B.Sc(COMPUTER)- I Semester
Sub: English
Paper Code: BSC101

Unit-I

Amalkanti : Nirendranath Chakrabarti

Sita : Toru Dutt

Tryst with Destiny : Jawaharlal Nehru

Delhi in 1807 : Mirza Ghalib

Preface to the Mahabharata : C. Rajagopalachari

Where the Mind is Without Fear : Rabindranath Tagore

A Song of Kabir : Translated by Tagore

Satyagraha : M.K. Gandhi

Toasted English : R. K. Narayan

The Portrait of a Lady : Khushwant Singh

Discovering Babasaheb : Ashok Mahadevan

Unit-II

Comprehension

Unit-III

Composition and Paragraph Writing (Based on expansion of an idea).

Unit-IV

Basic Language Skills : Vocabulary – Synonyms, Antonyms, Word Formation, Prefixes and Suffixes, Words likely to be confused and Misused, Words similar in Meaning or Form, Distinction between Similar Expressions, Speech Skills

Unit-V

Basic Language Skills: Grammar and usage – The Tense Forms, Propositions, Determiners and Countable/Uncountable Nouns, Verb, Articles, Adverbs.

Prescribed Books:

English Langugae and Indian Culture, Publihsed by M.P. Hindi Grant Academy. Note :- Eight questions to be set from unit-1 and four to be attempted.

B.Sc(COMPUTER)– I Semester
Sub: Development of Entrepreneurship
Paper Code: BSC102

Unit I

Entrepreneurship- Definition, Characteristics and importance, Types and functions of an entrepreneur, merits of a good entrepreneur motivational factors of entrepreneurship.

Unit II

Motivation to achieve targets and establishment of ideas. Setting targets and facing challenges. Resolving problems and creativity. Sequenced planning and guiding capacity, Development of self confidence. Communication skills, Capacity to influence, leadership

Unit III

Project Report - Evaluation of selected process. Detailed project report – Preparation of main part of project report pointing out necessary and viability. Selecting the form of Organization – Meaning and characteristics of sole Proprietorship, Partnership and cooperative committees, elements affecting selection of a form of an organization. Economic management – Role of banks and financial institutions banking, financial plans, working capital-evaluation and management, keeping of accounts.

Unit IV

Production management. Methods of purchase. Management of movable assets/goods. Quality management. Employee management. Packaging. Marketing management. Sales and the art of selling. Understanding the market and market policy. Consumer management. Time management.

Unit V

Role of regulatory institutions – district industry centre, pollution control board, food and drug administration, special study of electricity development and municipal corporation. Role of development organizations, khadi & village Commission/ Board, MP Finance Corporation, scheduled banks, MP Women's Economics Development Corporation. Self-employment-oriented schemes, Prime Minister's Employment schemes, Golden Jubilee Urban environment scheme, Rani Durgavati Self-Employment scheme, Pt. Deendayal Self-employment scheme. Various grant schemes – Cost-of-Capital grant,interest grant, exemption from entry tax, project report, reimbursement grant, etc. Special incentives for women entrepreneurs, prospects & possibilities. Schemes of M.P. Tribal Finance Development Corporation, schemes of M.P. Antyavasai Corporation, schemes of M.P. Backward Class and Minorities Finance Development Corporation.

B.Sc(COMPUTER)– I Semester
Sub: Mathematics (Matrix Theory, Calculus, Geometry)
Paper Code: BSC103

Unit-1

Rank of a matrix, Eigen values, eigen vectors, Characteristic equation of a matrix, Cayley Hamilton theorem and its use in finding inverse of matrix, Application of matrix to a system of linear (both homogenous and non - homogenous) equations, Theorems on consistency and inconsistency of a system of linear equations, Solving the linear equations with three unknowns.

Unit-2

Relation between the roots and coefficients of a general polynomial equation in one variable, Transformation of equations, Descarte's rule of signs, De Moivre's theorem and its applications, Direct and inverse circular and hyperbolic functions, Expansion of trignometrical function.

Unit-3

Continuity of function of one variable, Properties of continuous function, Uniform continuity, Chain Rule of differentiability, Mean value theorems and their geometrical interpretations, Darboux's Intermediate Value Theorem for derivatives.

Unit-4

Integration of irrational algebraic functions and transcendental functions, Reduction formulae, Definite Integrals.

Unit-5

Equation of cone with given base, generators of cone, condition for three mutually perpendicular generators, Right circular cone, Equation of Cylinder and its properties, Right circular cylinder, enveloping cylinder and their properties.

Texts Books :

1. S.L. Loney – Plane Trigonometry Part II
2. K.B. Datta – Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi 2000
3. Chandrika Prasad – A Text Book on Algebra and Theory of Equations, Pothishala Pvt. Ltd. Allahabad
4. N. Saran & R.S. Gupta : Analytical Geometry of Three dimensions. Pothishala Pvt. Ltd.Allahabad
5. S.L. Loney, Elements of Coordinate Geometry, Macmillan and Co. London.

Reference Books:

1. P. B. Bhattacharya, S. K. Jain and S.R. Nagpaul, First Courses in Linear Algebra, Wiley Eastern, New Delhi. 1983.
2. R.S. Verma and K.S. Shukla, Text Book on Trigonometry Pothishala Pvt. Ltd.
3. P.K. Jain & Khalil Ahmad, A text book of Analytical Geometry of Three Dimensions, Wiley Eastern Ltd. 1999
4. R.J.T. Bell : Elementary Treatise on Coordinate Geometry of Three dimensions, Macmillan India Ltd. 1994.
5. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
6. H.S. Hall and S.R. Knight, Higher Algebra, H.M. publication, 1994.

B.Sc(COMPUTER)– I Semester
Sub: MECHANICS
Paper Code: BSC104

UNIT I

Projectile: Definition of Range, time of flight and angle of projection - Range up and down an inclined plane maximum range - two directions of projections for a given velocity and range. Impulse-Impact: Laws of impact – coefficient of restitution – impact of a smooth sphere on a fixed smooth plane – Direct impact between two smooth spheres – Loss of kinetic energy in direct impact – velocity change in oblique impact between two smooth spheres.

UNIT II

SHM: Composition of two SHM's of same period along a straight line and at the right angles to each other Lissajous figures. Dynamics of Rigid Bodies: Compound pendulum theory condition – for minimum period interchangeability of center of suspension and center of oscillation – g using compound pendulum - Bifilar pendulum – parallel and non – parallel threads.

UNIT III

Center of gravity: Center of gravity of a solid cone, Solid hemisphere, hollow hemisphere and a tetrahedron. Friction: Laws of friction - angle of friction – resultant reaction and cone of fiction – equilibrium of a body on an inclined plane under the action of a force.

UNIT IV

Center of pressure: Definition – center of pressure of a rectangular lamina and triangular lamina. Hydrodynamics: equation of continuity of flow – Bernoullie's theorem – venturimeter – Pitot's tube.Conduction and Radiation : Thermal Conductivity - definition - thermal conductivity of a bad conductor - Lee's disc method - good conductor - Searle's method - radiation - Blackbody radiation – definition - Wien's Displacement law - Rayleigh Jean's law - Planck's law - Stepan's law and experimental verification of Stepan's law - Solar constant - temperature of the sun - by Angstrom's Pyrheliometer.

UNIT V

Maxwell's Thermodynamic relations : Derivation of Maxwell's thermodynamic relations - Helmholtz function - Gibb's function - Enthalpy – T-ds equation - Clausius - Clapeyron's Latent heat equation - specific heat relations.

Books for Study:

1. Mechanics and Mathematical Methods by R. Murugesan. S.Chand and Co.
2. Dynamics by M. Narayanamurthi and M. Nagarathnam, The
National Publishing Company.
3. Statics, Hydrostatics and Hydrodynamics By Narayanamurthi and
M. Nagarathnam, The National Publishing Company.
1. Classical Mechanics by H. Goldstein Addition Wesley Publications 2. Mechanics by D.S. Mathur, S. Chand and Co.,

B.Sc(COMPUTER)– I Semester
Sub: MECHANICS PRACTICALS
Paper Code: BSC104

1. Young's Modulus (q) – Non uniform Bending – pin and microscope method.Determination of unknown mass of an object.
2. Young's Modulus (q) – Non uniform bending – scale and telescope method. Determination of unknown mass of an object.
3. Torsion pendulum – Rigidity Modulus.
4. Surface tension and interfacial surface tension –
Drop Weight method.
5. Compound pendulum – Determination of g and k.
6. Sonometer – frequency of a tuning fork –
Determination of mass of a stone.
7. Sonometer – R.D of a solid and liquid.
8. Spectrometer – (i-d curve).
9. Spectrometer - Grating – normal incidence measurement of Wavelength.
10. Potentiometer – calibration of low range Voltmeter.
11. P.O. Box – Temperature coefficient of resistance.
12. Lee's Disc – Thermal conductivity of a bad conductor and emissivity.
13. Joule's calorimeter – Specific heat capacity of a liquid – Barton's correction.

Reference books :
1. Practical Physics – Ouseph, Srinivasan & Vijayendran.
2. Practical Physics – P. R. Sasi Kumar, PHI.
3. Advanced Practical Physics – S. P. Singh, Pragathi Prakasam.
4. Practical Physics – St. Joseph College, Trichy.

B.Sc (COMPUTER)– I Semester

Sub: Fundamentals of Computers and Information Technology

Paper Code: BSC105

UNIT- I

Brief History of Development of Computers, Computer System Concepts, Computer System Characteristics, Capabilities and Limitations, Types of Computers, Basic Components of a Computer System - Control Unit, ALU, Input/output Functions and Characteristics, Memory RAM, ROM, EPROM, PROM and other types of Memory.

UNIT- II

Input/ Output & Storage Units - Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, Digital Camera, MICR, OCR, OMR, Barcode Reader, Voice Recognition, Light pen, Touch Screen, Monitors - Characteristics and types of monitor , Size, Resolution, Refresh, Dot Pitch, Video Standard - VGA, SVGA, XGA.

UNIT - III

Printers and its Types - Dot Matrix, Inkjet, Laser, Plotter, Sound Card and Speakers, Storage Fundamentals - Primary Vs Secondary data Storage, Various Storage Devices - Hard Disk Drives, Floppy Disks ,Optical Disks, Flash Drives.

UNIT- IV

Use of Communication and IT, Communication Process, Communication Types- Simplex, Half Duplex, Full Duplex, Serial and Parallel Communication, Types of Network - LAN, WAN, MAN , Internet, Topologies of LAN - Ring, Bus, Star, Mesh and Tree Topologies, World Wide Web and its Applications and Internet Services.

UNIT - V

Software and its Need, Types of Software - System Software, Application Software, System Software - Operating System, Utility Program, Programming Languages, Assemblers, Compilers and Interpreter, Programming Languages- Machine, Assembly, High Level, 4GL.

TEXT & REFERENCE BOOKS:

- COMPUTERS TODAY, BY S.K BASANDRA, GALGOTIA PUBLICATIONS.
- FUNDAMENTALS OF INFORMATION TECHNOLOGY ALEXIS LEON MATHEWS LEON,VIKAS PUBLISHING.
- DOS QUICK REFERENCE RAJEEV MA THUR, GALGOTIA PUBLICATIONS.

B.Sc(COMPUTER)– II Semester
Sub:HINDI
Paper Code: BSC201

इकाई – 1

(क) भारत वंदना (काव्य) : सूर्यकांतत्रिपाठी 'निराला'
(ख) जाग तुझको दूर जाना : सुश्री महादेवी वर्मा
(ग) स्वतंत्रता पुकारती (काव्य) : जयशंकर 'प्रसाद'
(घ) हम अनिकेतन (काव्य) : बालकृष्ण शर्मा 'नवीन'
(ड) भाषा की महत्व और उसके विविध रूप भाषा – कौशल

इकाई – 2

(क) करूणा (निंबध) : आचार्य रामचन्द्र शुक्ल
(ख) समन्वय की प्रकिया (निंबध) : रामधारी सिंह 'दिनकर'
(ग) बिच्छी बुआ (कहानी) : डॉ लक्ष्मण विष्ट 'बटरोही'
(घ) अनुवाद : परिभाषा,प्रकार, महत्व,विशेषताॅए
(ड) हिन्दी की शब्द– संपदा परिभाषिक शब्दावली

इकाई – 3

(क) विलायत पहुॅच ही गया (आत्मकथा) : महात्मा गॉधी
(ख) अफसर (व्यंग्य) : शरद जोशी
(ग) तीर्थयात्रा (कहानी) : डॉ. मिथलेश कुमार मिश्रा
(घ) मकड़ी का जाला (व्यंग्य) : डॉ रामप्रकाश सक्सेना
(ड) वाक्य– संरचना : तत्सम तदभव

इकाई – 4

(क) अप दीपो भव (व्यक्तत्व कला) : स्वामी श्रद्धानन्द
(ख) भारत का समाजिक व्यक्तिव्व (प्रस्तावना) : जवाहर लाल नेहरू
(ग) पत्र मैसूर के महाराजा को (पत्र–लेखन) : स्वामी विवेकानन्द
(घ) बनी रहेगी किताबे (आलेख) : डॉ सुनीता रानी घोष
(ड) पत्र– लेखन : महत्व और उसके विविध रूप
सड़क पर दौड़ते मृग (निबंध) डॉ. श्यामसुन्दर दुबे

इकाई – 5

(क) योग की शक्ति (डायरी) : डॉ हरिवंशराय बच्चन ।
(ख) कोश के अखाडे में कोई पहलवान नही उतरता : भाषाविद् डॉ हरदेव बिहारी से प्रो. त्रिभुवननाथ शुक्ल ।
(ग)(साक्षात्कर) नीग्रे सैनिक से भेंट (यात्रा स्मरण) : डॉ देवेन्द सत्यार्थी ।
(घ)यदि न होते तो गॉधी को यह ऊॅचाई न मिलती (साक्षात्कर) 5 कथाकार गिारिराज किशोर से सत्येन्द्र शर्मा ।
(ड) सर– लेखन. भाव–पल्लवन साक्षात्कर प्रयोजन और कौशल निर्धारित ।

पाठ्य पुस्तक : हिन्दी भाषा संरचना मध्यप्रदेश हिन्दी ग्रन्थ अकादमी द्वारा प्रकाशित ।

B.Sc(COMPUTER)– II Semester
Sub: Environment
Paper Code: BSC202

Unit-I

Study of Environmental and ecology:

(a) Definition and Importance.
(b) Environmental Pollution and problems.
(c) Public participation and Public awareness.

Unit-II

Environmental Pollution :

(a) Air, water, noise, heat and nuclear pollution.
(b) Causes, effect and prevention of pollution.
(c) Disaster management – Flood, Earthquake, cyclones and landslides.

Unit-III

Environment and social problems :

(a) Development – non-sustainable to Sustainable.
(b) Energy problems of cities.
(c) Water preservation – rain-water collection.

Unit-IV

Role of mankind in conserving natural resources :

(a) Food resources – World food problem.
(b) Energy resources – increasing demand for energy.
(c) Land resources – Land as resources.

Unit-V

Environment conservation laws :

(a) Conservation laws for air and water pollution.
(b) Wildlife conservation laws.
(c) Role of information technology in protecting environment & health.

B.Sc(COMPUTER)– II Semester
Sub: Advanced Calculus, Differential Equations, Vector Calculus
Paper Code: BSC203

Unit-1
Successive differentiation, Leibnitz theorem, Maclaurin and Taylor series expansions, Asymptotes, Curvature ,Tests for concavity and convexity, Points of inflexion, Multiple points, Tracing of curves in Cartesian co-ordinates

Unit-2
Limit and continuity of functions of two variables, Introduction of Partial differentiation, Euler's Theorem on homogeneous function, Jacobians, Differentiability of real-valued functions of two variables, Taylor's theorem for functions of two variables, Double and triple integrals, Dirichlet's integrals.

Unit-3
Linear Differential equations and equations reducible to the linear form, Exact differential equation, First order and higher degree equations Solvable for x, y and p, Clairaut's form and singular solutions, Linear differential equations with constant coefficients

Unit-4
Homogenous linear ordinary differential equations, linear differential equations of second order, Transformation of the equation by changing the dependent variable and the independent variable, Method of variation of parameters, Ordinary simultaneous differential equations.

Unit-5
Vector differentiation, Gradient, Divergence and Curl, Vector integration, Theorem of Gauss (without proof) and problems based on it, Theorem of Green (without proof) and problems based on it, Stoke's theorem (without proof) and problems based on it.

Texts Books :

1. Gorakh Prasad – Differential Calculus, Pothishala pvt. Ltd. Allahabad
2. Gorakh Prasad – Integral Calculus, Pothishala pvt. Ltd. Allahabad
3. D.A. Murray : Introductory Course in Differential Equations, Orient Long man, India 1967.
4. N. Saran & S.N. Nigam – Introduction to Vector Analyss, Pothishala Pvt. Ltd., Allahabad.
5. Murray R. Spiegel, Theory & problems of Advanced Calculus.Schaum's outline series, Schaum Publishing Co. NewYark.

Reference Books:

1. P.K. Jain and S. K. Kaushik, An introduction of Real Analysis, S.Chand & Co. New Delhi 2000.
2. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons 1999.
3. G. F. Simmons, Differential Equations, Tata Mcgraw Hill, 1972.
4. E.A. Codington, An introduction to ordinary differential equations, Prentice Hall of India, 1961.

5. H.T.H. Piaggio, Elementary Treatise on Differential equations and their applications,
C.B.S. Publisher and Distributors, Delhi 1985.
6. W.E. Boyce and P.C. Diprima, Elementary Differential equations & Boundary Value problems, John Wiley 1986.
7. Murray R. Spiegel, Vector Analysis, Schaum Publishing Co. New York.
8. Shanti Narayan, A text book of Vector Calculus, S. Chand & Co., New York.

B.Sc(COMPUTER)– II Semester
Sub: PROPERTIES OF MATTER AND SOUND
Paper Code: BSC204

UNIT I:
Elasticity: Three types of elastic moduli - Poisson's ratio - Bending of beams - Expression for bending moment - Depression of the loaded end of a Cantilever - uniform - non uniform bending - theory - experiment pin and microscope method - work done in uniform bending – Koenig's method – non-uniform bending - theory - expression for couple per unit twist - determination of rigidity modulus - Static torsion method with scale and telescope - Rigidity modulus by torsion pendulum with mass.

UNIT - II
Interference and Interferometers : Coherence - temporal coherence and spatial coherence - Air wedge – testing the planeness of a surface - Michelson Interferometer - types of fringes - Difference in wavelength of Sodium D1, D2 lines and thickness of a thin transparent plate. Multiple beam interference - Febry - Perot interferometer - formation of fringes.
Holography : Holography - recording and reconstruction.

UNIT III:
Surface tension and Osmosis : Surface energy - angle of contact and its determination - excess of pressure inside curved surface - formation of drops - Experimental study of variation of Surface tension with temperature - drop weight method of determining surface tension and interfacial surface tension - angle of contact of mercury - Quincke's method - surface tension and vapour pressure osmosis - experimental determination of osmotic pressure - Laws of osmosis pressure - osmotic and vapour pressure of a solution.

UNIT IV
Sound: Definition of free, damped and forced vibrations – Theory of forced vibrations - Resonance - Sharpness of resonance - Fourier's theorem - application for Saw- tooth wave and square wave. - Sonometer - determination of A.C. frequency using sonometer - Determination of frequency using Melde's apparatus.

UNIT V
Ultrasonics: Ultrasonics - Production - Piezo electric method – magneto-striction method - detection - properties - applications. Acoustics : Acoustics of buildings - reverberation time - derivation of Sabine's formula - determination of absorption coefficient.

BOOKS FOR STUDY:
1. Elements of properties of matter by D. S. Mathur S. Chand & Co., (2005).
2. Properties of matter by R. Murugesan, S. Chand & Co., (2005).
3. Properties of matter by Brijlal and N. Subramaniam S. Chand & Co., (2005).
4. Properties of matter and Acoustics by R. Murugesan, S. Chand & Co., (2005).
5. A Text Book of Sound by N. Subramaniam and Brijlal, S. Chand & Co., (2005).

BOOKS FOR REFERENCE:

1. Fundamentals of General Properties of Matter, H. R. Gulati, S. Chand & Co., (2005).
2. Properties of Matter, Subramania Iyer and Ranga Rajan, Viswanathan Publication (2002).
3. A Text Book of Sound (2005), R. L. Saighal, S. Chand & Co.,
3. Geometrical and Physical Optics - P. K. Chakrabarti, New Central Book Agency (P) Ltd, Kolkata., 2005.
4. Optics - D.R. Khanna and H.R. Gulati, R. Chand & Co, New Delhi., 1979.
5. Engineering Physics - G. Vijayakumari, Vikas Publications.

: 1. Optics - Eugene Hecht, Fourth Edition, Pearson Education, New Delhi. 2007.
2. Fundamentals of Optics - Jerkins A Francis and White E Harvey, McGraw Hill Inc., New Delhi, 1976.
3. Optical Physics - S.G. Lipson, H. Lipson and D.S. Tannhauser, Cambridge University Press. 1995.
4. Fundamentals of Optics - M.G. Raj, Anmol Publications Pvt. Ltd., New Delhi, 1996.

B.Sc(COMPUTER)– II Semester
Sub: PROPERTIES OF MATTER AND SOUND
Paper Code: BSC204
PRACTICALS

01. Young's modulus *(q)* - uniform bending - pin and microscope.
02. Young's modulus (q) - uniform bending - scale and telescope method.
03. Static Torsion – Rigidity modulus.
04. Torsion Pendulum – Moment of Inertia and Rigidity modulus – symmetrical masses.
05. Coefficient of Viscosity of a liquid - graduated burette - radius by mercury pellet method.
06. Melde's apparatus - frequency - transverse and longitudinal modes.
07. Specific heat capacity of a liquid by cooling - verification of
Newton's law of cooling.
08. Air Wedge - thickness of a wire and its insulation.
09. Spectrometer - grating - minimum deviation –
Determination of wavelength of mercury lamp.
10. Potentiometer - ammeter calibration.
11. Potentiometer - Specific resistance of the given coil and length of second coil without unwinding.
12. *M* and *BH* - Deflection Magnetometer - *TAN A* and
TAN B position.
13. Field along the axis of a coil - deflection magnetometer –
determination of *BH*.
14. Carey-Foster's bridge - Specific resistance of a coil.
15. BG - Comparison of Capacities.
16. BG - Comparison of EMF's of two cells.
17. Zener diode – Voltage regulator using four diodes and percentage of regulation.
18. Verification of De Morgan’s theorem.

B.Sc(COMPUTER)– II Semester
Sub: Programming Methodology and C Programming
Paper Code: BSC205

UNIT – I

Program Concept, Characteristics of Programming, Various Stages in Program Development, Algorithms, Flow Charts, Programming Techniques – Top Down, Bottom Up, Modular, Structured, Features,Merits Demerits and Their Comparative Study. Programming Logic-Simple, Branching, Looping, Recursion, Programming Testing & Debugging.

UNIT- II

Introduction to C Language, C Language Standards, Features of C, Structure of C Program, Introduction to C Compilers, Creating and Compiling C Programs, IDE, Features of Turbo C Compiler. Keywords, Identifiers, Variables, Constants, Scope and Life of Variables, Local and Global Variable, Data Types,

UNIT- III

Basic Input/output Library Functions ,Character Input/output getch(), getchar(). getche(), putchar(). Formatted Input/Output - printf() and scanf(), Mathematical Declaration Statement, Conditional Statement - if Statement, if else Statement, Nesting of if... .else Statement, else if Ladder, The ?: Operator, switch Statement. Iteration Statements - for Loop, while Loop, do-while Loop. Jump Statements: break, continue, goto, exit().

UNIT – IV

Arrays - Concept of Single and Multi Dimensional Arrays Strings : Declaration, Initialization, Functions Line Arguments, Storage Class Specifier - Auto, Extern, Static, Register. The Need of C Functions, User Defined and Library Function, Prototype of Functions, Prototype of main() Function, Calling of Functions, Function Arguments, Argument Passing: Call By Value and Call By Reference, Return Values. Nesting of Function, Recursion, Array as Function Argument,

UNIT - V

Basics of Pointers, Pointers Operators, Pointer Arithmetic, Pointers and Function, Pointer and Strings, Pointer to Structure, Pointers within Structure, Introduction to File Handling, File Structure, File Types : Streams, Text, Binary; File System Basics, The File Pointer, Opening a File and Closing a File, Functions for File Handling : fopen(), fclose(), getc(),fgetc(), putc(), fputc(), feof(), gets(), puts(), fgets(), fputs(), getw(), putw(), fscanf(), fprintf(), fread(), fwrite(), Standard Streams in C, Flushing a Stream, Direct Access File and Random Access to File : fseek(), ftell(), rewind(); File Name as Command Line Argument.

TEXT & REFERENCE BOOKS:

• BALAGURUSWAMY, "PROGRAMMINGIN C ", TMH PUBLICATIONS
• GOTTFRIED SCHAUMS OUTLINE SERIES, "PROGRAMMING WITH C ", TMH PUBLICATIONS
• MAHAPATRA, " THINKING IN C ", (PHI)PUBLICATIONS
• ANURAG SEETHA, "INTRODUCTION TO COMPUTERS AND INFORMATION TECHNOLOGY", RAIN PRASAD & SONS, BHOPAL
• S.K. BASANDRA, "COMPUTERS TODAY", GALGOTIA PUBLICATIONS.
• PETER JULIFF "PROGRAM DESIGN" PHI PUBLICATIONS