Desktop Publishing(7BSOA2)

CO1: To learn the history and scope of Cora Draw.

CO2: To improve the knowledge on mastering the text.

CO3: To study the concepts of bitmaps commands.

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CO4: To learn Photoshop

CO5: To improve the knowledge on layers and filters.

III Semester

Core-V: Data Structures and Computer Algorithms(7BCE3C1)

CO1: To understand the basic concepts of data structure.

CO2: To understand the concepts and various types of array.

CO3: To learn linked list,doubly linked list and circular linked list.

CO4: To understand the concepts of stack,queue and tree.

CO5: To understand the basic concepts of algorithm.

Core-VI: Data Structures and Computer Algorithms Lab Using C & C++(7BCE3P1)

CO1: To develop the program using Decision making and looping.

CO2: To develop the program using array,linked list.

CO3: To develop the program using stack,queue and tree.

CO4: To develop the program for manipulating sorting and searching.

Allied-III: Discrete Mathematics(7BITA3)

CO1: To learn the basic concepts of logic in TF and Tautology.

CO2: To understand the knowledge about principles of normal forms.

CO3: To study the basic concepts of graph theory.

CO4: To form the tree using graph theory.

CO5: To improve the knowledge on binary relation and Boolean algebra.

IV Semester

Core-VII: Java Programming(7BCE4C1)

CO1: To understand the fundamentals of OOP's.

CO2: To study the various types of Operators,Decision making and looping.

CO3: To understand the concepts on classes,object and methos.

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CO4: To understand the packages and multi thread concepts.

CO5: To learn applet and graphics programming.

Core-VIII: Java Programming Lab(7BCE4P1)

CO1: To develop the program using basic control structures.

CO2: To develop the program using inheritance,exception handing and interface concepts.

CO3: To develop the program using applet and AWT components.

Allied-IV: Operation Research(7BITA4)

CO1: To learn the basic concepts of operation research.

CO2: To learn the linear programming problem and simplex method.

CO3: To improve the knowledge on dual simplex method and IPP.

CO4: To learn the mathematical formulation of assignment problem.

CO5: To improve the knowledge on mathematical formulation of Transportation problem.

V Semester

Core-IX: Operating System(7BCE5C1)

CO1: To Understand the Operating System Components, Architecture and Process Concepts

CO2: To acquire the knowledge of Asynchronous concurrent Execution

CO3: To Study about deadlock and Processor Scheduling.

CO4: To learn about real memory organization management and Virtual Memory Management

CO5: To know about how Disks are Scheduled and about database System.

Core-X: Relational Database Management Systems(7BCE5C2)

CO1: To understand the Database System concept and entity relationship model

CO2: To learn relational database design with Normal forms

CO3: To know the database system architecture and parallel and distributed databases

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CO4: To learn Schema objects.

CO5: To learn PL/SQL with examples

Core-XI: Relational Database Management Systems Lab(7BCE5P1)

CO1: To introduce the concepts of DDL and DML commands by creating and manipulating tables

CO2: To develop SQL queries using Primary key, Foreign key and to enforce the integrity rules

CO3: To develop SQL queries using Number functions, String handling functions and Date functions

CO4: To develop PL/SQL program for Insertion, Deletion and Updation of records in a table

CO5: To develop PL/SQL program using Function and Stored Procedure

CO6: To develop PL/SQL program using Cursors and Triggers

Elective-I: Web Design(7BCEE1B)

CO1: To understand the basic HTML tags

CO2: To learn cascading style sheets

CO3: To improve the knowledge on java script

CO4: To learn the various concept of java script Functions,Arrays and Object

CO5: To study document object model and XML

Elective-II: Digital Principles And Computer Organization(7BCEE2A)

CO1: To understand the basic concept of number system and logic gates

CO2: To learn the concept of Boolean laws and theorems and multiplexers

CO3: To improve the knowledge on binary operation and 2's complement

CO4: To understand the basic computer organization and design, micro programming control

CO5: To improve the knowledge on central processing unit and I/O organization

VI Semester

Core-XII: Computer Networks(7BCE6C1)

CO1: To understand the history and uses of networks

CO2: To get the knowledge on Data link layer and its protocols

CO3: To learn about Network layer and its algorithms

CO4: To understand the Transport layer and its services

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CO5: To get the knowledge on Application layer and World Wide Web

Core-XIII: Computer Graphics(7BCE6C2)

CO1: To understand the geometry and line generation

CO2: To get the knowledge on graphics primitives then polygons

CO3: To learn about Transformations and segment

CO4: To get the knowledge on windowing and clipping

CO5: To learn about interaction techniques

Core-XIV: **Software Engineering(7BCE6C3)**

CO1: Learn the phases of software development

CO2: Develop process models and process system models

CO3: Gather, understand, analyze and specify requirements

CO4: Develop architectural diagram, and implement by following coding principles

CO5: Apply testing strategies and handle software product maintenance issues

Core-XV: Project Work & Viva Voce(7BCE6PR)

CO1: Students will be able to design, develop, document and test software using current techniques

CO2: Students will be able to design, develop, document and test software that manages system resources

Elective-III: VB.Net and ASP.Net Programming

CO1: To acquire the knowledge of .Net Framework,Datatypes,Conditional statements and functions

CO2: To understand about windows forms & windows controls.

CO3: To study about the Oops Concepts in VB.Net & File Stream Classes.

CO4: To learn about the ASP.Net applications and various controls of the applications.

CO5: To know about the ADO.Net object model and Data binding.

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M.Sc - Computer Science
I Semester

Core-I: Applied Mathematics For Computer Science(7MCE1C1)

CO1: To learn about logic statement and tautology

CO2: To acquire the knowledge about normal forms and theory of inference

CO3: To study about the graph theory and trees

CO4: To know about the linear programming problem

CO5: To get the knowledge about transportation problem

Core-II: Design and Analysis of Algorithms(7MCE1C2)

CO1: To acquire the Knowledge of Algorithms and Elementary Data Structures

CO2: To learn about Divide and Conquer with various Algorithms

CO3: To understand about Greedy Method and various problems

CO4: To Know about dynamic programming and Basic Traversal and Search Techniques

CO5: To study about Backtracking and Knapsack Problem Branch and Bound

Core-III: Advanced Java Programming(7MCE1C3)

CO1: To understand the overview of JDBC and other classes of JDBC.

CO2 : To study about sockets and Client/Server application Using RMI.

CO 3 : To Learn about Java Bean and jar files

CO 4: To acquire the knowledge about Life cycle of servlet and Cookies .

CO 5: To Get Knowledge about JApplet and working with Graphics.

Core-IV: Principles of Compiler Design (7MCE1C4)

CO1 : To learn the Introduction to Compilers and Finite Automata and Lexical Analysis

CO2: To understand the Syntactic specification of Programming Languages, Basic Parsing Techniques and Automatic construction of efficient parsers

CO3: To get the knowledge on Syntax-Directed translation

CO4: To learn about Symbol Tables, Run time storage administration and Error Detection and Recovery

CO5: To know the Introduction to Code Optimization and Code Generation

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Core-V: Advanced Java Programming Lab(7MCE1P1)

CO1: To develop the program using methods available in applet class.

CO2: To develop a Java bean program

CO3: To develop a program using swing controls.

CO4: To develop a program to implement a Client/server application using RMI.

CO5: To develop a program for servlet.

Elective I: Software Engineering(7MCE1E3)

CO1: To learn the basic Models of software engineering

CO2: To learn about software Design

CO3: To get knowledge on software Cost Estimation

CO4: To learn the software Testing

CO5: To understand the software Quality assurance

II Semester

Core-VI: Computer System Architecture(7MCE2C1)

CO1: To know about the CPU Organization and its functions

CO2: To study about the Register Transfer Language

CO3: To understand the concepts of Microprogram control

CO4: To impart the knowledge of various peripheral devices

CO5: To Illustrate how parallel processing are implemented in Computer Architecture

Core-VII: .Net Technology(7MCE2C2)

CO1: To learn the .Net Framework

CO2: To understand the concepts of visusal basic .net

CO3: To learn basics concepts of Buttons,Checkboxes and Radio buttons etc..

CO4: To get knowledge on ASP.Net

CO5: To study about the ADO.Net

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Syed Ammal Arts and Science College

DEPARTMENT OF COMPUTER SCIENCE

Core-VIII- Distributed Operating System (7MCE2C3)

CO1 : To understand the Fundamentals of Distributed Operating System and Computer Networks

CO2: To know about Message Passing and its Issues

CO3: To get the knowledge on Distributed Shared Memory and Synchronization

CO4: To learn about Distributed File System and its Design Principles

CO5: To understand Security and its Design Principles

Core IX: .Net Technology Lab(7MCE2P1)

CO1: To develop the programs using VB.Net to create Puzzle game

CO2: To design the MDI Forms

CO3: To develop the programs to create online test

CO4: To develop the ASP.Net programs create simple AJAX

CO5: To improve ADO.NET datebase connectivity of Employee details

Elective-II: Mobile Computing (7MCE2E1)

CO1: To learn basic concepts of Wireless Technologies and Example Architecture.

CO2: To provide Knowledge of Cellular communication and Multiplexing.

CO3: To understand the concepts of Advertisement and Registration.

CO4: To impart the Knowledge of Datagrams and Route Optimization.

CO5: To study the concepts of IP version and DHCP, Security and Motivation Detection.

Elective-III: Digital Image Processing(7MCE2E6)

CO1: understand the need for image transforms different types of image transforms and their properties

CO2: Develop any image processing application

CO3: Understand the rapid advance in machine vision

CO4: Learn different techniques employed for the enhancement of images

CO5: Learn different causes for image degradation and overview of image restoration techniques

CO6: Understand the need for image compression and to learn the spatial and frequency domain techniques

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF COMPUTER SCIENCE

III Semester

Core-X: Cryptography and Network security(7MCE3C1)

CO1: To impart the knowledge of computer security and Encryption Techniques.

CO2: To understand about the Data Encryption standards and Block ciphers

CO3: To know about the Public key cryptography and RSA.

CO4: To Learn about Message Authentication Codes and Digital Signatures.

CO5: To get Knowledge about Transport Level Security and IP security.

Core-XI: Programming in PHP(7MCE3C2)

CO1: To understand the basic concepts of PHP and Control Structure.

CO2: To provide the knowledge of Arrays, Loops and Functions.

CO3: To learn the concepts of working with the file system and validation.

CO4: To important Knowledge of classes , objects and Cookies.

CO5: To study the concepts of Session and AJAX.

Core-XII: Data Mining and Data Warehousing(7MCE3C3)

CO1: Understand Data Warehouse fundamentals, Data Mining Principles

CO2: Design data warehouse with dimensional modelling and apply OLAP operations.

CO3: Identify appropriate data mining algorithms to solve real world problems

CO4: Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining

CO5: Describe complex data types with respect to spatial and web mining.

CO6: Benefit the user experiences towards research and innovation. integration.

Core-XIII: Programming In PHP Lab(7MCE3P1)

CO1: To develop the programs to create greeting text

CO2: To improve the knowledge create address book using sql

CO3: To develop the coding to create Armstrong function

CO4: To create login using SQL connection

CO5: To improve the design web page of a company using hyperlink

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF COMPUTER SCIENCE

Elective-IV: Multimedia System(7MCE3E3)

CO1: To acquire the Knowledge of Multimedia hardware and software and its applications.

CO2: To learn about the Text, image, Graphics and Animation Techniques.

CO3: To understand about Digital Audio Representation and Processing.

CO4: To Know about File standards for Internet

CO5: To study about Virtual reality and its hardware

Elective-V:Cloud Computing(7MCE3E5)

CO1: To understanding cloud computing

CO2: To learn developing cloud services

CO3: To get knowledge of cloud computing for everyone

CO4: To learn of using cloud services

CO5: To understand the other ways to collaborate online

Core-XIV: Project Work (7MCE4PR)

CO1: Students will be able to design, develop, document and test software using current techniques

CO2: Students will be able to design, develop, document and test software that manages system resources

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF ENGLISH

POST GRADUATE
PROGRAMME OUTCOMES

PO1: Students should be able to analyze, interpret and criticize the critical ideas, values and themes that appear in

Literary writings.

PO2: Learners should be able to apply critical and theoretical approaches to the reading of literary works.

PO3: The learners are provided to the proficient in oral communication and written communication.

PO4: TO provide career opportunity.

COURSE OUTCOMES

SEMESTER I

CORE PAPER I-7MEN1C1-BRITISH LITERATURE-I

CO1: To acquaint students with the important features of British Literature.

CO2: To give students training in appreciating the poetic qualities and techniques in British Poetry.

CO3: To introduce learners to the origin of English Essays.

CO4: To make learners understand the features of Dramas of Shakespeare's predecessors.

CORE PAPER II- 7MEN1C2- INDIAN WRITING IN ENGLISH

CO1: To expose students to a wide range of Indian Writing in English.

CO2: To help students learn the meaning of indianness through representative works.

CO3: To know about the Indian culture.

CORE PAPER III- 7MEN1C3- SHAKESPEARE

CO1: To enable students analyze the plays of Shakespeare in the Elizabethan context and relate them to the modern context.

CO2: To make students understand the magnitude of the Shakespearean world.

Programme Outcomes and Course Outcomes
Syed Ammal Arts and Science College
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CO3: To help students understand the complexity and suggestiveness in Shakespeare.

CO4: To make them learn and appreciate some of the sonnets of Shakespeare.

CORE PAPER IV- 7MEN1C4-LITERARY CRITICISM

CO1: To enable students develop critical sensibility.

CO2: To study the theories of critics from Plato to New critics.

CO3: To expose students a wide range of literary texts and literary criticism.

ALLIED PAPER I- 7MEN1E1- MASS COMMUNICATION

CO1: To help students learn the theories of Mass Communication and the principles of Journalism.

CO2: To give students training in producing their own magazines.

CO3: To make students learn the history of Journalism.

SEMESTER-II

CORE PAPER V- 7MEN2C1- BRITISH LITERATURE-II

CO1: To acquaint students with the important features of the Restoration age and the Romantic age.

CO2: To familiarize students with the representative works of the writers belonging to these ages.

CO3: To introduce learners to the emergence of the English novel during the Age of Transition.

CORE PAPER VI- 7MEN2C2- AMERICAN LITERATURE

CO1: To make students understand the dimensions of American Literature in the universal literary context.

CO2: To help students study the representative works of American Writers.

CORE PAPER VII- 7MEN2C3- ENGLISH LANGUAGE TEACHING – THEORY AND PRACTICE

CO1: To acquaint students with the history of the English Language.

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Syed Ammal Arts and Science College

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CO2: To help Students learn the essential aspects of ELT and the different types of language testing and evaluation.

CORE PAPER VIII-7MEN2C4- WORLD CLASSICS IN ENGLISH TRANSLATION

CO1: To acquaint students with the Classical Literatures of the world.

CO2: To help students learn the essential aspects of world classics.

CO3: To enable students understand the writings of great writers.

ALLIED PAPER II- 7MEN2E2- DIASPORIC LITERATURE

CO1: To make students understand the dimensions of diasporic experience.

CO2: To familiarize students with the significant works produced by contemporary diaspora writers.

SEMESTER-III

CORE PAPER IX- 7MEN3C1- BRITISH LITERATURE-III

CO1: To make students understand the spirit of Victorian England and its influence on literary works.

CO2: To help students study the representative works of the writers of the Victorian and Modern age.

CORE PAPER X – 7MEN3C2- NEW LITERATURE

CO1: To enable students understand the dimensions of New Literature.

CO2: To help Students identify the various themes presented in new literature.

CORE PAPER XI- 7MEN3C3- RESEARCH METHODOLOGY

CO1: To help students prepare a Dissertation of their own.

CO2: To prepare students for quality research in future.

CO3: To train Students in using parenthetical documentation as recommended in MLA Hand Book.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF ENGLISH

ALLIED PAPER III- 7MEN4E1- COMPARATIVE LITERATURE
CO1: To help students understand comparative literature in relation to national, world and general literature.

CO2: To enable students understand other schools of comparative literature.

CO3: To expose students to the different categories of comparative literature.

SEMESTER-IV

CORE PAPER XII- 7MEN4C1- ASPECTS OF ENGLISH LANGUAGE AND LINGUISTICS

CO1: To acquaint students with the history of English language.

CO2: To help students learn the essential aspects of linguistics.

CO3: To give students practice in phonetic transcription.

CO4: To enable students understand IC analysis.

CORE PAPER XIII-7MEN4C2- CONTEMPORTARY CRITICAL THEORIES

CO1: To reinforce the critical sensibility of students.

CO2: To make students understand important critical theories given by the Critics of the 20th century.

CO3: To expose students to recent critical theories.

CORE PAPER XIV-7MEN4PR- PROJECT

CO1: To help students prepare a project of their own.

CO2: To prepare students for Pre-Doctoral research.

ALLIED PAPER-V – 7MEN5E2- LITERATURE: FEMINIST PERSPECTIVES

CO1: To discover the female tradition of writing.

CO2: To interrupt the symbolism of women's writing.

CO3: To analyse women writers and their writings from a female perspectives.

Programme Outcomes and Course Outcomes

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DEPARTMENT OF ENGLISH

UNDER GRADUATE
PROGRAMME OUTCOME

PO1: Students should be able to identify the critical, ideas, values, themes of literature.

PO2: Students should be familiar with literary and cultural texts within a significant cultural conducts.

PO3: Learners should be able to write and understand the language through literature.

PO4: To provide employability opportunity.

SEMESTER I

CORE PAPER – I- SOCIAL HISTORY OF ENGLAND -7BEN1C1

CO1: To impact the knowledge of history of England through literature.

CO2: To enable the students to read and analyse literary texts from different point of view.

CO3: To instil the knowledge about world war and world history.

CORE PAPER -II-POETRY – 7BEN1C2

CO1: To encourage students to make a detailed study of a few sample masterpieces of English poetry.

CO2: To enhance student's awareness in the aesthetics of poetry.

CO3: To enable the students to send and appreciate the critic values of poetry.

SEMESTER II

CORE PAPER-III-HISTORY OF ENGLISH LITERATURE - 7BEN2C1

CO1: To introduce the students to the major historical events and figures of English literature.

CO2: Students are introduced the life history of various authors in English literature.

CO3: To make the students to be aware of periods in English literature.

CORE PAPER -IV -POETRY- II – 7BEN2C

CO1: To make the students to be empower to send read the poetry and appreciate independence.

CO2: To encourage students to Imaginative writers.

Programme Outcomes and Course Outcomes

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DEPARTMENT OF ENGLISH

SEMESTER -III

CORE PAPER -V- PROSE-7BEN3C1

CO1: To familiarize students with excellent pieces of prose and poetry in English. It helps to realize the beauty and communicative power of English.
CO2: To develop students interests in reading literary prose pieces.
CO3: To enhance the reading proficiency students are introduced prose works.

CORE PAPER -VI- DRAMA – 7BEN3C2

CO1: To encourage students to make a detailed study of a few sample master-pieces of English Drama from different parts of the world.
CO2: To develop interest among the students to appreciate and analyse drama independently.

SEMESTER IV

CORE PAPER –VII – DRAMA 2- 7BEN4C1

CO1: Students are introduces to be aware of fictional representation through dialogue and performances.
CO2: Students are introduced to create more types of characters.
CO3: To make students to have interest in acting reading dramas.

CORE PAPER – VIII – LITERARY FORMS -7BEN4C2

CO1: To acquaint them with minor forms of literature in English and help them to appreciate the creative use of language in literature.
CO2: To introduce them to the basics of phonology of English so that they can pronounce better and spelt English correctly.

SEMESTER V

CORE PAPER – VIII – INDIAN WRITING IN ENGLISH – 7BEN5C1

CO 1: Students are encouraged to be aware of Indian modern writers.
CO 2: To enhance student's awareness in the aesthetics of Indian Writing in English.
CO 3: To expose students some of the best examples of Indian Novels.

CORE PAPER- IX – WOMEN'S WRITING – 7BEN5C2

CO 1: Students are given awareness about feminism.
CO 2: Students are introduced with the various types of female writers.
Co 3: To celebrate women's empowerment throughout the powerful writings of literature.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF ENGLISH

CORE PAPER – X- COMMON WEALTH LITERATURE – 7BEN5C3
CO 1: To enable learners to appreciate and enjoy a wide range of literary creative texts and other related cultural forms.
CO 2: To make students aware of different types and aspects of various novels.
CO 3: Students are introduced slavery, racism and world community.

CORE PAPER – XI – TRANSILATE STUDIES THEORY AND PRACTICE – 7BENE1B
CO 1: To develop student's interest in reading and understanding literary pieces.
CO 2: To expose students the theory translation.
CO 3: To make students to have interest in translating source language to target language.

CORE PAPER – XII- ENGLISH LANGUAGE TEACHING – 7BENE2B
CO 1: To introduce some advanced units of language. So that students become aware of the technical aspects and their practical usage.
Co 2: To introduce the origin and its growth of language.

SEMESTER VI
CORE PAPER – XIII- SHAKESPEARE – 7BEN6C1
CO 1: Students are introduced to be aware of General Shakespeare.
CO2: To create interest to read Shakespeare's plays.
CO3: To enables student's passion on love.

CORE PAPER – XIV- AMERICAN LITERATURE – 7BEN6C2
CO 1: To introduce students to the major literary movements in literary works and writers through study of selected texts.
CO 2: To create literary sensibility for appreciation in students and express them to artistic and innovative use of language by writers.
Co 3: It enables students to know about old culture.

CORE PAPER – XV- LITERARY CRITICM – 7BEN6C3
CO 1: To introduce students to the nature, junction and relevance of literary criticism and theory.
CO 2: To encourage dealing with highly intellectual and radical concept and thereby developing their logical thinking and analytical ability.
CO 3: To develop critical sensibility and concept in them.

CORE PAPER – XVI- PHONETICS AND SPOKEN ENGLISH – 7BEN6C4
CO 1: To introduce them to the basics of phonology of English. So that they can pronounce better and speak English correctly.
CO 2: To develop student's interest in phonetics skill.
CO 3: To introduce the development of articulation of utterance.

CORE PAPER – XVI- WRITTEN COMMUNICATION – 7BENE3B
CO 1: Students are introduced to know about LSRW skills.
CO 2: To expose students to enable the written communication. So that students can develop various types of letter writing.
CO3: To make students to develop their skills in report writing.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

PROGRAMME OUTCOME (PO):

PO-1	**Fashion and Fabric Theory Knowledge:** Understanding Theories & Principles of behind Fabric Construction, Textile Science, Traditional Textiles and Embroidery, Costumes, Fashion Theories, Textile Dyeing & Printing, Marketing and Merchandising.
PO-2	**Designing Knowledge:** To apply the knowledge of elements and principles of design to create futuristic designs on various elements and develop prototypes using draping, flat pattern making and stitching.
PO-3	**Software Tool Usage:** Develop skill to apply software tool knowledge to create new designs in garment using CAD software.
PO-4	**Designing Skills:** To acquire creative and innovative skills in designing apparels with due considerations to public health, safety, cultural, societal and environmental factors.
PO-5	**Professional Ethics:** Understand the commitment towards professional ethics and responsibilities in the entire textile business process.
PO-6	**Entrepreneurship:** Apply the knowledge, skill and attitude in the areas of design, manufacture, and marketing can independently start up their own business.

PROGRAM SPECIFIC OUTCOME (PSO):

PSO – 1: To become globally competitive industry ready graduates through strong industry connect so as to employ in worldwide garment and fashion industries.

PSO – 2: To develop and design the strategies required to manage the garment and fashion industries and also able to solve the real time problems related to the industries.

PSO – 3: To identify and discuss concepts related to the design, production and evaluation of textile and apparel products.

PSO – 4: To identify and discuss concepts related to the cultural, social, and psychological aspects of textiles, dress and appearance.

PSO – 5: To identify and analyse a problem, including design problems, and their

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

constituent parts.

PSO – 6: The Learners will be able to apply comprehensive textile design skills to design textiles through painting, weaving, screen printing, knitting.

PSO –7: The students will be able to apply intermediate level computer skills to Complement traditional design skills and develop original designs using CAD as a tool including technical preparation of designs for production.

PSO – 8: The student will acquire the skills like effective communication, decision making, problem solving in day to day business affairs.

PSO –9: The students can interpret information to produce original designs for appropriate textile, fashion design, technical designs.

PSO -10: The students will be able to do higher education and research in the field of fashion designing.

PSO -11: In our department, employment opportunities have been in many different aspects of the fashion textile industry.

COURSE OUTCOMES (CO):

SEMESTER I

Core I: FASHION DESIGNING (7BFC1C1)

CO1: To know the structural and decorative designs.

CO2: To gain knowledge about the elements of arts and principles of designs.

CO3: To understand different colours moods and their meaning.

CO4: To design the garment for unusual figures.

CO5: To learn the fashion accessories and trimmings   .

Core II: BASIC SEWING TECHNIQUES (7BFC1C2)

CO1: To gain knowledge in seams and seam finishes.

CO2: To learn about hems and fullness.

CO3: To enable the students a basic garment construction details.

CO4: To learn about the parts and functions of sewing machines and tools used for Garment construction.

CO5: To learn about sleeves and skirts, neck finishes and yokes, pockets and plackets.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

Allied I: ADVERTISING BASICS AND CREATIVITY (7BVCA1)

CO1: To learn the nature and scope of advertising.

CO2: To know about the lay out, slogans, logo & trademark.

CO3: To understand the products & brands, commercial advertisement.

CO4: To know about the creative writing and idea generation.

CO5: To understand the latest trends in advertising.

SEMESTER II

Core III: TEXTILE SCIENCE (7BFC2C1)

CO1: To gain the basic knowledge of textiles.

CO2: To learn the properties and manufacturing of different fibres.

CO3: To learn the yarn spinning process.

CO4: To gain the basic knowledge of weaving.

CO5: To know about basic manufacturing fabrics.

Core IV: FASHION DESIGNING – PRACTICAL (7BFC2P1)

CO1: To learn the basic techniques of sketching.

CO2: To know the drawing methods of fashion figures.

CO3: To know the sketching methods of different garments and accessories.

CO4: To gain the knowledge of colour charts.

CO5: To illustrate garment designs for various elements.

Allied II: PRINCIPLES OF DESIGN (7BVCA2)

CO1: To know the forms and creation of 3 dimensional shapes.

CO2: To learn the nature and application of visual methods.

CO3: To Study the concepts of size, shape, harmony, rhythm.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

CO4: To understand the layout principles.

CO5: To study the psychological concepts of designs.

SEMESTER III

Core V: PRINCIPLES OF PATTERN MAKING (7BFC3C1)

CO1: To study the methods of pattern making and its alternation.

CO2: To gain knowledge in drafting, draping and flat pattern alteration.

CO3: To learn the grading procedures.

CO4: To learn the techniques for good fitting.

CO5: To learn the basic measurements and tools.

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Core VI: BASIC SEWING TECHNIQUES AND PATTERN MAKING -PRACTICAL (7BFC3P1)

CO1: To create different types of patterns for both men's and women's.

CO2: To learn the drafting procedures of hems and sleeves.

CO3: To learn the drafting procedures of collars, yokes and pockets.

CO4: To know about the basic procedures of bodice pattern.

CO5: To enhance knowledge about grading of patterns.

Allied III: ADVERTISING AND SALES PROMOTION (7BBAA3)

CO1: To learn the important objectives of advertising and sales promotions.

CO2: To learn the basics of advertising agencies.

CO3: To understand the concepts on advertising layout.

CO4: To gain knowledge on sales force managements.

CO5: To develop knowledge on sales promotions.

Allied III: PRINCIPLES OF MANAGEMENT (7BCCA3)

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CO1: To know the nature, scope and Functions of management.

CO2: To explain nature, importance, methods and types of planning and decision making Process.

CO3: To improve the Organizing and Staffing of the managements,

CO4: To understand direction and motivation theories in the Managements.

CO5: To improve the knowledge of Controlling techniques of organisation.

SEMESTER IV

Core VII: TEXTILE DYEING AND PRINTING (7BFC4C1)

CO1: To gain knowledge on basic processing of textiles.

CO2: To enable students on eco friendly processing in textiles.

CO3: To develop skills in dyeing of fabrics.

CO4: To learn about the dyeing methods.

CO5: To study about the different types of printing.

Core VIII: FABRIC EMBELLISHMENT -PRACTICAL (7BFC4P1)

CO1: To understand the different types of embroidery stitches.

CO2: To acquire practical knowledge in surface embroidery.

CO3: To understand the stitches create by hand.

CO4: To understand how to trace a design and convert it into fabric.

Allied IV: SERVICES MARKETING (7BCCA4)

CO1: To know about service marketing management.

CO2: To understand the classification of services.

CO3: To Know about the service concept.

CO4: To learn the need for service marketing.

CO5: To learn the characteristics of services.

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Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

Allied IV: CUSTOMER RELATIONSHIP MANAGEMENT

(7BBAA4)

CO1: To understand the history and scope of CRM.

CO2: To study strategy and organization of CRM.

CO3: To learn about analytical CRM.

CO4: To understand the CRM subsystems.

CO5: To improve the knowledge on operational CRM.

SEMESTER V

Core IX: GARMENT MANUFACTURING TECHNOLOGY (7BFC5C1)

CO1: To gain knowledge about spreading, marking and cutting techniques.

CO2: To study about the sewing machineries and stitching mechanism.

CO3: To learn the components and trims used in garment industry.

CO4: To learn the fusing process.

CO5: To understand the pressing purposes.

Core X: FABRIC STRUCTURE AND DESIGN – PRACTICAL (7BFC5P1)

CO1: To understand to identify the different types of fabrics.

CO2: To enable students to prepare designs for basic and figured weaves.

CO3: To study about structure of woven fabrics.

CO4: To explain about design, draft and peg plan for various weaves.

Core XI: WOMEN'S APPAREL –PRACTICAL (7BFC5P2)

CO1: To learn about the designing, drafting and construction of the garments.

CO2: To learn how to attach yokes with garments.

CO3: To learn about basic children's garment.

CO4: To develop women's garments.

Programme Outcomes and Course Outcomes

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DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

Elective I: B) FASHION CLOTHING PSYCHOLOGY (7BFC1E2)

CO1: To know the knowledge about fashion terminology.

CO2: To learn trickle down, trickle up, trickle across theory.

CO3: To develop knowledge about fashion psychology.

CO4: To develop knowledge about fashion designers.

CO5: To develop knowledge about fashion centres.

Elective II: A) VISUAL MERCHANDISING (7BFC2E1)

CO1: To know the role of visual merchandising in retail shops.

CO2: To know about store planning, circulation plan and presentation of products.

CO3: To know the quality and process in visual merchandising.

CO4: To develop knowledge about window displays.

CO5: To encourage the students to become an entrepreneur.

Elective II: B) APPAREL MERCHANDISING AND MARKETING (7BFC2E2)

CO1: To gain knowledge about marketing, merchandising, presentation and export marketing.

CO2: To understand the national brands and private labels.

CO3: To know about the visual merchandising.

CO4: To know about fashion show.

CO4: To learn the export marketing of apparels.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

SEMESTER VI

Core XII: TEXTILE TESTING (7BFC6C1)

CO1: To understand the methods and techniques used to analyze the textile fibres, yarns and Fabrics.

CO2: To understand the various properties of textiles.

CO3: To know about the fabric performance and properties.

CO4: To know the testing method for color fabrics.

CO5: To understand the principles for various textile testing machines.

Core XIII: TEXTILE TESTING - PRACTICAL (7BFC6P1)

CO1: To study about the physical testing and identify the fibres.

CO2: To know the testing methods for colored fabrics.

CO3: To gain knowledge about testing apparatus for yarn, fabric.

CO4: To understand the principles for various textile testing machines.

Core XIV: MEN'S APPAREL – PRACTICAL (7BFC6P2)

CO1: To create different types of patterns for men's.

CO2: To suggest suitable fabrics, colours and designs for all patterns.

CO3: To learn the drafting procedures for men's wear.

CO4: To develop men's garment in fabric.

Core XV: COMPUTER AIDED DESIGNING – PRACTICAL (7BFC6P3)

CO1: To gain knowledge in creating motifs using Computer Aided Designing.

CO2: To illustrate different types of garments using Computer Aided Designing.

CO3: To create fashionable logos and labels using Computer Aided Designing.

CO4: To implement new garments and designs using Computer Aided Designing.

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Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College
DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING

Elective III: A) GARMENT QUALITY AND SPECIFICATIONS (7BFC3E1)

CO1: To learn the terms of quality in textile industries.

CO2: To learn the scope of quality control.

CO3: To learn the functions of production control.

CO4: To learn the functions of cost control.

CO5: To know the basic grids process for production control.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

CURRICULUM AND SYLLABUS 2017 ONWARDS

Programme Educational Objectives

- Graduates of the programme will pursue higher studies.

- Graduates of the programme will have the skills and knowledge to take on appropriate professional positions in information technology.

- Graduates of the programme will become information technology professionals, able to work effectively at planning, implementing, configuring and maintaining an organization's computing infrastructure

Programme Outcomes

PO1: Ability to apply knowledge in mathematics, science fundamentals to solve problems.

PO2: Understand the basic concepts of system software, hardware and computer graphics.

PO3: Design, and analyze precise specifications of algorithms, procedures, and interaction behavior.

PO4: Apply the technologies in various fields of IT, including Mobile applications, Web site Development and management, databases, and computer networks.

PO5: Ability to Work in teams as well as individual to build software systems and to use a range of programming languages and tools to develop computer programs to solve problems effectively.

PO6: Ability to communicate effectively in both verbal and writing form in industry and society.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

Course Outcomes

I Semester

Core I: Principles of Information Technology (7BIT1C1)

CO1: To learn the overview of revolution in computers and communication

CO2: To understand the basic of Application Software

CO3: To learn the various types of communications networks

CO4: To learn the fundamentals of Storage and Database concepts

CO5: To gain the basic knowledge on information system and software developments

Allied I: Fundamentals of Computer (7BSOA1)

CO1: To study the basic components of computers

CO2: To improve the knowledge on Data processing techniques

CO3: To learn Windows operating system

CO4: To improve the knowledge on Microsoft Word

CO5: To improve the knowledge on Microsoft PowerPoint

Core II: Office Automation Lab (7BIT1P1)

CO1: To improve the knowledge on Microsoft Word

CO2: To improve the knowledge on Microsoft Excel

CO3: To improve the knowledge on Microsoft Power point

CO4: To improve the knowledge on Microsoft Excel

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

II Semester

Core III: Programming in C and Data Structures (7BIT2C1)

CO1: To understand the history of c, scope of c and the basic programming concepts.

CO2: To understand the concepts and various types of Arrays.

CO3: To learn function, structures and unions concepts.

CO4: Basic understanding of use of data structures

CO5: To understand the concepts on stack, queue, linked list, binary trees and trees

Allied II: Desktop Publishing (7BSOA2)

CO1: To understand the history and scope of Coral Draw

CO2: To improve the knowledge on mastering with text

CO3: To study the concepts of bitmap commands

CO4: To learn Photoshop

CO5: To improve the knowledge on Layers and Filters

Core IV: Data Structure using C Lab (7BIT2P1)

CO1: To develop the programs using Decision making and looping

CO2: To develop the programs using Arrays, Pointers

CO3: To develop the programs using Structures and unions

CO4: To develop the programs for manipulating stack, Queue, trees and linked lists.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

III Semester

Core V: **Java Programming (7BIT3C1)**

CO1: To understand the fundamentals of OOPs

CO2: To study the various types of operators, decision making and looping statements

CO3: To understand the concepts on classes, objects and methods

CO4: To understand the packages and multithreading concepts

CO5: To learn Applets and graphics programming.

Allied III: Advertising and sales promotion (7BBAA3)

CO1: To learn the important objectives of advertising and sales promotions

CO2: To study basics of advertising agencies

CO3: To understand the concepts on advertising layout

CO4: To gain knowledge on sales force managements

CO5: To develop knowledge on sales promotions

Core VI: Java Programming Lab (7BIT3P1)

CO1: To develop the programs using basic control structures.

CO2: To develop the programs using inheritance, exception handling and interface concepts.

CO3: To develop the programs using applets and AWT components.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

IV Semester

Core VII: Open Source Software (7BIT4C1)

CO1: To Study the history and scope of Linux

CO2: To learn Open source database

CO3: To learn the concepts on PHP

CO4: To develop the knowledge on PYTHON

CO5: To learn PERL programming.

Allied IV: Customer Relationship Management (7BBAA4)

CO1: To understand the history and scope of CRM

CO2: To study strategy and organization of CRM

CO3: To learn about analytical CRM

CO4: To understand the CRM subsystems

CO5: To improve the knowledge on operational CRM

Core VIII: Open Source Lab (7BIT4P1)

CO1: Installation & configuration of XAMP

CO2: To develop the programs to create a MYSQL database and table

CO3: To develop the programs using PHP

CO4: To develop the programs using PYTHON.

CO5: To develop the programs using PHP

CO6: To develop the programs to connect MYSQL database with PHP, PERL & PYTHON

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

V Semester

Core IX: Database management systems (7BIT5C1)

CO1: To understand the Database system and entity relationship model

CO2: To learn relational database design

CO3: To know the database system architecture

CO4: To learn Schema objects

CO5: To learn SQL & PL/SQL

Core X: Visual Programming (7BIT5C2)

CO1: To understand the .Net framework

CO2: To understand the vb.net fundamentals, arrays & interface

CO3: To develop windows applications

CO4: To understand the ASP.NET basics

CO5: To study data management with ADO.NET

Core XI: Visual Programming Lab (7BIT5P1)

CO1: To develop programs to create simple applications using Web Control

CO2: To develop programs using Adrotator control

CO3: To develop programs using calendar control

CO4: To develop programs using Datalistlink control

CO5: To develop programs to create own table format using datagrid

Programme Outcomes and Course Outcomes
Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

Elective I: Computer Graphics (7BITE1B)

CO1: To understand the history and input output primitives

CO2: To get the knowledge on Two dimensional transformations

CO3: To learn about Two dimensional Viewing and Clipping

CO4: To get the knowledge on Three Dimensional transformations

CO5: To learn about user interface design

Elective II: Computer Networks (7BITE2A)

CO1: To understand the history and uses of networks

CO2: To get the knowledge on data link layer and its protocols

CO3: To learn about network layer and its algorithms

CO4: To understand the transport layer and its services

CO5: To get the knowledge on application layer and World Wide Web

VI Semester

Core XII: Software Engineering (7BIT6C1)

CO1: To understand the overview of software engineering

CO2: To get the knowledge on Software cost estimation

CO3: To learn about software design

CO4: To learn about software testing & Maintenance

CO5: To get the knowledge on software quality assurance

Core XIII: Operating System and System Software (7BIT6C2)

Programme Outcomes and Course Outcomes
Syed Ammal Arts and Science College

B.Sc. INFORMATION TECHNOLOGY

CO1: To understand the overview of operating System

CO2: To get the knowledge on Process management

CO3: To learn about storage Management and IO system

CO4: To understand the Assemblers and machine architecture

CO5: To learn about Loaders and Linkers

Core XIV: Principles of Multimedia (7BIT6C3)

CO1: To understand the history of multimedia

CO2: To understand the hardware, operating system and software and text

CO3: To learn about graphics and digital audio

CO4: To get the knowledge on digital video and animation and product design

CO5: To learn about authoring tools and multimedia and the internet

Elective III: Mobile Communication (7BITE3A)

CO1: To understand the wireless transmission and signals

CO2: To understand the access control and satellite systems

CO3: To learn about wireless LAN and wireless ATM

CO4: To get the knowledge on mobile network layer and mobile transport layer

CO5: To learn about wireless application protocol

Core XV: Project (7BIT6PR)

CO1: Students will be able to design, develop, document, and test software using current techniques.

CO2: Students will be able to design, develop, document, and test so software that manages system resources.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

PROGRAM OUTCOMES (POs):

At the end of the B.Sc.,(Mathematics) programme, graduate will be able to

PO1: Acquire the ability to understand and analyze the problems.

PO2: Enhances logical reasoning skills, arithmetic skills, aptitude skills, communication skills,

Self-confidence for better employability.

PO3: Formulates and develops Mathematical arguments in logical manner.

PO4: Analyses the situation, make a mathematical problem and find its solutions.

PO5: Develops the skill to think critically on abstract concepts of Mathematics.

SEMESTER-I

COURSE OUTCOMES(COs)   CORE-I : CALCULUS(7BMA1C1)

After completing the course, students will able to -

CO1: Learn that calculus serves as a basic for advanced mathematics.

CO2: Gain Knowledge about the polar coordinates, radius curvature in polar

Coordinates and finding asymptotes problems.

CO3: Describe the concepts of integration by parts and Bernoulli's formula.

CO4: Be able to calculate the double & triple integrals and understand some their

properties.

CO5: Understand the concepts of Beta, Gamma functions.

COURSE OUTCOMES(COs)   CORE-II : ALGEBRA & TRIGONOMETRY(7BMA1C2)

After completing the course, students will able to -

CO1: Acquire the basic knowledge of Binomial, exponential and logarithms series.

CO2: Determine the roots and coefficients, multiple roots, reciprocal and transform

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

of equations.

CO3: Explain the concept of Descartes's rule of sign, Horner's method.

CO4: Obtain the expression of trigonometric functions.

CO5: Able to understand the hyper bolic function, inverse function and logarithmic of a complex

number.

COURSE OUTCOMES(COs)   ALLIED-I-PROPERTIES OF MATTER, THERMAL PHYSICS AND OPTICS (THEORY) (7BPHA1)

After completing the course, students will able to -

CO1: Acquire the knowledge of elastic behavior of materials.

CO2: Understand the concepts of viscous properties of liquids and its determination.

CO3: Gain the knowledge on specific heat capacity of different solids and liquids through

various methods.

CO4: Understand the concept of thermodynamics and its laws.

CO5: study the theory and experiment of interference diffraction using Newton's rings air

wedge methods.

SEMESTER-II

COURSE OUTCOMES(COs)   CORE-III: ANALYTICAL GEOMETRY OF VECTOR CALCULUS(7BMA2C1)

After completing the course, students will able to -

CO1: Gain thorough knowledge regarding straight lines and planes.

CO2: Obtain knowledge in the concepts of coplanar, skew, tangent lines and

 section of a sphere.

CO3: Learns about the cone in various forms and a right circular cylinder.

CO4: Compute the Gradient, divergence and curl, solenoid, irrational in

different ion of vectors.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO5: Describes line integral, surface integral, also learn about the theorems of

Green, Gauss and Stokes.

COURSE OUTCOMES(COS)   CORE-IV: SEQUENCES AND SERIES(7BMA2C2)

After completing the course, students will able to -

CO1: Know about the sequences and their types.

CO2: Realize importance of bounded, Cauchy sequence, the upper and lower

limit of sequences.

CO3: Demonstrate and understand the infinite series, comparision test, Kumer's

test and root test.

CO4: Acquire the basic knowledge of alternating series, absolute convergence and

test for convergence of series of arbitrary terms.

CO5: Get idea about the rearrangement series and multiplication of series.

COURSE OUTCOMES(COs)   ALLIED-II- ELECTRICITY, ELECTRONICS, ATOMIC AND NUCLEAR PHYSICS(7BPHA2)

After completing the course, students will able to –

CO1: Understand the basic laws and concepts of Electricity

CO2: To impart the Knowledge of electromagnetism

CO3: Study the fundamentals governing the structure of atom and nucleus and its uses

CO4: Provide the better understanding of basic Electronics

CO5: Develop the skills on number system and its conversions as well as analyze the fundamentals of Logic gates

SEMESTER-III

COURSE OUTCOMES(COs)   CORE-V: ABSTRACT ALGEBRA(7BMA3C1)

After completing the course, students will able to -

CO1: Understand the importance of group, subgroups with examples.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO2: Gain knowledge about Lagrange's theorem, and cosets.

CO3: Derive basic properties of normal subgroups, cyclic groups and quotient

groups.

CO4: Develop an idea about rings and types of rings.

CO5: Familiarize with ideals, integral domains, fields and zero divisors.

COURSE OUTCOMES(COs)   CORE-VI: DIFFERENTIAL EQUATIONS AND ITS APPLICATIONS (7BMA3C2)

After completing the course, students will able to -

CO1: Describes the origin of partial differential equation and distinguish the

integrals of first order linear partial differential equation into complete, general and singular integrals.

CO2: Gain knowledge about the order, degree, and various standard forms of

differential equations. .

CO3: Know how to solve second order linear partial differential equations with

constant coefficients.

CO4: Learn about classification of integral and charpit's method

CO5: Obtain the knowledge about Brachistochrone problem and trajectories.

COURSE OUTCOMES(COs)   Allied III: Programming in C Theory(7BCEA3)

CO1: To understand the history of c, scope of c and the basic programming concepts.

CO2: To understand the concepts and various types of Arrays.

CO3: To learn function, structures and unions concepts.

CO4: Basic understanding of File Concepts and Pointers

SEMESTER-IV

COURSE OUTCOMES(COs)   CORE-VII: TRANSFORM TECHNIQUES(7BMA4C1)

Programme Outcomes and Course Outcomes

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DEPARTMENT OF MATHEMATICS

After completing the course, students will able to -

CO1: Know about Laplace transforms of elementary functions.

CO2: Use the methods of Laplace transforms and inverse Laplace transforms to solve differential
equations with constant coefficients.

CO3: apply the fundamental concepts of Fourier series, Fourier sine series, cosine series to find
series represented of irrational number.

CO4: Learn Fourier series, Parsivals identity, term by term differentiation and properties of
Fourier series.

CO5: Solve finite difference equations using Z-Transforms and inverse Z-Transforms.

COURSE OUTCOMES(COs)   CORE-VIII: LINEAR ALGEBRA (7BMA4C2)

After completing the course, students will able to -

CO1: Abel to know the concepts of vectors space, subspace and its examples.

CO2: Realize the concept of linear independent, dependent, basis, dimensions and apply these
concepts to various vector space and subspaces.

CO3: Discriminates the concepts of inner product spaces, norms, orthogonal.

CO4: Acquire the knowledge about types of matrix, rank and determinant of a matrix.

CO5: Be Familiarize the characteristics polynomial, characteristics roots and bilinear
form.

COURSE OUTCOMES(COs)   Allied IV: Programming in C++ Theory(7BCEA4)

After completing the course, students will able to -

CO1: To understand the Basic Concepts of OOPs and Basic Programming Concepts

CO2: To understand the concepts of Class, Member Functions, Friend Function, Constructors
and Destructors.

CO3: To learn the concepts of operator Overloading and Inheritance.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO4: Basic understanding of Pointers to Object, Virtual Functions and C++ Streams

CO5: To Study the Concepts of Files and Templates.

COURSE OUTCOMES(COs)   Allied IV: Programming in C and C++ Theory-(7BCEAP2)

After completing the course, students will able to

CO1: To develop the C programs using Decision making and looping

CO2: To develop the C programs using Arrays, Pointers

CO3: To develop the C programs using Structures and unions

CO4: To develop the C programs Using File Concepts

CO5: To develop the C++ programs using Operator Overloading Concepts

CO6: To develop the C++ programs using Constructors

CO7: To develop the C++ programs using Inheritance

CO8: To develop the C++ programs Using Files.

SEMESTER-V

COURSE OUTCOMES(COs)   CORE-IX: REAL ANALYSIS(7BMA5C1)

After completing the course, students will able to -

CO1: know about metric space.

CO2: Gain knowledge about the open set, closed sets, limit points.

and apply them to study the nature of sets.

CO3: Understand the continuity and discontinuity of various functions in different contexts.

CO4: Learn about the theorems on connectedness, and complete metric space.

CO5: Get idea about compactness.

COURSE OUTCOMES(COs)   CORE-X: STATISTICS-I(7BMA5C2)

After completing the course, students will able to -

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO1: Gain knowledge Understand about five measures of tendencies and basic concept of measures of dispersion.

CO2: Learn about moments, skewness and kurtosis.

CO3: Acquire a clear knowledge of correlation, scatter diagram, co-efficient of correlation and

regression.

CO4: Gains knowledge about to finite differences, interpolation for equal and unequal intervals.

CO5: Familiarize the concepts of index numbers, time series of analysis.

COURSE OUTCOMES(COs)   CORE-XI: OPERATIONS RESEARCH-I(7BMA5C3)

After completing the course, students will able to -

CO1: Learn about the feature and nature of operation research.

CO2: Know the methods for solving a L.P.P such as simplex, Big-M, Two Phase simplex

Methods.

CO3: Understand the concepts of the transportation problems.

CO4: Realize the assignment problems.

CO5: Gain knowledge of sequencing problem.

COURSE OUTCOMES(COs)   ELECTIVE - I: GRAPH THEORY (7BMAE1A)

After completing the course, students will able to -

CO1: Remembers the concept of graphs, sub graphs, spanning graphs, paths, cycles, cut vertex

and cut edge.

CO2: Be familiar the concept of Euler and Hamiltonian graphs.

CO3: Learn the abstract ideas of trees and matching.

CO4: Investigate the concepts of planar graphs, chromatic numbers, four and five colors

problems.

CO5: Analyze the concepts of chromatic polynomials, directed graphs, tournaments.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

COURSE OUTCOMES(COs)   ELECTIVE - II: NUMERICAL ANALYSIS(7BMAE2A)

After completing the course, students will able to -

CO1: Identify methods to solve numerical algebraic and transcendental equations.

CO2: Understand the concepts of finite differences, Newton's formula and Lagrange's formula.

CO3: Acquire a clear knowledge of numerical differentiation and integration.

CO4: Extend Knowledge of Gaussian elimination method, Jordan method.

CO5: Distinguish methods of Taylor, Euler's, modified Euler's and Runge Kutta method to find solution of differential equations.

SEMESTER-VI

COURSE OUTCOMES(COs)   CORE- XII: MECHANICS(7BMA6C1)

After completing the course, students will able to -

CO1: Gain knowledge about the forces acting at a point, Parallelogram law of force and Lami's theorem.

CO2: Be aware of equilibrium of three forces and frictions.

CO3: Learn about the projectiles, path of projectiles and range of inclined plane.

CO4: Remembers the concept of impulsive force, impact of two bodies, direct and oblique impacts.

CO5: Develop clear idea regarding velocity, acceleration, polar coordinates and central orbits.

COURSE OUTCOMES(COs)   CORE- XIII: COMPLEX ANALYSIS(7BMA6C2)

After completing the course, students will able to -

CO1: Learn the abstract ideas of functions of a complex variable, continuous functions, limits, and Cauchy's theorem.

CO2: Acquire a clear view of bilinear transformation, cross ratio, fixed point.

CO3: Study the concepts of Cauchy's theorem, and Cauchy's integral formulas.

CO4: Extend knowledge of Taylor's and Laurent's series.

CO5: Classify the singularities and residues.

COURSE OUTCOMES(COs)   CORE- XIV: STATISTICS-II(7BMA6C3)

    After completing the course, students will able to -

CO1: Familiarize the concepts of probability, conditional probability and moment generating

     functions.

CO2: Recognize the concepts of Binomial, Poisson, normal, and Gamma distributions.

CO3: Understand about test of significance of large samples.

CO4: Learn the abstract ideas of test of significant of t- distributions and f-test.

CO5: Create knowledge about chi-square distribution, attributes, analysis of variance.

**COURSE OUTCOMES(COs)   CORE- XV: OPERATIONS RESEARCH-
II(7BMA6C4)**

    After completing the course, students will able to -

CO1: Find the replacement period of equipment that fails suddenly/ gradually.

CO2: Find inventory decisions cost using deterministic inventory problems with no shortage/

    with shortages, price break.

CO3: Extend knowledge of various types in queuing models.

CO4: Acquire a clear knowledge of PERT and CPM.

CO5: Gain knowledge about Game theory.

COURSE OUTCOMES(COs)   ELECTIVE- III: FUZZY ALGEBRA(7BMAE3A)

    After completing the course, students will able to -

CO1: Be aware of fuzzy sets, α – cuts, and fuzzy complements.

CO2: Realize importance of operations on fuzzy sets, t-norms, fuzzy arithmetic.

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DEPARTMENT OF MATHEMATICS

CO3: Understand about the extend principle of fuzzy sets, fuzzy numbers.

CO4: Illustrate fuzzy relations, binary fuzzy relations, fuzzy equivalence relations.

CO5: Gain knowledge about fuzzy ordering relation and fuzzy morphism.

MSC. MATHEMATICS

PROGRAM OUTCOMES (POs)

At end of the M.Sc., (Mathematics) programme, the graduates will be able to

PO1: Identify, formulate, and analyze the complex problems using the principles of

Mathematics.

PO2: Solve critical problems by applying the Mathematical tools.

PO3: Apply the Mathematical concepts in all the fields of learning including higher research, and

recognize the need prepare for lifelong learning.

PO4:Able to crack competitive examinations, lectureship and fellowship exams approved by

UGC link CSIR-NET and SET.

SEMESTER-I

COURSE OUTCOMES(COs)   CORE-I : ALGEBRA-I(7MMA1C1)

After completing the course, students will able to –

CO1: Gain knowledge in group theory.

CO2: Learn the abstract ideas of Sylow's theorem.

CO3:Get the knowledge about ring theory .

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO4: Gain brief knowledge in ideals and quotient rings.

CO5: Create knowledge about Euclidean rings and polynomial rings.

COURSE OUTCOMES(COs)   CORE-II : ANALYSIS-I(7MMA1C2)

After completing the course, students will able to -

CO1: Be Familiarize the concepts of basic topology.

CO2: Extend knowledge of convergence sequences, subsequences, and Cauchy sequences

CO3: Develop clear idea of power series, summation by parts, absolute convergence.

CO4: Acquire a clear knowledge of continuity and discontinuity.

CO5: Learn the concept of L'Hospital's rule, and Taylors's theorem.

COURSE OUTCOMES(COs)   CORE-III: DIFFERENTIAL GEOMETRY(7MMA1C3)

After completing the course, students will able to -

CO1: Know the concepts of space curves, tangent, normal, binormal.

CO2: Abel to get knowledge of surface of revolution, and helicoids.

CO3: Realize the importance of geodesics.

CO4: Remembers the concept of Bonnet theorem and Gaussian curvature.

CO5: Learn the concept of principal of curvature, line of curvature and developable.

COURSE OUTCOMES(COs)   CORE-IV: ORDINARY DIFFERENTIAL EQUATIONS(7MMA1C4)

After completing the course, students will able to -

CO1: Understand the importance of linear dependence, independence and homogeneous

equations with examples.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO2: Extend knowledge of Legendre equations.

CO3: Gain knowledge in Euler equation, and Bessel equation.

CO4: Develop an idea about the convergence of the successive approximations.

CO5: Be familiarizing the existence and uniqueness of solution to systems.

COURSE OUTCOMES(COs)   ELECTIVE-I-A : NUMBER THEORY(7MMA1E1)

After completing the course, students will able to -

CO1: Learn about the fundamental theorem of arithmetic, Euclidean algorithm.

CO2: To Know the method of generalized convolutions, and Dirichlet multiplication.

CO3: Acquire a clear knowledge about Euler's summation formula, and some elementary

asymptotic formula.

CO4: Realize the applications of Lagrange's theorem simultaneous linear congruence the

Chinese remainder theorem.

CO5: Gain knowledge about the quadratic reciprocity law, Diophantine equations.

SEMESTER-II

COURSE OUTCOMES(COs)   CORE-V: ALGEBRA-II(7MMA2C1)

After completing the course, students will able to -

CO1: To know the concepts of vector space, linear independence, and basis.

CO2: Abel to get knowledge of dual space and inner product spaces.

CO3: Extend knowledge of field, roots of polynomials

CO4: Develop clear idea of the elements of Galois Theory.

CO5: Learn the concept of linear transformations.

COURSE OUTCOMES(COs)   CORE-VI: ANALYSIS -II(7MMA2C2)

After completing the course, students will able to -

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO1: Gain knowledge regarding Riemann-Stieltjes integral.

CO2: Learn the abstract ideas of uniform convergence, Stone Weierstrass theorem, root

and ratio test.

CO3: To get the knowledge about exponential, logarithmic, trigonometric functions, Fourier series and Gamma function.

CO4: Gain brief knowledge Lebesgue measure, compactness and connectedness.

CO5: Create knowledge about the, differentiation, Lebesgue integrals, mean value theorem.

COURSE OUTCOMES(COs)   CORE-VII: PARTIAL DIFFERENTIAL EQUATIONS(7MMA2C3)

After completing the course, students will able to -

CO1: Understand the importance of ordinary differential equations in more than two variables.

CO2: Extend knowledge of cauchy's problem for first order equations.

CO3: Gain knowledge about Charpits method, and Jacobi's method.

CO4: Develop an idea about the method of integral transforms.

CO5: Learn the concept of elementary solutions of Laplace equations, boundary value problems.

COURSE OUTCOMES (COs)   CORE-VIII: MECHANICS (7MMA2C4)

After completing the course, students will able to -

CO1: Be aware of energy, and momentum.

CO2: Derivation of Lagrange's equations

CO3: Understand about Hamilton's principles and equation.

CO4: Gain brief knowledge about Jacobi equations.

CO5: Acquire a clear knowledge about Lagrange's and Poisson brackets.

COURSE OUTCOMES (COs)   ELECTIVE- II-A: GRAPH THEORY(7MMA2E1)

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

After completing the course, students will able to -

CO1: Know the concepts of graphs, sub graphs, and trees.

CO2: Abel to get knowledge of Euler tours, and Hamiltonian cycles.

CO3: Extend knowledge of matching's, and edge coloring

CO4: Develop clear idea of an independent sets, and cliques.

CO5: Learn the concept of planar graphs.

SEMESTER-III

COURSE OUTCOMES (COs)   CORE- IX: COMPLEX ANALYSIS (7MMA3C1)

After completing the course, students will able to -

CO1: Gain knowledge about power series, and linear transformations.

CO2: Be aware of Cauchy integral formula.

CO3: Develop idea local properties of analytic functions

CO4: Learn about calculus of residues.

CO5: Remembers the concept of canonical products, and jensen's formula.

COURSE OUTCOMES(COs)   CORE- X: TOPOLOGY-I(7MMA3C2)

After completing the course, students will able to -

CO1: Understand the basic of topological spaces.

CO2: Gain knowledge regarding continuous functions and metric topology.

CO3: Study about connected spaces and local connectedness.

CO4: Extend knowledge of compact spaces.

CO5: Acquire a clear knowledge about urysohn's lemma and urysohn's metrization theorem.

COURSE OUTCOMES(COs)   CORE-XI: PROBABILITY AND STATISTICS(7MMA3C3)

After completing the course, students will able to -

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF MATHEMATICS

CO1: To know the concepts of set theory, and chebyshev's inequality.

CO2: Briefly study about conditional distributions and expectations.

CO3: Extend knowledge of Poisson, normal, chi-square, and Gamma distributions.

CO4: Develop clear idea of the Beta, t, and F-distributions.

CO5: Learn the concept of limiting distributions and general limit theorem.

COURSE OUTCOMES(COs)   ELECTIVE- III-A: DISCRETE MATHEMATICS(7MMA3E1)

After completing the course, students will able to -

CO1: Gain knowledge about binary operations, semi-groups, homomorphism, and isomorphism.

CO2: Be aware of recurrence relation and generating functions.

CO3: Develop clear idea about primitive recursive functions.

CO4: Learn about lattices, modular and distributive lattices.

CO5: Remembers the concept of Boolean algebra, polynomials.

COURSE OUTCOMES(COs)   ELECTIVE- IV-A: FUZZY MATHEMATICS(7MMA3E4)

CO1: Abel to know the concepts of crisp sets, fuzzy sets.

CO2: Realize the concept of operations on fuzzy sets

CO3: Discriminates the concepts of fuzzy relations.

CO4: Acquire the knowledge of a fuzzy measures

CO5: Be Familiarize uncertainty and information.

SEMESTER-IV

COURSE OUTCOMES(COs)   CORE--XII - FUNCTIONAL ANALYSIS(7MMA4C1)

After completing the course, students will able to -

CO1: Idea about the norms space, continuities of linear maps

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CO2: Realize the importance of Hahn-Banach theorem, Banach limits.

CO3:Understand the closed and open mapping theorems.

CO4: Acquire the basic knowledge of duals and transposes.

CO5: Determine the inner product space, and orthonormal sets.

COURSE OUTCOMES(COs)   CORE-XII: OPERATIONS RESEARCH(7MMA4C2)

After completing the course, students will able to -

CO1: Know the concepts of network models, maximum flow algorithm.

CO2: Briefly study about deterministic inventory models.

CO3: Extend knowledge of queuing systems.

CO4: Develop clear idea of the specialized queuing models, and queuing decision models.

CO5: Learn the concept of nonlinear programming algorithms.

COURSE OUTCOMES(COs)   CORE- XIV: TOPOLOGY-II(7MMA4C3)

After completing the course, students will able to -

CO1: Understand about the basic of connectedness and compactness.

CO2: Gain knowledge regarding completely regular spaces.

CO3: Study about local finiteness and Smirnov metrization theorem.

 CO4: Extend knowledge of complete metric spaces and function spaces.

CO5: Acquire a clear knowledge about Ascoli's theorem, Baire spaces.

COURSE OUTCOMES(COs)   ELECTIVE - V: NUMERICAL METHODS(7MMA4E3)

After completing the course, students will able to -

CO1: Identify methods to solve transcendental , polynomial equations, Birge, Vieta method.

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CO2: Understand the concepts of Jacobi and power methods.

CO3: Acquire a clear knowledge of Hermit and bivariate interpolations.

CO4: Extend Knowledge of Gauss methods.

CO5: Learn the concept of Euler, Taylor's, Runge-kutta methods.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.SC MICROBIOLOGY

PROGRAMME OUTCOMES

PO1: To inculcate the knowledge of microbial diversity and their impact on human and animal health

PO2: To enhance the knowledge about the physiological functions of microbes

PO3: To impart the ideas of genetic informations and their key role in modifying characters and functions of microbes

PO4: To develop knowledge about the immunity and its importance in producing resistance to various diseases.

PO5:

- To inculcate the knowledge of clinical importance and the mode of actions of medicines in curing the diseases caused by microbes.
- To create strong ideas about the conservation of environment and the use of microbes in Agricultural operations
- To enhance the knowledge about the importance of chemical knowledge in biological functions.
- To make the students to understand the importance of various instruments used in biochemical analysis

PO6:

- To inculcate the knowledge about the genetic recombination techniques and the production of new strains of microbes.
- To develop a strong foundation of ideas in using various beneficial microbes for the production of many useful products in different industries
- To impart the microbial knowledge about the spoilage of food items as well as their role in fermentation process.
- To develop the knowledge of information technology inorder to store experimental datas for future reference.

COURSE OUTCOMES

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.SC MICROBIOLOGY

SEMESTER I

CORE PAPER – I GENERAL MICROBIOLOGY

- To make the students to understand the basic concepts of microbiology and the contributions of microbiologists.

CORE PAPER – II GENERAL MICROBIOLOGY PRACTICAL - I

- To develop the knowledge of culturing various types of microbes using appropriate media.

SEMESTER II

CORE PAPER – III MICROBIAL PHYSIOLOGY

- To create an extensive knowledge about the physiological functions of microbes

CORE PAPER – IV MICROBIAL PHYSIOLOGY PRACTICAL - II

- To inculcate the practical knowledge about the physiological functions of various microbes byway of conducting various biochemical tests

SEMESTER III

CORE PAPER – V – MOLECULAR BIOLOGY AND MICROBIAL GENETICS

- To develop an extensive idea of molecular biology and special reference with microbial genetics.
- To enhance the knowledge of DNA, replication, mutation and Mutagenesis.

CORE PAPER – VI - MOLECULAR BIOLOGY AND MICROBIAL GENETICS

PRACTICAL - III

- To impart the ideas and methods related with the practical works for the molecular biology and microbial genetics.
- To make the students to nderstand the methodology of isolation of microbes and gene transfer techniques.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

B.SC MICROBIOLOGY

SEMESTER IV

CORE PAPER – VII - IMMUNOLOGY

- To develop the basic ideas and principles of immunology.
- To inculcate the ideas of different types of immunity, immunoglobulins, antigens and antibodies.

CORE PAPER – VIII – IMMUNOLOGY PRACTICAL - IV

- To understand the various antibodies and antigens, the principle of Antigen and Antibody reactions for maintaining the immunity.
- To make the students to understand the different immunological tests such as agglutination, precipitation, ELISA and VDRL.

SEMESTER V

CORE PAPER – IX MEDICAL MICROBIOLOGY

- To create an extensive knowledge about microbes causing diseases and the clinical methods used in identifications and treatments.
- To make the students to understand the various types of diseases caused by bacteria and viruses and fungi.
- The students are also infused with the knowledge of antimicrobial chemotherapy.

CORE PAPER – X - ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY

- To make the students to understand how the microbes play a key role in polluting the environment and also in promoting agricultural operations.
- To concenterate more about the soil, air and aquatic microbiology.

CORE PAPER – XI - MEDICAL, ENVIRONMENTAL AND AGRICULTURAL

MICROBIOLOGY PRACTICAL - V

- To develop practical knowledge to the students for the production of Biopesticides and Biofertilizers.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

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- They are also made to understand the examination and enumeration of bacteria, fungi in different angles.

SEMESTER VI

CORE PAPER – XII - RECOMBINANT DNA TECHNOLOGY

- To inculcate the knowledge of different concepts and methodologies followed in recombinant technology to produce new strains of microbes.
- The students are enriched with the knowledge of r DNA techniques used in plant and animals.

CORE PAPER – XIII - INDUSTRIAL MICROBIOLOGY

- To make the students to understand the use of various microbes in food and medicinal industries.
- More importance is given to the types of fermentation, bioreactors and microbial production of industrial products.

CORE PAPER – XIV - FOOD AND DAIRY MICROBIOLOGY

- To develop the knowledge of students about the spoilage of foods by microbes and the use of microbes in dairy industries.
- To make the students to understand food borne diseases and preservation of foods.

CORE PAPER – XV - RECOMBINANT DNA TECHNOLOGY, INDUSTRIAL FOOD

AND DAIRY MICROBIOLOGY PRACTICAL - VI

- To enhance the practical knowledge of the students to understand the involvement of microbes in food and dairy industries and also in the production of new strains of microbes.
- To develop the knowledge of students in using computer and information technology in storing the biological data.

Programme Outcomes and Course Outcomes
Syed Ammal Arts and Science College
DEPARTMENT OF PHYSICS

PROGRAMME OUTCOMES (POs)

PO1: Acquire the ability to engage in independent and life learning in the broadcast context socio technological changes

PO2: applying new ideas in order to acquire employability/ self employability

PO3: students are trained to take up their higher learning process

PO4: Students are able to communicate in oral and written effectively

PO5: Students are to be exposed to intellectual skills

PO6: Students are to be imparted with a broad conceptual background in the Physical sciences and human values

PO7: Understand the issues of environment contexts and sustainable development

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF PHYSICS

COURSE OUTCOMES (COs)

Course code	Course name	Course outcome
7BPH1C1	**PROPERTIES OF MATTER AND SOUND**	**CO1:**Learn the basics of properties of matter, how Young's modulus and rigidity modulus are defines and how they are evaluated for different shapes of practical relevance. **CO2:**Study of bending behavior beams and analyses the expression for young's modulus **CO3**:Understand the surface tension and viscosity of fluid **CO4:** Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators and grasp the significance of terms like quality factor and damping coefficient. **CO5:** Familiarize with general terms in sound like intensity, loudness, reverberation etc, and study in detail about production, detection, properties and uses of ultrasonic wave.
7BPH1C2	**MECHANICS AND RELATIVITY**	**CO1:**Understand the definition for centre of gravity in hemisphere, hollow hemisphere etc **CO2:**Understand the dynamics and gravitation **CO3:**Study the behavior of rigid body dynamics and Learn and conservation laws of energy and linear and angular momentum and apply them to solve problems **CO4:**Analyze the performance of hydrostatic and hydrodynamics **CO5:** Familiar with the fundamental principles of the

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF PHYSICS

		general theory of relativity. They shall know the meaning of basic concepts like the equivalence principles, inertial frames and time dilation
7BPH2C1	**THERMAL AND STATISTICAL PHYSICS**	**CO1:** Understand the concept of thermodynamics and there laws. **CO2:**Understand the nature of calorimetry by specific heat of solids and law of thermodynamics and entropy **CO3:** Familiar with various thermodynamic process and work done in each of this process. **CO4:** Understand the Heat Engine and there uses and describe the thermodynamic function and there relations. **C05:** Familiarize in depth about statistical distribution and have basic Ideas about Maxwell Boltzmann, Bose-Einstein and Fermi Dirac Statistics and their applications
7BPH2C2	**ELECTRICITY, MAGNETISM AND ELECTROMAGNETISM**	**CO1:** Know the Principles of Electric Fields, Gauss's Law, Electric Potential, Capacitance and Dielectrics, Current and Resistance, Direct Current Circuits, Magnetic Fields, Sources of Magnetic fields. **CO2:** Faraday's Law, Inductance, Alternating Current Circuits, and Electromagnetic Waves. **CO3:** Understand the relationship between electrical charge, electrical field, electrical potential, and magnetism. **CO4:** Understand the relation in between Electromagnetic theory. **CO5:** Explain various phenomenon in light of Maxwell

		equations.
7BPH3C1	OPTIC SAND SPECTROSCOPY	**CO1:** Know the various phenomenons of waves and optics. **CO2:** Develop an understanding of the principles of optics. **CO3:** Use the principles of wave motion and superposition to explain the physics of polarization, interference and diffraction. **CO4:** Explain the observed dependence of atomic spectral lines on externally applied electric and magnetic fields. **CO5:** familiar with molecular spectroscopy and have gained basic ideas regarding microwave spectroscopy, infrared spectroscopy and Raman Spectroscopy.
7BPH4C1	ATOMIC AND NUCLEAR PHYSICS	**CO1:** Describe theories explaining the structure of atoms and the origin of the observed spectra and List different types of atomic spectra. **CO2:** Identify atomic effect such as Zeeman Effect and Stark effect. **CO3:** Acquire knowledge in the content areas of nuclear and particle physics, focusing on concepts that are commonly used in this area. **CO4:** Gain a clear picture of nuclear composition and various nuclear models and become familiar with nuclear particles and different particle accelerators. Student is expected to know the working of different accelerators. **CO5:** Have a deep knowledge about Radio activity, nuclear Fission and Nuclear Fusion, the relevance of nuclear transformation. **CO6:** Develop and communicate analytical skills in subatomic

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		physics. **CO7:** Develop familiarity with the vast areas of nuclear and particle physics as well as develop an interest in these subjects.
7BPH5C1	**ANALOG ELECTRONICS**	**CO1:**Study about Basics electronics Technology **CO2:** Realize the importance of different electronic communication systems. **CO3:**have a basic knowledge of semiconductor physicsacquire knowledge about how a semiconductor diode rectifies an input ac signal **CO4:**Understand the basics of diode and working of rectifier circuits and characteristics **CO5:** Understand the applications of op-amps inverting and non-inverting modes.
7BPH5C2	**COMPUTER PROGRAMMING IN C**	**CO1:** Know computer hardware and computer applications. **CO2:** familiarize with the programs the back bone of technology. **CO3:** C programming enables the students to develop computer programs which can solve mathematical equations which will be useful for research and job. **CO4:**Understand the basic concepts of fundamentals of operators and expressions **CO5:**Analyse the various types of function and perform the different types of arrays and understand the structure and unions **CO6:**Able write own program for simple calculations
		CO1: Understand the basic principle of laser and characteristics

Programme Outcomes and Course Outcomes

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7BPHE1C	LASER AND FIBRE OPTICS	**CO2:**Understand the theory of types of lasers **CO3:** Perform the procedures into applications oriented one **CO4:**Understand the basic concepts of optical fibers **CO5:**Understand the applications part of optical fibre into communications systems
7BPHE2C	SOLID STATE PHYSICS	**CO1:**Understand the basic concepts of force between atoms and bonding between molecules **CO2:**Analyse the relationship between conductors and insulators and super conductivity **CO3:** Understand the properties of matter and classifications - polarization **CO4:**Understand the properties of semi-conductors **CO5:**Analyse the relationship between semiconductor devices and understand the applications of semiconductor devices
7BPH6C1	ELEMENTS OF THEORETICAL PHYSICS	**CO1:** Understand and explain the differences between classical and quantum mechanics. **CO2:**Understand the old quantum theory and Pinpoint the historical aspects of development of quantum mechanics **CO3:** Understand the idea of wave function. **CO4:**Perform the theories of quantum mechanics into Schrödinger wave equation and understand the application of Schrödinger equation into potential well, barrier and solve Schrodinger equation for simple potentials **CO5:**Analyse the basic functions of Eigen values and Eigen

		functions **CO6:** Develop problem solving methods that will include mathematical as well as numerical computations and solutions.
7BPH6C2	**DIGITAL ELECTRONCIS**	**CO1:**Understand the fundamentals of codes and number system **CO2:**Understand the binary arithmetic, logics and Boolean functions **CO3:** Understand the functions and working of flip-flop circuits register s and counters **CO4:** Perform the procedures into applications **CO5:**Understand the applications into memory circuits **CO6:**know the recent technology of digitalized world
7BPHE3C	**FUNDAMENTALS OF NANO SCIENCE**	**CO1:**Learn about the background on Nanoscience **CO2:**Understand the synthesis of Nanomaterials and their application and the impact of Nanomaterials on environment **CO3:** Apply their learned knowledge to develop Nanomaterials. **CO4:** Understand the classification nanostructure materials. **CO5:**Understand the principles and Characterization Techniques **CO6:**Understand and improved the application of Nanotechnology

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

DEPARTMENT OF PHYSICS

Allied Courses (offered to Departments of chemistry & Mathematics)

Course Code	Course Name	Course Outcome (COs)
7BPHA1	**PROPERTIES OF MATTER, THERMAL PHYSICS AND OPTICS (THEORY)**	**CO1:** Acquire the knowledge of elastic behavior of materials. **CO2:** Understand the concepts of viscous properties of liquids and its determination. **CO3:** Gain the knowledge on specific heat capacity of different solids and liquids through various methods. **CO4:** Understand the concept of thermodynamics and its laws. **CO5**: study the theory and experiment of interference diffraction using Newton's rings air wedge methods
7BPHA2	**ELECTRICITY, ELECTRONICS, ATOMIC AND NUCLEAR PHYSICS**	**CO1:** Understand the basic laws and concepts of Electricity **CO2:** To impart the Knowledge of electromagnetism **CO3:** Study the fundamentals governing the structure of atom and nucleus and its uses **CO4**: Provide the better understanding of basic Electronics **CO5:** Develop the skills on number system and its conversions as well as analyze the fundamentals of Logic gates

DEPARTMENT OF TAMIL

B.A. TAMIL

PROGRAMME OUTCOMES

PO1: *தமிழ் மொழியின் அடிப்படை இலக்கணத்தைத் தெரிந்துகொள்ளவும் படைப்பாற்றல் திறனை வளர்த்துக்கொள்ள உதவுகிறது.*

PO2: *தமிழ் மக்களின் வரலாறு,பண்பாடு,சமய அறிவினைப் பெற்றுக்கொள்ளத் துணை புரிகிறது.*

PO3: *இலக்கிய வகைமைகளையும் இலக்கண மரபுகளையும் தெரிந்து கொள்ள வாய்ப்பாக அமைகிறது.*

PO4: *இலக்கியங்களில் குறிக்கப்பெறும் பாத்திரங்களின் வழியாக வாழ்வியல் திறனை மேம்படுத்திக்கொள்ள வழிவகுக்கிறது.*

PO5: *வாழ்வியல் விழுமியங்களைக் கடைப்பிடித்து சமுதாய முன்னேற்றத்திற்கு உதவத் துணைபுரிகிறது.*

PO6: *தமிழ் இலக்கியங்களைப் பிற இலக்கியங்களுடன் ஒப்பிட்டு ஆராயும் திறனை வளர்க்கிறது.*

COURSE OUTCOMES

SEMESTER I

CORE PAPER - I   இக்கால இலக்கியம்

CO1: புதுக்கவிதையின் தொடக்க காலம் பற்றி அறிந்து கொள்வர்.

CO2: சமகாலக் கவிதைகள் பற்றி அறிந்து கொள்வர்.

CO3: சிறுகதைகள் பற்றி அறிந்து கொள்வர்.

CO4: புதின இலக்கியம் குறித்துத் தெரிந்து கொள்வர்.

CO5: உரைநடை அமைப்பினைப் பற்றி அறிந்து கொள்வர்.

CORE PAPER II   இலக்கணம் - நன்னூல் - எழுத்து

CO1: நூல், ஆசிரியர், மாணக்கரின் இலக்கணம் குறித்து அறிந்து கொள்வர்.

CO2: எழுத்துக்களின் பிறப்பு மற்றும் அமைப்புகளைத் தெரிந்து கொள்வர்.

CO3: புணர்ச்சிகளின் வகைகள் குறித்து அறிந்து கொள்வர்

CO5: உரைநடை அமைப்பினைப் பற்றி அறிந்து கொள்வர்.

ALLIED PAPER I   தமிழக வரலாறும் பண்பாடும்

CO1: வரலாறு பற்றிய அடிப்படையை அறிதல்.

CO2: களப்பிரர் பல்லவர் கால வரலாற்றினை அறிதல்

CO3: பிற்காலச் சோழர்கள் பாண்டியர்களின் ஆட்சிமுறையை அறிதல்

CO4: நாயக்க மன்னர்களின் ஆட்சி மற்றும் கலைப்பணிகளை அறிதல்

CO5: ஐரோப்பியர் வரவிற்குப் பிந்தைய தமிழக வலாற்றினை அறிதல்.

CORE PAPER II I   *பக்தி இலக்கியம்*

CO1: *திருஞானசம்பந்தர், திருநாவுக்கரசர் ஆகியோரின் சைவ சமய நெறியினை அறிந்து கொள்வர்.*

CO2: *சுந்தரர், மாணிக்கவாசகர் ஆகியோரின் சைவ சமய நெறியினை அறிந்து கொள்வர்.*

CO3: *வைணவப் பெரியோராகளின் பக்திச் சிறப்புகளை அறிந்துகொள்வர்.*

CO4: *கிறித்தவ இஸ்லாமிய பக்தி இயக்கத்தை மார்க்கத்தை அறிந்து கொள்வர்.*

CO5: *பிற்கால பக்தி இயக்க மரபினைத் தெரிந்து கொள்வர்.*

CORE PAPER IV   *இலக்கணம் - நன்னூல் - சொல்*

CO1: *சொல் அமைப்பினை அறிந்து கொள்ளுதல்.*

CO2: *வேற்றுமையின் வகைகளை அறிந்து பயன்படுத்தல்.*

CO3: *வினைச்சொல்லின் பயன்பாட்டினை அறிதல்.*

CO4: *தொடரிலக்கண அமைப்பினை அறிந்துகொள்ளுதல்.*

CO5: *இடைச்சொல், உரிச்சொல் குறித்த அறிவினைப் பெறுதல்.*

CORE PAPER V   *தமிழக வரலாறும் பண்பாடும்*

CO1: *வரலாற்றிற்கு முந்தைய காலம் பற்றி அறிதல்*

CO2: *சங்கம் குறித்த செய்திகளை அறிந்து கொள்ளுதல்.*

CO3: *கி.பி.3 ஆம் நூற்றாண்டு முதல் கி.பி. 12 ஆம் நூற்றாண்டு வரையிலான*

        தமிழக வரலாற்றை அறிதல்

CO4: *கி.பி.12 ஆம் நூற்றாண்டுக்குப் பிந்தைய மன்னர்களின் வரலாற்றினை அறிதல்.*

CO5: *ஐரோப்பியர் வருகைக்குப் பின்னர் தமிழகத்தின் நிலையை உணர்தல்*

ALLIED PAPER II   இதழியல்

CO1: இதழியலின் அடிப்படைகளை அறிதல்

CO2: இதழ்களின் அமைப்பு முறைகளைப் பயிலுதல்

CO3: செய்தி சேர்த்தல், எழுதுதல் முறைகளை கற்றுணர்தல்.

CO4: பதிப்பு முறைகளை அறிதல்.

CO5: ஊடகவியலாளராக பயிற்சி பெறுதல்

SEMESTER III

CORE PAPER   VI   சிற்றிலக்கியம்

CO1: பிள்ளைத்தமிழ் இலக்கியத்தை அறிந்து கொள்ளுதல்.

CO2: அந்தாதியின் அமைப்பினை அறிந்து பயன்படுத்தல்.

CO3: இலக்கிய வகைகளின் வழி பண்பாட்டை அறிந்து கொள்ளுதல்.

CO4: இலக்கிய மரபுகளின் மாற்றங்களைப் புரிந்து கொள்ளுதல்

CO5: சிற்றிலக்கியங்களின் வழியாக வாழ்வியல் செய்திகளை அறிதல்.

CORE PAPER VII   நம்பியகப்பொருள்

CO1: அகத்திணையியல் கூறுகளை அறிதல்

CO2: களவியல் இலக்கணம் குறித்த அறிவினைப் பெறுதல்

CO3: கற்பியலில் வரைவு பற்றி அறிதல்.

CO4: அக மரபில் இல்வாழ்க்கை பற்றித் தெளிதல்.

CO5: அக இலக்கத்தின் புறனடை குறித்த செய்திகளை உணர்தல்

ALLIED PAPRE III   *சுற்றுலாவியல்*

CO1: *சுற்றுலாவின் அடிப்படைகளைத் தெரிந்து கொள்ளுதல்.*

CO2: *இந்தியாவில் சுற்றுலா வளர்ச்சிப்பணிகள் பற்றி அறிதல்*

CO3: *சுற்றுலாவின் வளர்ச்சியில் நிறுவனங்களின் பங்கினை அறிதல்*

CO4: *சுற்றுலாவின் மேம்பாட்டில் ஊடகங்களின் முக்கியத்துவத்தை அறிதல்.*

CO5: *சுற்றுலாவில் தங்கும் விடுதிகளின் முதன்மையினை அறிதல்.*

SEMESTER IV

CORE PAPER VIII   காப்பிய இலக்கியம்

CO1: *சிலப்பதிகாரம் மணிமேகலை காப்பியங்களின் வழியாக அக்கால வழ்வியல் முறைகளை அறிதல்.*

CO2: *பிறர் துன்பம் தீர்க்கும் ஒழுக்கத்தை அறிதல்.*

CO3: *தூய நட்பின் மேன்மையை பின்பற்றுதல்*

CO4: *பெரியோரைப் பேணும் முறையை அறிதல்*

CO5: *பிற்கால காப்பிய மரபினை அறிதல்*

CORE PAPER- IX   இலக்கணம் - புறப்பொருள்

CO1: *தமிழர்களின் வீரச்சிறப்பினை அறிதல்*

CO2: *புறத்திணைச் சிறப்புகளைத் திறனாய்வு செய்தல்*

CO3: *புறத்திணையின் வளர்ச்சி நிலைகளை ஆராய்தல்.*

CO4: *தமிழரின் போர் முறையை அறிதல்*

CO5: *மன்னன் புலவர் இடையே இருந்த உறவினை ஆராய்தல்.*

CORE PAPER X   *அற இலக்கியம்*

CO1: *இலக்கியத்தில் அமைந்துள்ள நீதிக்கருத்துக்களை அறிதல்*

CO2: *சமுதாயத்தை நல்வழிப்படுத்தும் சிந்தனையை வளர்த்தல்*

CO3: *அற இலக்கியங்களின் வழி உயர்ந்த சிந்தனையைப் பெறுதல்.*

CO4: *அறச்சிந்தனையை மக்களிடம் உருவாக்க முயற்சித்தல்.*

CO5: *அற இலக்கிய படைப்பாளுமையை வளர்த்தல்*

CORE PAPER XI   *இலக்கணம் - யாப்பு- யாப்பருங்கலக்காரிகை*

CO1: *மரபிலக்கணத்தின் அடிப்படைகளை அறிந்து கொள்ளுதல்*

CO2: *செய்யுள் உறுப்புகளைக் கற்று மரபுக்கவிதை எழுதப் பயிற்சி பெறுதல்*

CO3: *வெண்பா ஆசிரியப்பா வகைகளைப் பற்றி அறிதல் அதனை இனம்காண முயலுதல்.*

CO4: *கலிப்பா ஆசிரியப்பா வகைகளையும் பாவினங்களையும் அறிதல்*

CO5: *தற்காலக் கருத்துக்களை மரபுக் கவிதையாக படைக்கப் பயிற்சி பெறுதல்.*

CORE PAPER XII   *தமிழ் இலக்கிய வரலாறு*

CO1: *தமிழ் மொழியின் செவ்வியல் வரலாற்றினை அறிந்து கொள்ளுதல்.*

CO2: *சங்க இலக்கியங்கள்,பதிணென் கிழ்க்கணக்கு நூல் கருத்துக்களை அறிதல்*

CO3: *பல்லவர், சோழர் கால இலக்கிய வகை குறித்துத் தெரிதல்.*

CO4: *சிற்றிலக்கிய வகைமைகளை அதன் தோற்றப் பின்னணியுடன் ஆராய்தல்*

CO5: *தற்கால இலக்கியங்கள் குறித்த அறிவினைப் பெறுதல்*

ELECTIVE PAPER I   *பெண்ணியம்*

CO1: *பெண்ணியம் பற்றி அறிந்து கொள்ளுதல்.*

CO2: *பெண்களுக்கு எதிரான சூழல்களைக் கண்டறிதல்.*

CO3: *மகளிருக்கான கல்வியின் அவசியத்தை உணர்தல்.*

CO4: *சமுதாயம்,மதம் இவற்றில் பெண்களின் நிலைகள் குறித்து ஆராய்தல்.*

CO5: *மகளிர் மேம்பாட்டிற்குரிய வழிகளைக் கண்டறிதல்.*

ELECTIVE PAPER II   *தன்மேம்பாட்டியல்*

CO1: *நேர்மறையான சிந்தனைகளை வளர்த்தல்*

CO2: *எதிர்மறை சிந்தனைகளை மனதிலிருந்து அகற்றும் வழியை அறிதல்.*

CO3: *வாசிப்பின் அவசியத்தை உணர்தல்.*

CO4: *பொறுமையின் முக்கியத்துவத்தை உணர்ந்து கடைபிடித்தல்.*

CO5: *தன்னம்பிக்கையை வளர்க்கும் முறைகளை அறிதல்.*

SEMESTER VI

CORE PAPER XIII   *சங்க இலக்கியம்*

CO1: *தமிழ்மொழியின் தனித்துவத்தை சங்க இலக்கியங்களின் வழி உணர்தல்.*

CO2: *சங்ககாலப் புலவர்களின் புலமைத்திறனை அறிந்து பின்பற்றுதல்.*

CO3: *அகமரபு குறித்த சிந்தனையை கண்டறிதல்.*

CO4: *தமிழரின் வீரம் கொடைச் சிறப்புகளை அறிதல்.*

CO5: *பரிபாடலின் அமைப்பினையும் பாடுபொருளையும் அறிதல்.*

CORE PAPER XIV   *அணி இலக்கணம்*

CO1: *செய்யுளுக்கு அழகு தருவது அணி என்பதை உணர்தல்.*

CO2: *தன்மையணி முதலான அணிகள் குறித்த அறிவினைப்பெறுதல்*

CO3: *உவமையணி பற்றி விரிவாக அறிதல்.*

CO4: *அணிகளின் வகைகளை கற்றுணர்தல்.*

CO5: *அணிகளின் அமைப்புகளைப் புரிந்துகொண்டு அவற்றைப் பயன்படுத்தல்.*

CORE PAPER XV   *இலக்கியத் திறனாய்வு*

CO1: *திறனாய்வின் அடிப்படைகளை அறிதல்.*

CO2: *சமுதாய,வரலாற்றியல்,உளவியல் திறனாய்வு முறைகளை அறிந்து பயன்படுத்தல்.*

CO3: *உருவவியல், அமைப்பியல், பின்நவீனத்துவம் குறித்த சிந்தனையை வளர்த்தல்*

CO4: *திறனாய்வு அனுகுமுறைகளை கற்று அதனைப் பின்பற்றுதல்.*

CO5: *திறனாய்வு வரலாற்றினை அறிந்து திறனாய்வு செய்தல்.*

ELECTIVE PAPER III   *சுற்றுலாவியல்*

CO1: *சுற்றுலாவின் அடிப்படைகளை கற்றுணர்தல்.*

CO2: *சுற்றுலாவின் வழியாக மனிதநேயம்,ஒருமைப்பாடு ஆகியவற்றை வளர்த்தல்*

CO3: *சுற்றுலாவின் வகைகளைத் தெரிந்து கொள்ளல்.*

CO4: *சுற்றுலாவின் முக்கியத்துவம் குறித்து அறிதல்.*

CO5: *சுற்றுலாவின் பொருளாதாரப் பயன்களைக் கண்டுணர்தல்*

Allied for other Departments

ALLIED PAPER I   இதழியல்

CO1: இதழ்களின் தொடக்கம், பணிகள் பற்றிய அறிவினைப் பெறுதல்.

CO2: இந்திய இதழ்கள், தமிழக இதழ்கள் பற்றி அறிதல்

CO3: செய்தி சேகரிப்பு முதல் செய்தித்தாள் வெளிவரும் வரையிலான செயல்பாடுகளை அறிதல்.

CO4: செய்தி ஆசிரியரின் பணிகள் குறித்து தெரிந்து கொள்ளுதல்.

CO5: செய்தி நிறுவனங்களின் செயல்படும் முறையினை அறிந்து கொள்ளுதல்.

ALLIED PAPER II   நாட்டுப்புறவியல்

CO1: நாட்டுப்புறவியலின் அடிப்படைகளைக் கற்றுணர்தல்.

CO2: நாட்டுப்புறக் கதைகள், பழமொழிகள், விடுகதைகள், கதைப்பாடல்கள் பற்றி அறிதல்.

CO3: நாட்டுப்புறப்பாடல்கள் பற்றி அறிந்து அவற்றைச் சேகரித்தல்.

CO4: நாட்டுப்புறக் கலைகள் குறித்த அறிவினைப் பெறுதல்.

CO5: நாட்டுப்புற வாழ்வியல் கூறுகளை அறிதல்.

ALLIED PAPER III   கோயிற்கலை

CO1: சங்ககால கட்டடக்கலையினை அறிதல்.

CO2: தமிழகக் கோயில்களின் அமைப்பினை கற்றுணர்தல்.

CO3: தமிழக மன்னர்களின் கட்டக்கலைப் பங்களிப்பை அறிதல்

CO4: தமிழக சிற்பக்கலை வரலாற்றை அறிதல்

CO5: தமிழ்நாட்டு ஓவிய மரபினைத் தெரிந்து கொள்ளுதல்.

ALLIED PAPER IV   *கணினியியல்*

CO1: *கணினியின் அடிப்படைப் பாகங்கள் பற்றிய அறிவினைப் பெறுதல்.*

CO2: *எம்.எஸ். சொல் - செயலி – எம்.எஸ். எக்ஸ்செல் விரிதாள் ஆகியவற்றைக் கற்றல்*

CO3: *எம்.எஸ். பவர்பாயிண்ட்டைக் கற்றல்*

CO4: *இணையம் குறித்த அறிவினைப் பெறுதல்.*

CO5: *பல்லூடகம் குறித்த பயிற்சி பெறுதல்.*

PART I TAMIL   I SEMESTER

CO1: *தற்காலக் கவிதைகளைப் பற்றி அறிந்து புதுக்கவிதை படைத்தல்*

CO2: *தன்னம்பிக்கையை வளர்த்தல்*

CO3: *எழுத்துக்களைப் பிழையின்றி எழுதக் கற்றல்.*

CO4: *கவிதை, உரைநடையின் வரலாறுகளை அறிதல்.*

CO5: *கட்டுரை எழுதப் பயிற்சி பெறுதல்.*

PART I TAMIL   II SEMESTER

CO1: *தமிழக பக்தி இலக்கிய மரபினை அறிந்து கொள்ளுதல்.*

CO2: *சிறுகதையின் அமைப்பினை பற்றி படித்துணர்தல்.*

CO3: *சொற்களைப் பிழையின்றிப் பேசவும் எழுதவும் கற்றல்.*

CO4: *இடைக்கால இலக்கிய வரலாற்றினை அறிதல்.*

CO5: *சிறுகதை படைக்க பயிற்சி பெறுதல்.*

PART I TAMIL   III SEMESTER

CO1: *தமிழ்க்காப்பிய மரபினை அறிதல்*

CO2: *புதின இலக்கியம் பற்றிய அறிவினைப் பெறுதல்.*

CO3: *செய்யுளின் யாப்பு, அணி இலக்கணம் கற்றல்*

CO4: *காப்பியம், நாடகம் பற்றிய இலக்கிய வரலாறுகளை அறிதல்.*

CO5: *மரபுக்கவிதை, புதுக்கவிதை படைத்தல்.*

PART I TAMIL   IV SEMESTER

CO1: *பழந்தமிழ் இலக்கியங்கள் வழி வாழ்வியலை அறிதல்.*

CO2: *தமிழ் நாடகம் பற்றிய அறிவினைப் பெறுதல்.*

CO3: *பொருளிலக்கண மரபினை உணர்தல்.*

CO4: *சங்க இலக்கியம், நாடக இலக்கியம் குறித்த வரலாற்றினை அறிதல்.*

CO5: *நாடகப் படைப்பாளுமையை வளர்த்தல்*

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

Programme Educational Objectives

- Graduates of the Programme will pursue higher studies.
- Graduates of the Programme will have the skills and knowledge to take on appropriate professional positions in Zoology.
- Graduates of the Programme will become zoology professionals, able to work effectively at Teaching, research and industries.

Programme Out comes

Po: 1   Ability to apply knowledge in zoology, Basic study of animals (classification).

Po: 2   understand the basic concepts of Biodiversity, Conservation, Cell Biology, Genetics, Taxonomy, Ecology, Evolution and applied zoology.

Po: 3   Analyses the relationship among plants, animals and microorganisms.

Po: 4.   Students will be explained how organism functions at the level of the gene, genome, Cell, tissue, organ and organ system.

Po: 5   by providing intensive knowledge, they will be able to give specific examples of the physiological adaptation, development, reproduction, and behavior of different forms of life.

Po: 6. Ability to communicate effectively in both verbal and writing form in industry and society.

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

I Semester

Core paper – I: 1. Biodiversity of Invertebrates – I(7BZO1C1)

Co: 1. To learn the introduction, Classification and Taxonomical Studies of protozoan

Co: 2. To study the introduction, Classification and Taxonomical Studies of porifera.

Co: 3. To learn the Fundamental aspects and Taxonomical Studies of Coelenterata

Co: 4. To Study the basic concept and morphological Studies of Platyhelminthes.

Co: 5. To inculcates the knowledge of various types and morphology of Aschelminthes.

Core paper – II: Biodiversity of Invertebrates – II (7BZO1c2)

To understand the fundamental ideas of Biodiversity and their Classification based on the morphological future.

II Semester

CORE PAPER – III   BIO DIVERSITY OF INVERTIBRATES I & II AND BIO   DIVERSITY OF CHODATES   Practical – I   (7BZO2p1)

- To inculcate the practical knowledge about the Anatomical and physiological functions of various animals.

. ### CORE PAPER – IV: Biodiversity of Chordate (7BZO2C1)

- To create an extensive knowledge about the Classification and characters of chordate animals.
    ### CORE PAPER – V: Cell Biology (7BZO2C1)

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

- To Study the Structure and function of different organs and their cellular components .

Environmental Studies (7BES2)

- To create an extensive knowledge about the Interrelation of plants and Animals.

Allied Chemistry

7BCHA1 --General chemistry I

- To study the extensive knowledge about the Fundamental of Matter-liquid,

    solid state, Thermodynamics and Periodic table.

7BCHA2 --General chemistry II

- To study the extensive knowledge about the Fundamental of organic Chemistry

- **7BCHp1 –Volumetric Analysis**

- To study the extensive knowledge about the various aspects Volumetric

    Analysis based on measuring volume of reagents especially titration

SEMESTER III

CORE PAPER – VI –Developmental Biology and Evolution (7BZO3C1)

- To develop an extensive idea of Developmental biology and. Evolution of animals**.**
- To identify the cellular behaviors and morphological change during development

CORE PAPER – VII – Cell Biology and Developmental Biology (7BZO3P1)

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

PRACTICAL - III

- To impart ideas and methods related with the practical works for Cell Biology and Developmental Biology.

SEMESTER -IV

CORE PAPER – VIII- Genetics and Molecular Biology (7BZO4C1)

- To develop the basic ideas and principles of Genetics and Molecular Biology.

CORE PAPER-IX –Evolution, Genetics and Molecular Biology Practical (7BZO4P1)

- To understand the various aspects of Evolution, Genetics and Molecular Biology.

Allied Microbiology

4BM1A1   Fundamental of Microbiology

- To develop an extensive knowledge about the Fundamental of Microbiology

4BM1A2   Microorganism and Introduction

Study about the Introduction of various Microorganisms

- **7BMIAp1 – General and Industrial Microbiology**

- Study about the practical aspects of culturing and maintenance of various Microorganisms

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

SEMESTER -V

CORE PAPER X – ANIMAL PHYSIOLOGY

- To create an extensive knowledge about structure, function and cellular activity of the cells.

CORE PAPER – XI -BIOCHEMISTRY

- To make the students to understand bio molecules, their metabolic role in producing energy

CORE PAPER – XI I- ANIMAL PHYSIOLOGYAND -BIOCHEMISTRY PRACTICAL -I V

- To develop practical knowledge to the students for the structure ,function and cellular activity of the cells.

- To make the students to understand bio molecules

SEMESTER- VI

CORE PAPER – XIII -FUNTAMENTAL OF BIO -TECHNOLOGY

- To inculcate the knowledge of different concepts and methodologies followed in recombinant technology to produce new organism..

CORE PAPER – XIV -ENVIRONMENTALBIOLOGY AND BIO STATISTICS

Programme Outcomes and Course Outcomes

Syed Ammal Arts and Science College

Dept of Zoology

- To create an extensive knowledge about the Interrelation of plants and Animal and population density.

CORE PAPER – XV   FUNTAMENTAL OF   BIO- TECHNOLOGY ENVIRONMENTAL BIOLOGY AND BIO STATIS TICS

- To   enhance the practical knowledge of the   students to understand the involvement of microbes in food and dairy industries and also in the production of new organism.
- To make the students to understand the use of various measurement of plant and animal population   in environment..