



TRINITY COLLEGE FOR WOMEN NAMAKKAL
NAAC –SSR CYCLE-I

1.3.1 Cross Cutting Issues



PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH
II YEAR – III SEMESTER
FILM STUDIES**

OBJECTIVES

- To understand the elements of films
- To acquire knowledge about the development and cultural effects of film as an art

OUTCOME:

- Learners critically interpret films
- Gain a wide range of knowledge about cinematic visual styles, genres and theories

UNIT – I – UNDERSTANDING FILM

1. What is film?
2. The hybrid nature of film
3. The language of Cinema
4. A brief history – Beginning and Growth of Cinema

UNIT – II – BASIC TERMINOLOGY OF FILM MAKING

5. Cinematography or the Shot
6. Editing:
 - i. Chronological editing
 - ii. Continuity editing
 - iii. Cross cutting
 - iv. Analytical editing
 - v. Cut or Sequencing
7. Sound and Colour:
 - i. Diegetic and extra-diegetic sound
 - ii. Speech and Music
 - iii. History of Colour Films
 - iv. Technicolour
 - v. Eastman colour
8. Censorship in India

UNIT – III – FILM GENRES

9. Documentary and Short films
10. Horror films
11. Animation
12. Digital films

UNIT – IV – INDIAN CINEMA

13. D. G. Phalke and The Desi Enterprise
14. Cinema in 1930s & 1940s
15. Cinema in 1950s & 1960s
16. Art cinema & Milestones of Indian Cinema

UNIT – V – FILM THEORY

17. Realism
18. Auteur theory
19. Ideology in film
20. Psychological film theory

Recommended Book :

Babu N.M., Reeraj Thankachan, Binil Kumar M.R: Introducing Film Studies, Mainspring publishers.



PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH
II YEAR – IV SEMESTER
PERSONALITY TRAITS**

OBJECTIVES

- To teach how to identify character traits
- To introduce various personality skills

OUTCOME:

- Learners could examine characters and their growth
- Learners could also trace their personality progress

Unit-I

Developing Positive Attitude

Unit-II

Forming Values

Unit-III

Career Planning

Unit-IV

Time Management

Unit-V

Stress management

Recommended Book:

Dr. K.Alex: Soft Skills: Know yourself and know the World, S. Chand & Co. (3ed)



PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH
II YEAR – IV SEMESTER
CAREER SKILLS AND E-LEARNING**

OBJECTIVES:

- To equip learners with necessary skills to get placement
- To introduce job oriented online courses

OUTCOME:

- Learners move towards hi-tech world
- Learners also become tech savvy in their careers

Unit-I

Personality development: A must for leadership and Career Growth

Unit-II

Soft Skills: Demanded by Every Employee

Unit-III

Body Language: Reveals your Inner Self and personality

Unit-IV

Acquaintance with E-learning Concepts and Techniques

Unit-V

Massive Open online Courses (MOOCs): Skill development and Career Growth

Recommended text:

Barun K. Mithra: Personality Development and Soft Skills, 2nd edition, OUP.



PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH
III YEAR – V SEMESTER
ENGLISH FOR EMPLOYABILITY**

OBJECTIVES:

- To teach Professional communication
- To prepare learners professionally competent to find jobs with greater ease

OUTCOME:

- Learners would get a knowledge to face the challenges of communication in the job market

UNIT - I GRAMMAR

CONCERED

TENSES

Active and

passive Voice

Relative

clause

UNIT - II READING COMPREHENSION

Purposes and strategies of reading Skimming for details

Scanning for information

Drawing inferences

Vocabulary

UNIT – III WRITING PARAGRAPHS AND ESSAYS

Purposes of writing

Writing an introduction

Writing a conclusion

Writing film and book reviews

Common errors in writing

Editing and proof reading

UNIT – IV GROUP DISCUSSION & INTERVIEW SKILLS

Roles and functions: beginning, presenting,

elaborating Roles and functions: clarifying,

synthesizing and challenging Roles and

functions: agreeing, disagreeing and

summarizing Group discussion activities

Preparing a resume and a cover letter

Public speaking: planning, practice and delivery

UNIT – V WORKPLACE AWARENESS

Workplace etiquette Values and

ethics Culture

Gender equality

Recommended book: Lina Mukhopadhyay & et.al, English for Job Seekers: Language and soft skills for the aspiring, Foundation Books.

**PERSONALITY ENHANCING SKILL COURSES****M.A ENGLISH****II YEAR – IV SEMESTER****ENGLISH LANGUAGE TEACHING AND ICT**

UNIT-I- Learning Theories: Acquisition vs. learning; language, mind and society;

empirical (SR) theories of learning; cognitive theories; implications for language teaching; second/foreign language learning; identity and contrastive hypothesis in learning a second language; input hypothesis.

UNIT II- A Brief History of Language Teaching , Methods: Approach, method and technique; Grammar-Translation method; Direct method; The Oral Approach and Situation Language Teaching; The Audio Lingual Method ; The Silent Way

Unit III - Multiple Intelligence Theories; Neurolinguistic Programming ; Teaching of Four skills; Community Language Learning; Communicative Language Teaching ; The Natural Approach ;Suggestopedia ; Whole Language

Unit IV – Teaching Grammar, Teaching Vocabulary, Teaching Pronunciation, and Teaching Language skills.

Unit V - Basic Concept of ICT in Education, ; Hardware Basics, Input and Output Devices ; software ; Types of Network; ICT in Everyday Life

REFERENCE:

1. Holiday A. 1994. *Appropriate Methodology*. Cambridge: Cambridge University Press.
2. Jack C. Richards and Theodore S. Rogers. 2006. *Approaches and Methods in Language Teaching*;
Second Edition, Cambridge: Cambridge University Press.
3. Jeremy Harmer, *The Practice of English Language Teaching*, Pearson Longman, 4th edn.
4. Krishnaswamy N. & Lalitha Krishnaswamy. 2007. *The Story of English in India*. New Delhi: Foundation Books.
5. Celebic, Gorana & Dario Ilija Rendulic. 2011. *Basic Concepts of Information and Communication Technology*. Zagreb: Open Society for Ideo Exchange (ODRAZI).

**PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****II YEAR, III – SEMESTER****FINANCIAL MATHEMATICS****COURSE OBJECTIVE**

In this course, the students are posed to

- The basic concepts of Probability theory, The Central limit theorem.
- The concepts of Geometric Brownian motion, Option pricing.
- The derivatives of Black-Scholes formula and its applications.
- The concept of call option on Dividend paying securities, estimating the volatility parameter.
- The limitations of Arbitrage pricing, the portfolio selection problem.

UNIT-I

Probabilities and Events-Conditional Probability--Random Variables and Expected Values- Covariance and Correlation-Continuous Random Variables-Normal Random Variables –Properties of Normal Random Variables- The Central Limit Theorem-Simple Problems. Section (1.1-1.4, 2.1 -2.4)

UNIT-II

Geometric Brownian Motion-Geometric Brownian Motion as a limit of Simple Models-Brownian Motion-Simple Problems- Interest Rates – Present Value Analysis- Rate of Return-Continuously Varying Interest Rates-An example of option Pricing –Other example of Pricing via Arbitrage. Section(3.1 -3.3, 4.1 -4.4, 5.1, 5.2)

UNIT-III

The Arbitrage Theorem-The Multi-period Binomial Model- Proof of the Arbitrage Theorem-The Black-Scholes Formula-Properties of the Black-Scholes Option Cost-Derivation of Black-Scholes Formula-Simple Problems. Section(6.1 -6.3, 7.2, 7.3, 7.5)

UNIT-IV

Additional results on options-Call option on Dividend Paying Securities- Pricing American Put Options-Adding Jumps to Geometric Brownian Motion-Estimating the Volatility Parameter-Simple Problems. Section(8.2-8.5)

UNIT-V

Valuing by Expected Utility-Limitation of Arbitrage pricing-Valuing Investments by Expected Utility-The portfolio selection problem—Value at risk and conditional value at risk The capital assets pricing model-Mean Variances analysis of risk-Neutral priced Call options-Rates of return-Single Period and Geometric Brownian Motion--Simple Problems. Section(9.1-9.7)

**1.3.1 Curriculum Integrating Crosscutting Issues****TEXT BOOK:**

| S.No | Title of the Book | Author | Publishing Company | Year of Publication |
|------|---|-----------------|----------------------------|---------------------|
| 1. | An Elementary Introduction to Mathematical Finance, 2 nd Edition | Sheldon M. Ross | Cambridge University Press | 2005 |

REFERENCE BOOKS:

| S.No | Title of the Book | Author | Publishing Company | Year of Publication |
|------|-------------------------------------|-------------------------|-------------------------------------|---------------------|
| 1. | A First Course in Probability | S.M. Ross | Englewood Cliffs Prentice Hall - NJ | 2002 |
| 2. | Option Market | J. Cox M. Rubinstein | Englewood Cliffs Prentice Hall - NJ | 1985 |
| 3. | Theory of Financial Decision Making | J.E. Ingersill | Lanjam MD Rowerman of Little Fields | 1987 |

COURSE OUTCOME

After completing the course the students will be able to

- To understand the basic concepts of Financial Mathematics.
- To understand and prove theorems.
- To understand the method to solve the problems by applying principles and concepts of Financial Mathematics



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES**B.Sc. DEGREE COURSE IN MATHEMATICS****II YEAR, IV – SEMESTER LATEX–****PRACTICAL****COURSE OBJECTIVE**

To enable the Students to Prepare Research Articles in LaTeX format.

LIST OF PRACTICALS

1. Creation of a Document with different Alignments (Left, Right, Center, Justify).
2. Typing a Letter for Applying a job.
3. Creation of Own Bio-Data.
4. Creating a Table Structure.
5. Typing a Mathematical Expression involving Differentiation, Integration and Trigonometry.
6. Typing a Mathematical Expression using all Expressions and Inequalities..
7. Creation of an Article using LaTeX.
8. Inserting Picture in a LaTeX
9. Preparing a question paper in LaTeX Format.
10. Creation of Power Point Presentation in LaTeX.

TEXTBOOK:

1. David F Griffiths and Desmond J. Higham, **Learning LaTeX**, SIAM (Society for Industrial and Applied Mathematics) Publishers, Philadelphia, 1996.

REFERENCE BOOKS:

1. Nambudiripad, K.B.M., 2014. **LaTeX for beginners**. Narosa Publishing House private limited, New Delhi.
2. Martin J. Erickson and Donald Bindner, **A Student's Guide to the Study, Practice and Tools of Modern Mathematics**, CRC Press, Boca Raton, FL, 2011.
3. L. Lamport, **LATEX: A Document Preparation System, User's Guide and Reference Manual**, Addison-Wesley, New York, Second edition, 1994.

COURSE OUTCOME

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

- CO1 Make different Alignments in a document and an Application for a job.
- CO2 Generate Bio-Data, and Table Structures.
- CO3 Create Mathematical Statements using LaTeX.
- CO4 Prepare Articles and Inserting Pictures.
- CO5 Prepare Question paper and Power Point presentation in LaTeX format.

Note:

- ❖ This Paper Should be handled and valued by the faculty of Mathematics only.
- ❖ Both Internal and External Examiners for University Practical Examination should be appointed from faculty of Mathematics only.

**PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, VI – SEMESTER****C++ PROGRAMMING****COURSE OBJECTIVE**

The Course aims are to

1. Understanding about object-oriented programming
2. Create and process data in files using I/O functions
3. Understand about constructors which are special type of functions.

UNIT-I

Basic Concepts of Object-Oriented Programming – Tokens – Expressions – control Structures – Functions in C++.

Chapter 1: Sec. 1.5, Chapter 3: Sec 3.1 – 3.24

Chapter 4: Sec 4.1 – 4.11

UNIT-II

Classes & Objects. Chapter 5: Sec. 5.1 – 5.16

UNIT-III

Constructors & Destructors. Chapter 6: Sec 6.1 – 6.11

UNIT-IV

Operator Overloading – Type Conversions. Chapter 7: Sec. 7.1 – 7.8

UNIT-V

Inheritance & Extending classes – Pointers, Virtual Functions and Polymorphism.

Chapter 8: Sec. 8.1 – 8.12, Chapter 9: Sec. 9.1 – 9.3, 9.5 – 9.7

TEXT BOOK:

1. Object Oriented Programming with C++, E. Balagurusamy, Tata McGraw, Hill, 2006.

Fourth Edition

COURSE OUTCOME

- Understand the basic concepts of object-oriented programming, Expressions, control structures, Classes and objects.
- Understand dynamic memory management techniques using constructors, destructors, etc.
- Understand the concept of function overloading, operator overloading, virtual functions and polymorphism.
- Demonstrate the use of various OOPS concepts with the help of programs.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, VI – SEMESTER****OFFICE AUTOMATION (PRACTICAL)****COURSE OBJECTIVE**

- To learn about basic commands of MSWord, MSExcel and MS Access.

LIST OF PRACTICALS**MSWord**

1. Preparation of word document (Typing, aligning, Font Style, Font Size, Text editing, colouring, Spacing, Margins)
2. Creating and Editing a table (Select no of rows, Select no of columns, row heading, column heading, column width, row width, row height, spacing text editing)
3. Formatting a table (insert rows/columns, delete rows/columns, cell merging /splitting, Cell alignment)
4. Preparation of letters using mail merge.
5. Demonstration of Find, Replace, Cut, Copy and paste text in a word document.

MSExcel

6. Creation of Charts, Graphs and Diagrams.
7. Calculation of Measures of central Tendency
8. Calculation of Standard Deviation.

MS PowerPoint

9. Preparation of slides in powerpoint.
10. Creation of Animation Pictures.

MS Access

11. Creation of simple reports using MS Access.

General

12. Exporting a given graph from Excel to word.
13. Sending an Email.
14. Downloading a document from internet.
15. Importing a picture from internet to word document.

TEXT BOOK:

1. Andy Channelle, **Beginning Open Office 3: From Novice to Professional**, A Press series, Springer-Verlog, 2009.

REFERENCE BOOK:

1. Perry M. Greg, **Sams Teach Yourself Open Office.org All In One**, Sams Publications, 2007.

COURSE OUTCOME

Acquire practical knowledge about MS-Word, MS-Excel, MS-PowerPoint and Ms-Access.

**PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****II YEAR, III – SEMESTER****CAREER COMPETENCY SKILLS - I****OBJECTIVES**

- To enhance employability skills and to develop career competency.
- To impart knowledge on preparing resume and group discussion.
- To develop the personality traits and interview skills.

LEARNING OUTCOMES

- Obtain knowledge of resume formats.
- Know how to lead a group.
- Know how to face an interview.

UNIT I RESUME FORMATS

Biodata – Resume – Curriculum vitae (CV) - Tips to create an effective resume – Resumeformat for various professions.

UNIT II GROUP DISCUSSION

Group discussion – Definition – Types of group discussion – Importance – Elements of group discussion – Skills for group discussion – preparation of group discussion.

UNIT III TECHNICAL APTITUDE

Basic aptitudes – Steps to prepare technical test – Critical reasoning skills – Common aptitude types - technical aptitudes for different professions

UNIT IV INTERVIEW SKILLS

Types of Interviews – Best skills for an Interview – Preparation for an Interview.

UNIT V PERSONALITY

Four personality types – Personality traits – Body language – Dress code – Ways to improve personality.

BOOK FOR STUDY AND REFERENCE

1. Ajai B. Kher, Group discussion, Vohra Publisher, Allahabad, India,
2. Ela Kashyap Sharma, Technical Aptitude for Interviews, PHI Learning Private Limited, Delhi, 2015
3. T.S. Jain and Gupta, UPKAR'S Interviews and group discussions, E-Books

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****II YEAR, IV– SEMESTER****CAREER COMPETENCY SKILLS – II****OBJECTIVES**

To motivate undergraduate students of physics to develop their aptitude and reasoning skill for competitive examinations.

LEARNING OUTCOMES

- Obtain knowledge on shortcuts to calculate number series.
- Understand the core concepts of permutations and combinations.
- Carry out mathematical calculations using shortcuts.
- Perform new methods for aptitude calculations.

UNIT I

Operations on numbers – H.C.F & L.C.M of numbers – Decimal fractions –

Simplifications -Square roots and Cube roots – Averages.

UNIT II

Problems of ages - Surds & Indices – Percentage – Profit & Loss – Ratio &

Proportions –Time & Work – Pipes & Cisterns.

UNIT III

Time & Distance - Problems on Trains -Boats & Streams – Allegation & Mixtures

–Logarithms – Simple interest & Compound interest.

UNIT IV

Area, Volumes and Surface areas – Calendar – Clocks – permutations & combinations –

probability – Heights & Distances.

UNIT V

Logical Reasoning – Puzzles – Dice – Visual Reasoning – Alphanumeric Reasoning –

Number series.

BOOKS FOR STUDY AND REFERENCE

1. Quantitative aptitude for competitive exams, R.S. Aggarwal, S. Chand publications, edition 2018 New Delhi
2. Fast Track Objective Arithmetic Paperback, edition 2018, Rajesh Varma, Arihant publications
3. Abhijith Guha, Quantitative Aptitude for Competitive Examination, Tata McGraw Hill. 5th edition, New Delhi.

WEBSITES FOR REFERENCE

1. <https://tnpsc.news/tnpsc-study-materials>
2. <https://byjus.com/free-ias-prep/tnpsc-study-material/>
3. <https://www.winmeen.com/tnpsc-study-materials/>
4. <http://www.kalvisolai.com/p/kalvisolai-tnpsc-study-materials.html>

PEDAGOGY

Chalk and Talk lectures, Group Discussion, Seminar, Interaction, PowerPoint Presentation.

**PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****III YEAR, VI- SEMESTER****HARDWARE SKILLS****UNIT I PC - OVERVIEW**

Personal computer system – Block diagram – PG system unit – layout – lower model – motherboard daughter boards – SMPS – Front panel controls – display unit – keyboard – rear side connectors and their uses – PC motherboard layouts – PC/XT/PCAT 286/386/486/ Pentium – functional blocks – processor – motherboard memory – I/O expansion slots – RTC integrated motherboard layout – important blocks

UNIT II HARDWARE

Basics – ROM BIOS – organization – services – hardware – BIOS – DOS Diskette basics – tracks sectors – types – 3-5“ capacity – disk parts – disk formatting – data recording floppy disk drive – capacity – installation and configuration – adding and removing disk drives. Hard disk basics – tracks, cylinders, sectors, heads – hard disk capacity – data storage and retrieval mechanism – hard disk types – IDE – SCSI, installation of hard disk configuring, formatting and partitioning.

UNIT III KEYBOARD AND MEMORY DEVICES

CDROM Types – Audio, Video, DVD, Data CDS, Reading and writing mechanism Storage capacity – CD Drive Mechanisms Installation - PC Keyboard operation, the scan code concept – keyboards signals -- interface logic advanced KBD functions – Ctrl-Alt-Del, pause, print screen, Alt+numeric pad.

UNIT IV INPUT AND OUTPUT DEVICES

The mouse – signals, connection, operation installation – scanner types. The print controller block diagram and description – ports. The display, video basics – the CRT scanning methods

– colour CRT – Block diagram of VGA monitor – display adaptors – power management signalling – creating the screw image – video attributes. The serial port – parallel port – game port – signals and connector specifications block diagram SMPS – operation, output voltage levels.

**UNIT V INSTALLATION AND SERVICING**

Configuring the motherboard - all in one motherboard – jumper sets – identifying the connectors and cables – adding memory modules – upgrading the CPU – BIOS setup program – various setup options – configuring the IDE card. Power – on Self-Test – POST test sequence – POST error messages, the DOS diagnostic commands MSD – Microsoft Diagnostics.

BOOKS FOR REFERENCE

1. Computer hardware, K L James, Kindle Edition.
2. Essential Computer Hardware Second edition, Kavin Wilson, Elluminet Press, (2019)
3. Introduction to Microprocessors, Software, Hardware and programming-lance A Leventhal, -prentice-Hall.of India(1979)
4. Microprocessors and Interfacing, programming mid-Hardware-second edition, Douglas.V.Hall, Tata Mc Graw Hill (1999).
5. Computer Architecture: A Quantitative Approach, John L. Hennessy, David A. Patterson.
6. Computer Hardware Troubleshooting Guide.

WEBSITES FOR REFERENCE

1. https://en.wikipedia.org/wiki/Personal_computer
2. https://www.tutorialspoint.com/computer_fundamentals/computer_input_devices.htm
3. <https://ecomputernotes.com/fundamental/input-output-and-memory/list-various-input-and-output-devices>

PEDAGOGY

Chalk and talk lectures, Group Discussion, Seminar, Interaction and PowerPoint Presentationetc.

**PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN PHYSICS****I YEAR, II- SEMESTER****COMPUTATIONAL PHYSICS & C++ PROGRAMMING****UNIT-I: SOLUTIONS OF LINEAR AND NONLINEAR EQUATIONS**

Simultaneous Linear Equations: Gauss elimination method - Jordan's modification - Gauss-Seidel method. Curve fitting - Method of least squares - Normal equations - Straight line fit - Interpolation - Least squares Approximation - Newton Interpolation polynomials - Linear Interpolation - Gregory-Newton Interpolation polynomials.

Roots of Non-linear Equations: Bisection method - Iteration method - Newton-Raphson method - Termination criteria - Pitfalls - Order of convergence.

UNIT-II: NUMERICAL INTEGRATION AND DIFFERENTIATION

Numerical Differentiation - Numerical Integration - Trapezoidal rule - Simpson's 1/3 and 3/8 rules - Random number generation - Park and Miller method - Newton-Cotes formulas - Gaussian quadrature formula - Estimation of errors in evaluating the integrals - Roots of Equation.

UNIT-III: NUMERICAL SOLUTIONS OF ORDINARY DIFFERENTIAL EQUATIONS:

Ordinary Differential equation: Taylor's series method - Euler and Picard methods - Predictor - corrector methods - Chaotic dynamics of a driven pendulum - Boundary-value and eigenvalue problems - The Shooting Method - Linear equations and the Sturm - Liouville problem.

First order equations: Euler and improved Euler methods - Formulas - Second order equation

-Euler methods - Solution of Ordinary differential equation by Euler, Runge-Kutta Fourth Order method for solving first order ordinary differential equations.

UNIT- IV: FUNDAMENTALS OF C++ PROGRAMMING

Basic structure of C++ programs - Creating the Source File - compiling and Linking. Tokens, Keywords - Identifiers - Basic Data Types - Symbolic Constants - Type Compatibility - Declarations of Variables - Dynamic Initialization of Variables - Reference Variables - Reading and writing a character - formatted inputs and outputs.

Operators in C++: Arithmetic, relational, logical, assignment, increment, decrement, and conditional, bitwise special operators - Operator Precedence - Type Cast Operator -

Expressions and Implicit Conversions - Operator Overloading - C++ math library functions- C++ standard library header files.

**UNIT V: DECISION MAKING, ARRAYS, STRUCTURES, FUNCTIONS & POINTERS**

Decision Making Statements: If-else statement - nested if-else, else-if ladder - switch case statement - conditional statement - go to statement - break and continue statement - Nested control statements.

Loops: While loop - do-while loop - For loop - Nested For loop.

Arrays: Defining, initializing arrays - accessing array elements - One/Two dimensional arrays.

Structures: Specifying the structure - accessing structure members.

Functions: Function declaration and definition - Calling the Function. **Pointers:** Address and pointers - Address of operator & pointer variables.

BOOKS FOR STUDY AND REFERENCE:

1. Numerical methods in Science and Engineering- M.K.Venkataraman-National Publishing Co., Madras (1996)
2. Introductory Methods of Numerical Analysis, S.S.Sastry- Prentice Hall of India Private Ltd., New Delhi (2007)
3. Numerical Methods, Dr.P.Kandasamy, Dr. K.Thilagavathy, Dr.K.Gunavathi, S.Chand & Company Private Limited, New Delhi (2016)
4. Numerical Methods for Scientific and Engineering Computation, M.KJain, S.R.K.Iyengar and R.K.Jain, New Age International, New Delhi (2007)
5. Numerical methods, E.Balagurusamy, Tata McGraw Hill, New Delhi (1999)
6. Numerical Methods, V.N.Vedamurthy, N.Ch.S.N.Iyengar, Vikas Publishing House Pvt. Ltd., Noida (2011)
7. Programming in C++, E.Balagurusamy, McGraw Hill Education (India) Private Limited, New Delhi (2016)
8. Programming with C++, P.Radha Ganesan, SCITECH Publications (India) Pvt. Ltd, Chennai (2002)
9. Programming with C - Schaum's outline series, Tata McGraw Hill Publishing Company Limited, New Delhi (2004)

**PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****III YEAR, V– SEMESTER****WEB TECHNOLOGY LAB****COURSE OBJECTIVE:**

1. To impart Practical Training in Control panel tools.
2. Familiarize with HTML Tags.
3. Build programs using Java script.
4. Provide knowledge on working with events and methods.

LIST OF PROGRAMS:

1. Create a form having number of elements (Textboxes, Radio buttons, Checkboxes, and so on). Write JavaScript code to count the number of elements in a form.
2. Create a HTML form that has number of Textboxes. When the form runs in the Browser fill the Text boxes with data. Write JavaScript code that verifies that all textboxes has been filled. If a textboxes has been left empty, popup an alert indicating which textbox has been left empty.
3. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
4. Create a page with dynamic effects. Write the code to include layers and basic animation.
5. Write a JavaScript code to find the sum of N natural Numbers. (Use user-defined function).
6. Write a JavaScript code block using arrays and generate the current date in words, this should include the day, month and year.
7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
9. Create a form consists of a two Multiple choice lists and one single choice list (a)The first multiple choice list, displays the Major dishes available.
 - a. The second multiple choice list, displays the Starters available. (c)The single choice list, displays the Soft drinks available.



PERSONALITY ENHANCING SKILL COURSES

B.Sc. DEGREE COURSE IN COMPUTER SCIENCE

**III YEAR, VI- SEMESTER
QUANTITATIVE APTITUDE**

UNIT-I

Numbers - HCF and LCM of numbers - Decimal fractions -
Simplification - Square roots and cube roots - Average - problems on Numbers.

UNIT-II

Problems on Ages - Surds and Indices - percentage - profits and
loss - ratio and proportion - partnership - Chain rule.

UNIT-III

Time and work - pipes and cisterns - Time and Distance - problems on trains -Boats and streams
- simple interest - compound interest - Logarithms - Area - Volume and surface
area - races and Games of skill.

UNIT-IV

Permutation and combination - probability - True Discount - Bankers Discount - Height and
Distances - Odd man out &
Series.

UNIT-V

Calendar - Clocks - stocks and shares - Data representation - Tabulation - Bar Graphs - Pie charts -
Line graphs.

Text Books

—Quantitative Aptitude, R.S. AGARWAL., S. Chand & Company Ltd.,

Reference Books

—Quantitative Aptitude for Competitive examinations|| Abhijit Guha – 4th edition –
Tata MH

Website / Link

<https://textbook.com/aptitude>

www.carrierbleess.com/aptitude/qa/home.php



PERSONALITY ENHANCING SKILL COURSES

**BCA DEGREE
III YEAR, V– SEMESTER
MOBILE APPLICATION DEVELOPMENT**

COURSE OBJECTIVE:

1. To impart Practical Training in android developer tools.
2. Build programs using eclipse environment.
3. Provide knowledge on working with simple android apps.

LIST OF PROGRAMS:

1. Sample application about Layouts.
2. Sample application about Internets.
3. Sample application about User Interfaces.
4. Sample application about Animations.
5. Create calculator app in Android.
6. Create sample android Camera Application.
7. Create basic list view demo in Android.
8. Create Google map in Android.

COURSE OUTCOME:

1. Study all the Basic Tools.
2. Practice the usage of control panel objects.
3. Apply various commands for layouts and animations.
4. Analysis the use of SQLite I.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A, B.Com, B.Com (CA), BCA & B.Sc DEGREE****I YEAR – I SEMESTER****PROFESSIONAL ENGLISH -I****OBJECTIVES:**

- To develop the language skills of students by offering adequate practice in professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registers and the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturally aware of the target situation.

LEARNING OUTCOMES:

- Recognise their own ability to improve their own competence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Read independently unfamiliar texts with comprehension
- Understand the importance of writing in academic life
- Write simple sentences without committing error of spelling or grammar (Outcomes based on guidelines in UGC LOCF – Generic Elective)

NB: All four skills are taught based on texts/passages.

UNIT 1: COMMUNICATION

Listening: Listening to audio text and answering questions

- Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages – Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 2: DESCRIPTION

Listening: Listening to process description. - Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning- Reading passages on products, equipment and gadgets.

Writing: Process Description – Compare and Contrast

Paragraph-Sentence Definition and Extended definition-

Free Writing.

**1.3.1 Curriculum Integrating Crosscutting Issues**

Vocabulary: Register specific -Incorporated into the LSRW tasks.

UNIT 3: NEGOTIATION STRATEGIES

Listening: Listening to interviews of specialists / Inventors in fields(Subject specific)

Speaking: Brainstorming. (Mind mapping).

Small group discussions (Subject- Specific)

Reading: Longer Reading text.

Writing: Essay Writing (250 words)

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 4: PRESENTATION SKILLS

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations

Interpreting Visuals inputs

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 5: CRITICAL THINKING SKILLS

Listening: Listening comprehension- Listening for information.

Speaking: Making presentations (with PPT- practice).

Reading : Comprehension passages –Note making.

Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)

Writing: Problem and Solution essay– Creative writing –Summary writing

Vocabulary: Register specific - Incorporated into the LSRW tasks



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.A, B.Com, B.Com (CA), BCA & B.Sc DEGREE

I YEAR – II SEMESTER

PROFESSIONAL ENGLISH -II

UNIT I

COMMUNICATIVE COMPETENCE

UNIT II

PERSUASIVE COMMUNICATION

UNIT II

PERSUASIVE COMMUNICATION

UNIT IV

CREATIVITY AND IMAGINATION

UNIT-V

WORKPLACE COMMUNICATION & BASICS OF ACADEMIC WRITING

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****B.A, B.Com, B.Com (CA), BCA & B.Sc DEGREE****I YEAR – I SEMESTER****பொதுப்பாடம் - மதிப்புக்கல்விப் பாடம்****(Value Education)****மனவளக்கலை யோகா****பாட நோக்கம்:**

இளம் வயது முதல், உடல், மனம் இரண்டையும் பக்குவமாக வைத்துக் கொள்ள வேண்டியதன் அவசியத்தை மாணவர்களுக்கு உணரச் செய்தல்.

அலகு - 1

யோகமும் உடல்நலமும்

உடலமைப்பு - எளியமுறை உடற்பயிற்சி - மகராசனம் - யோகாசனங்கள்.

அலகு - 2

இளமை காதல் - பாலுணர்வும் ஆன்மீகமும் - மனதின் 10 படிநிலைகள் - மன அலைச்சுழல்.

அலகு - 3

குணநலப் பேறு

வாழ்வின் நோக்கம் - எண்ணம் ஆராய்தல் - ஆசை சீரமைத்தல் - சினம் தவிர்த்தல்.

அலகு - 4

கவலை ஒழித்தல் - வாழ்த்தும் பயனும் - நட்பு நலம் - தனிமனித அமைதி.

அலகு - 5

செயல் விளைவுத் தத்துவம் - மனத்தூய்மை, வினைத் தூய்மை - அன்பும் கருணையும் - பண்பாட்டுக் கல்வி.

பாட நூல்

'மனவளக் கலை யோகா'

உலக சமுதாய சேவா சங்கம்

வேதாத்திரி பதிப்பகம்

156, காந்திஜி ரோடு,

ஈரோடு - 638 001.

போன்: 0424-2263845.

பார்வை நூல்கள்:

மனவளக்கலை யோகா - I - உலக சமுதாய சேவா சங்கம்.

மனவளக்கலை யோகா - II - வேதாத்திரி பதிப்பகம்.

மனவளக்கலை யோகா - III - 156, காந்திஜி ரோடு.

எளியமுறை உடற்பயிற்சி - ஈரோடு - 638 001.

யோகப் பயிற்சிகள் - போன்: 0424-2263845.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****M.A, M.com & M.Sc DEGREE
I YEAR – II SEMESTER****Human Rights - Syllabus****Objective**

To impart the basic ideas about human rights at post graduation level. This paper provides different aspects of human rights which includes children and women. Students can learn not only their basic rights but also can understand the duties to be carried out in the days to come.

Unit I: Introduction to Human Rights

Human Rights : Meaning – Definitions – Origin and Growth of human rights in the world – Need and types of Human Rights – UNHRC (United Nations Human Rights Commission) – Human Rights in India.

Unit II: Classification of Human Rights

Right to liberty – Right to Life – Right to Equality – Right to dignity – Right against Exploitation – Educational Rights – Cultural Rights – Educational Rights - Economic Rights – Political Rights – Social Rights.

Unit III: Rights of Women and Children

Rights of Women – Female feticide and Infanticide and selective abortion – Physical assault and sexual harassment – Domestic Violence – Violence at work place – Remedial Measures

Rights of Children – Protection rights, survival rights – Participation rights – Development rights – Role of UN on convention on rights of children

Unit IV: Multi-Dimensional aspects of Human rights

Labour rights- Bodend labour- Child labour – Contract labour – Migrant Labour – Domestic Women labour – Gender Equity – Rights of Ethnic refugees- Problems and remedies – Role of trade union in protecting the unorganized labourers

Unit V: Grievance and Redressal Mechanism

Redressal mechanisms at national and international levels – Structure and functions of National and State level Human Rights Commission- constitutional remedies and directive principles of state policy.

**1.3.1 Curriculum Integrating Crosscutting Issues****References**

1. Baradat Sergio and Swaronjali Ghosh. Teaching of human rights: Dominant Publishers and distributors, New Delhi, 2009.
2. Roy A.N. Human Rights Achievements and challenges : Vista international Publishing house, Delhi, 2005.
3. Asish Kumar das and Prasant Kumar Mohanty. Human Rights in India: Sarup and Sons. New Delhi. 2007.
4. Bani Borgohain. Human Rights Social Justice and Political Challenge. Kaniska Publishers and distributors New Delhi, 2007.
5. Velan, G. Human Rights and Development Issues: The associated publishers, Ambala cantt. 2008
6. Meena, P.K Human Rights theory and practice: Murali Lal and sons, New Delhi, 2008.
7. Bhavani Prasad Panda. Human rights Development and environmental law: Academic excellence, Delhi, 2007.
8. Vishwanathan. V.N Human Rights – Twenty First Century Challenges: Kalpaz Publications, New Delhi, 2008.
9. Ansari, M.R. Protecting Human Rights: Max Ford Books, New Delhi, 2006.
10. Rao, M.S.A. Social Movements in India – Social Movements and Social Transformation in India Vol.1 & 2: Manohar Publications, New Delhi. 1978.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES**
B.A TAMIL DEGREE
I YEAR – I SEMSETER**சார்புப் பாடம் : தாள் 1****தமிழக வரலாறு - மக்களும் பண்பாடும்****பாட நோக்கம்**

தமிழக வரலாற்றையும், மக்களின் பண்பாட்டையும் மாணவர்களுக்குக் கற்பித்தல்.

அலகு - 1

தமிழக வரலாற்றுக்கான அடிப்படை ஆதாரங்கள் - வரலாற்றுக்கு முற்பட்ட காலம் - மத்திய காலம் - நாகரிகமும் பண்பாடும் - தமிழகத்தின் இயற்கை அமைப்புகள் - வரலாற்றுக் காலத்துக்கு முந்தைய தமிழகம்.

அலகு - 2

சிந்துவெளி அகழ்வாராய்ச்சி - பண்டைய தமிழரின் அயல்நாட்டுத் தொடர்புகள் - தமிழ் வளர்த்த சங்கம் - சங்க இலக்கியம்.

அலகு - 3

பண்டைத் தமிழரின் வாழ்க்கை - உணவு - அணிகலன்கள் - உறையுள் - வாணிகம் - விளையாட்டுகள் - கலைகள் - கல்வி - குலங்கள் - மொழி - சங்ககால ஆட்சிமுறை - கடவுளும் சமயமும் - அரசு பரம்பரை - களப்பிரர்கள் - பல்லவர்கள்.

அலகு - 4

தமிழகத்தில் நான்காம் நூற்றாண்டு முதல் ஒன்பதாம் நூற்றாண்டு வரை சமூக நிலை - சோழப் பேரரசின் தோற்றம் - வளர்ச்சி - வீழ்ச்சி - சோழர் காலத்தில் தமிழரின் சமுதாயம் - பாண்டியரின் ஏற்றமும் வீழ்ச்சியும்.

அலகு - 5

மதுரை நாயக்கர்கள் - தமிழகத்தில் 13 முதல் 18 ஆம் நூற்றாண்டு வரை சமூகநிலை - ஐரோப்பியரின் வரவு - புத்தொன்பதாம் நூற்றாண்டின் அரசியலும் சமூக நிலையும் - இருபதாம் நூற்றாண்டில் தமிழகம்.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****B.A TAMIL DEGREE
I YEAR – II SEMESTER****விருப்பப்பாடம் - தாள் 1****கொங்குநாட்டு வரலாறு****பாட நோக்கம்:**

கொங்குநாட்டு வரலாறு பற்றி அறிதல் - தமிழ்நாட்டுச் சரித்திரத்தில் கொங்கு நாடும் முக்கிய இடம் வகித்ததை மாணவர்களுக்குக் கற்பித்தல்.

அலகு - 1

கொங்கு நாட்டு எல்லைகள் - கொங்கு நாட்டின் பரப்பு - பிரிவுகள் - அமைப்பு - பண்டையநிலை - பண்டைய குடிகள் - பண்டைய சரித்திரம் - உரோமானிய உறவு - உரோமானிய நாணயங்கள்.

அலகு - 2

அதிகமான் - மௌரியரும் கோசரும் - கொங்கு தேச அரசர்கள் - கங்கர்கள் - பல்லவர்கள் - குறுநிலமன்னர்கள் - இராஷ்டிரகூடர்கள் - கொங்கு நாட்டில் சுந்தரமூர்த்தி சுவாமிகள் வருகை - இராஷ்டிரகூடர்கள் வீழ்ச்சி.

அலகு - 3

சேரர்கள் ஆதிக்கம் - சோழர் ஆட்சி - கொங்கு சோழர்கள் - கோவை பெயர்க் காரணம் - மருதமலை பற்றிய கல்வெட்டுகள்.

அலகு - 4

கீழைநாட்டு நிலை - மேலைநாட்டு நிலை - பாண்டியப் பேரரசு - ஹொய்சளர்கள் - கேரள ஆர்ப்பாட்டம் - முகம்மதியத் தொல்லைகள் - பதினான்காம் நூற்றாண்டில் கொங்குநாட்டு நிலை.

அலகு - 5

விஜயநகர ஆட்சியில் கொங்குநாட்டு நிலை - நாயக்கர் உற்பத்தி - மைசூர் போர் - ஆங்கில ஆட்சித் தொடக்கம் - பத்தொன்பதாம் நூற்றாண்டின் முற்பகுதி, பிற்பகுதி - இருபதாம் நூற்றாண்டு.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES**
B.A TAMIL DEGREE
I YEAR – II SEMSETER

சார்பும் பாடம் : தாள் 2
தமிழ் இலக்கிய வரலாறு

பாட நோக்கம்

தொன்மைக் காலம் முதல் இக்காலம் வரை தமிழில் தோன்றிய இலக்கிய நூல்கள் அனைத்தையும் வரலாற்று நோக்கில் கற்பித்தல்.

அலகு - 1

கன்னித்தமிழ் ஒரு கண்ணோட்டம் - சங்க காலம் - முச்சங்கங்கள் - எட்டுத்தொகையும் புத்துப்பாட்டும் - சங்கப்புலவர் சிலர் - அகமும் புறமும் - சங்க இலக்கியச் சாஸ்பு - சங்க காலம் பொற்காலம்.

அலகு - 2

பதினெண்கீழ்க்கணக்கு நூல்கள் - இரட்டைக்காப்பியங்கள் - நாயனமார்கள் - ஆழ்வார்கள் - பௌத்தமும் தமிழும் - சமணமும் தமிழும் - சைவமும் தமிழும் - சைவ சித்தாந்த சாத்திரங்கள் - வைணவமும் தமிழும்.

அலகு - 3

காப்பிய வளர்ச்சி - புராணங்கள் - சிற்றிலக்கியங்கள் - பதினெண்சித்தர்கள் - உரையாசிரியர்கள் - பிற்காலப் புலவர்கள்.

அலகு - 4

சிறித்துவமும் தமிழும் - இசுலாமியமும் தமிழும் - 19ஆம் நூற்றாண்டுகளில் தமிழ் வளர்ச்சி.

அலகு - 5

20ஆம் நூற்றாண்டுகளில் தமிழ் வளர்ச்சி - புதுக்கவிதை - உரைநடை - சிறுகதை - நாவல் - தாளிகைகள் - இசைத்தமிழ் - நாடகத்தமிழ் - நாட்டுப்புற இலக்கியம் - கட்டுரை இலக்கியம் - திறனாய்வுக்கலை - கல்வெட்டியல் - பிறநாடுகளில் தமிழ்.



1.3.1 Curriculum Integrating Crosscutting Issues

HUMAN VALUES**B.A TAMIL DEGREE
II YEAR – III SEMSETER****சார்பும் பாடம் - தாள் 3
தமிழ் மொழி வரலாறு****பாட நோக்கம்:**

பழங்காலம் முதல் இக்காலம் வரை தமிழ் ஒலி வடிவ, வரி வடிவ சொற்பொருள் மாற்றங்கள் அறிவித்தல்.

அலகு - 1

மொழி அமைப்பும் வரலாறும் - வரலாற்றுச் சான்றுகள் - தொல் திராவிட மொழியும் தமிழும்.

அலகு - 2

தமிழ்ப் பிராமிக் கல்வெட்டுக்களின் மொழி - தொல்காப்பியத் தமிழ் - சங்க காலத் தமிழ் - சங்கம் மருவிய காலத் தமிழ்.

அலகு - 3

பல்லவர் காலத் தமிழ் - சோழர் காலத் தமிழ் - நாயக்கர் காலத் தமிழ் - மராட்டியர் காலத் தமிழ்.

அலகு - 4

பத்தொன்பது இருபதாம் நூற்றாண்டுத் தமிழ் - கல்வெட்டுத் தமிழ்.

அலகு - 5

தமிழில் பிறமொழி கலப்பு - தமிழின் கிளைமொழிகள் - தமிழ்ச் சொற்றொடர் அமைப்பு வரலாறு - தமிழ் வரிவடிவ வரலாறு.

பாடநூல்:

டாக்டர். சு. சக்திவேல் - 'தமிழ் மொழி வரலாறு'
மணிவாசகர் பதிப்பகம்
31, சிங்கர் தெரு,
பாரிமுனை,
சென்னை - 600 108.

பார்வை நூல்கள்:

1. டாக்டர். தெ. பொ. மீ - தமிழ் மொழி வரலாறு
சர்வோதய இலக்கியப் பண்ணை
மதுரை.
2. டாக்டர் மு. வரதராசன் - 'மொழி வரலாறு'
கழக வெளியீடு,
154 டி.டி.கே.சாலை,
சென்னை - 18.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****B.A TAMIL DEGREE
III YEAR – VI SEMESTER****சார்புப்பாடம் : தாள் 6****நாட்டுப்புறவியல்****பாட நோக்கம்:**

அழிந்து வரும் நாட்டுப்புற இலக்கிய வகைகளுள் உள்ள இலக்கியத் தரங்களை மதிப்பிடுதலும் அவற்றை அழியாமல் பாதுகாத்தலும்.

அலகு - 1

நாட்டுப்புற இலக்கியம் - விளக்கம் - நாட்டுப்புறவியலின் வரலாறு தொல்காப்பியத்தில் நாட்டுப்புற இலக்கியக் கூறுகள் - இந்திய நாட்டுப்புறவியல் - தமிழக நாட்டுப்புறவியலின் வரலாறு - ஏட்டிலக்கியங்களுள் நாட்டுப்புற இலக்கியத் தாக்கம் - சங்க இலக்கியங்களில் நாட்டுப்புற இலக்கியக் கூறுகள்.

அலகு - 2

தாலாட்டு - ஒப்பாரி - விடுகதை - பழமொழி - நாட்டுப்புறக் கதைகள் - (நல்ல தங்காள் கதை, முத்துப்பட்டன் கதை, தேசிங்குராஜன் கதை)

அலகு - 3

நாட்டுப்புறக் கலைகள் - கும்மி - கோலாட்டம் - கரகாட்டம் - மயிலாட்டம் - ஒயிலாட்டம் - பொய்க்கால் குதிரை - பொம்மலாட்டம் - தோற்பாவை.

அலகு - 4

நாட்டுப்புற நம்பிக்கைகள் - விழாக்கள் - சடங்குகள் - விளையாட்டுக்கள் - வட்டாரச் சொற்கள் - நாட்டுப்புறவியலும், சமூகவியலும்.

அலகு - 5

நாட்டுப்புறவியலும் மொழியியலும் - நாட்டுப்புற இலக்கியக் கூறுகள் - எதுகை - மோனை - இயைபு - கற்பனை - அணிகள் - உணர்ச்சி - கருத்தமைப்பு.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****M.A TAMIL DEGREE
I YEAR – II SEMESTER**

முதுகலை தமிழ் – இரண்டாம் பருவம்

தாள் –9–பண்பாட்டு மானிடவியல் (TMLC 09)

நோக்கம் : மானிடரின் பண்பாட்டு நிலை அறிதல் – பண்பாட்டு நிலையில் உயர்ந்து நின்றோர் நிலை அறிதல் – மானிடர் வாழ்ந்த நிலையினையும் வாழவேண்டிய நிலையினையும் அறிதல்

அலகு – 1

மானிடவியல் தோற்றமும் வளர்ச்சியும் – சாக்ரடீஸ் – பிளேட்டோ – அரிஸ்டாடில் – புத்தாய்வுக்காலம் – அறிவொளிக்காலம் – இந்தியாவில் மானிடவியல் வளர்ச்சி.

அலகு – 2

உடல்சார் மானிடவியல் –இனவியல் – மானிட உடல் அளவையியல் – மனித சூழலியல் – உளவியல்சார் மானிடவியல் – மொழியியல் பண்பாட்டு மானிடவியல்.

அலகு – 3

மானிடவியலும் களப்பணியும் – களப்பணியில் தரவுகளைப் பெறுதல் – தரவுகளைப்பகுத்து ஆய்வுதல் – ஒப்பீட்டு முறை.

அலகு – 4

பண்பாட்டின் உட்கூறுகள் – உட்கூறுகளின் தன்மைகள் – பண்பாட்டின் அமைப்பு – பண்பாட்டுப் பொதுமை – பண்பாடு ஒரு நடத்தை சார் முறை.

அலகு – 5

பழங்குடி அமைப்பு – தமிழகப்பழங்குடியின் பண்பாட்டு மாற்றம் – இனக்குழு – சாதிகள் – சாதிக்கொள்கைகள் – சாதி பற்றிய நவீன கோட்பாடுகள்.

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****M.A TAMIL DEGREE
I YEAR – II SEMESTER**

முதுகலை தமிழ் – இரண்டாம் பருவம்

தாள் : 10 நாட்டுப்புறவியல் கோட்பாடுகள்(EDC I)

நோக்கம் : நாட்டுப்புறவியலின் தேவையை உணர்த்தல் – நாட்டுப்புற இலக்கியங்கள், கலைகள் ஆகியனவற்றைச் சேகரித்துப் பாதுகாக்கவேண்டிய தேவையை வலியுறுத்துதல் – நாட்டுப்புறவியல் சார்ந்த கோட்பாடுகளை விளக்குதல்.

அலகு – 1

நாட்டுப்புறவியல் என்ற சொல்லின் விளக்கம் – folk, lore என்ற சொற்களின் விளக்கம் – தமிழ்ச் சூழலில் இச்சொல் பயன்படுத்தப்பெறும் முறைகள் – நாட்டுப்புறவியலின் வகைகள் – நாட்டுப்புறவியலும் வரலாறும்

அலகு – 2

வாய்மொழி இலக்கியம் – நாட்டுப்புறக்கதைகள் – நாட்டுப்புறப் பாடல்கள் (தூலாட்டு, சிறுவர், ஒப்பாரிப் பாடல்கள்) – கதைப்பாடல்கள் (வரலாறு, சமூகக் கதைப்பாடல்கள்)

அலகு – 3

பழமொழிகள் – விடுகதைகள் – விளையாட்டுகள் – களப்பணிகள் – நாட்டுப்புறக்கலைகள் – கரகம் – காவடி – தெருக்கூத்து.

அலகு – 4

கோட்பாடுகள் – விளக்கம் – தோற்றம் – வளர்ச்சி நிலைகள் – அமைப்பியல் கோட்பாடு – வாய் மொழி வாய்பாட்டுக் கோட்பாடு.

அலகு – 5

அண்ணன்மார் சாமி கதை – பாஸ்கரதாசன்



1.3.1 Curriculum Integrating Crosscutting Issues

HUMAN VALUES**M.A TAMIL DEGREE
II YEAR – III SEMESTER**

தமிழ் முதுகலை – மூன்றாம் பருவம்

தாள் : 13 தமிழக வரலாறும் பண்பாடும் (TMLC 13)

நோக்கம்

மனித குலத்தில் முன் தோன்றியமூத்தகுடியினர் தமிழர். அவர்தம் வரலாறு தொல்காப்பியர் காலத்திற்கு முற்பட்டது. பண்பாடும் மிகத் தொன்மை வாய்ந்தது. இலக்கியம், கல்வெட்டு, பட்டயங்கள், அயல்நாட்டார் கடிதங்கள் ஆகியவற்றின் மூலம் பண்டைத் தமிழரின் வரலாறும் பண்பாடும் தெரிகின்றது. இன்றைய மாணவர் சமுதாயம் அவற்றை அறிவது அவசியமானது.

அலகு – 1

சங்க கால வரலாறு

வரலாறும் நிலப்பரப்பும் - வரலாற்றின் செல்வாக்கு - பல்வேறு காலங்களில் வரலாறு உண்டாக்கிய நாட்டுப் பிரிவுகள் - பழைய கற்காலம் - புதிய கற்காலம் - இரும்புக் காலம் - தொல்காப்பியருக்கு முற்பட்ட தமிழர் நாகரிகமும் பண்பாடும் - சங்க காலம் கி.மு.300 - கி.பி.300.

அலகு –2

தமிழ்நாட்டு எல்லை

சங்க நூல்களில் வேங்கடம் - சோழர் காலத்தில் வட எல்லை - மூன்றாம் குலோத்துங்கன் வரை - கிருஷ்ணாதேவராயர் காலம் - பல்லவர் வரலாறு - பல்லவர் பற்றிய சான்றுகள் - களப்பிரர்- சிம்ம விஷ்ணு - மகேந்திரவர்மன் - குடைவரைக்கோவில்கள் - நரசிம்மவர்மன் - மூன்றாம் நந்திவர்மன்.

அலகு –3

சோழர் வரலாறு

கரிகால் பெருவளத்தான் - கி.மு.மூன்றாம் நூற்றாண்டிற்கு முற்பட்ட சோழர் - கி.மு. முதல் நூற்றாண்டு சோழர் - சங்ககால அரசியலும் மக்கள் வாழ்க்கையும் - சோழர் எழுச்சி - பெரிய கோயில் - பாண்டியர் வரலாறு - மகாராட்டியர்.



1.3.1 Curriculum Integrating Crosscutting Issues

அலகு – 4 தமிழர் நாகரிகமும் பண்பாடும்

சமுதாய வரலாறு – பொருளாதார வரலாறு – சமண சமயச் செல்வாக்கு –
பௌத்த சமயச் செல்வாக்கு – இசுலாத்தின் செல்வாக்கு – கிறிஸ்தவ சமயத்
தொண்டு –தமிழர் நாகரிகம் I - தமிழர் பண்பாடு - கல்வி நிலை – தமிழகக் கலைகள்
- கட்டிடக் கலை - ஓவியக் கலை - சிற்பக் கலை - இசைக் கலை - நடனக் கலை -
நாடகக் கலை - மருத்துவக் கலை.

அலகு – 5 ஆற்றங்கரை நாகரிகம்

காவிரிக்கரை நாகரிகம் - கலைச் சிறப்பு மட்டும் - வகைக்கரை நாகரிகம்
இலக்கியச் சிறப்பு – கலைச் சிறப்பு – ஆற்றங்கரைப் பண்பாடு - பெண்ணை நாட்டு
நாகரிகம் - பொருளைக் கரை நாகரிகம் -நொய்யல் நதி நாகரிகம்.

பாடநூல்கள்

1. தமிழ்நாட்டு வரலாறு,மா.இராசமாணிக்கனார், 2008,காவ்யா பதிப்பகம், சென்னை.
2. தமிழ்ப் பண்பாட்டு வரலாறு, மா.இராசமாணிக்கனார், 2012, காவ்யா பதிப்பகம், சென்னை.

பார்வை நூல்கள்

1. தமிழர் நாகரிகமும் பண்பாடும், அ.தட்சிணாமூர்த்தி, 1994,ஐந்திணைப் பதிப்பகம், சென்னை.
2. தமிழக வரலாறும் பண்பாடும், கே.கே.பிள்ளை,1971,தமிழ்நாட்டுப் பாடநூல் நிறுவனம், சென்னை.
3. தமிழர் பண்பாடும் வரலாறும், நா.வானமாமலை,1997, நியூசெஞ்சுரி புக் ஹவுஸ் பிரைவேட் லிமிடெட், சென்னை.
4. தமிழும் பிற பண்பாடும், தெ.பொ.மீனாட்சி சுந்தரனார், 1999, நியூ செஞ்சுரி புக் ஹவுஸ் பிரைவேட் லிமிடெட், சென்னை.
5. பண்டைத் தமிழர் வாழ்வும் வழிபாடும், க.கைலாசபதி,1999, குமரன் பப்ளிஷர்ஸ், சென்னை.



1.3.1 Curriculum Integrating Crosscutting Issues

HUMAN VALUES

**B.A ENGLISH DEGREE
I YEAR – II SEMESTER
INDIAN WRITING IN ENGLISH**

UNIT-I POETRY

1. Sarojini Naidu – Coromandal Fishers
2. Swami Vivekanandha – Kali, the Mother
3. Sujata Bhatt - Voice Of The Unwanted girl
4. Jayanta Mahapatra - Dawn At Puri
5. Keri.N.Daruwalla - Gulzaman's Son

UNIT-II PROSE

1. A.P.J Abdul Kalam - Give Us A Role Model
2. Satyajit Ray - A Long Time On The Little Road

UNIT-III DRAMA

Dina Mehta - Brides Are Not For Burning

UNIT-IV FICTION

Amitav Ghosh- The Glass Palace

UNIT-V SHORT STORY

1. Kushwant Singh-Karma
2. Warman Govind Hoval-The Storeyed House

Prescribed Book:

A Bouquet of Short Stories, Mahaam Publications

[This book contains all the prescribed Short Stories (from semester I-VI)]



1.3.1 Curriculum Integrating Crosscutting Issues

HUMAN VALUES

**B.A ENGLISH DEGREE
I YEAR – VI SEMESTER
SOUTH-ASIAN LITERATURE**

UNIT - I POETRY

1. Edwin Thumboo-Gods Can Die (Singapore)
2. Kamala Wijeratne-On Seeing A White Flag Across A By- Road (Sri Lanka)
3. Maki Kureshi-The Kittens (Pakistan)
4. Razia Khan-The Monstrous Biped (Bangladesh)
5. Shirley Lim-Words For Father (Malaysia)

Unit - II PROSE

1. Mahadevi Varma-The Art Of Living
2. V.S Naipaul-The Child Of Exile

UNIT - III DRAMA

Mahesh Dattani- Thirty Days in September

UNIT - IV FICTION

Philip Jayaratnam- Abraham's Promise

UNIT - V SHORT STORY

1. Chitra Banerjee – Clothes
2. Ismat Chughtai -The Veil

**1.3.1 Curriculum Integrating Crosscutting Issues****HUMAN VALUES****B.Sc. DEGREE COURSE IN CHEMISTRY
I YEAR, II – SEMESTER
FOOD AND NUTRITION****UNIT -I FOOD SOURCES**

1.1. Sources of foods, types, constituents of foods-carbohydrate, protein, fats.Oils, colours, flavours and natural toxicants.

UNIT -II NUTRITION

1. Definition of nutrition, nutrients, functions. Nutritional status – Definition, signs of good and poor nutritional status .
2. Mal nutrition- Definition, forms, causes and remedy.
3. Health –Definition, guidelines for good health.

UNIT-III FOOD POISONING AND ADULTERATION

- 3.1. Food poisoning- Sources, causes and remedy.
- 3.2 Causes and remedies for acidity, gastritis, indigestion and constipation
- 3.3. Food adulteration- Types of adulterants- intentional and incidental, effects and detection.

UNIT-IV FOOD PRESERVATION AND PROCESSING

1. Food spoilage, causes of food spoilage, types of Food spoilage
2. Food preservation-preservation and processing by heating - sterilization, pasteurization.

UNIT-V VITAMINS AND MINERALS

1. Sources, requirement and deficiency diseases of A, C, K, E1 and B1, B2.
2. Mineral elements in food-source, function, deficiency diseases and daily requirements of Na, K, Mg, Fe, S and P

REFERENCE BOOKS:

1. Seema Yadav : —**Food Chemistry** , Anmol publishing (P) Ltd, New Delhi
2. Car H. Synder : — **The Extraordinary Chemistry for ordinary thing**, John Wiley & sons inc., New York,1992.
3. B.Sivasankar - — **Food Processing and Preservation** – PHI Learning (P) Ltd, New Delhi – 11001.
4. B.Srilakshmi- Nutrition science. Third edition, New age International (P) Ltd. New Delhi, Chennai.



1.3.1 Curriculum Integrating Crosscutting Issues

HUMAN VALUES

**B.COM & B.COM CA DEGREE
II YEAR, IV – SEMESTER
HUMAN RESOURCE MANAGEMENT**

UNIT-I

HRM & HRD - Meaning, Definition.

UNIT-II

Scope and Importance of HRM and HRD.

UNIT-III

Recruitment – Sources

UNIT – IV

Selection Process – Types of Interviews

UNIT-V

Employees Training.

REFERENCE BOOKS:-

1. Personnel Management - C.B.Mamoria & S.V.Gankar, Himalaya Publishing House, Mumbai
2. Human Resource Management- J.Jayasankar, Margham Publications, Chennai.
3. Human Resource Management - P.C.Michael, Himalaya Publications, Mumbai.
4. Human Resource Management- G. Murugesan, Laxmi Publications., New Delhi.



1.3.1 Curriculum Integrating Crosscutting Issues

GENDER ISSUES**M.A TAMIL DEGREE
II YEAR – III
SEMSETER**

தமிழ் முதுகலை – மூன்றாம் பருவம்

தாள் 14 : பெரியாரியல் (TMLC 14)

நோக்கம் :

தமிழரின் தன்மான உணர்வின் எழுச்சிக்கு ஊற்றுக்கண்ணாக அமைந்த சமுதாயச் சீர்திருத்த நடைமுறைகளைச் செயற்படுத்திய தந்தை பெரியாரின் வாழ்வையும் பணியையும் அவரின் சிந்தனைப் போக்குகளையும் உணர்த்துதல்.

அலகு – 1பெரியார் வாழ்வும் பணியும் :

பிறப்பு, கல்வி, திருமணம், பகுத்தறிவு மனப்பாங்கு, கள்ளுக்கடை மறியல், வைக்கம் போர், பொதுவாழ்வு, காங்கிரஸ் நுழைவு, காங்கிரஸ் மாநாட்டிலிருந்து வெளியேறல், குடியரசு இதழ் தொடக்கம், சுயமரியாதை இயக்கம், பார்ப்பனரல்லாதார் மாநாடு, வருணாசிரம ஒழிப்பு, இந்தி எதிர்ப்புப் போராட்டமும் சிறையும், தமிழ்நாடு தமிழருக்கே, திராவிடக்கழகத் தோற்றம், நீதிகட்சித் தலைவர், மக்கள் இயக்கமாதல், திராவிட முன்னேற்றக் கழகம், தமிழ் மக்கள் நலப் போராட்டங்கள்.

அலகு – 2இந்திய தமிழகச் சமூகச் சீர்திருத்த இயக்க வரலாறு :

ஆந்திரநாடு, பசவர், கவிஞர் வேமனா, பிராமணிய எதிர்ப்பு, இராசாராம் மோகன்ராய், பிரம்ம சமாஜம், கவாமி தயானந்தர், ஆரிய சமாஜம், சூரத்துக்காராம், தாதோபா பாண்டூராவ், மாணவர் தர்மசபை, சோதியபூலே, சத்யசோத சமரசம், தந்தை பெரியாரின் தன்மதிப்பு இலக்க முன்னோடி கேரளா நாராயண குரு, ஈழவர், தீயவர் சமூக விடுதலை, தீண்டாமை ஒழிப்பு, திருமந்திரம், பக்தி இயக்கம், சம்பந்தர் அப்பர் உறவு, இராமாநுசர் சூத்திரப் பெரிய நம்பியைக் குருவாக ஏற்றல், திலவதியார், காரைக்கால் அம்மையார், ஆண்டாள், சித்தர் மரபு, சிவவாக்கியம், சிற்றிலக்கிய மரபு, அத்திப்பாக்கம் அ.வேங்கடாசல நாயக்கர், வைகுண்டசாமி, இராமலிங்க அடிகளார், திருவிடிக.

அலகு – 3சுயமரியாதை இயக்க வரலாறு:

சுயமரியாதை இயக்கத் தோற்றம், சுயமரியாதைச் சங்கம், நோக்கம், தன் மதிப்பு, சமத்துவம், சகோதரத்துவம், பார்ப்பனரல்லாதார் 10 வது மாகாண மாநாடு,

**1.3.1 Curriculum Integrating Crosscutting Issues**

தீர்மானங்கள், மதச்சடங்கு பார்ப்பனியர் இல்லாத் திருமணம், செங்கற்பட்டு சுயமரியாதை மாநாடு, வகுப்புவாரி உரிமை, சாதி பேதம் உயர்வு, தாழ்வு, வருணாசிரம மறுப்பு, பெண்ணின் திருமண வயது, விதவை மறுமணம், இளைஞர் சங்கம், சுயமரியாதை வடிவங்கள்.

அலகு – 4பெண் விடுதலை:

ஆண், பெண் உயர்வு, தாழ்வு, கற்பு, விதவை மறுமணம், குழந்தை மணம், சொத்துரிமை, பெண் கிளர்ச்சியின் தேவை, பெண்ணடிமைக்குக் காரணம், சொத்துரிமை இல்லை, ஆண், பெண் சமத்துவம், ஒத்த உரிமை இன்மை, தனிச் சொத்துடைமை, அரசியல் பதவி வேலைகளில் ஐந்து விழுக்காடு வேண்டல்.

அலகு – 5வைதீக எதிர்ப்பு:

வருணாசிரம அமைப்பும், தீண்டாமையும், வைக்கம் கிளர்ச்சி, ஈழவர்க்கான அழைப்பு, கழுதி, ஈரோடு, கோயில் நுழைவுப் போராட்டம், கோயில் நுழைவும், தீண்டாமையும் வகுப்புவாரி உரிமை.

எழுத்து:

ஈ.வெ.ரா. கருத்து, கருத்துப் பரிமாற்றக் கருவி, பழக்கவழக்கப் பண்பு வேறுபாடுகளும், கருத்தாக்க வேறுபாடுகளும், வடமொழி எதிர்ப்பு, அடிமைப்படுத்தும் மொழி, தமிழ்மொழி, விடுதலைக்கான வழிகாட்டி, வேற்றுமொழி எதிர்ப்பு, இந்தி எதிர்ப்புப் போராட்டம், தமிழ்மொழிக் காப்பு, கலைச் சொல்லாக்கம், எழுத்துச் சீர்திருத்தம்.

பாட நூல்கள்

1. பெரியாரியல் தொகுதி 1, 2, வே. ஆனைமுத்து, தையல் நாயகி நினைவு நூல் வெளியிட்டகம், 2004, புதுச்சேரி.
2. சுயமரியாதை இயக்கம், மங்கள முருகேசன், பாரி நிலையம், 1990, சென்னை.

பார்வை நூல்கள்

1. பெரியார் ஈ.வெ.ரா. சிந்தனைத் தொகுதி 1, 3, வே. ஆனைமுத்து, சிந்தனையாளர் கழகம், திருச்சிராப்பள்ளி.
2. பெரியார் களஞ்சியம் தொகுதி 1-6, கி.வீரமணி (தொ. ஆ), பெரியார் சுயமரியாதை பிரச்சார நிறுவனம், சென்னை.
3. பெரியார், வி. ராஜதுரை, விடியல் பதிப்பகம், கோவை.



1.3.1 Curriculum Integrating Crosscutting Issues

GENDER ISSUES

**B.A ENGLISH DEGREE
I YEAR – V SEMESTER
FEMINIST WRITING**

Unit - I Poetry

1. Supata Bhattacharya -Draupadi
2. Edna St.Vincent Millay -An Ancient Gesture
3. Gladys Cardiff -Combing
4. Julie Alvarez -Women's Work
5. Prathiba Nandakumar -Poem

Unit - II Prose

Simon De Beauvoir - Introduction to the Second Sex

Unit - III Drama

Susan Glaspell-Trifles

Unit - IV Fiction

Anita Nair – Ladies Coupe

Unit - V Short Story

1. Annie Saumont - The Finest Story In The World
2. Kate Chopin - The Story of an Hour



1.3.1 Curriculum Integrating Crosscutting Issues

GENDER ISSUES

**M.A ENGLISH DEGREE
I YEAR – III SEMESTER
WOMEN'S WRITING**

Unit I Poetry Detailed

Kamala Das – Spoiling the
Name Judith Wright –
Woman to Man
Margaret Atwood – Journey to the Interior

Unit II

Non-Detailed

Sylvia Plath – Lady
Lazarus Shiv K. Kumar
– Indian Women
Yasmine Gooneratne – There Was a
Country Pratiba Nandakumar – Poem

Unit III Prose

Detailed

Sojourner Truth – Ain't I a Woman?

Non-Detailed

Indira Gandhi (1) Prison Memories (2) On Being a Mother
Mother Teresa- Nobel Lecture

Unit IV Drama Detailed

Mahesh Dattani – Where There's a Will

Non-detailed:

Susan Glaspell – Trifles

Unit V Fiction & Short Stories

Githa Hariharan – The Thousand faces of Night
Gloria Naylor – Mama Day

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****B.A, B.Com, B.Com (CA), BCA&B.Sc DEGREE****I YEAR – II SEMESTER****பொதுப்பாடம்****சுற்றுச்சூழலியல்****பாட நோக்கம்**

சுற்றுச்சூழல் கல்வியைப் பற்றி அறிந்து கொள்ளுதல் மற்றும் சுற்றுச்சூழல் மாசுபடுவதைத் தவிர்க்கும் வழிமுறைகளை கையாளுதல்.

அலகு - 1

சுற்றுச்சூழல் பொருள் விளக்கம் - சுற்றுச்சூழலின் காரணிகள் - சுற்றுச்சூழல் மாசுபடக் காரணங்கள் - மாசுபடுதலைத் தவிர்க்கும் வழிகள்.

அலகு - 2

சுற்றுச்சூழலின் தன்மை - அமைப்பு - வகைகள் - சுற்றுச்சூழலும் மனிதனும் - இயற்கை வளங்கள் - இயற்கை வளங்களின் வகைகள் - சூழ்நிலை அமைப்பு மண்டலம் - சூழ்நிலை மண்டலத்தின் வகைகள்.

அலகு - 3

சுற்றுச்சூழல் மாசுகள் - அமிலமாசு - ஓசான் அடுக்கு - பூமியில் வெப்ப உயர்வும் பசுங்கூட விளைவும் - திடக்கழிவு மேலாண்மை - இயற்கைச் சீற்றங்களும் மேலாண்மையும்.

அலகு - 4

சமுதாயச் சிக்கல்களும் சுற்றுச்சூழலும் - மக்கள் தொகைப் பெருக்கமும் சுற்றுச்சூழலும் - சுற்றுச்சூழல் கல்வி.

அலகு - 5

ஐக்கிய நாட்டவையும் சுற்றுச்சூழலும் - மனிதனும் உயிரிய மண்டலத் திட்டமும் - புவி உச்சி மாநாடு - சுற்றுச்சூழல் பாதுகாப்புச் சட்டங்கள் மற்றும் அரசு நடவடிக்கைகள் - கதிர்வீச்சும் அதன் விளைவுகளும் - சுற்றுச்சூழல் பாதுகாப்பு இயக்கங்கள் - மனித நோய்களும் வகைகளும் - பொதுச் சுகாதாரமும் தூய்மையும்.

பாடநூல்

முனைவர் ஜே.தியாகராஜன்

-

சுற்றுச் சூழலியல்

சாரா பப்ளிசர்ஸ்

திருச்சி.

செல்: 98420 41112

பார்வை நூல்:

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****B.Sc. DEGREE COURSE IN CHEMISTRY****III YEAR, VI – SEMESTER
AGRICULTURAL CHEMISTRY****UNIT – I FERTILIZERS**

Effect of Nitrogen, potassium and phosphorous on plant growth – commercial method of preparation of urea, triple superphosphate. Complex fertilizers and mixed fertilizers – their manufacture and composition. Secondary nutrients – micronutrients – their function in plants.

UNIT – II MANURES

Bulky organic manures – Farm yard manure – handling and storage-oil cakes- blood meal – fish manures.

UNIT – III PESTICIDES AND INSECTIDES

Pesticides – classification of Insecticides, fungicides, herbicides as organic and inorganic – general methods of application and toxicity. Safety measures when using pesticides.

Insecticides : Plant products – Nicotine, pyrethrin – Inorganic pesticides – borates. Organic pesticides – D.D.T. and BHC.

UNIT – IV FUNGICIDES AND HERBICIDES

Fungicide : Sulphur compounds, Copper compounds, Bordeaux mixture.

Herbicides : Acaricides – Rodenticides. Attractants – Repellants. Preservation of seeds.

UNIT – V SOILS

Classification and properties of soils –soil water,soil temperature,soil minerals, soil acidity and soil testing.

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****B.Sc. DEGREE COURSE IN CHEMISTRY****III YEAR, VI – SEMESTER****INDUSTRIAL CHEMISTRY****UNIT I Chemical Explosives**

Preparation and chemistry of lead azide, nitroglycerine, nitrocellulose, TNT, RDX, Dynamite, cordite, picric acid, gunpowder, introduction to rocket propellants.

UNIT II Leather Industry

Curing, preservation and tanning of hides and skins, process of dehairing and dyeing. Treatment of tannery effluents.

UNIT III Electrochemical Industries

Production of materials like chlorine, caustic soda, sodium chlorate, Batteries – primary and secondary cells, solar cells, fuel cells.

UNIT IV Paints, Varnishes & Cleansing Agents

Paints & Varnishes : Primary constituents of paints, Dispersion medium (solvent), binder, Pigments, formulation of paints and varnishes. Requirements of a good paint, manufacture.

Cleansing Agents: Preparation of toilet and washing soaps, synthetic detergents-alkyl aryl sulphonate and cleansing action of soaps.

UNIT V Cement & Glass

Cement : Manufacture – Wet Process and Dry process, types, analysis of major constituents, setting of cement, reinforced concrete. Cement industries in India.

Glass: Composition and manufacture of glass. Types of glasses- optical glass, coloured glasses and lead glass.

Note : Industrial visit for 2-5 days is recommended under the guidance of teachers.

Reference :

- 1.B.N.Chakrabarty, Industrial Chemistry, Oxford & IBH Publishing Co, New Delhi, 1981.
- 2.B.K. Sharma, Industrial Chemistry, Goel Publishing House, Meerut.
- 3.P.P.Singh, T.M.Joesph, R.G.Dhavale, College Industrial Chemistry, Himalaya Publishing House, Bombay, 4th Ed., 1983.

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****M.Sc. DEGREE COURSE IN CHEMISTRY****I YEAR, II – SEMESTER****AGRICULTURAL CHEMISTRY****UNIT-I Water source for Agriculture**

Water treatment and water analysis-acidity, alkalinity, pH, Biological oxygen demand (BOD). Chemical oxygen demand (COD) and their determinations, Recycling of water, water management.

UNIT - II Chemistry of soil, soil classification and soil analysis

Definition, classification and properties of soil, Soil erosion, Soil fertility, Soil organic matter and their influence on soil properties, Soil reactions- soil pH, acidity, alkalinity, buffering of soils and its effect on the availability of N, P, R. Ca and Mg.

UNIT-III Irrigation

Crop Seasons-seed, seed development organization, natural seeds projects phase-III, new policy on seed development; Soil- soil reclamation, alkali soil, saline soils, methods for soil reclamation; Irrigation Environmental degradation and Irrigation projects.

UNIT-IV Fertilizers

1. Fertilizers: Effect of Nitrogen, potassium and phosphorous on plant growth. Secondary nutrients – micronutrients- their functions in plants classification of fertilizers, natural fertilizers, artificial fertilizers, phosphate fertilizers; Manufacture of urea and triple super phosphate
2. Manures: Bulky organic manures- Farm yard manure- handling and storage, oil cakes. Blood meal, fish manures.

UNIT-V Pesticides and Insecticides

1. Pesticides; Classification of Insecticides, fungicides herbicides as organic and inorganic, general methods of application and toxicity, safety measures when using pesticides. Insecticides: Plant products-Nicotine, pyrethrin, Inorganic pesticides-borates organic pesticides - D.D.T and BMC.
2. Fungicide and Herbicides Fungicide: Sulphur compounds, copper compounds, Bordeaux mixture, Herbicides: Acaricides- Rodenticides, Attractants- Repellants, Preservation of seeds.

TEXT BOOKS

1. N.C. Brady, The nature and properties of soils, Eurasia publishing House, New Delhi. 1977.
2. V.S. Jones. Fertilizers and soil fertility, Prentice Hall of India, New Delhi, 1993.
3. D.E.H. Freer, Chemistry of pesticides, D. Van Nostrand Co, Reinhold, 1969.
4. A.K. De. Environmental Chemistry, Wiley Eastern. 1989.

REFERENCE BOOKS

1. A. Sankara. Soils Science.
2. R.C. Palful. K. Goel. R.K. Gupta, Insecticides, Pesticides and Agro based Industries.
3. B.K. Sharma, Industrial Chemistry.

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****M.Sc. DEGREE COURSE IN CHEMISTRY****I YEAR, II – SEMESTER****WATER CHEMISTRY****Unit I Introduction**

Sources of Water; Physical and chemical characteristics of water; Water analysis; Potable water – WTO standard: uses of water

Unit II Water Pollution

Water pollution – wastewater generation - classification of water pollutants; constituents and characteristics of wastewater; measurement techniques – sampling, colour & odour, dissolved oxygen, BOD, COD, TOC, N & P, suspended solids and bacteriological measurements.

Unit III Wastewater Treatment

Wastewater treatment: Pretreatment – screening, grit removal and pre-chlorination; Primary treatment – settling and sedimentation; Secondary treatment – trickling filter process, activated sludge process; Aeration.

Unit IV Industrial Wastewater Treatment

Industrial wastewater treatment: Activated sludge treatment plants – mass balances, with and without recycle plants; Types of plants – single tank, contact stabilization, biosorption plants.

Biofilters: Hydraulic film diffusion, two component diffusion; Types of plants – trickling filters, submerged filters and rotating disc; removal of particulate organic matter.

Unit V Treatment Plants

Treatment plants for nitrification – mass balances, nitrifying plants and types of plants.

Treatment plant for denitrification - mass balances, denitrifying plants and types of plants; redox zones in the biomass.

Anaerobic wastewater treatment: Plant types – pretreatment, plant with suspended sludge and filter process.

TEXT BOOKS

1. A.K.De, Environmental Chemistry, Wiley Eastern, 1989.
2. S.K.Banerji, Environmental Chemistry, Prentice Hall of India, New Delhi, 2003.

REFERENCE BOOKS

1. L.Winther, Wastewater Engineering, Polyteknisk Forlag, Lyngby, 1978.
2. M.Henze, P.Harremoes, J.C.Jansen and E.Arvin, (Ed.), Wastewater treatment, Springer Verlag, New York, 1995.
3. P.Harremoes, Water Chemistry, Polyteknisk Forlag, Lyngby, 1989.

**1.3.1 Curriculum Integrating Crosscutting Issues****ENVIRONMENTAL AND SUSTAINABILITY****M.Sc. DEGREE COURSE IN CHEMISTRY****II YEAR, IV – SEMESTER****NANO AND GREEN CHEMISTRY****OBJECTIVES**

- i. To understand the characterization of nanomaterials
- ii. To understand carbon clusters and nanostructures
- iii. To understand the green concepts of organic reactions

UNIT I INTRODUCTION TO NANOSCIENCE (15 Hours)

Definition, classification, a historical perspective, nanoparticles, nanocrystal, quantum dot, nanometer, new properties of nanomaterials, nanomaterials in medicine, information storage, sensors, new electronic devices, environmental remediation, clean catalyst. Metal nanoparticles, chemical bonding and properties of bulk metals as well as metal nano particles. Gas phase and chemical synthetic methods to metal nanoparticles, nanoelectrons, conductivity of nanoelectrons.

UNIT II TOOLS OF THE NANOSCIENCES (15 Hours)

Tools to measuring nanostructures – scanning probe instruments – spectroscopy – electrochemistry – electron microscopy (Basic ideas only).

Tools for make nanostructures – the return of scanning probe instruments – nanoscale lithography – molecular synthesis – self assembly - nanoscale crystal growth – polymerization - nanobricks and building blocks.

UNIT III PROPERTIES AND APPLICATIONS OF NANAOPARTICLES (15 Hours)

Nanotubes(CNT), nanocrystal shape, sequestration of gases, destructive adsorption of environmental toxins, optical properties and magnetic properties of nanoscale materials . Size dependent properties such as coercivity(magnetic memory) and saturation magnetization, nanoparticles in polymers, ink, fluids, dyes and catalysis. Nanoparticles as colorants, ultraviolet absorbers, electronics and in biomedical applications.

UNIT IV INTRODUCTION TO GREEN CHEMISTRY (15 Hours)

Choice of starting materials, choice of reagents, choice of catalysts – biocatalysts, polymer supported catalysts, choice of solvents. Synthesis involving basic principles of green chemistry – examples – synthesis of adipic acid, methyl methacrylate, paracetamol. Ultrasound assisted reactions – esterfication, reduction, coupling reactions. Strecker synthesis and reformatsky reaction.

UNIT V SOLVENT FREE ORGANIC SYNTHESIS (15 Hrs)

Reactions on solid supports, phase transfer catalysis, solvent free esters saponification, reactions without support or catalyst, examples – microwave assisted reactions in water – oxidation of toluene to benzoic acid, microwave assisted reactions in organic solvent - Diels alder reaction, coupling reactions (stille, Suzuki, heck, sonogashira) - Solvent free microwave assisted organic synthesis – microwave activation and heating, advantages of microwave exposure and specific effects of microwaves - Organic synthesis under microwaves – benefits and limitations.

TEXT BOOKS

1. Kenneth.klabunde, Nanoscale Materials in Chemistry, John Wiley & Sons, Inc.2002
2. Mark Ratner,Daniel Ratner, Nanotechnology,Pearson Education,Inc.2007
3. Mick Wilson, Kannangara,Geoff Smith,Michelle simmons and Burkhard Raguse, Nanotechnology basic science and emerging technologies, overseas press.
4. Rashmi Sanghi,M.M.Srivastava, Green Chemistry, Environment friendly Alternatives narosa Publishing house, 2007
5. V.Kumar, An introduction to Green Chemistry, Vishal Publishing co. Jalandhar, 2007



1.3.1 Curriculum Integrating Crosscutting Issues

PROFESSIONAL ETHICS**B.A, B.Com, B.Com (CA), BCA & B.Sc DEGREE
II YEAR – III SEMESTER****துறைசாரா விருப்பப் பாடம் : தாள் 1**
(Non Major Elective Course)**சாலை பாதுகாப்பு விதிகள்****பாட நோக்கம்:**

சாலை விதிகளை அறிந்து கடைப்பிடிக்க மாணவர்களுக்கு அறிவுறுத்தல்.

அலகு - 1பாதுகாப்புகளான பாதுகாப்பு விதிமுறைகள் - மதிவண்டி
ஓட்டுவோருக்கான விதிகள் - பொதுவான விதிமுறைகள்.**அலகு - 2**இருசக்கர வாகன ஓட்டிகள் - கார் மற்றும் கனரக வாகன ஓட்டிகள்
கவனத்திற்கு - வழக்குதலின் வகைகள் - சைக்கைகள்.**அலகு - 3**வாகன ஓட்டுநரின் தவறான பழக்க வழக்கங்கள் - அனுபவமின்மை -
கவனக்குறைவு - அதிவேகம்.**அலகு - 4**தவறாக முந்துதல் - தவறாகத் திருப்புதல் - இடைவெளியின்றிப்
பின்தொடரல் - வாகனங்களைத் தவறாக நிறுத்துதல்.**அலகு - 5**வாகனத்தைத் தவறாகப் பின்னோக்கிச் செலுத்துதல் - தவறாகச்
சந்திப்பைக் கடத்தல் - அதிக சுமையேற்றல் - மலைப் பகுதியில் தவறாகச்
செலுத்துதல் - சாலை விதிகளை மீறுதல்.**பாடநூல்கள்:**

1. கலவை முபாரக்அலி - 'சாலை விதிகளும் பாதுகாப்பும்'
நியூ செஞ்சுரி புக ஹவுஸ் (பி) லிட.,
41-பி, சிட்கோ இண்டஸ்டிரியல்,
சென்னை - 600 098.
2. ச.அய்யாத்துரை - 'வாகன விபத்துக்களைத் தவிர்ப்பது எப்படி?'
நியூ செஞ்சுரி புக ஹவுஸ் (பி) லிட.,
41-பி, சிட்கோ இண்டஸ்டிரியல்,
சென்னை - 600 098.

பார்வை நூல்:

- பி.டி.அலி - 'விபத்தைத் தடுப்போம் உயிரைக் காப்போம்'
நியூ செஞ்சுரி புக ஹவுஸ் (பி) லிட.,
41-பி, சிட்கோ இண்டஸ்டிரியல்,
சென்னை - 600 098.

**1.3.1 Curriculum Integrating Crosscutting Issues**

PROFESSIONAL ETHICS
B.COM & B.COM CA DEGREE
I YEAR, I – SEMESTER
BUSINESS COMMUNICATION

Course Objectives:

- To develop better written and oral business communication skills among the students and enable them to know the effective media of communication.
- To enhance their writing skills in various forms of business letters and reports.

UNIT - I

Business Communication: Meaning – Objectives – Media – Barriers - Importance of Effective Business Communication- Modern Communication Methods - Business Letters: Need - Functions - Kinds - Essentials of Effective Business Letters - Layout.

UNIT - II

Enquiries - Replies - offers and quotations - Orders and their Execution - Credit and Status Enquiries - Meaning - Trade and bank references - Complaints and Adjustments - Collection Letters - How to write effective Collection letters - Sales Letters - Circular Letters.

UNIT - III

Banking Correspondence - Introduction - correspondence with customer, Head office - Insurance Correspondence –Life insurance- Fire insurance - Marine insurance - Agency Correspondence.

UNIT - IV

Company Secretarial Correspondence - Agenda, Minutes and Report Writing- Types-Characteristics of good Report- Report of individuals.

UNIT - V

Application for Jobs: Preparation of resume- Interviews- Meaning- types of Interview- Candidates preparing for an interview- guidelines to be observed during an interview- Business Report Presentations. E-mail Slide or Visual Presentation - Internet - Video conferencing - Group Discussion.

TEXT BOOKS:

1. Essentials of Business Communication - Rajendra pal, J.S. korahilli, Sultan Chand & Sons, New Delhi.
2. Business Communication – K. Sundar & Kumararaja, Vijay Nicole Imprints Pvt Ltd, Chennai-91
3. Business Communication - N.S.Raghunathan & B.Santhanam, Margham Publications, Chennai.
4. Business Communication –V.R. Palanivelu &N. Subburaj, Himalaya Publishing Pvt Ltd,Mumbai.

REFERENCE BOOKS:

1. Effective Business English and Correspondence - M.S. Ramesh and Pattenshetty R.S.Chand & Co, Publishers, New Delhi - 2.
2. Commercial Correspondence R.S.N.Pillai and Bhagavathi.S. Chand Publications, New Delhi.
3. Business Communication - Sathya Swaroop Debasish, Bhagaban Das, PHI Learning Pvt Ltd., New Delhi 2010 Edition
4. Communication conquer:- A Handbook of group discussion and Job Interview. Pushpalatha & Kumar, PHI Learning Publisher

**1.3.1 Curriculum Integrating Crosscutting Issues**

PROFESSIONAL ETHICS
B.COM & B.COM CA DEGREE
II YEAR, III – SEMESTER
BUSINESS LAW

Course Objectives:

- To cultivate understanding of the various Trade Laws of Land - with an expert knowledge of Indian Contract Act, Sale of Goods Act.
- To provide comprehensive understanding of rights, duties and responsibilities of the parties entering into business dealings

UNIT - I

Commercial Law - Introduction- Meaning- Objectives - Sources- origin - (custom-law of England - Equity precedents nature of law.) Indian Contract Act, 1872 – Contract- Definition- Obligation- Nature and Kinds of Contract - Elements of a Valid Contract -Formation of Contract.

UNIT - II

Agreement -Contingent Contract, Quasi Contract - Types of contingent contract-Performance of a Contract - Discharge of a Contract - by performance mutual consent, by impossibility, by contract, by breach-Remedies for breach of Contract.

UNIT - III

Contract of Indemnity- Introduction- Rights of indemnity holder and indemnifier- Guarantee-Definition, features, types, Revocation -Bailment - pledge. Hypothecation- charge mortgage-Meaning and definitions.

UNIT - IV

Agency - creation of Agency - Kinds of Agent - Rights and Duties of Principal and Agent -Relation of Principal and third parties - Termination of Agency.

UNIT - V

Sale of goods Act 1930- Definition of Sale and Agreement to sell - Condition and Warranties -Transfer of property - Transfer of title - performance - Remedies for breach- Unpaid Seller - Rights of unpaid seller - Auction sale - Rules relating delivery of goods.

TEXT BOOKS :

1. Business Law - K.R.Buichandani-Himalaya Publishing House, Mumbai.
2. Business Law- Tulsian J.P.C, Pearson Publications. New Delhi.
3. Business Law- Kapoor, N.D., Sultan Chand & Sons. New Delhi.

REFERENCE BOOKS :

1. Business Law – V. Balachandran & Thothadri, Vijay Nicole Imprints Pvt Ltd, Chennai-91.
2. Commercial Law – M.C.Shukla, - S.Chand & Sons., New Delhi.
3. Business Laws- R.S.N. Pillai and Bagavathy- S.Chand&Co., New Delhi.
4. Mercantile Law - M.C.Kuchhal-Vikas Publications, New Delhi.
5. Business Law – J.Jayasankar, Margham Publications, Chennai.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM DEGREE****II YEAR, III – SEMESTER****BANKING THEORY LAW & PRACTICE****Course Objectives:**

- To provide knowledge relating to the procedure for opening bank accounts, features of cheque and lending principles of bank.
- To provide exposure to the students with the latest development in the banking field such as ECS, EFT, CBS, SWIFT, KYC etc.,

UNIT - I

Origin and development of banks- Banking Regulations Act 1949-Definition of Banking-Licensing-Opening of branches - Importance and Functions of Banks -Inspection. Relationship between Banker and Customer- Special types of Banker's Customers.

UNIT - II

Commercial banks- Universal Banking-Management of Deposits and Advances-Classification and nature of Deposit accounts – Advances-Types of Advances-Lending practice- Principles of sound bank lending.

UNIT - III

Central bank-Reserve Bank of India- Objectives- Organization-functions-monetary policy-Credit control measures and their effectiveness.

UNIT - IV

Negotiable Instrument - Definition - features - Promissory note - Bill of exchange and Cheque - Holder and holder in due course – Crossing of a Cheque - Types of crossing - Endorsement - Negotiation & Dishonour and discharge of Negotiable instrument - Protection of Collecting Banker and Paying Banker.

UNIT – V

E-Banking - Meaning-benefits-electronic transfer-NEFT,- ECS- ATM- Debit card and Credit card. RTGS - Mobile banking - WAP- Tele banking- Internet banking- Bank assurance- Banking ombudsman scheme- Demat account.

TEXT BOOK:

1. Banking Theory & Practice - E.Gordon and Dr.K.Natarajan , Himalaya Publishing House.

REFERENCE BOOKS:

1. Banking Technology – Dr.A.Rama, A.Arunadevi, New century book house (P) Ltd, Chennai.
2. Banking Theory Law & Practice, - Sundharam & Varshney, Sultan Chand & Sons, New Delhi.
3. Banking TheoryLaw & Practice-Rajesh.R, Sivagnanasithi.T, Tata McGraw– Hill publishing Co Ltd.
4. Banking Theory & Practice - Dr.P.K.Srivastava, Himalaya Publishing House, Mumbai.
5. Banking Theory & Practice - Shekar.K.C, Lekshmi Shekar, Vikas Publishing House Pvt. Ltd.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM DEGREE
II YEAR, IV – SEMESTER
COMPANY LAW****Course Objectives:**

- To enlighten the students, the provisions of Companies Act.
- After the successful completion of the course the students gain knowledge on Formation of Company and Documents required.

UNIT – I

Meaning and Definition of a Joint stock company- Features- Kinds of companies- differences between private and public companies- Amendments in 2013 and 2015.

UNIT- II

Formation of a company- Promotion- Memorandum of Association and its contents- Articles of Association and its contents- Certificate of incorporation and commencement of business.

UNIT – III

Prospectus- its contents- statement in lieu of prospectus- consequences of misstatements in a prospectus- Kinds of Shares and Debentures.

UNIT – IV

Company management- Appointment, rights and duties of managerial personnel- Meetings- Resolutions.

UNIT – V

Winding up of a company- Types of winding up- consequences of winding up.

TEXT BOOKS:

1. Company Law - N.D.Kapoor- Sultan Chand & Sons, New Delhi.
2. Company Law - - P.Saravanavel, Himalaya Publishing House Pvt Ltd, Mumbai.

REFERENCE BOOKS:

1. Company Law – Thotheadri & Gaffoor, Vijay Nicole Imprints Pvt Ltd, Chennai-91.
2. Principles of Company Law - M.C.Shukla & S.S.Gulshan, S. Chand & Company Ltd, New Delhi.
3. Company Law and Secretarial Practice – Dr.M.Sreenivasan, Margham Publications, Chennai.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM DEGREE****II YEAR, IV – SEMESTER****PRINCIPLES OF MARKETING****Course Objectives:**

- To highlight the various marketing functions and to impart necessary skills which help the students to choose a career in the field of marketing.
- To provide basic knowledge about the latest trends in marketing.

UNIT - I

Marketing – Definition of market and marketing – Importance of Marketing – Modern marketing concept – Global marketing – E-marketing and Tele marketing – Meaning and concepts – Marketing ethics – Career opportunities in marketing- Green marketing- Online marketing- Neuro marketing.

UNIT-II

Marketing functions-Buying -Selling -Transportation -Storage - Financing -Risk Bearing -Standardisation

- Market Information

UNIT-III

Consumer behaviour – Meaning – Need for studying consumer behaviour – Factors influencing Consumer behaviour – Market segmentation – Customer relations marketing.

UNIT- IV

Marketing mix – Product mix – Meaning of product – Product life cycle – Branding – Labelling – Price mix – Importance – Pricing objectives – Pricing strategies – Personal selling and sales promotion – Advertising –Place mix – Importance of channels of distribution – Functions of middleman – Importance of retailing in today's context

UNIT- V

Marketing and government – Agricultural marketing – Problems – Remedial measures – Bureau of Indian standards – Agmark – Consumerism – Consumer protection – Rights of consumers

TEXT BOOKS :

1. Marketing- R.S.N.Pillai and Bhagavathi, S.Chand & Co. Ltd, 2009 edition & 2011 reprint, New Delhi.
2. Principles of Marketing – Senthilkumar .K & Sasikumar. G, Himalaya Publishing House, Mumbai.
3. Marketing- Rajan Nair, Sultan Chand & Sons, NewDelhi 2005 Edition.

REFERENCE BOOKS:

1. Essentials of Marketing - K. Sundar, Vijay Nicole Imprints Pvt Ltd, Chennai-91.
2. Marketing - J.Jayasankar, Margham Publications, Chennai.
3. Marketing - Dr. L. Natarajan, Margham Publications, Chennai.
4. Fundamentals of Marketing – Dr.Vikas Saraf Pawan, Thankur, University Science Press, New Delhi.
5. Principles of Marketing- Sonatakki, Kalyani Publishers, NewDelhi.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM & B.COM CA DEGREE****III YEAR, V – SEMESTER****INCOME TAX LAW AND PRACTICE - I****Objectives:**

- To gain basic knowledge of the provisions of Income Tax Act under different heads of income.
- To acquire the ability to apply the knowledge of the provisions of laws to various situations in actual practice

UNIT –I

Income Tax Act 1961 – Objectives of Taxation – Canons of Taxation- Tax System in India - Basic concepts and Definitions – Assessee – Person – Previous year – Assessment year – Income – Casual income – Gross total income – Total income.

UNIT- II

Basis of charge – Scope of total income – Residence and tax liability – Incomes which do not form part of total income.

UNIT- III

Heads of income – Income under salaries – Definition, features – Computation of salary income – PF – Allowances – Perquisites – Other items included in salary – Deduction under salary – Tax – Rebate, relief of income tax.

UNIT- IV

Income from House property – Definition – Basis of charge – exempted HP incomes – computation of income from HP – Gross annual value – Net annual value – Deductions – Let out and self – Occupied houses.

UNIT -V

Business and Profession - Definition of business and profession - Profits and gains in business and profession

- Income chargeable under profits and gains – Deductions – Specific allowances – Deemed profit – Computation of business income and professional income – Depreciation.

Note: Distribution of marks: Problems 80% and Theory 20%

TEXT BOOKS:

1. Income tax law and Practice - V.P.Gaur & Narang, Kalyani Publisher, New Delhi.
2. Income Tax Law and Practice-Dr.H.C.Mehrotra, Sahitya Bhawan Publications, Agra.
3. Income Tax Law and Practice I- Dr. Sha, Himalaya Publishing House Pvt Ltd., Mumbai.

REFERENCE BOOKS:

1. Income Tax Law & Practice – A. Murthy, Vijay Nicole Imprints Pvt Ltd, Chennai-91.
2. Income Tax Theory, Law & Practice – T.S.Reddy & Hari Prasad Reddy, Margham Publications, Chennai.
3. Income Tax Law and Practice- Dinkar Pagare, Sultan Chand & Sons, New Delhi.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM & B.COM CA DEGREE
III YEAR, V – SEMESTER
INCOME TAX LAW AND PRACTICE – II****Objectives:**

- To provide an in depth knowledge of the provisions of Income Tax Act.
- To enable the students to access the financial status of the organization and individual and filing of returns.

UNIT - I

Capital Gain - Basis of charge - capital assets - Transfer of capital assets - Types of Capital Gain - Exemptions - Computation of Capital Gains - Capital Loss - Tax on Capital Gains.

UNIT-II

Income from other sources - General income - Specific income - Deductions in computing income from other sources - Computation of income from other sources.

UNIT -III

Aggregation of income - Deemed incomes - Deduction from gross total income- Set off and carry forward of losses.

UNIT- IV

Computation of Tax Liability- Rules of Income Tax- Surcharge- Tax free incomes - Tax rebates -Tax relief-Computation of tax liability of Individual and Firms.

UNIT- V

Income Tax Authorities- Powers- Assessment procedure- Types of Assessment- Appeals and Revisions.

Note: Distribution of marks: Problems 80% and Theory 20%.

TEXT BOOKS:

1. Income Tax law and practice - V.P. Gaur & Narang, Kalyani Publishers, Ludhiana.
2. Income Tax Law and Practice I- Dr. Sha, Himalaya Publishing House Pvt Ltd., Mumbai.
3. Income Tax law and practice - Dinkar Pagare, Sultan Chand & Sons, New Delhi.

REFERENCE BOOKS:

1. Income Tax law and practice –T.S.Reddy & Hariprasad Reddy, Margham Publications, Chennai.
2. Student Guide to Income Tax- Vinod K Singhanian & Monica Singhanian, Taxmann Publications PVT LTD
3. Income Tax law and practice – Dr.A.Jayakumar and Dr.C.Dhanapal, Learn Tech Press.

**1.3.1 Curriculum Integrating Crosscutting Issues**

PROFESSIONAL ETHICS
M.COM DEGREE
II YEAR, III – SEMESTER
STRATEGIC MANAGEMENT

UNIT I

Defining Strategy – Strategic Management – Mission and Purpose – Objective – Goals – Stages – Functional Level Strategies – Environment Analysis – Environmental Scanning and Industry Analysis.

UNIT: II

Strategy Formulation and Choice of Alternatives: Modernization – Diversification – Integration – Merger – Takeover and Joint Venture – Turn Around – Disinvestments and Liquidation Strategies – process of Strategic Choice – Generic Competitive Strategies – Cost Leadership – Differentiation Focus – Value Chain Analysis – Bench Marketing.

UNIT: III

Functional Strategies: marketing – Production – Research and Development – Financial – Operations – Purchasing – Logistics – Human Resource Management – Information Systems Strategies.

UNIT: IV

Strategy Implementation – Inter Relationship Between strategy Formulation and Implementation – Reengineering and Strategy Implementation – Issues in Strategy Implementation – Resource Allocation.

UNIT: V

Evaluation and Control in Strategic Management – measuring performance – Type of Controls – Primary Measures of Divisional and Functional Performance – Strategic Information System – Guidelines for proper control.

Note: Question paper shall cover 100% theory

REFERENCES :

1. Business policy and Strategic management : S.Sankaran -Margham Publications.
2. Strategic Management and Business Policy : Kazmi- McGraw –Hill Education (India) Ltd.
3. Strategic Management : Formulation, Implementation and Control :Pearce, McGraw-Hill Education(India).
4. Strategic Management : Periasamy. P, Himalaya publishing house Pvt. LimitedPublication, Chennai.House, Mumbai - 2002.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.COM CA DEGREE
II YEAR, III – SEMESTER
MARKETING****UNIT - I**

Definition and Meaning of Marketing-Modern Concept of Marketing.

UNIT-II

Marketing Functions - Buying – Selling-Assembling-Transportation – Warehousing.

UNIT-III:

Marketing Functions –Financing-Risk bearing- Standardisation – GradingMIS–(Marketing Information system).

UNIT-IV

Product Planning and Development – Introduction of a new Product- Product Life Cycle – Product Diversification.

UNIT-V

Global Marketing- E-Marketing- Tele Marketing- Green Marketing- Online Marketing- Neuro Marketing

TEXT BOOKS

1. Marketing – Rajan Nair, Sultan Chand & Sons, New Delhi.
2. Marketing-R.S.N.Pillai and Bhagavathi, S.Chand &Co Ltd, 2009Edition &2011 Reprint.

REFERENCE BOOKS

1. Marketing Management – Sherlakhar S.A,Himalaya Publishing House, Mumbai.
2. Marketing Management – V.S.Ramasamy and Namakumari Macmillan.
3. Principles of Marketing- Son atakki, Kalyani Publishers, New Delhi.

**1.3.1 Curriculum Integrating Crosscutting Issues****PROFESSIONAL ETHICS****B.SC DEGREE IN NUTRITION AND DIETETICS****II YEAR, IV – SEMESTER****PRINCIPLES OF HUMAN NUTRITION****OBJECTIVES**

The students will be able to

1. Gain basic knowledge of the different nutrients and their role in maintaining health of the community.
2. Develop skills in qualitative analysis and quantitative estimation of nutrients.

UNIT-I

Science of Nutrition, Concept of Nutrition- Definition of nutrition, health, nutritional status and malnutrition.

RDA- Definition, factors affecting RDA and methods used for deriving RDA.

Carbohydrates- Definition ,composition, functions, maintenance of blood sugar levels, requirement, sources, digestion and absorption; Dietary fiber- Definition, classification, physiological effects and sources.

UNIT-II

Proteins- Definition, composition, nutritional classification of proteins and amino acids, functions, sources, requirements, digestion and absorption. Evaluation of protein quality: PER, BV, NPU and Chemical score.

Lipids- Definition, composition, functions, sources, requirements, digestion and absorption. Essential fatty acids – Definition, functions, sources and effects of deficiency.

UNIT- III

Energy- Definition, units of measurement, direct and indirect calorimetry; Determination of energy value of food, Total Energy requirement, Factors affecting physical activity, Factors affecting Basal Metabolic Rate, factors affecting Thermic effect of food, Recommended Dietary Allowances and Sources

UNIT- IV

Macro Minerals- Calcium and Phosphorous: Functions, requirements, sources and effects of deficiency. Micro minerals- Iron, Iodine, Copper, Fluorine and Zinc: Functions, sources, requirements and effects of deficiency. Sodium and Potassium : Functions, sources, requirements and effects of imbalances

UNIT- V

Fat soluble Vitamins – Vitamin A, D, E and K: Functions, requirements, sources and effects of deficiency.

Water Soluble Vitamins – Thiamine, riboflavin, niacin, ascorbic acid, folic acid, vitamin B6 and vitamin B12: Functions, requirements, sources and effects of deficiency.

References

- 1 Sumathi R. Mudambi, Rajagopal, M.V., Fundamentals of Foods and Nutrition, New Age International (P) Ltd, Publishers, Third edition, 1997.
2. Srilakshmi B., Nutrition Science, New Age International (P) Ltd, Publishers, Fifth multi colour edition, 2016.
3. Mangala Kango, Normal Nutrition, Curing diseases through diet, CBS Publications, First edition, 2005.
4. Paul.S., Text Book of Bio-Nutrition, Fundamental and Management, RBSA Publishers, 2003.
5. Sue Rodwell Williams, Nutrition and Diet Therapy, C.V. Melskey Co., 6 th edition, 2000.
6. Mahtab. S.Bamji, Kamala Krishnaswamy and G.N.V Brahman, Text Book of Human Nutrition, Oxford and IBH Publishing Company, Third Edition. 2009.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES**B.A, B.Com, B.Com (CA) & B.Sc DEGREE
II YEAR – IV SEMESTER****துறைசாரா விருப்பப் பாடம் - தாள் 2****(Non Major Elective Course)****விளம்பரக்கலை****பாட நோக்கம்:**

மாணவர்களுக்கு விளம்பரத்துறையைப் பற்றி அறிந்து கொள்ளச் செய்தல்.

அலகு - 1

விளம்பரங்களின் தன்மையும் நோக்கமும் - விளக்கங்கள் - விளம்பரத்தின் இயல்புகள் - அறிவிப்பும் விளம்பரமும் - விளம்பரத்தின் தன்மைகள் - விளம்பர எல்லை - விளம்பர நோக்கங்கள் - விளம்பர வரலாறு - குறிக்கோள்.

அலகு - 2

விளம்பரங்களின் வகைகள் - நேரடி விளம்பரம் - மறைமுக விளம்பரம் - அடிப்படை விளம்பரம் - விற்பனை நோக்கமுடைய விளம்பரங்கள் - தயாரிப்புப் பொருள் பற்றிய விளம்பரம் - இணங்குவிக்கும் விளம்பரம் - அறிவுறுத்தும் விளம்பரம் - தயாரிப்பு நிறுவனம் பற்றிய விளம்பரம் - நிதி தொடர்பான விளம்பரம் - தொழில்துறை விளம்பரம் - அரசு விளம்பரங்கள் - சமூக விளம்பரங்கள் - வணிக விளம்பரங்கள் - செய்தித்தாள் விளம்பரங்கள் - வானொலி விளம்பரங்கள் - தொலைக்காட்சி விளம்பரங்கள் - திரைப்பட விளம்பரங்கள் - விளம்பரத்தின் கூறுகள்.

அலகு - 3

விளம்பரத்தின் நன்மை தீமைகள் - விளம்பரத்தின் குறைபாடுகள் - விளம்பர ஒழுக்க நெறிகள் - தடை செய்யப்பட்ட விளம்பரங்கள் - விளம்பரத்திற்கான சில விதிமுறைகள் - விளம்பரத் தயாரிப்பில் இதர அம்சங்கள் - நுகர்வோர் பற்றிய முக்கிய விவரங்கள்.

அலகு - 4

விளம்பரத்தின் பணிகள் - விளம்பர நிறுவனத்தின் தகுதிகள் - விளம்பர நிறுவன விருதுகள் - நுகர்வோரின் வழிகாட்டி - விளம்பர நகலின் அமைப்பு - விளம்பரத்தில் மனோதத்துவம் - விளம்பர நிறுவனங்கள் - விளம்பர அறங்கள் - விளம்பர நிறுவனங்களுக்காகிய ஒழுக்க நெறிகள்.

அலகு - 5

விளம்பரத்தின் தாக்கம் - விற்பனைப் பெருக்கம் - தொலைக்காட்சி விளம்பரங்களில் தவறான போதனைகள் - விளம்பரங்களில் குழந்தைகள் - பண்பாட்டுக் கலப்பு - விளம்பரங்களின் மொழிநிலை - விளம்பர உத்திகள் - உத்திமுறைகளின் நன்மைகள் - உத்தி முறைகளின் தீமைகள் - விளம்பரம் தொடர்பான சட்டங்கள்.

பாடநூல்:

முனைவர் ச. ஈஸ்வரன் } -
முனைவர் இரா. சபாபதி }

'விளம்பரக்கலை'

பாவை பப்ளிகேஷன்ஸ்
142, ஜானி ஜான் கான் சாலை,
இராயப்பேட்டை, சென்னை - 600 014.

பார்வை நூல்கள்:

1. அ.விநாயகமூர்த்தி - விளம்பரக்கலை
பாலமுருகன் பதிப்பகம்,
ஜெயஹ்நித்யம், மதுரை-11.
2. விமல்நாத் - விளம்பர யுத்திகள்
கண்ணதாசன் பதிப்பகம்,
தியாகராயநகர், சென்னை -17.
3. எஸ்.ரவிராஜ் - விளம்பரம் செய்வது எப்படி?
நியூ செஞ்சுரி புக் ஹவுஸ் பிரைவேட் லிட்,
சென்னை - 58.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES**B.A TAMIL DEGREE
II YEAR – III SEMESTER****திறன்சார் விருப்பப் பாடம்: தாள் 1**

(Skill Based Elective Course)

நூலகவியல்**பாட நோக்கம்:**

நூலக வரலாறு, நூலகத்தின் அக ஒழுங்கு முறை, நூலை வகைப்படுத்துதல், பாதுகாத்தலின் அவசியத்தை மாணவர்களுக்குக் கற்பித்தல்.

அலகு - 1

நூல் என்பதன் பொருள் - தோற்றமும் வளர்ச்சியும் - நூலகத்தை உருவாக்கலும், வடிவமைத்தலும்.

அலகு - 2

நூலக ஆட்சிமுறை - வகைகள் - நிர்வாக முக்கியத்துவம் - பல்வேறு பிரிவுகள் - பிரிவுகளின் அன்றாடப் பணிகள் - நூல் தேர்வு - நிலையான விற்பனையாளர்கள் - தொழில்நுட்பப் பிரிவு - பட்டியலிடுதல் - காலமுறை இதழ்கள் பிரிவு - பதிவு அட்டை முறை.

அலகு - 3

பயனுடை வரிசைமுறை விதி - குறியீடுகளின் வகையும், தன்மையும் - நூல் வகைப்படுத்தும் முறை - நூற்பட்டி - நூலகப் பணிகளின் பல்வேறு பிரிவுகள்.

அலகு - 4

நோக்கீட்டுப் பணியும் வகைகளும் - நோக்கீட்டு நூல்கள் - நூல் சரிபார்க்கும் முறைகள்.

அலகு - 5

நூலக வரவு செலவும், ஆண்டறிக்கையும் - நூலகச் செயல்பாட்டில் மொழி பெயர்ப்பு - இணைய நூலகம்.

பாடநூல்:

முனைவர். மு. ராமச்சந்திரன் - “நூலகவியல்”
தாமரை பப்ளிகேஷன்ஸ் (பி) லிட்,
41-பி, சிட்கோ இன்டஸ்ட்ரியல் எஸ்டேட்,
அம்பத்தூர், சென்னை - 600 098.

பார்வை நூல்:

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A TAMIL DEGREE
II YEAR – III SEMESTER****திறன்சார் விருப்பப் பாடம்: தாள் 2
(Skill Based Elective Course)****மனித உரிமைகள்****பாட நோக்கம்:**

தனிமனிதனுடைய உரிமைகள் பற்றி மாணவர்களை அறியச் செய்தல்.

அலகு - 1

மனித உரிமைகள் பொருள் விளக்கம் - உரிமைகளின் தன்மை - மனித உரிமை கோட்பாடுகள் - மனித உரிமைகளின் வகைகள்.

அலகு - 2

மனித உரிமைகளின் வரலாறும் பண்புகளும் - பன்னாட்டு மனித உரிமைகள் பிரகடனம் - பன்னாட்டு உடன்படிக்கை - பொருளாதார சமூக மற்றும் கலாச்சார உரிமைகள் பற்றிய பன்னாட்டு உடன்படிக்கை.

அலகு - 3

தேசிய மனித உரிமை ஆணையம் - மாநில மனித உரிமை ஆணையம் - அமைப்பும் செயல்பாடுகளும் - கைது, வாரண்ட் விளக்கம் - கைது செய்யப்பட்டவரின் உரிமைகள் - மனித உரிமைகள் குறித்த சாசனங்கள்.

அலகு - 4

குழந்தைகள் உரிமைகள் - இளங்குற்றவாளிகள், கொத்தடிமைகள் மற்றும் அகதிகளின் உரிமைகள் - இனப்பாகுபாடு ஒழிப்புக்கான பன்னாட்டு உடன்படிக்கை - சித்ரவதை, மனிதத் தன்மையற்ற நடத்தை, தண்டனைகளுக்கு எதிரான உடன்படிக்கை.

அலகு - 5

பெண்ணுரிமை - பெண்களின் சமகாலப் பிரச்சனைகள் - மனித உரிமைகள் பாதுகாப்பும் அரசு சாரா அமைப்புகளும் - மனித உரிமை மற்றும் ஊடகங்களும் சுற்றுச்சூழலும் - மனித உரிமை சார்ந்த இந்தியச் சட்டங்கள்.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A TAMIL DEGREE
II YEAR – III SEMESTER****திறன்சார் விருப்பப் பாடம்: தாள் 3
(Skill Based Elective Course)****இதழியல்****பாட நோக்கம்:**

இலக்கியத்தோடு தொடர்புடைய இதழியல் கலையைப் பற்றி மாணவர்கள் அறியச்செய்தல்.

அலகு - 1

இதழியல் விளக்கம் - மக்கள் தொடர்பு சாதனங்கள் - மக்கள் தொடர்புக் கருவிகளில் பத்திரிக்கைகள் - பத்திரிக்கைகளின் பணிகள் - இதழியல் விதிகள் - பத்திரிக்கைகளின் பொறுப்புக்களும் கடமைகளும் - மக்களாட்சியில் பத்திரிக்கைகளின் பங்கு.

அலகு - 2

செய்தித்தாளின் தோற்றம் - இந்திய இதழியல் - இந்திய விடுதலைப் போராட்டத்தில் இதழ்களின் பங்கு - தமிழ் இதழ்கள்.

அலகு - 3

செய்தி வகைகள் - களங்கள் - செய்தியாளர்கள் - செய்தி சேகரிப்பு - செய்திகள் எழுதும் முறை - பேட்டி - தலைப்பு - தலையங்கம் - பக்க அமைப்பு - செய்தி நிறுவனங்கள்.

அலகு - 4

இதழியல் சட்டங்கள் - பத்திரிக்கைக் கவுன்சில் - இதழ்களின் சுதந்திரம் - இதழ்களின் நடத்தையறம் - இன்றைய இதழியல் - நிர்வாக அமைப்பு.

அலகு - 5

இதழ்களின் பகுப்பும் அமைப்பும் - இதழ்களில் இடம்பெறுவன - விளம்பரங்கள் - புலனாய்வு இதழ்கள் - நச்சு இதழ்கள்.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A TAMIL DEGREE
II YEAR – IV
SEMSETER****திறன்சார் விருப்பப்பாடம் - தாள் 6****(Skill Based Elective Course)****சித்த மருத்துவம்****பாட நோக்கம்:**

மறைந்து கொண்டிருக்கும் சித்த மருத்துவத்தை மாணவர்கள் அறிந்து கொள்ளச் செய்தல்.

அலகு - 1

வருமுன் காதல் - காவிரி நீரும் கடல் நீரும் - இதயம் எனும் உழைப்பாளி - புற்றை வெற்றி கொள்ள - வயிற்றுப் புழுக்கள் - வைரஸ் நோய்களுக்கு மருத்துவ மூலிகைகள் - எய்ட்ஸ் எனும் தேய்வு நோய் - தலைவலி - மூக்கடைப்பு - காது, மூக்கு, தொண்டை மருத்துவம் - ஒவ்வாமை - நோய் எதிர்ப்புத்திறன்.

அலகு - 2

புண்களுக்கு மருந்து - சோகை - மேகம் - பக்கவாதம் - முதுகுவலி - இரத்தகொதிப்பு - விந்து செலுத்தும் கோளம் - மூலிகை முதலுதவிகள் - அமூக்கரா எனும் அவிழ்தம் - இருமல் - கார்ட்டூன் காக்கா - தண்ணீர் விட்டான் கிழங்கு

அலகு - 3

மஞ்சள்பூசி மருந்தாணி தீட்டி - தக்காளி, கத்திரிக்காய் - இஞ்சிதின்னாத குரங்குகள் - உணவே மருந்துகள் - மலர் மருந்துகள் - பழ உணவுகள் - விதைகள் - மலைத்தேன் - மோர் - மூலிகைபானங்கள் - மூலிகை குளிர்பானங்கள் - ஆரோக்கியம் வாங்கு அழகு - இலவசம்.

அலகு - 4

50கிலோ தாஜ்மகாலா, 80கிலோ அரிசி மூட்டையா - அறுவைசிகிச்சை அவசியமா - நலம் தரும் நவமணிகள் - தைலக்குளியல் - மூலிகைத் தைலங்கள் - வெம்மையிலிருந்து விடுதலை - மழைக்காலம் நோய்க்கான விழாக்காலமா - வர்மம் - பனிக்காலப் பிரச்சனை - நாள் ஒழுக்கம் நல் ஒழுக்கம் - ஏன் இந்த மறதி - சுறுச்சுறுப்புச் சூரணம்.



1.3.1 Curriculum Integrating Crosscutting Issues

அலகு - 5

மனவியல் விகாரமும் தோலும் - மனசு பாதி மருந்து பாதி - யார் பைத்தியம்
 - திருமணம் சமூகச்சவுகரியம் மட்டும்தானா - நகரவேகத்தில் நசங்கும் வாழ்வு -
 காற்றோடு போகும் சுதேசி முழக்கம் - தமிழர் வாழ்வியல் பழகுவோம் - மருத்துவ
 சேவையில் புதியபாதை - ஒருங்கிணைந்த மருத்துவச் சிகிச்சை - மூலிகை உலகம்
 நம் கையில் -புத்தாண்டில் நமக்கு நாமே.

பாடநூல்:

நலம் காக்க வாங்க வாழலாம்

ஆசிரியர் - மருத்துவர் கு.சிவராமன்,
 NCBH, சென்னை- 98.

பார்வை நூல்கள்:

- | | | |
|--|---|---|
| 1. இயற்கை உணவும் இயற்கையால் தீரும் நோய்களும் | } | - டாக்டர் கோ.மா. கோதண்டம் கற்பகம் புத்தகாலயம், சென்னை. |
| 2. விஞ்ஞான நோக்கில் நோய் நீக்கும் மூலிகைகள் | | - அறந்தாங்கி. டாக்டர் சுப. சதாசிவம் |
| 3. இந்திய மருத்துவம் | - | முனைவர் ஏ.ஆர். ஈஸ்வரி |
| 4. மூலிகை மருத்துவம் | - | மு. மணி வைத்தியர் |
| 5. பயனுள்ள மருத்துவக் குறிப்புகள்- | | எஸ். சரஸ்வதி |
| 6. இயற்கை வழியில் இனிய வாழ்வு- | | டாக்டர் மு. குமரேசன் |
| 7. ஆறாம் திணை - ஏழாம் அறிவு - | | மருத்துவர் கு. சிவராமன் |
| 8. சித்த மருத்துவம்-நோயும் மருந்தும் - | | டாக்டர் ஏ. இராமலிங்கம் கற்பகம் புத்தகாலயம், சென்னை. |



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES**B.A TAMIL DEGREE
III YEAR – IV SEMESTER****திறன்சார் விருப்பப் பாடம் - தாள் 6
(Skill Based Elective Course)
தொல்லியல்****பாட நோக்கம்:**

மறைந்து போன நாகரிகம் - அகழ்வாராய்ச்சி மூலம் புதைபொருள் கண்டுபிடிப்புகளை மாணவர்களுக்குக் கற்பித்தல்.

அலகு - 1

தொல்லியல் பொருள் விளக்கமும் தன்மைகளும் - தொல்லியலும் பிற பாடங்களும் - தொல்லியலின் பிரிவுகளும் வகைகளும் - தொல்லியலின் பயன்கள் - தொல்லியலின் வரலாறு.

அலகு - 2

இந்தியாவில் தொல்லியல் - இந்தியாவின் தொன்மைக்காலம் - மேற்பரப்பு கள ஆய்வு.

அலகு - 3

அகழாய்வுப் பணியாளர்கள் - அகழாய்வுக்கான கருவிகள் - அகழாய்வு நெறிமுறைகள் - அகழாய்வு முறைகள் - காலக்கணிப்பு முறைகள் - அகழாய்வும் பிற அறிவியல்களும்.

அலகு - 4

தொல்பொருள் பாதுகாப்பு வழிமுறைகள் - அருங்காட்சியகம் - ஆய்வினைத் தொகுத்து எழுதுதல் - ஆய்வின் முடிவினை வெளியிடுதல்.

அலகு - 5

தொல் எழுத்துக்கள் - நாணயங்களின் தோற்றம் - இந்திய நாணயங்கள் - கோயிற் கட்டடக் கலை - கோயில் அமைப்பு முறை.

பாடநூல்:

முனைவர் ஜே. தியாகராஜன் - 'தொல்லியல்'
பாவை பதிப்பகம்,
37-A, வடக்காவணி மூல வீதி,
மதுரை - 1.

பார்வை நூல்:

முனைவர் தி. மனோன்மணி } - 'தொல்லியல்'
முனைவர் தி. செல்வநாயகி } நியூ செஞ்சுரி புக் ஹவுஸ்,
சேலம்.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A TAMIL DEGREE
III YEAR – V
SEMSETER****விருப்பப் பாடம் - தாள் 2****கணினியும் இணையமும்****பாட நோக்கம்:**

தற்கால அறிவியல் வளர்ச்சியின் பயனைப் பெறும் வகை.

அலகு - 1

கணினி அறிமுகம் - கணினி தோற்றமும் வளர்ச்சியும், வரலாறும் - கணினி தலைமுறைகள் - வகைகள் - வன்பொருள் (Hardware) - மென்பொருள் (Software) - கணினி பயன்பாடு.

அலகு - 2

அமைப்பு - கணினி அமைப்பு - உள்ளீடு, வெளியீடு - மையச் செயலகம் - வெளிப்புற உறுப்புகள் (Peripheral Unity) - படிக்க மட்டும் நினைவு (Read only Memory) - தற்செயல் அணுகு நினைவு (Random Access-Memory) - சேமிப்பு - இருமை முறை.

அலகு - 3

ஆணைத் தொடரமைத்தல் - முறைமைப் பிரிப்பாய்வு - (System analysis) ஓடுபடம் (Flowchart) - ஆணைத்தொடர் மொழிகள் - Programming Languages பேசிக் (Basic) - கோபால் (Cobal) - போர்ட்ரான் (Fortan) - பாஸ்கல் (Pascal) - சி (C) - ஜாவா (Java).

அலகு - 4

இணையம் - வலைப்பின்னல் (Network) - குறும்பரப்பு வலைப்பின்னல் (LAN Local Area Network) பயன்பாடு - விரிபரப்பு வலைப்பின்னல் (Wan-Wide Area Network) - இணையம் விளக்கம் - வரலாறு - வளர்ச்சி - இணையத்தில் இணையும் முறைகள் - நேரடித் தொடர்பு சேவை நிறுவனத்தின் மூலமான தொடர்பு (Dialup Account Through procides) - பிறசேவை நிறுவன வழி மறைமுகத் தொடர்பு (Indirect access through another services) - இணைய இயக்க முறை - இணைய முகவரி இணையத் தகவல் வகைகள் - மீ உரை (Hyper Text) உலகளாவிய வலைப் பின்னல் (www. World Wide Web) இணையப் பயன்கள் - மின் வாணிகம் (E-Commerce)

**1.3.1 Curriculum Integrating Crosscutting Issues****அலகு – 5**

மின்னஞ்சல் (E-Mail) – மின்னஞ்சல் கருவிகள் – அனுப்பும் முறை – தொலை எழுதி (Telex) – தொலை நகலி (Fax) – வரலாறும் செயல்படுத்துதலும் – தொலை உரை (Tele Text) அமைப்பு.

பாடநூல்கள்:

- கணினி இணையம், வணிகம் – 2003, இராம்குமார், மணிவாசகர் பதிப்பகம், சென்னை-108.
- கல்வியில் கணினி – த. சம்பத்தகுமார், பாவை பப்ளிகேஷன்ஸ், 142, ஜானி ஜான் கான் சாலை, இராயப்பேட்டை, சென்னை – 600 014.

பார்வை நூல்கள்:

1. கணிப்பொறி தகவல் தொழில் நுட்பம் – 1998, பாஸ்கரன், உமா பதிப்பகம், தஞ்சாவூர்.
2. தகவல் தொழில் நுட்பம் – 1998 இராம்குமார், கழகப் பதிப்பகம்.
3. கணினி பொறி அமைப்பும் இயக்கமும் பயன்பாடுகளும் – க.அர. பழனிசாமி நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை.
4. கம்யூட்டர் ஓர் அறிமுகம் – எஸ்.வெங்கடாசலம், சுவத் ஆசியன் புக்ஸ், தமிழ்நாடு சர்வீஸ் பாரம் சென்னை.
5. தகவல் தொடர்பியல் 2001 – வெ.கி.கிருட்டிணசாமி மணிவாசகர் பதிப்பகம் சென்னை.
6. கணினிப் பொறி அறிவியல் – 1998, இராம்குமார், கழகப் பதிப்பகம் சென்னை – 18.
7. மின் அஞ்சல், 2003 – மு. சிவலிங்கம், பழனியப்பா பிரதர்ஸ், 25, பீட்டர்ஸ் சாலை, சென்னை – 14.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH DEGREE
I YEAR – III SEMESTER
DRAMA**

UNIT-I&II

Ben Jonson –The Silent Woman

UNIT-III&IV

Henrik Ibsen-Dolls House

UNIT-V

Samuel Beckett – Waiting For Godot



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH DEGREE
I YEAR – III SEMESTER
CREATIVE WRITING**

Unit - I

Rhymes, Free Verse Jokes
and Think pieces Article
Writing

Unit - II

Descriptive Passages
Short Stories

Unit - III

Report Writing
Review writing for books and films

Unit - IV

Writing for T.V Radio and Magazine
Freelance Writing

Unit - V

Preparation of Web Content
Advertisement Writing
Types of advertising and advertising media
Writing techniques in effective advertisement
Code of ethics for advertisement
Advertising and marketing

Prescribed Book:

Creative Writing, Orient Blackswan, Chennai



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.A ENGLISH DEGREE

I YEAR – III SEMESTER

SOFT SKILLS FOR CAREER COMMUNICATION

Unit - I

Introduction

Listening and Speaking

Reading Skills

Unit - II

Exit Errors

Word Power

Unit - III

Career Concerns

Pleasing Personality

Unit - IV

Think Tank

Management Magic

Unit - V

Leading Light

Enhance and Empower

Prescribed Book :

Dr V. Saraswathi and Dr. Revathi Viswanathan : Soft Skills for Career Communication,
Preesat Publications.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH DEGREE
I YEAR – IV SEMESTER
PRESENTATION SKILLS**

Unit-I

Powerful Presentation (1-15)

Unit-II

Reinforcement (16-30)

Unit-III

Using visual aids (31-46)

Unit-IV

Types and Methods of Presentations (47-59)

Unit-V

Obstacles to Presentation (61-75)

Prescribed Book:

Roz Townsend : Presentation Skills for the Upwardly Mobile, Emerald, Chennai



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

**B.A ENGLISH DEGREE
I YEAR – IV SEMESTER
PERSONALITY DEVELOPMENT**

Unit-I

Personality Traits

Unit-II

Honesty and Reliability

Unit-III

Right Attitude and Common Sense

Unit-IV

Self- Management

Unit-V

Critical Thinking and Continuous Learning

Prescribed text:

S.P Dhanavel , Personality Development, Mainspring, Chennai

Reference Books :

Harish Kumar : All about Personality Development - Become a Better person- New Delhi Good Will Publishing House, 2004. Shiv Kera : You Can Win

M.R. Kopmeyer - You can Get Wherever You Want



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.A ENGLISH DEGREE

I YEAR – IV SEMESTER

COMMUNICATION FOR PLACEMENT

Unit-I

Language and Communication
Non-verbal Communication
Communication in Organizations

Unit-II

Dyadic Communication
Meetings
Seminars and conferences
Group Discussion
Audio- visual Aids

Unit-III

Formal Reports
Style
Technical Proposals

Unit-IV

Business Correspondence
Notices, Agenda, Minutes
Hand Books and Manuals

Unit-V

Research papers & Articles
Advertising Job Description
Graphic Aids

Prescribed Book :

Krishna Mohan & Meera Banerjee - Developing
Communication Skills, Macmillan



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.A ENGLISH DEGREE

I YEAR – V SEMSETER

ENGLISH FOR COMPETITIVE EXAMINATIONS

Unit - I DETECTING USAGE ERRORS

Nouns
Pronouns
Articles and Preposition
Adverbs
Homonyms
Punctuation
Linking words

Unit - II DETECTING USAGE ERRORS

Phrases and Clauses Subject-
Verb agreement Tag
Questions
Tense
Reported Speech Active
and Passive Sentence
Completion

Unit - III

Business Letter
Dialogue Writing (Situational)

Unit - IV

Expansion of Proverbs
Idiomatic Expressions
Essay Writing

Unit - V

General Knowledge : UNO, Countries and Capitals, Currencies, and
Current Affairs

Prescribed Book :

J.K.Gangal : Competitive English for Professional Courses, S.Chand Publications.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.A ENGLISH DEGREE
I YEAR – VI SEMESTER
COMMUNICATION SKILLS – PRACTICAL****UNIT – I**

Pronunciation and Neutralization of Accent

UNIT – II

Communication Skills

Telephone Skills

UNIT – III

Writing Skills

- Transcoding a given chart, Table or Statistics into a report
- Making Announcements
Announcements in Radio & T.V about Programmes and Missing Persons
Announcement in Railway Stations about the arrival/departure/cancellation of Trains
- Filling up Forms
 - i. Money Order Forms
 - ii. Railway Reservation/Cancellation Forms
 - iii. Mobile Connection Form
 - iv. Passport Application Form
 - v. Bank A/C opening Form
- Preparing Advertisements and Brochures

UNIT – IV**A. Group Discussion Skills**

- Dress and Appearance
- Motivation
- Importance of being calm, friendly & cool
- Importance of Listening
- Leadership qualities
- Knowledge of the subject
- Delivery
- Body Language
 - I. Voice Modulation
 - II. Language: simple, specific, intelligible, concrete & sensuous
 - III. Brevity
 - IV. Humour

Note : Students are to be trained to group – discuss Current Affairs, National Issues, International Developments, Social Issues, Systems of Government, Human Rights etc.

B. Public Speaking Skills

- a. Preparation
- b. Knowledge of the subject
- c. Dress and Appearance
- d. Delivery: Body Language, Brevity, Humour, Accuracy and Eloquence

**1.3.1 Curriculum Integrating Crosscutting Issues**

- e. Use of Anecdotes
- f. Sensing the Audience
- g. Overcoming fear
- h. Time – Management
- i. Encountering a hostile atmosphere

C. Reading Skills :

- a. Pronunciation, Stress & Intonation
- b. Fluency

UNIT - V**A. Interview Skills**

- a. Making the Interview – File
- b. Preparation for the Interview
- c. Dress and Appearance
- d. Entry & Exit
- e. Eye – Contact
- f. Gestures and Postures
- g. Presence of Mind
- h. Communication Skills
- i. Knowledge
- j. Brevity and Accuracy
- k. Leadership Qualities
- l. Negative Aspects

B. Magazine Making : See “Guidelines” for Conducting Practical Examination

Note 1 : Students are to be informed about the skills to be tested and the marks allotted to each of them in Group Discussion, Public Speaking, Reading and Interview – skills tests. For details see Appendix (Test – Details)

Note 2 : For the test in Interview Skills students are required to bring their CV with them

For Units I & II : Practice Book

A Course in Listening and Speaking – I (with CD) by V. Sasikumar, P Kiranmai Dutt and Geetha Rajeevan. Published by Foundation Books, 21/1, (New No. 49), I Floor, Model School Road, Thousand Lights, Chennai 600 006. Test – Material will be taken only from the CD supplied with this practice book.

For Unit IV A : Group Discussion Skills

'Group Discussion' by Dr B.R Kishore. Published by Vee Kumar Publications Pvt. Ltd., 507, Vikram Towers, Rajendra Place, New Delhi – 110 008.

For Unit IV B : Public Speaking Skills

'Better speeches made easy' by Walter Thompson, Pub. By W.R Goyal Publishers and Distributors, 86, UB Jawahar Nagar, Delhi – 110 007. E- mail: goyal@vsnl.com.

For Unit V A : Interview Skills

- The art and Techniques of Interviews' by B.S Sijwal and Indu Sijwal Pub. by Arihant Publications, Kalindi Transport Nagar, Meerut -2 (U.P) – 250 003.
- 'Interview Manual – Interview Techniques and Model Interviews' by Abdul Hashem Pub. by Ramesh Publishing House, 12- H, New Daryaganj Road, (Opp- to Traffic Kotwali), New Delhi – 110 002.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.A ENGLISH DEGREE****I YEAR – II SEMESTER****JOURNALISM AND MASS COMMUNICATION****UNIT -I**

1. What is News – Concept and Definition – News Values
2. Duties and Responsibilities of a Journalist
3. Various types of News-Follow-up, Curtain Raiser, Human Interest Story etc.
4. News - Story, Structure, Headlines - exercise in writing Headlines-Lead- Significance and its Types
5. Page make-up – Importance and its types

Unit II – Reporting – Editing

1. News gathering - Sources of news-Hard and Weak sources of News – Beats
2. Reporting (translation)
3. Editing – Translation and its role

Unit III

1. Definition of Mass Communication – Nature and Scope – role of Communicator – Communication process
2. Types of Communication – Downward, Upward, Horizontal, Lateral, Extra-organisational.
3. Communication Barriers – How to remove them.

Unit IV

1. Functions of Mass Media
2. Mass Media-Role of Press-Role of Radio-Role of T.V

Unit V

1. Importance of Film Communication-Different types of films-Division-Censor Board-Film Awards
2. Precision Newswriting
3. Communication in the coming decade-Computer and Mass Communication – Internet

REFERENCE BOOKS

1. KevalJ.Kumar – Mass Communication in India(Third Edition)
Jaico Publishing House, Mumbai
2. N.Vembusamy – ABC of Mass Media, Blackie Books
3. Rangaswami Parthasarathy – Basic Journalism, Macmillan
4. G.K Puri – A Complete Guide to Journalism for All MS Publications
5. K.M Shrivastava – News Reporting and Editing. Sterling Publishers Private Limited
6. PLV.Narasimha Rao- Style in Journalism, Orient Longman Semester - III



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

M.A ENGLISH DEGREE

I YEAR – III SEMESTER

RESEARCH METHODOLOGY AND RHETORIC

Unit I

The Fundamentals of
Research Types of
Research
Literary Research and Research in Science

Unit II

Choosing the Topic
Data Collection Primary and Secondary Sources

Unit III

Organization of Materials Thesis
Format Foot notes, Bibliography,
Parenthetical Documentation
Conventions: Abbreviation, punctuation, margin, spacing and quotation

Unit IV

Jargon, Terminology, Slang, Colloquialism, Vogue and Concrete Words
Denotation and Connotation
Sentence Structure
Hypothesis

Unit V

Induction and Deduction
Description, Exposition, Argumentation, Tone, Style, Plagiarism

REFERENCE

1. MLA VIII edition to be followed; VII to be referred.
2. C.J. Parsons - Thesis Writing
3. Kothari – Educational Research
4. Anderson – Thesis and Assignment Writing Amalraj D – Research Methodology

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****II YEAR ,III – SEMESTER****OFFICE AUTOMATION – PRACTICALS****LIST OF PRACTICALS****MS Word**

- Preparation of word document (Typing, aligning, Font Style, Font Size, Text editing, colouring, Spacing, Margins)
- Creating and Editing a table (Select no of rows, Select no of columns, row heading, column heading, column width, row width, row height, spacing text editing)
- Formatting a table (insert rows/columns, delete rows/columns, cell merging/splitting, Cell alignment)
- Preparation of letters using mail merge.
- Demonstration of Find, Replace, Cut, Copy and paste texts in a word document.

MS Excel

- Preparation of a Table using Excel.
- Creation of Charts, Graphs and Diagrams

MS PowerPoint

- Preparation of slides in powerpoint.
- Creation of Animation Pictures.

MS Access

- Creation of simple reports using MS Access.

General

- Export a given graph from Excel to word.
- Sending an Email.
- Download a document from internet.
- Import a picture from internet to word document.
- Create a Power point presentation when a word document is given.

Text Book

1. Andy Channelle, –Beginning OpenOffice 3: From Novice to Professional || A Press series, Springer-Verlog, 2009

Reference Books

1. Perry M. Greg, –Sams Teach Yourself OpenOffice.org All in One ||, Sams Publications, 2007



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.Sc. DEGREE COURSE IN MATHEMATICS

II YEAR, IV – SEMESTER

QUANTITATIVE APPTITUDE

UNIT -I

Chain rule–Time and work.

UNIT -II

Time and Distance.

UNIT -III

Problems on Trains.

UNIT -IV

Boats and Streams.

UNIT -V

Calendar and Clocks.

TEXT BOOK

1. R.S.Aggarwal,QuantitativeAptitudeforCompetitiveExaminations,S.Chandco. Ltd.,152,AnnaSalai,Chennai, 2001.

REFERENCEBOOKS:

1. Quantitative Aptitude –by Abhijit Guha, Tata McGraw Hill Publishing Company Limited, New Delhi(2005).

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, V – SEMESTER****C PROGRAMMING****UNIT -I**

Constants and variables: Introduction–Character set –Constants–Keywords and Identifiers–Variables –Data Types–Declaration of Variables–Assigning values to variables –Defining symbolic constants.(Sections:2.1 to 2.8, 2.10, 2.11)

UNIT -II

Arithmetic operators – Relational operators – Logical operators – Assignment operators – IncrementandDecrementoperators–conditionaloperators–Specialoperators.Arithmeticexpressions– Evaluationof Expressions (Sections 3.2 to 3.7, 3.9, 3.10, 3.11)

UNIT -III

Managing Input and output operations: Reading a character – Writing a character – Formatted input and output Decision making and Branching: Decision making with IF Statement – Simple IF Statement – IFELSE Statements–Nesting of IF...ELSE Statement–ELSE IF Laader (Sections4.1to 4.5)

UNIT -IV

Switch Statement – ? Operator – GOTO Statement – Decision Making and Looping: WHILE Statement – Do Statement–FOR Statement–Jumps in Loops–Simple Programs.(Sections5.2to5.9, 6.2to6.5)

UNIT -V

Arrays: Introduction – One Dimensional array – Declaration of one and two dimensional arrays – Initiating of one and two dimensional arrays - Declaring and initializing string variables – Reading strings from terminal – writing sting on the screen–Arithmetic operations on characters – simple problems.(Sections 7.1 to 7.6,8.1 to 8.5)

TEXTBOOK:

1. E. Balagurusamy, Reprint 2006, Programming in ANSI C, Tata McGraw Hill Publishing CompanyLtd.,New Delhi, 3rdEdition.

REFERENCEBOOKS

1. PeterAitkenandBradleyLJones,TeachYourselfC in21Days,TechMedia, NewDelhi,4th Edition.
2. TonyZhang,TeachYourselfCin 24Hours, SamsPublications,1st Edition,1997.
3. RamKumarandRakashAgrawal,ProgramminginANSIC,TataMcGrawHillPublishingCompanyLtd.,Ne w Delhi, 1993.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, V – SEMESTER****C PROGRAMMING PRACTICAL**

Write C program for the following

1. To Find the sum of N numbers
2. To Find the Largest of given 3 numbers
3. To solve a quadratic equations
4. To find the simple and compound interest
5. That reads an integer N and determines whether N is prime or not.
6. To arrange the number in ascending and descending order
7. To generate the Fibonacci sequence
8. To Find mean and standard deviation
9. To find addition and subtraction of two matrices.
10. To find the multiplication of two matrices.

Note

- ☐ This paper should be handled and valued by the faculty of Mathematics only.
- ☐ Both internal and external examiners for University Practical examinations should be appointed from the faculty of Mathematics only.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, VI – SEMESTER****LATEX THEORY****UNIT -I**

Basic LaTeX–Sample document and Key Concepts–typestyle–environments –Lists–Centering –tables– verbatim–vertical and horizontal spacing.(Chapter2Sections 2.1.to2.4.)

UNIT -II

Type setting Mathematics–Examples–Equation environments –Fonts, hats and underlining–braces–arrays and matrices – Customized commands – theorems like environments.
(Chapter3 Sections3.1. to 3.7.)

UNIT -III

Math miscellany – Math Styles – Bold Math – Symbols for number sets – binomial coefficient.(Chapter3 Sections 3.8. to 2.4.)

UNIT -IV

Further essential LaTeX – Document classes and the overall structure – titles for documents – Sectioning commands. (Chapter4 Sections 4.1. to 4.3.)

UNIT -V

Miscellaneous extras – Spacing – Accented characters – Dashes and hyphens – quotation marks – troubleshooting– Pin pointing the error– common errors –warning messages.(Chapter4 Sections4.4to 4.5.)

TEXTBOOKS

1.DavidFGriffithsandDesmondJ.Higham, LearningLaTeX,SIAM(SocietyforIndustrialandApplied Mathematics) Publishers, Philadelphia, 1996.

REFERENCEBOOKS

1. MartinJ.EricksonandDonaldBindner, AStudent'sGuidetotheStudy, Practice, andToolsofModernMathematics, CRC Press, BocaRaton, FL, 2011.
2. L.Lamport.LATEX:ADocumentPreparationSystem, User'sGuideandReferenceManual. Addison-Wesley, New York, second edition, 1994

Note:

This paper should be handled and valued by the faculty of Mathematics only.

Both Internal and External Examiners for University Practical Examination should be appointed from faculty of Mathematics only.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN MATHEMATICS****III YEAR, VI – SEMESTER****LATEXPRACTICALS****LIST OF PRACTICALS****Write Latex program for the following**

1. Type a Document in different alignments (Left, Right, Center, Justify).
2. Type a Letter for applying a job.
3. Type your own Bio–Data.
4. Draw a Table structure.
5. Type a given Mathematical expression using Differentiation, Integration and Trigonometry.
6. Type a given Mathematical expression using all expression.
7. Type a given expression using all inequalities.
8. Type of given Article.
9. Draw any picture and insert in LateXfile.
10. Type a given Question paper
11. Convert one LateX file into powerpoint presentation.

TEXTBOOKS

1. David F Griffiths and Desmond J. Higham, Learning LaTeX, SIAM (Society for Industrial and Applied Mathematics) Publishers, Philadelphia, 1996.

REFERENCE BOOKS

1. Martin J. Erickson and Donald Bindner, A Student's Guide to the Study, Practice, and Tools of Modern Mathematics, CRC Press, Boca Raton, FL, 2011.
2. L. Lamport. LATEX: A Document Preparation System, User's Guide and Reference Manual. Addison-Wesley, New York, second edition, 1994

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN MATHEMATICS****II YEAR, III – SEMESTER
PROGRAMMING WITH C++****UNIT I :**

Software Evolution – Procedure oriented Programming – Object oriented programming paradigm – Basic concepts of object oriented programming – Benefits of oops – Object oriented Languages – Application of OOP – Beginning with C++ - what is C++ - Application of C++ - A simple C++ Program – More C++ Statements – An Example with class – Structure of C++ Program.

UNIT II :

Token, Expressions and control structures: Tokens – Keywords – Identifiers and Constants – Basic Data types – User defined Data types – Derived data types – Symbolic Constants in C++ - Scope resolution operator – Manipulators – Type cast operator – Expressions and their types – Special assignment expressions – Implicit Conversions – Operator Overloading – Operator precedence – Control Structure.

UNIT III : Function in C++:

Main Function – function prototyping – Call by reference – Return by reference – Inline functions – default arguments – Const arguments – Function overloading – Friend and Virtual functions – Math library function. Class and Objects: Specifying a class – Defining member functions – A C++ program with class – Making an outside function inline – Nesting of member functions – Private member functions – Arrays within a class – Memory allocations for objects – Static data member – Static member functions – Array of the object – Object as function arguments – Friendly functions – Returning objects – Const member functions – Pointer to members – Local classes.

UNIT IV : Constructors and Destructors:

Constructors – Parameterized Constructors in a Constructor – Multiple constructors in a class – Constructors with default arguments – Dynamic Initialization of objects – Copy constructors – Dynamic Constructors – Constructing Two-dimensional arrays – Const objects – Destructors. Operator overloading and type conversions: Defining operator overloading – overloading unary operators – overloading binary operators - overloading binary operators using friends – Manipulation of strings using operators – Rules for overloading operators – Type conversions.

UNIT V : Files:

Introduction – Class for file stream operations – opening and closing a file – detecting End-of file – More about open () File modes – File pointer and their manipulations – Sequential input and output operations. Exception Handling: Introduction – Basics of Exception Handling – Exception Handling Mechanism – Throwing Mechanism – Catching Mechanism – Rethrowing an Exception.

TEXT BOOK:

E.Balagurusamy, Object-Oriented Programming with C++ ,2nd Edition, Tata McGraw Hill Pub. 1999.

BOOKS FOR REFERENCE:

1. Robert Lafore – “The Waite Group’s Object Oriented Programming In Turbo C++ - Galgotia Publication Pvt. Ltd. 1998.
2. Allan Neibaver – Office 2000.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN MATHEMATICS****II YEAR, III – SEMESTER****C++ PROGRAMMING LAB****LIST OF PRACTICALS**

1. Create two classes DM and DB, which store the value of distances. DM stores distances in meters and centimeters in DB in feet and inches. Write a program that can create the values for the class objects and add object DM with another object DB.
2. Create a class FLOAT that contains on float data member overload all the four arithmetic operators so that operates on the objects of FLOAT.
3. Design a class polar, which describes a part in a plane using polar coordinates radius and angle. A point in polar coordinates is as shown below. Use the overloads +operator to add two objects of polar. Note that we cannot add polar values of two points directly. The requires first the conversion points into rectangular coordinates and finally creating the result into polar coordinates.

[Where rectangle co-ordinates: $x = r \cdot \cos(a)$; $y = r \cdot \sin(a)$; Polar co-ordinates: $a = \text{atan}(x/y)$ $r = \text{Sqrt}(x^2 + y^2)$]
4. Create a class MAT of size $m \times m$. Define all possible matrix operations for MAT type objects verify the identity. $(A-B)^2 + B^2 - 2 \cdot A \cdot B$.
5. Area computation using derived class.
6. Define a class for vector containing scalar values. Apply overloading concepts for vector additions, multiplication of a vector by a scalar quantity, replace the values in a position vector.
7. Integrate a function using Simson's 1/3 rule.
8. Solve the system of equations using Guass Seidel method.
9. Solve differential equations using Runge Kutta forth order method.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****I YEAR, II – SEMESTER****SPACE SCIENCE****UNIT I: Universe**

Planets - interior planets - exterior planets - crust, mantle and core of the earth - different - region of earth's atmosphere - rotation of the earth - magnetosphere - Van Allen belts - Aurora.

UNIT II: Comets, Meteors, Asteroids

Composition and structure of comets - periodic comets – salient features of asteroids, meteors and its use

UNIT III : Sun

Structure of photosphere, chromosphere, corona - sunspots – solar flares - solar prominences - solar piages - satellites of planets -structure, phases and their features of moon.

UNIT IV : Stars

Constellations - binary stars - their origin and types star clusters –globular clusters - types of variable stars - types of galaxies.

UNIT V : Origin of Universe

Big bang theory - pulsating theory - steady state theory – composition of universe expansion

REFERENCE :

1. K.D. Abyankar, Astrophysics of the solar system, University press, India (1999)
2. BaidyanathBasu, Sudhindra Nath Biswas And Tanuka Chattopadhyay, An Introduction ToAstrophysics, Prentice Hall OfIndia, New Delhi (2010)
3. Prof. P.Devadas, The fascinatingAstronomy, Devadas Telescopes, Chennai
4. R.P. Singhal, Elements of Space Physics, PHI, (2009)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc.****DEGREE COURSE IN PHYSICS****II YEAR, III – SEMESTER****PROGRAMMING IN C****UNIT - I**

Evolution of computers - computer generations - history of development of computers

UNIT - II

Input unit - output unit - Central Processing Unit (CPU) –programming languages - algorithms - flow charts - operating system -basic principle

UNIT - III

Basic structure of C - programs - constants - variables - data type –declaration of variables - defining symbolic constants, operators and expression - reading a character - writing a character – formatted input and output statements

UNIT - IV

Control statements - simple if, if – else, else - if ladder – switching statements - go to statement - break and continue looping - while-do for statements - arrays - user defined functions - string functions - streat, strcpy, strlen, strcmp - elementary idea.

UNIT - V

Development of algorithm, flow chart and program for the following

1. Average of a set of numbers
2. Area of a triangle
3. Sorting a set of numbers in ascending and descending order
4. Summing the series of numbers
5. Solving the series of numbers.

BOOKS STUDYAND REFERENCE

1. E. Balagurusamy, Programming inANSI C, McGraw Hill Education (2012)
2. Byron Gottfried, Jitender Chhabra, Programming with C, Schaum Series (2010)
3. Henry Mullish (Author), Herbert L. Cooper (Author),The Spirit of C (1998)
4. S. ThamaraiSelvi and R. Murugesan, C for all, Pearson education (2012)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****III YEAR, V – SEMESTER****BIO MEDICAL INSTRUMENTATION****UNIT I:**

Introduction – Cells and their structures –Nature of cancer cells –Transport of ions through the cell membrane –Resting and acting potentials – Bio electric potentials –Difficult system of human body

UNIT II:

Electro - Cardiography (ECG) - Electromyography (EMG) - Electro -Encephelograph (EEG) - Phonocardiography

UNIT III:

Pacemakers - introduction - external and internal pacemakers -artificial heart valves - (principle - block diagram and operation)

UNIT IV:

Anesthesia machine - recording fetal heart movements and blood circulation using doppler ultrasonic method - laser based Doppler blood flow meter - Blood cell counter - B.P. measurement - direct and indirect method - Haemocytometer - counting of RBCs and WBCs.

UNIT V:

Radiation safety instrumentation - effects of radiation exposure –radiation monitoring instruments - pocket dosimeter - pocket typeradiation alarm

BOOKS FOR STUDY & REFERENCE

1. Dr. M. Arumugam, Bio-medical Instrumentation, Anuradha Agencies (2002)
2. John G. Webster, Medical Instrumentation: Application and Design, John Wiley & Sons Inc (2009)
3. P.K. Bajpai, Biological Instrumentation and methodology, S Chand & Co (2010)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc.****DEGREE COURSE IN PHYSICS****III YEAR, V – SEMESTER****DIGITAL ELECTRONICS****UNIT I****Number system and codes**

Binary, Octal, Hexadecimal – inter conversion – Gray code – excess 3-code – ASCII code – basic gates – DeMorgan's theorem – universal gates.

UNIT II**Boolean algebra**

Laws of Boolean algebra – solving Boolean expression – K-map – minterms – SOP – K-map simplification using minterm (2, 3 and 4 variables) – POS – K-map simplification using max terms (2, 3 and 4 variables) – incomplete specified functions.

UNIT III**Arithmetic and logic circuits**

Half adder – Full adder – Half subtractor – Full subtractor – Decoder – BCD to seven segment decoder – Encoder – decimal to BCD encoder – multiplexer – applications – de-multiplexer.

UNIT IV**Sequential circuits**

RS Flip flop using NOR and NAND gates – clocked RS flip flop – D flipflop – JK flip flop – Master Slave JK flip flop – Registers – Shift Registers (right to left and left to right) – applications.

UNIT V**Counters and data converters**

Counters – modulus of a counter – asynchronous counter (4-bits) – synchronous counter (3-bits) – BCD counter – D/A conversion – R-2R binary ladder method – A/D conversion – successive approximation.

BOOKS FOR STUDY

1. Don Leach, Albert Malvino, Digital principles and applications, McGraw-Hill Inc., US (1994)
2. V. Vijayendran, Digital fundamentals. S. Viswanathan Printers and Publishers Pvt. Ltd., (2009)
3. Virendra Kumar, Digital electronics, NewAge International Publishers (2007)
4. Avinashi Kapoor and L. K. Maheswari, Digital Electronics - Principles and Practice, Macmillan India Limited (2004)
5. D. A. Godse and A. P. Godse, Digital electronics, Technical Publisher, Pune (2008)
6. Morris Mano, Digital Logic and Computer Design, Pearson Education (2004)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS
III YEAR, VI – SEMESTER
BASIC OF ELECTRICITY AND APPLIANCES****UNIT I**

Electrical charge – current – potential – units – Ohm's law – electrical energy – power – watt – kWh – consumption of electrical power – resistance – capacitance – inductance and its units – measuring meter – Galvanometer, ammeter, voltmeter and multimeter.

UNIT II

Principles of transformers – constructional details – Core type, Shell type – classification of transformers
– EMF equation – voltage ratio – current ratio – transformer on no load – auto transformer – applications.

UNIT III

AC and DC – single phase and three phase connections – three phase transformer – house wiring star-star, star-delta, delta – star connections – overloading – earthing – short circuiting – fuses – cooling of transformers – protective devices and accessories – losses in transformer.

UNIT IV

Electrical bulbs – fluorescent lamps – inverter – UPS – Stabilizer – principle and operations of fan – wet grinder – mixer – water heater – electric iron box – microwave oven – refrigerator.

UNIT V

Electric heating – resistance heating – induction heating – high frequency eddy current heating – Dielectric heating – resistance welding – electric arc welding – occupational hazards due to chemical reactions.

BOOKS FOR STUDY AND REFERENCES

1. P.L. Soni, P.V. Gupta and V.S. Bhatnagar, A text book in electric power, Dhanpat Rai sons,
2. E.O. Taylor, Utilization of electrical energy, Orient Longman
3. H. Partas, Arts and Science of utilization of electrical energy Dhanpat Rai & Sons, New Delhi
4. J.B. Gupta, An integrated course in electrical engineering, S.K. Kataria & Sons (2013)
5. B.L. Teraja and A.K. Teraja, A Textbook of Electrical Technology, S. Chand & Co. New Delhi (2006)
6. Alternating current electrical engineering, Philip Kemp, Mcmillan (1963)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN PHYSICS****III YEAR, VI – SEMESTER****MICROPROCESSOR AND ITS APPLICATIONS****UNIT-I**

Terms related to microprocessor (microprocessor, micro computer, Bit, Byte, MSB, LSB, Nibble, Word, Instruction, Bus, Mnemonic, Program, Machine language, Assembly language) - Functional block diagram of micro computer - Development of microprocessor – Pin configuration of microprocessor of 8085 – power supply - address bus – Multiplexed address/data bus – control and status signals- interrupt signals –clock signals- hand shake signals – reset signals

UNIT-II

Architecture of microprocessor 8085 – Word length –registers – ALU –Accumulator – stack pointer – program counter – Instruction register – Instruction decoder & machine cycle encoder – timing and control unit - Flags – PSW –internal data bus –Instruction format – Mnemonics – Classification of instructions of 8085 based on their length with examples

UNIT-III

Addressing modes of 8085- Instruction set of 8085 – Classification of instruction set based on their operations with examples – Data transfer operations – Arithmetic operations – Logical operations – Branching operations – Machine control operations

UNIT-IV

Assembly language programs: Transferring a block of data – 8 bit addition - 8 bit subtraction - 8 bit multiplication – 8 bit division –Square root of a number

UNIT-V

Assembly language programs: Arranging numbers in ascending and descending order (Bubble sort method) – Finding greatest and smallest number in an array – Sum of N numbers – Generating Fibonacci series

BOOKS FOR STUDY AND REFERENCE

1. Ramesh Gaonkar, Microprocessor Architecture, Programming and Applications with the 8085, Penram International Publishing, 6th edition (2013)
2. B. Ram, Fundamentals of Microprocessor and Microcontrollers, Dhanpat Rai Publications (2008)
3. Aditya P.Mathur, Introduction to Microprocessor, Mc graw Hill (1990)
4. V. Vijayendran, Fundamental of Microprocessor 8085: Architecture Programming, and Interfacing, Viswanathan, S., Printers & Publishers PVT Ltd (2009)
5. Charles M. Gilmore, Microprocessor: Principles and Application, McGraw-Hill (1995)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN CHEMISTRY****III YEAR, VI – SEMESTER****PHARMACEUTICAL CHEMISTRY****UNIT-I**

1.1. Definition of the terms-drug, pharmacophore, pharmacodynamics, pharmacopoea, pharmacology, bacteria, virus, fungus, actinomycetes, metabolites, antimetabolites, LD₅₀, ED₅₀. Therapeutic index.

UNIT-II

1. Sulphonamides-mechanism and action of sulpha drugs- preparation and uses of sulphadiazine, sulphapyridine.
2. Antibiotics-Definition-classification as broad and narrow spectrum, Antibiotics-penicillin, ampicillin, structure and mode of action only (no structural elucidation, preparation, assay)

UNIT-III

1. Analgesics-definition and actions-narcotic and non narcotic-morphine, Heroin.
2. Antipyretic analgesics-salicylic acid derivatives-methyl salicylate, aspirin

UNIT –IV

1. Anaesthetics-definition-classification-local and general- volatile, nitrous oxide, ether, chloroform, uses and disadvantages – nonvolatile – intravenous - thiopental sodium, -local anaesthetics –cocaine and benzocaine.
2. Antianaemic drugs-iron, vitamin B12 and folic acid-mode of action.

UNIT-V

1. Diabetics-Hypoglycemic agents-sulphonyl urea, biguanides.
2. AIDS-causes, prevention and control.
3. Indian medicinal plants and uses-tulasi, kilanelli, mango, semparuthi, adadodai and thoothuvalai.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN CHEMISTRY****II YEAR, IV – SEMESTER****MEDICINAL CHEMISTRY****OBJECTIVES**

- i. To understand the basic concepts of medicinal chemistry
- ii. To understand the structure activity relationships of selected drug molecules

UNIT I Basic Concepts (15 Hours)

Drug design - analogues and pro-drugs, factors governing drug design, rational approach, method of variation and tailoring of drugs; Physical properties-factors governing drug action at active site, factors governing ability of drugs to reach active site, dissociation constants, isosterism and bioisosterism; general anaesthetics- inhalation anaesthetics, intravenous anaesthetics and basal anaesthetics; mode of action; local anaesthetics-classification and syntheses, sedatives and hypnotics- classification, synthesis, mode of action and structure-activity relationship.

UNIT II Anticonvulsants, Stimulants and Antipyretic Analgesics (15 Hours)

Anticonvulsants - classification, synthesis and mode of action; Muscle relaxants- classification, synthesis and mode of action. Central nervous system stimulants- classification, synthesis and mode of action; Antipyretic analgesics- classification, synthesis and mode of action;

UNIT III Other Analgesics (15 Hours)

Narcotic or Opiate analgesics - classification, preparation and mode of action; Narcotic antagonists; Cardiovascular drugs-classification, synthesis and mode of action; Autonomic drugs-synthesis and mode of action of sympathomimetic drugs, antiadrenergic drugs, cholinomimetic drugs, antimuscarinic drugs, ganglionic blocking agents and adrenergic neurone blocking agents; Diuretics - synthesis and mode of action of mercurial and non-mercurial diuretics.

UNIT IV Antihistamines, Anti-inflammatory and Antiparkinson drugs (15 Hours)

Antihistaminics - synthesis and mode of action of histamine H1 receptor antagonists and histamine H2-receptor blockers; prevention of histamine release; structure- activity relationships amongst H1-receptor blockers. Non-steroidal anti- inflammatory drugs(NSAID)-synthesis and mode of action of heteroarylacetic acid analogues, arylacetic acid analogues, arylpropionic acid analogues, naphthalene acetic acid analogues, gold compounds, salicylic acid analogues and pyrazolones and pyrazolodiones; Antiparkinsonism agents-synthesis and mode of action of piperidine analogues, pyrrolidine analogues and phenothiazine analogues.

UNIT V Other drugs (15 Hrs)

Expectorants and antitussives-synthesis and mode of action of sedative expectorants, stimulant expectorants and centrally acting antitussive agents. Sulphonamides- preparation and mode of action of sulphonamides for general, urinary, intestinal and local infection; sulphonamide inhibition. Antimalarials-synthesis and mode of action of aminoquinoline analogues, aminoacridine analogues, guanidine analogues, pyrimidine analogues, sulfone and quinine analogues; Steroids-synthesis and mode of action of sterols, sex hormones, cardiac glycosides, bile acids and sapogenins. Antibiotics-synthesis and mode of action of penicillins, aminoglycoside antibiotics, chloramphenicol and tetracyclines.

TEXT BOOKS

1. Ashutosh Kar, Medicinal Chemistry, New Age International, 1996.
2. W.O.Foye, Principles of medicinal chemistry, 2nd edn., Lea & Febiger, Philadelphia, 1981.

REFERENCE BOOKS

1. M.E.Wolff, Burger's medicinal chemistry, 4th Edn., John Wiley & Sons, New York, 1981.
2. F.F.Blicke and R.H.Cox, Medicinal Chemistry, John Wiley & Sons, New York, 1959.
3. D.Lednicer and L.A.Mitscher, Organic Chemistry of drug synthesis, John Wiley & Sons, New York, 1959.
4. J.E.Hoover, Remington's Pharmaceutical sciences, 15th Edn. Mack Publ.Company, Easton, 1975.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****I YEAR, II – SEMESTER****SYSTEM ADMINISTRATION AND MAINTENANCE****UNIT - I**

Introduction to Personal Computer: Computer System - Purposes & Characteristics of Cases - Power Supplies - Internal Components - Ports - Cables - Input devices - Output devices. Safe Lab Procedures and Tool Use: Safe Working Conditions and Procedures - Tools and Software used with PC components.

UNIT - II

Computer Assembly: Open Case - Install Power Supply - Attach Components to Motherboard - Installation: Motherboard - Internal Drives - Drives in External Bays - Adapter Cards. Internal cables connections - Reattach side panels - Connection of external cables - Boot the Computer. Preventive Maintenance and Troubleshooting: Purpose of Preventing Maintenance - Steps of Troubleshooting Process.

UNIT - III

Fundamental Operating System: Purposes - Characteristics of Modern Operating Systems - Concepts-Comparisons, Limitations, and Compatibilities - Determination of Operating System based on Customer Needs - Installation of Operating System - Navigate a GUI (Windows) - Common Preventive Maintenance Techniques-Troubleshoot.

UNIT - IV

Fundamental Laptops and Portable Devices: Common Uses - Components of Laptop - Comparison of the components of Desktop and Laptops - Configure Laptops - Mobile Phone Standards - Preventive Maintenance Techniques - Troubleshoot Laptop and Portable Devices. Fundamental Printers and Scanners: Types of Printers and Scanners - Installation and Configuration Process of Printers and Scanners - Preventive Maintenance Techniques - Troubleshoot.

UNIT - V

Fundamental Networks: Principles - Types - Concepts and Technologies - Physical Components - LAN Topologies and Architectures- Standard Organizations - Ethernet Standards - OSI and TCP/IP Models - Configuration of NIC and Modem - Establishing Connectivity - Preventive Maintenance Techniques - Troubleshoot. Fundamental Security: Security Threats - Security Procedures - Preventive Maintenance Techniques - Troubleshoot Security.

TEXTBOOK

1. David Anfinson & Ken Quamme, "IT Essentials: PC Hardware and Software Companion Guide", 3rd Edition, Pearson Publications, 2008.

REFERENCE BOOK

1. Quentin Docter, Emmett Dulaney and Toby Skandier, "CompTIA A+ Complete Review Guide: Exam 220-901, Exam 220 - 902", 3rd Edition, Wiley Publications, 2015.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****BCA & B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****II YEAR, IV – SEMESTER****INTERNET AND ITS APPLICATIONS****UNIT - I**

Introduction To The Internet: Computer in Business - Networking - Internet - E-mail - Resource Sharing - Gopher - World Wide Web - Telnet - Bulletin Board Service - Wide Area Information Service.

UNIT - II

Internet Technologies: Modem - Internet addressing - Physical connections - Telephone Lines - Internet browsers - Internet Explorer - Netscape Navigator.

UNIT - III

Web Server - Proxy Server - Web Browser - Search Engines - Search Tools - Firewalls - Data Security.

UNIT - IV

Internet Relay Chat - Types of Network - Packet Switched Network - Circuit Switched Network - TCP/IP - Internet Protocol.

UNIT - V

Case Study: Online Passport - Online Gas Services - Online Train Reservation - Tamilnadu government services

TEXTBOOKS

1. C Xavier, "World Wide Web with HTML", Tata McGraw Hill Education, 2000.
2. H.M.Deital, P.J. Deital, "Internet and World Wide Web - How to Program", 4th Edition "PHI Learning.
3. Raj Kamal, "Internet and Web Technologies", 7th Reprint, Tata McGraw Hill Education, 2007.

REFERENCE WEBSITES

1. <http://www.ebharatgas.com/>
2. <http://passportindia.gov.in/>
3. <https://www.irctc.co.in>
4. <http://www.tn.gov.in/>

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****BCA & B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****III YEAR, V – SEMESTER****PRACTICAL - SHELL PROGRAMMING**

1. Write a shell script to implement the file commands: rm, cp, cat, mv, cmp, wc, split, diff.
2. Write a shell script to print the following system configuration:
 - a. currently logged user and his log name
 - b. current shell , home directory , Operating System type , current path setting , current working directory
 - c. show currently logged number of users, show all available shells
 - d. show CPU information like processor type , speed
 - e. show memory information
3. Write a shell script to implement the following: pipes, redirection and tee commands.
4. Write a shell script for displaying current date, user name, file listing and directories by getting user choice.
5. Write a shell script to modify "cal" command to display calendars of the specified range of months.
6. Write a shell script to find the sum of the individual digits of a given number.
7. Write a shell script to find the greatest among the given set of numbers using command line arguments.
8. Write a shell script for palindrome checking.
9. Write a shell script to print the multiplication table of the given argument using for loop.
10. Write a shell script to compare two files and if found equal delete the duplicate file.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****BCA & B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****III YEAR, V – SEMESTER****MULTI SKILL DEVELOPMENT****UNIT- I**

Communication: Question tag - Gerund and Infinitives - Spotting the errors - Vocabulary - Synonyms - Antonyms - Prepositions - Articles - One word substitution - Sentence completion.

UNIT - II

Numerical Aptitude : Problems on numbers - Problems on Ages - Percentage - Profit and loss - Ratio & Proportion - Time & Work - Time & Distance - Simple Interest - Compound Interest.

UNIT - III

Critical Reasoning: Logical Inference Questions and Syllogism. Analytical Reasoning: Arrangement problems - Family / Blood Relation Qualms - Sense of Directions - Age Doubts. Verbal Reasoning: Verbal Analogy: Letter series - number series - Coding and Decoding.

UNIT- IV

Self Introduction - Soft Skills - Interpersonal Skills - Employability Skills - Soft Skills Training - Resume Preparation - Interview Tips and Questions.

UNIT- V

Group Discussion - Importance - Types of GD - GD Skills - GD Etiquette - Essential Elements of a GD - Movements and Gestures to be avoided in a GD

TEXT and REFERENCE BOOKS

1. Hari Mohan Prasad & Uma Rani Sinha, "Objective English for Competitive Examinations", Tata McGraw Hill Education Private Ltd., (Unit - I)
2. R.S. Aggarwal, "Quantitative Aptitude", S.Chand 2010. (Unit - II)
3. R.S. Agarwal, "A Modern Approach to Verbal Reasoning (Fully Solved)" -Revised Edition, S.Chand Company Limited, New Delhi, 2012. (Unit - III)
4. M. S. Rao, "Soft Skills Enhancing Employability-Connecting Campus with Corporate", IK International Publishing House, NewDelhi, 2010. (Unit - IV)
5. Alex.K, "Soft Skills-Know Yourself and Know the World", S.Chand Company Ltd., 2011. (Unit- V)



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

BCA & B.Sc. DEGREE COURSE IN COMPUTER SCIENCE

III YEAR, VI – SEMESTER

PRACTICAL - IMAGE EDITING TOOL

1. Design a greeting card for birthday using different text effects.
2. Apply various filter effects to an image.
3. Design the front page of the college calendar using gradient.
4. Create a pattern using pattern stamp tool and clone stamp tool.
5. Design a web page layout.
6. Design a bunch of flowers.
7. Perform/Simulate Plastic Surgery on any part of the face.
8. Create See-through texts
9. Convert Black and White Photo to Color Photo
10. Fill a text with an appropriate image (Example: The word "Flower" should be filled with some flower images)

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.Sc. DEGREE COURSE IN COMPUTER SCIENCE****III YEAR, VI – SEMESTER
SOFTWARE ENGINEERING****UNIT- I**

Introduction - Software Engineering Discipline - Evolution and Impact - Programs Vs Software Products. Software Life Cycle Models: Use of a Life Cycle Models - Classical Waterfall Model - Iterative Waterfall Model - Prototyping Model - Evolutionary Model - Spiral Model. Software Project Management: Responsibilities of a Software Project Manager - Project Planning - Metrics for Project Size Estimation - Project Estimation Techniques -Risk Management.

UNIT - II

Requirements Analysis and Specification: Requirements Gathering and Analysis - Software Requirements Specification (SRS) - Formal System Development Techniques. Software Design: Characteristics of a Good Software Design - Cohesion and Coupling -Neat Arrangement - Software Design Approaches.

UNIT - III

Function-Oriented Software Design: Overview of SA/SD Methodology - Structured Analysis - Data Flow Diagrams (DFDs).Object Modeling Using UML: Overview of Object-Oriented Concepts - UML Diagrams - Use Case Model - Class Diagrams - Interaction Diagrams - Activity Diagrams - State Chart Diagram.

UNIT - IV

User Interface Design: Characteristics of a Good User Interface - Basic Concepts - Types of User Interfaces - Component-Based GUI Development; Coding and Testing: Coding - Testing - UNIT Testing - Black-Box Testing - White-Box Testing - Debugging -Integration Testing - System Testing.

UNIT - V

Software Reliability and Quality Management: Software Reliability - Statistical Testing - Software Quality - Software Quality Management System - ISO 9000.Computer Aided Software Engineering: CASE Environment - CASE support in Software Life Cycle - Characteristics of CASE Tools - Architecture of a CASE Environment. Software Maintenance: Characteristics of Software Maintenance
- Software Reverse Engineering - Software Maintenance Process Models
- Estimation of Maintenance Cost. Software Reuse: Issues in any Reuse Program - Reuse Approach.
TEXT BOOK

1. Rajib Mall, "Fundamentals of Software Engineering",3rd Edition, Prentice Hall of India Private Limited, 2008.

REFERENCE BOOKS

1. Rajib Mall, "Fundamentals of Software Engineering", 4thEdition, Prentice Hall of India Private Limited, 2014.
2. Richard Fairley, "Software Engineering Concepts", TMGH Publications, 2004.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

BCA DEGREE

III YEAR, VI – SEMESTER

PRACTICAL – ANDROID PROGRAMMING

1. Sample Application about Android Resources
2. Sample Application about Layouts
3. Sample Application about Intents
4. Sample Application about user interfaces
5. Sample Application about Animations
6. Sample Application about SQLite I
7. Create Calculator App in Android
8. Create Simple Android Camera Application
9. Create Basic List View Demo in Android
10. Create Google Map in Android

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN COMPUTER SCIENCE****I YEAR, II – SEMESTER****E–TECHNOLOGIES****Course Objectives:**

- Provides a better understanding of the orientation in the current development of the modern network technologies which are used in E-business
- Provides an idea about B2B, E-Payment and M-Commerce

UNIT – I

The second wave of Global E-Business: Introduction - Electronic Commerce– Business Models, Revenue Models, and Business Processes – Advantages and disadvantages of Electronic Commerce - Economic Forces and Electronic Commerce – Identifying Electronic Commerce Opportunities – International Nature of Electronic Commerce. E-Business Technology Basics: The Internet and the World Wide Web– Packet – Switched Networks – Internet Protocols – Markup Languages and the Web – Intranets and Extranets – Internet Connection Options - Internet2 and The Semantic Web. Web server and E-Mail Technologies: Introduction – web server basics-software for web servers - web site utility programs - web server hardware.

UNIT – II

E-Business Revenue Models: Introduction - Revenue Models - Creating an effective Web Presence. Selling to Consumers Online: Introduction – Web Marketing strategies. Selling to Businesses Online: Introduction - Electronic Data Interchange. Virtual Communities: From Virtual Communities to Social Networks - Mobile Commerce - Online Auctions. E-Business Law and Taxation: The Legal Environment of E-Commerce - Ethical issues - Taxation and E-commerce.

UNIT – III

Web Hosting and E-Business Software: Basic Functions – Advanced Functions – E-commerce Software for Small and Midsize companies, Mid size to Large Businesses, Large Businesses. Online Security: Online Security Issues overview - security for client and server computers. Online payment systems: Basics - Payment Cards – Electronic cash - Electronic wallets. Implementing E-Business Initiatives: Identifying Benefits and Estimating cost of Electronic Commerce initiatives – Strategies for Developing E-commerce Web sites - Managing E-Commerce Implementations.

UNIT - IV

E-Marketing: Traditional Marketing – Identifying Web Presence Goals – The Browsing Behaviour Model – Online Marketing – E-Advertising - Internet Marketing Trends – Target Markets – E-Branding – Marketing Strategies. - E-security – E-Payment Systems: E- Customer Relationship Management: E Supply Chain Management.

UNIT – V

E-Strategy: Information and Strategy – The Virtual Value Chain – Seven Dimensions of E-Commerce Strategy – Value Chain and E-Strategy – Planning the E-Commerce Project – E-Commerce Strategy and Knowledge Management – E-Business Strategy and Data Warehousing and Data mining. Mobile Commerce: Wireless Applications – Technologies for Mobile Commerce – WAP Programming Model – Wireless Technologies – Different Generations in Wireless Communication – Security issues Pertaining to Cellular Technology –M-Commerce in India. Customer Effective Web Design: Legal and Ethical Issues.

**1.3.1 Curriculum Integrating Crosscutting Issues****TEXT BOOKS**

1. Gary P. Schneider, "E-Commerce Strategy, Technology and Implementation," Cengage Learning INDIA Private Limited,. Reprint 2008
2. T. Joseph, "E-Commerce an Indian Perspective," 3rd Edition Prentice Hall of India,

REFERENCE BOOKS

1. Mike Papazologn, "E-Business, Organizational and Technical Foundations," Wiley India Pvt Ltd, 2008
2. Elias M. Awad, "Electronic Commerce," Prentice-Hall of India, 2008
3. Kenneth C.Laudon, Carlo Guercio Traver, " E- Commerce-business, Technology, Society," Pearson Education 2009.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.Sc. DEGREE COURSE IN COMPUTER SCIENCE****II YEAR, IV – SEMESTER****CYBER SECURITY****Course Objectives:**

- To learn the basics of cyber security
- To know the security policies and cyber management issues

UNIT - I

Introduction: Cyber Security – Cyber Security policy – Domain of Cyber Security Policy – Laws and Regulations – Enterprise Policy – Technology Operations – Technology Configuration – Strategy Versus Policy – Cyber Security Evolution – Productivity – Internet

- E-commerce – Counter Measures - Challenges.

UNIT - II

Cyber Security Objectives and Guidance: Cyber Security Metrics – Security Management Goals – Counting Vulnerabilities – Security Frameworks – E-Commerce Systems – Industrial Control Systems – Personal Mobile Devices – Security Policy Objectives – Guidance for Decision Makers – Tone at the Top – Policy as a Project – Cyber Security Management – Arriving at Goals – Cyber Security Documentation – The Catalog Approach

- Catalog Format – Cyber Security Policy Taxonomy.

UNIT - III

Cyber Security Policy Catalog: Cyber Governance Issues – Net Neutrality – Internet Names and Numbers – Copyright and Trademarks – Email and Messaging-Cyber User Issues - Malvertising Impersonation – Appropriate Use – Cyber Crime – Geolocation – Privacy - Cyber Conflict Issues – Intellectual property Theft – Cyber Espionage – Cyber Sabotage – Cyber Welfare.

UNIT - IV

Cyber Management Issues: Fiduciary Responsibility – Risk Management – Professional Certification – Supply Chain – Security Principles – Research and Development – Cyber Infrastructure Issue – Banking and finance – Health care – Industrial Control systems.

UNIT - V

Case Study: A Government's Approach to Cyber Security Policy.

TEXT BOOK

1. Jennifer L, Bayuk J, Heale P, Rohmeyer, Marcus Sachs, Jeffrey Schmidt and Joseph Weiss "Cyber Security Policy Guidebook", John Wiley & Sons ,2012.

REFERENCE BOOKS

1. Rick Howard, "Cyber Security Essentials", Auerbach Publications, 2011.
2. Richard A, Clarke, Robert Knake, "Cyber war: The Next Threat to National Security & What to Do About It", Ecco, 2010.
3. Dan Shoemaker, "Cyber security The Essential Body Of Knowledge", Cengage Learning, 2011.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.COM & B.COM CA DEGREE****II YEAR, III – SEMESTER****MS OFFICE PRACTICAL - I****I.– MS WORD**

1. Type chairman's speech / Auditor's report / Minutes / Agenda and perform the following operations: Bold, Underline, Font size, Style, Background color, Text color, Line Spacing, Spell check, Alignment, Header & Footer, Inserting pages and page numbers, Find and Replace.
2. Prepare an invitation for the college function using Text boxes and clip art.
3. Prepare a class time table and perform the following operations: Inserting the table, Data entry, Alignment of Rows and Columns, Inserting and Deleting the rows and columns and Change of Table Format.
4. Prepare a Shareholders meeting letter for 10 members using mail merge operation.
5. Prepare Bio-Data by using Wizard and Templates.

II. – MS EXCEL

1. Prepare a mark list of your class (minimum 5 subjects) and perform the following operations: Data entry, Total, Average, Result and Ranking by using arithmetic and logical functions and sorting.
2. Prepare Final Accounts (Trading, Profit & Loss Account and Balance Sheet) by using formula.
3. Draw the Different type of charts (Line, Pie, Bar) to illustrate year-wise performance of sales, purchase, profit of company by using chart wizard.
4. Prepare a statement of Bank customer's account showing simple and compound interest calculations for 10 different customers using mathematical and logical functions.
5. Prepare a Product Life Cycle which should contain the following stages: Introduction, Growth, Maturity, Saturation, Decline.

III– MS POWER POINT

1. Design presentation slides for a product of your choice. The slides must include name, brand name, type of product, characteristics, special features, price, special offer etc. Add voice if possible to explain the features of the product. The presentation should work in manual mode.
2. Design presentation slides for organization details of 5 levels of hierarchy of a company by using organization chart.
3. Design slides for the headlines News of a popular TV channel. The presentation should contain the following transactions : Top down, Bottom up, Zoom in and Zoom out. The presentation should work in custom mode.
4. Design presentation slides about an organization and perform frame movement by inserting clip arts to illustrate running of an image automatically.
5. Design presentation slides for the Seminar/ Lecture Presentation using animation effects and perform the following operations : Creation of different slides, changing background color, font color using word art.

**1.3.1 Curriculum Integrating Crosscutting Issues**

NOTE : Of the total of three hours per week one hour will be theory.

PERSONALITY ENHANCING SKILL COURSES**B.COM & B.COM CA DEGREE
II YEAR, IV – SEMESTER
PROJECT METHODOLOGY****Course Objectives:**

- After the successful completion of the course the student will come to know how to carry out the project work

UNIT – I

Introduction: Project- Meaning- Features- Objectives of project- Difference between dissertation and Thesis.

UNIT - II

Identification of project problems- Problems related to Finance, Marketing, HRM, EDP, Banking

UNIT - III

Review of Literature - Sampling- Selection of sample- Collection of data.

UNIT - IV

Data analysis- Percentage and trend analysis- Numerical evaluation- Justification and interpretation.

UNIT - V

Project Report Writing.

TEXT BOOKS:

1. Project Methodology – Senthilkumar.K & Sasikumar.G, Himalaya Publishing House, Mumbai.
2. Research Methodology – Methods and Techniques, C.R.Kothari, Gourav Garg – New age international publishers, New Delhi.

REFERENCE BOOKS:

1. Project Management – K.Nagarajan, New age international publishers, New Delhi.
2. Elements of project management - K.Nagarajan,,New age international publishers, New Delhi.
3. A Guide to projects – Dr.R.Ravilochanan , Margham publications, Chennai.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.COM & B.COM CA DEGREE****II YEAR, IV – SEMESTER****TALLY – PRACTICAL II****Objectives:**

On completion of the course the student shall have the knowledge on,

- Tally Package and its concepts.
- Enable to use package for wide range of Business Applications.

UNIT – I

Introduction: Tally- Features, License- Gateway of tally- Buttons and the Button panels.

UNIT - II

Accounting: Menu related to accounts- Groups- Creation of groups (Single & Multiple groups) - Creation of ledger (single & multiple).

UNIT - III

Vouchers: Configuring vouchers- Creation of Vouchers- Pre-defined vouchers- Contra- Purchase- Sales- Payment- Receipt- Journals- Memo- Optional vouchers.

UNIT - IV

Inventory: Stock groups (Single & Multiple) Stock categories (Single & Multiple)- Stock items (Single & Multiple).

UNIT - V

Reports: Trial Balance- Profit and Loss account- Balance Sheet (with five minimum adjustments).

NOTE : Of the total of three hours per week one hour will be theory.

BOOKS FOR REFERENCE:

1. Tally - Accounting software – S.Palanivel, Margham publications, Chennai.
2. Tally ERP 9 – Dr.P.Rizwan Ahmed, Margham publications, Chennai.
3. Namrata Agrawa, Tally 11 Course Kit., Dreamtech press, 2012
4. Firewall, Computer Accounting with Tally 9.2., Laxmi Publications, 2006

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.COM DEGREE
III YEAR, V – SEMESTER
INFORMATION TECHNOLOGY IN BUSINESS****Objectives:**

- To provide an in-depth knowledge on Information Technology in business.
- To enable the students to appreciate the utility of IT in industries.

UNIT – I

Introduction to Computers - Characteristics of Computers - Classification of Computers - Uses of Computers - Components of a Computer - Input Devices - Output Devices.

UNIT – II

Computer Main Memory - Auxiliary Storage Devices - Computer Software - Classification of Software - Operating Systems - Functions and Classifications –Programming Languages

UNIT – III

Data Processing –Database Management Systems - Components of a DBMS - Types of DBMS - Functions of DBMS – Computer Networks – Types of Network - Network Topology.

UNIT – IV

Internet Access - Internet Protocol - Internet Addressing – www - Internet Relay Chat-E-Mail-Mailing Basics – E-Mail Ethics - Introduction to Multimedia - Multimedia tools.

UNIT – V

Electronic Commerce – Classification of E-Commerce - System Analysis and Design – Life Cycle - Mobile Commerce - Business on the Internet.

Text Books :

1. Introduction to Information Technology - Alexis Leon, Methews Leon, Leena Leon,Vijay Nicole,2013.
2. Information Technology – R.Saravanakumar, R.Parameswaran, T. Jayalakshmi – S. CHAND, 2010.
3. E – COMMERCE – Dr. K. Abirami Devi, Dr. M. Alagammai – MARGHAM PUBLICATIONS, 2016

Reference Books :

1. An Introduction to Information Technology - Dr.S.V.Sreeneevasa Vallabhan, - Sultan Chand 2007.
2. Information Technology & Its Implication in business - Dr. A. Krishnan & P. Bagkialakshmi - Akshaya Publications.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.COM & B.COM CA DEGREE
III YEAR, V – SEMESTER
ENTREPRENEURIAL DEVELOPMENT****Objectives:**

- To enable the students to learn the concept of Entrepreneurship.
- To instill ideas on identification, selection and preparation of projects and to have awareness on the institutions promoting entrepreneurship.

UNIT – I

Entrepreneur – Meaning- Types- Qualities of an Entrepreneur– Characteristics of entrepreneur – classification of entrepreneur – factors influencing entrepreneurship- Role of entrepreneur in economic development.

UNIT – II

Problems of Entrepreneurs – Women entrepreneurs- Concept of Women entrepreneurs- Features of Women Entrepreneurs- Women Entrepreneurship in India- Growth and problems of Women Entrepreneurs- Suggestions to promote Women Entrepreneurship- – Entrepreneurial Development Programmes (EDP).

UNIT – III

Business idea generation – identification of business opportunities- Feasibility – Marketing – Financial – Economic – Technical – Managerial- Project appraisal – Project report.

UNIT – IV

MSME- Meaning- Features- Role- Problems- Rural entrepreneurship- Meaning- Need and Problems- Small scale sector in India- Rationale and Objective of SSI- Problems of SSI .

UNIT – V

Financial assistance and services; DIC – SIPCOT – SIDBI – TIIC – NSIC- SIDO- SIDC- KVIC- SIDBI- EDII.

TEXT BOOKS:

1. Entrepreneurial Development – Dr. Gordon & Natarajan, Himalaya Publishing Pvt Ltd., Mumbai.
2. Entrepreneurial Development – Jayshree Suresh, Margham Publications, Chennai.
3. Entrepreneurial Development – Dr.L.Rangarajan,Sree Renga Publications,Rajapalayam.

REFERENCE BOOKS:

1. Entrepreneurial Development – Raj Shankar, Vijay Nicole Imprints Pvt Ltd, Chennai-91.
2. Entrepreneurial Development – S.S.Kanka S.Chand & Co, New Delhi.
3. Fundamentals of entrepreneurship and small business - Renu Arora, S.K.Sooj, Kalyani Publishers, New Delhi.
4. Entrepreneurial Development – S.Anil Kumar, S.C.Poornima, Mini K.Abraham and K.Jayasri, New age international publishers.
5. Entrepreneurial Development - C.B.Gupta, N.P.Srinivasan, Sultan Chand & Sons, New Delhi.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.COM CA DEGREE
II YEAR, IV – SEMESTER
E-COMMERCE****Objectives:**

- To enable the students to understand the technology of e-Commerce for business application.
- After the successful completion of the course the student must be aware of techniques in the application of e-Commerce.

UNIT – I

E-Commerce – Framework- Classification of electronic commerce- Anatomy of E-Commerce applications- Components of the I way-Network Access Equipment- Internet Terminology.

UNIT- II

Electronic Data Interchange- Benefits- EDI Legal, Security and Privacy issues- EDI software implementation- Value Added Network- Internal Information Systems- Work flow automization and Coordination- Customization and internal commerce.

UNIT – III

Network security and firewalls- Client Server Network Security- Emerging client server security threats- Firewalls and network security- Data and message security- Encrypted documents and electronic mail- Hypertext publishing- Technology behind the web- Security and the web.

UNIT – IV

Consumer Oriented Electronic Commerce: Consumer Oriented Applications- Mercantile Process Models- Mercantile Models from the Consumers Perspective- Mercantile Models from the Merchants Perspective.

UNIT – V

Electronic Payment Systems- Types- Digital Token Based Electronic Payment System- Smart Card & Credit Card Electronic Payment Systems- Risk- Designing Electronic Payment System.

REFERENCE BOOKS:

1. Frontiers of Electronic Commerce – Ravi Kalakota & Andrew B. Whinston, Dorling Kindersley (India) Pvt Ltd, - 2006
2. Electronic commerce - Bharat Bhasker, Tata Mc Graw Hill Publishing Co Ltd, New Delhi-2006
3. Web Commerce Technology Handbook – Daniel Minoli, Emma Minoli, Tata Mc Graw Hill Publishing Co Ltd, New Delhi-2006
4. E-Commerce & E-Business - Dr.C.S.Rayudu, Himalaya Publishing House, New Delhi
5. E-Commerce – The Cutting Edge of Business- Kamallesh K Bajaj, Debjani Nag TMH, New Delhi

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.COM DEGREE
I YEAR, II – SEMESTER
E-COMMERCE****UNIT-I**

E-Commerce – Meaning and concept – E-Commerce Vs Traditional Commerce – Features of E-Commerce – Need for E-Commerce – Channels of E-commerce - Internet – concepts and Technologies – Web Technologies – Global Publishing Concept – Universal Reader Concept – Client Server – Concept – Hyper Text Concept –Commercial Uses of Hyper Text – URLs, HTTP, HTML, HTML Forms And CGI Gateway Services.

UNIT – II

E-Commerce Models - Infrastructure for E-Commerce Models - Supply Chain Management - Remote Servicing - Digitalization of Prospectus and Servicing - Online Advertising and Marketing. E-Commerce – Electronic Cataloguing – Order Generation – Cost Estimation – Pricing – Accounting – Order Selection – Order Prioritization – Order Scheduling – Order Fulfilling – Delivery Order – Receipt Management – Past Sale Services.

UNIT – III

Web Site Meaning –Web Site Design Principles – Technologies of Web Site – Various Methods of Customer Communication through Web Site. Electronic Payment Systems – Features – Types of E-Payment – Use of Various E-Cards for Business Payments – Implications – Probable Risks in Using E-Cards – Managing The Risks - Recent Trends In Electronic Payment And Receipt.

UNIT – IV

Business To Business Contract Through E-Commerce – Need –Technologies – Paperless Trading – Concept EDI – Standards – VANS – EDI Service – Internet Based EDI – FTP Based Messaging. Using E-commerce – Workflow Management – Product Differentiation – Organization – Re-Structuring – Logistics Management – Knowledge Management – Mass Customerization.

UNIT – V

Features of IT Act 2000 – Security Risks – Risk Management Approaches – Legal Framework of E-commerce- Multi Media and – E-commerce – Multimedia Technologies – Desk Top Video Conferencing – Broad Band Networks – Related Concepts – ATM and Cell relay – Visa Cards.

REFERENCES :

1. Electronic Commerce and Applications : Bhasker, McGraw – Hill Education (India) Ltd,.
2. Business on the Net E-Commerce : What's and How's of :Agarwala, K.N And Deeksha Agarwala,; Macmillan, New Delhi.
3. Electionic Commerce : Diwan Prag and Sunil Sharma, Micro Soft Press Washington.
Electronic Commerce : SchNeider, Gray D., Course Technology, Delhi.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****M.COM DEGREE
II YEAR, III – SEMESTER
RESEARCH METHODOLOGY****UNIT-I**

Meaning of Business Research – Types of Research – Descriptive, Exploratory, Empirical, Historical and Case Study – Research Design - Components of the Research Design.

UNIT – II

Census – Sample – Sampling Techniques – Random and Non Random sampling – Size of the sample - Sampling Error.

UNIT – III

Collection of Data - Primary and Secondary Data – Tools of collection of Data – Questionnaire – Scaling Techniques - Personal Interview – Interview schedule – Observation, Pilot study and pre-testing.

UNIT –IV

Analysis and Interpretation of Data – Hypothesis – Characteristics of A Good Hypothesis – Formulation and testing of Hypothesis – Methods of testing Hypothesis – T -Test – F- Test, CHI square Test.

UNIT – V

Research Report – types of Reports - Steps in Drafting a Research Report- Quality of Research Report.

Note: Question paper shall cover 100% theory

REFERENCES :

1. Research Methodology : Kothari C. R. - Wiley Eastern Ltd. New Delhi.
2. Research Methods in commerce : Amar Chand D., Emerald Publishers, Chennai.
3. Project Methodology : Senthilkumar & Sasikumar, Himalaya Publishing House Pvt Ltd. Mumbai.
4. Research Methodology & Statistical Tools : Krishnaswamy & Obul Reddy –, Himalaya Publishing House Pvt Ltd.
5. Research Methodology : Methods and Techniques, C.R.Kothari, Gourav Garg – New age international publishers, New Delhi.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.SC DEGREE IN COSTUME DESIGN AND FASION

III YEAR, V – SEMESTER

COMPUTER AIDED DESIGNING PRACTICALS

- I. Application of types of Design in garments - Structural Design, Decorative Design, Geometrical Design, Abstract Design
- II. Application of Colour Harmony in Design Garments -Monochromatic Colour harmony, Analogues Colour harmony, Single Complementary Colour harmony, Double Complementary Colour harmony, Triad Complementary Colour harmony, Tetrad Colour harmony , Neutral Colour harmony.
- III. Application of Elements of Design in garments-Line, Size, Shape, Colour.
- IV. Application of Principles of Design in garment-Balance, Rhythm, Emphasis, Harmony, Proportion
- V Design Garments for the following
 1. Party Wear- Men & Women Garments
 2. Casual Wear- Men & Women Garments
 3. Sports Wear- Men & Women Garments
- VI Create a design using Photoshop Software
 - i) Create visiting Cards invitation and certificate using Image Mixing
- VII Prepare Pattern, Grading and Marker Efficiency for the following Garments using CAD Software.
 1. Children Garment- Jabla , Boys Shirt.
 2. Women's Garment – Maxi, Salwar& Kameez
 3. Men's Garment- T-Shirt, Pleated Trouser

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN COSTUME DESIGN AND FASION****III YEAR, VI – SEMESTER****BOUTIQUE MANAGEMENT****Unit-I**

How to start a boutique, creating a business plan, finding a ideal location, financial planning.

Unit-II

Government norms to run a boutique, interior designing, sourcing of raw materials, and inventory planning.

Unit-III

Buyer supplier relationships, consumer relationship, tips and tricks to attract customers.

UNIT-IV

Essential technology to run a boutique and labour management and warehouse.

UNIT-V

Quality control, research and development and analysis, marketing and promotion ,maintenance of boutique.

REFERENCE;

1. Opening a boutique store: how to start your own boutique, Briana Stewart Bull City Publishing, 2014.
2. Fabjob guide to become a boutique owner, Tag Goulet, Debbra Mikaelson, Catherine Goulet, Fabjob incorporated,2011.
3. Fashion unraveled: How to start ,run and manage an independent Fashion Label,Jennifer Lynne Mathews, 2009.



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.SC DEGREE IN COSTUME DESIGN AND FASION

III YEAR, VI – SEMESTER

BEAUTY CARE PRACTICALS

Do the following Experiments

1. Bleaching
2. Facial
3. Hair remover-threading,waxing
4. Hair style – any 3 styles
5. Hair cut – any 3 styles
6. Hair curl,Hair straightening,Hair colouring
7. Make up –Face makeup,bridal make up,party make up
8. Nail treatment – pedicure,manicure,nail art
9. Saree draping – any 3 styles
10. Visit a beauty parlour.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN NUTRITION AND DIETETICS****III YEAR, V – SEMESTER
NUTRITION IN LIFE CYCLE****UNIT-I**

Menu planning – Objectives, planning balanced diets, food exchange lists. Nutrition in pregnancy – Food and nutrient requirements, physiological changes during pregnancy, developmental stages of the embryo, physiological cost of pregnancy and complications in pregnancy.

Nutrition in lactation – Food and nutrient requirements, physiology of lactation, composition of breast milk, influence of mother's diet on the quality and quantity of milk production.

UNIT-II

Nutrition during infancy – Growth and development during infancy, food and nutrient requirements, advantages of breast feeding, artificial feeding, preterm baby –nutritional requirements, weaning- types of weaning foods and supplementary foods, problems in weaning.

UNIT III

Nutrition during preschool age – Food and nutrient requirements, eating habits and behaviour, growth and development and factors inhibiting growth.

Nutrition for school going children – Food and nutrient requirement, growth pattern, packed lunches, school lunch programmes.

UNIT IV

Nutrition during adolescence – Food and nutrient requirements, changes in growth pattern, puberty, menarche, changes in food habits, binge eating disorder, predisposition to osteoporosis, anaemia, under nutrition, premenstrual syndrome, malnutrition due to early marriage, nutritional programmes.

UNIT V

Nutrition in adulthood – Food and nutrient requirements, changes in consumption pattern - physical, mental and social changes influencing meal pattern.

Nutrition in old age – Food and nutrient requirements, physical, physiological, biological and psychological changes influencing meal pattern.

REFERENCES

1. Wardlaw G.M, Hampi J.S, DiSilvestro R.A, Perspectives in Nutrition, 6th edition, McGraw Hill, 2004.
2. Chadha R and Mathur P, Nutrition: A Lifecycle Approach. Orient Blackswan New Delhi, 2015.
3. Seth V and Singh K, Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi, 2006.
4. Robinson., Normal and therapeutic nutrition.: Macmillan Pub. Company New York , 2006.
5. Sumati R. Mudambi, M.V. Rajagopal., Fundamental of food, nutrition and diet therapy. New age international publishers, New Delhi, 2015.
6. Srilakshmi B., Dietetics, New age international publishers, New Delhi, 2014.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN NUTRITION AND DIETETICS****III YEAR, V – SEMESTER
DIETETICS AND COUNSELING****OUTCOME**

The students will be able to

1. Know the principles of diet therapy.
2. Understand the modification of normal diet for therapeutic purpose.
3. Apply the knowledge for planning the therapeutic diet.

UNIT-I

Diet therapy – Concept, purpose and principles of diet therapy, modification of normal diet, types of diets, Special feeding methods – Enteral nutrition, tube feeding, parenteral feeding nutrition and total parenteral feeding nutrition. Diet in infections and fevers – Typhoid, influenza, tuberculosis, chikungunea, malaria and AIDS – Definition, causes, symptoms, and dietary management.

UNIT-II

Diet in Obesity and underweight – Definition, causes, types and dietary management.

Diet in lung diseases – Asthma, chronic bronchitis and emphysema – Causes, symptoms and dietary management. Diet in gastrointestinal tract – Constipation, diarrhoea, ulcers and inflammatory bowel diseases –Types, causes, symptoms and dietary management.

UNIT- III

Dietitian – Classification, code of ethics, responsibilities. Computer application - Use of computers by dietitian, dietary computations, dietetic management, education/ training, information storage and administration. Teaching aids used by dietitians - charts, leaflets, posters etc., preparation of teaching material for patients suffering from Digestive disorders, Hypertension, Diabetes and Atherosclerosis .

UNIT IV

Nutrition counseling - Definition, expectations, goals, scope and limits. Practical consideration in giving dietary advice and counseling - Factors affecting and individual food choice, Communication of dietary advice, Consideration of behaviour modification, motivation.

UNIT- V

The Counseling Process - Techniques for obtaining relevant information- Clinical Information, Medical History and General Profile, nutritional assessment, Dietary diagnosis- Assessing food and nutrient intakes, Lifestyles, physical activity, stress. Implementation - Counseling the client/patient – client concurrence, co-ordination of care plans-the provision of learning experience.

Evaluation - Measuring the success of performance of client and evaluating the counseling process.

REFERENCES

1. Antia F.P. Clinical dietetics and nutrition., Oxford University Press, New Delhi 2008.
2. Mahan, L.K. and Escott-Stump S., Krause's Food Nutrition and Diet Therapy 10th Edition, W.B. Saunders Ltd, 2000.
3. Zeeman, Frances J. Applications of clinical nutrition. Englewood cliffs: Prentice Hall International Inc., 1998.
4. Thomas Briony; (1995). Blackwell Manual of Dietetic practise. (2nd Ed.) Oxford: New York ., 1995.
5. Robinson., Normal and therapeutic nutrition.: Macmillan Pub. Company New York , 2006.
6. Sumati R. Mudambi, M.V. Rajagopal., Fundamental of food, nutrition and diet therapy. New age international publishers, New Delhi, 2015.
7. Srilakshmi B., Dietetics, New age international publishers, New Delhi, 2014.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN NUTRITION AND DIETETICS****III YEAR, VI – SEMESTER****ADVANCED DIETETICS****OBJECTIVES**

The students will be able to

1. Understand the metabolic changes occurring in disease conditions.
2. Apply this knowledge for planning nutritional care of patients.

UNIT-I

Diet in Liver diseases – Function of liver, agent responsible for liver damage, damage caused to liver, symptoms and diet therapy for Jaundice, hepatitis and cirrhosis. Gallbladder and pancreatic diseases - Causes, symptoms and diet therapy. Diet and Nutrition in stress, burns and surgery.

UNIT-II

Diet in Diabetes mellitus – Prevalence, types, causes, symptoms, diagnosis, complications and dietary management. Food allergy – Types of reactions, foods involved in sensitivity, symptoms, diagnosis and treatment.

UNIT III

Diet in Cardiovascular diseases– Hypertension, atherosclerosis, angina pectoris, myocardial infarction and congestive heart failure - Causes, symptoms and dietary management. Diet in Cancer – The nature and causes of cancer, relationship of food and cancer, treatment and diet.

UNIT IV

Diet in Kidney diseases – Glomerulonephritis, nephrosis, acute renal failure, chronic renal failure and kidney stones - Causes, symptoms and dietary management. Kidney dialysis – Types and dietary management. Diet in Gout - Causes, symptoms and dietary management.

UNIT V

Diet in genetic disorders – Phenylketonuria, galactosemia, and fructosuria - Symptoms, diagnosis and dietary management. Eating disorders- Anorexia nervosa and Bulimia nervosa – Causes, symptoms and diet therapy. Alcoholism - Effect of alcohol intake, complications and nutrition therapy.

REFERENCES

1. Antia F.P., Clinical dietetics and nutrition., Oxford University Press, New Delhi 2008.
2. Mahan, L.K. and Escott-Stump S., Krause's Food Nutrition and Diet Therapy 10th Edition, W.B. Saunders Ltd, 2000.
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5. Robinson., Normal and therapeutic nutrition.: Macmillan Pub. Company New York, 2006.
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7. Srilakshmi B., Dietetics, New age international publishers, New Delhi, 2014.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN NUTRITION AND DIETETICS****III YEAR, V – SEMESTER****BAKERY SCIENCE****OBJECTIVES**

The students will be able to

1. Understand the principles of baking.
2. Acquire basic knowledge on baking techniques.

UNIT-I

Baking: Meaning, process and scientific principles involved. Basic plan and layout of a bakery unit.

Equipments used in bakery: Large equipments, small equipments and tools; types of ovens.

Ingredients used in bakery: Functional classification of ingredients- structure builders, tenderizers, moisteners, driers and flavors.

UNIT-II

Flour: Composition, types and quality characteristics.

Sugar: Sources, uses and types of commercially available sugars.

Fats: Fats used as shortenings- Butter, margarine emulsified fats and flavored oils; properties and uses of shortenings.

UNIT-III

Leavening agents: Definition and classification- physical; chemical-baking powder and its types, baking soda; biological- yeast- types and role in baking.

Moisturizing agents: Egg, water and milk- their role in baking.

UNIT-IV

Bread: Ingredients used, steps in bread making process, processing methods, characteristics of good bread (external and internal), faults in shape, texture, crust and flavor of bread.

Cakes: Ingredients, types, cake making methods, test for doneness, characteristics of good cake (external and internal), cake faults and remedies.

Icing: Meaning, types, ingredients used and preparation guidelines.

UNIT-V

Cookies: Characteristics, preparation methods and problems in cookie making.

Biscuits: Steps involved in biscuit making.

Pastries: Types and method of preparation.

REFERENCES

1. Neelam Khetarpaul, Raj Bala Grewal and Sudesh Jood, Bakery science and cereal technology, Daya publishing house. 2013.
2. John Kingslee, A professional text to Bakery and Confectionary, New Age International (P) Limited. 2014.
3. NIIR Board of consultants and engineers, The complete technology book on bakery products, second edition, National Institute of Industrial Research, Delhi. 2009.
4. Manay Shakunthala, N and Shadaksharaswamy M. Food Facts and Principles, New Age International (P) Ltd Publishers, Reprint 2005.
5. Vijaya Khader, Text book of Food Science and Technology, Indian Council of Agricultural Research, New Delhi, 2001



1.3.1 Curriculum Integrating Crosscutting Issues

PERSONALITY ENHANCING SKILL COURSES

B.SC DEGREE IN NUTRITION AND DIETETICS

III YEAR, VI – SEMESTER

FOOD PRESERVATION AND BAKERY PRACTICAL

1. Preparation of Jam, Jelly and Marmalade.
2. Preparation of Fruit juices and Squashes.
3. Preparation of Pickles.
4. Preparation of Fruit preserves – Tuity fruity with papaya, petha with white pumpkin and murabha with ginger.
5. Preparation of vathal and vadagam.
6. Preparation bread, bun, cakes, biscuits, cookies, pastry and icing.
7. Preparation of sandwiches and desserts.

**1.3.1 Curriculum Integrating Crosscutting Issues****PERSONALITY ENHANCING SKILL COURSES****B.SC DEGREE IN NUTRITION AND DIETETICS****III YEAR, V – SEMESTER
DIETETICS AND COUNSELING****OUTCOME**

- The students will be able to
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- Understand the modification of normal diet for therapeutic purpose.
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UNIT-I

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Diet in lung diseases – Asthma, chronic bronchitis and emphysema – Causes, symptoms and dietary management. Diet in gastrointestinal tract – Constipation, diarrhoea, ulcers and inflammatory bowel diseases –Types, causes, symptoms and dietary management.

UNIT- III

Dietitian – Classification, code of ethics, responsibilities.
Computer application - Use of computers by dietitian, dietary computations, dietetic management, education/ training, information storage and administration. Teaching aids used by dietitians - charts, leaflets, posters etc., preparation of teaching material for patients suffering from Digestive disorders, Hypertension, Diabetes and Atherosclerosis .

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3. Zeeman, Frances J. Applications of clinical nutrition. Englewood cliffs: Prentice Hall International Inc., 1998.
4. Thomas Briony; (1995). Blackwell Manual of Dietetic practise. (2nd Ed.) Oxford: New York .,1995.
5. Robinson., Normal and therapeutic nutrition.: Macmillan Pub. Company New York , 2006.
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